Visually Impaired Learners and Selected Correlates of Their Foreign Language Achievement

Acta Universitatis Wratislaviensis No 3675

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Wydawnictwo Uniwersytetu Wrocławskiego 2015

The public must learn that the blind man is neither genius nor a freak …. He has a mind that can be educated, a hand which can be trained, ambitions which it is right for him to strive to realise, and it is the duty of the public to help him make the best of himself so that he can win light through work.

Helen Adams Keller (1880–1968) — an American deaf blind writer, graduate from Radcliffe College

(Keller, 2005: 211)

I don't climb mountains to prove to anyone that blind people can do this or that. I climb for the same reason an artist paints a picture; because it brings me great joy. But I'd be lying if I didn't admit my secret satisfaction in facing those cynics and blowing through their doubts, destroying their negative stereotypes, taking their narrow parameters of what's possible and what's not, and shattering them into a million pieces.

Erik Weihenmayer — an American blind mountaineer and rock climber, the first blind man who reached the top of Mt. Everest

(Weihenmayer, 2002: 341–342)

We don't think about vision deficit; however our failure painfully reminds us about it. Now I treat difficulties and obstacles in a different way. It seems to me that vision loss happened to me not to destroy me but to make me see more in life.

Tadeusz Golachowski — a blind musician, saxophone player, composer and professional piano tuner employed at the Academy of Music in Wrocław (translated by M. Jedynak)

(Kalbarczyk, 2004: 89)

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Acknowledgements

I am indebted to a number of people who contributed to this book. Most of all the words of gratitude go to all the blind and partially sighted students who gave generously of their time and effort to participate in my study and tolerated my invasions of their daily routines with patience and graciousness. Their cheerful interest made what could have been a chore a genuine pleasure. Needless to say, the time I spent teaching them enriched me not only as a researcher, but above all, as a human.

I am also immensely grateful to the two blind teachers of German and English who actually triggered my work over the book. As advisor, colleague, and friend, Beata Ingram was uncommonly helpful and considerate. As my former student, and friend Joanna Zdobylak was always ready to prepare for me Braille resources and tests for the study. The time I spent with Joanna in a classroom in 2006 as her assistant gave rise to my interests in the field of visual impairment. Special thanks go to Dorota Konecka, a passionate teacher of arts and English, in the special school for the blind and visually impaired in Wrocław. Her stimulating ideas were responsible for my interest in the problems studied. Without her valuable comments and cooperation in analysing school reports it would have been impossible to complete my research.

I am grateful to the dedicated staff members in charge of the school dormitory where I conducted my research.

Credit should also go to the head and school administrators of the above-mentioned school for their help in overcoming what could have been insurmountable obstacles in procuring subjects during the pilot and major phases of the study. I am indebted to all the staff working for the International Council for Education and Rehabilitation of People with Visual Impairment in the European region for keeping me updated and giving access to valuable data.

In my work I relied extensively on the expertise of many practitioners, most of whom used to be my teachers at the post-graduate typhlopedagogy courses. Our discussions stimulated many ideas I used in the book. Bogusława Błoch as a psychologist and a statistician gave me especially valuable assistance with problems of research design and statistical handling of the data. Sherill Howard, my colleague with whom I share the office, David Bridges and Melanie Ellis were responsible for proof-reading. I extend my sincerest thanks to my parents who have always been a great source of support and encouragement.

Finally, my work on the book would have been impossible but for the passion for investigation issues related to visual impairment and language. I owe my passion

to the biography of Helen Adams Keller — the deaf blind woman who became a role model for many people — and to numerous visually impaired people whom I have come across in my life, who prefer to remain anonymous here. Undoubtedly, my book could not have been written if any of these individuals and organisations had been less helpful. Many thanks to them all.

INTRODUCTION

0.1. Purpose of the book

The present monograph addresses the issue of the visually impaired learning a foreign language. The topic seems relevant for discussion since the population of visually impaired learners has noticeably increased and European education systems should respond to the needs of such learners.

In the past visually impaired people, particularly the blind, were confined to a subordinate and passive role in society. They were labelled as the less privileged or the disabled. Children with the visual impairment were frequently marginalised or even excluded from education. Nowadays, in the era of equality and inclusion, the European education systems have been attempting to respond to pupil diversity through the provision of inclusive education and obligatory FL education. In addition, various European projects and programmes have been launched for the visually impaired aimed at developing their language competence to make them more competitive on the European labour market.

According to the data published in the online report by the World Health Organisation, 285 million people are visually impaired worldwide, of whom 39 million are blind and 246 have low vision. Ninety percent of the world's visually impaired live in developing countries. Global estimates of visual impairment and blindness in 2010 show that almost 32 million people with vision loss or deficit reside in Europe.[1]

Since the early 1990s visual impairment from infectious diseases has decreased worldwide. This is principally due to intensive public health action. At the same time advances in neo-natal medicine are now saving the lives of increasingly premature babies, resulting in a higher risk of partial or total lack of vision. Therefore, the population of visually impaired children in schools is incomparably greater than two decades ago. Demographic changes among school learner populations, from homogeneous to diverse, present particular challenges for research and practice in the field of **typhloeducation** and **foreign language typhlomethodology**.[2]

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[1] The data and statistics were accessed at www.who.int/research/en/.

[2] Typhloeducation (from Greek 'typhlos' meaning 'blind') is a sub-branch of education dealing with educating blind and partially sighted learners. Foreign language typhlomethodology concerns all the aspects related to foreign language teaching and learning in the setting of visual impaired learners. It is an interdisciplinary domain drawing on the achievements in the area of applied linguistics, pedagogy,

According to data provided by Poland's Central Statistical Office (CSO), in 2004 there were 1,820,300 blind and partially sighted people in Poland. The Polish Association of the Blind (PAB) has more recent statistical information estimating the population in 2010 at 63,514.[3] CSO and the PAB data should not, however, be compared, even when they refer to the same period, since discrepancies in the data they provide are inevitable: only some people registered in the CSO as blind or partially sighted are also eligible for membership of the PAB.[4]

Since the present monograph tackles the problem of visually challenged school learners, it is worth analysing the statistics in terms of various age groups. According to the PAB data, in 2010 there were 1927 visually challenged learners enrolled at the primary school level, 1298 at the grammar school level, and 1144 at the secondary and vocational school level. Since a full inclusion policy has become a primary educational objective for all European Union countries, the majority of Polish pupils with vision deficit or loss opt for a regular school (73%). About 20% of such pupils choose special schools for the blind and partially sighted, while 7% decide on other special education schools. This means that there is a great likelihood for a foreign language teacher working in a regular school to have a blind or partially sighted learner in the classroom. These statistics, along with the fact that there is a marked tendency to integrate all children and adolescent learners into the mainstream education system, seem to be sufficient reason to investigate issues related to learners with vision loss or deficit.

This monograph focuses on a specific group of blind and partially sighted school learners: those exposed to a foreign language in either special or mainstream education setting. Language skills are regarded as core skills that all European citizens should be able to learn and update throughout their lives regardless of any impairments or disabilities. For blind or partially sighted people, learning a foreign language compensates for sensory, psychological, social and communication deprivation. Understanding and speaking languages other than one's mother tongue paves the way for opportunities to meet people, to experience cultural diversity and to enhance one's sense of personal fulfilment. Furthermore, language skills open more job opportunities in societies with a high degree of economic interaction and may contribute to the mobility of disabled or impaired citizens within the European Union. In the current Polish labour market a good command of a foreign language, especially English, is a highly valued asset. Therefore,

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psychology, and even sociology and cultural studies. The definition of foreign language typhlomethodology is elaborated in section 0.3.

[3] This figure is from the Collective Report on Social Rehabilitation Services Provided for Disabled People in Poland [Zbiorczy Raport z Diagnozy świadczonych usług z zakresu rehabilitacji społecznej dla osób niepełnosprawnych w Polsce]. The publication was funded by the Stefan Batory Foundation and the Ministry of Labour and Social Policy's Fund of Citizen Initiatives (Kaczmarek, 2011: 4).

[4] Polish Association of the Blind (PAB) deals with promotion of education, rehabilitation, and vocational counselling of visually impaired people in Poland. Since 1952 the organisation has been running the library with the Braille books. Currently, PAB members also have access to such resources as audio books and books in Digital Accessible Information System (DAISY books). More information is available at www.pzn.org.pl.

learning English for blind and partially sighted people should be as significant as for their sighted counterparts.

In her dissertation, Aikin Araluce (2005: 5), a professional English teacher to young blind learners in Cuenca, Spain, highlights the necessity of foreign language learning, stating that blind pupils could particularly benefit from mastering English, as 'it would increase their professional opportunities as well as enhance their integration into the society of the sighted'. Krzeszowski (2001: 12) also recognises the special role of foreign language in the education of students with vision deficits or loss, noting that in many cases it may even become the main subject of study. Blind or visually impaired graduates from modern language departments and teacher training colleges frequently pursue careers as interpreters or language teachers.

From the scarce existing literature related to second language acquisition in blind learners, it may be concluded that a lack of vision is not an obstacle to successfully mastering a language. Quite the contrary, such learners' memory abilities and aural sensitivity allow them to surpass sighted learners, especially in second language pronunciation, provided there are adequate teaching methods and pedagogical conditions (Dorstet, 1963; Snyder and Kesselman, 1972; Nikolic, 1987; Jedynak, 2011f).

Disabled people's right to education, including foreign language education, is guaranteed by European Union legislation. The European Year of People with Disabilities 2003 served to draw special attention to the rights of people with disabilities and to equality in education, so as to encourage and support their full integration into society. This in turn resulted in the United Nations Convention on the Rights of Persons with Disabilities in 2006 (hereafter referred to as the Convention), which opened a new era for disabled people. Article 24 of the Convention focuses on all aspects of education. Many EU countries began ratifying and signing the Convention; Poland signed it on 30th March 2007.

Equality in education is visible in making the compulsory foreign language curriculum available to all special education needs students within the European Union. In Europe there are various organisations such as the European Blind Union (EBU) or the International Council for Education of People with Visual Impairment (ICEVI) whose common goal is to improve the accessibility of language learning through the adaptation of national teaching infrastructures to the specific needs of these learners. In the European Commission's report *Special Educational Needs in Europe: The Teaching and Learning of Languages*, one can read about various projects launched across Europe to enhance foreign language education by means of new technologies and collaboration among practitioners and policy makers (2005). In Poland the most active organisations are the PAB and the non-profit Foundation Institute of Regional Development (FIRD).

Considering all the facts mentioned above, i.e. 1) awareness of visually impaired people that knowing foreign languages, particularly English, is an asset; 2) scientific evidence for the great potential that visually impaired people have for learning foreign languages, and 3) policies establishing equal access to curricula,

the question may be posed: **Why are there so few blind and partially sighted learners who achieve mastery in a foreign language despite all these favourable conditions**?

In the last ten years or so, the author has been engaged in a number of research projects on various aspects related to first and second language acquisition in learners with total vision loss or deficit. The projects entailed classroom observations, oral interviews and assessment of English written proficiency; however, except for one case it was difficult to identify any vision-impaired learner whose results compared favourably with those of a sighted counterpart. Foreign language teachers working with blind and partially sighted learners have been reporting to me that despite their strenuous efforts, the overwhelming majority of their pupils do not achieve impressive results in final secondary school exams; and even if they continue university education, only a small number of them complete their studies and are awarded diplomas.

These observations are also reflected in the gloomy statistics for 2005 provided by the FIRD and the Central Statistical Office.[5] According to the data, out of 1071 university students with visual impairments in Poland, only 113 obtained diplomas; only a few of those were students studying at modern languages departments. The statistics are even gloomier when one compares the unemployment rate among blind people in Poland with those in Sweden, which in 2002 were estimated at 87% and 5.5%, respectively (Strumiłło, 2012: 12). A poor command (or lack) of English cannot account for the unemployment rate among the blind in Poland; social policies are also responsible, as is a lack of psychological and vocational counselling.

Seeking answers to the question posed above, the *research problem* was formulated; the present monograph finds as its primary objective to shed more light on what other factors may affect achievement levels in foreign language learning by visually impaired learners. Insight is given into three correlates of language achievement: 1) tailoring language education, 2) language teachers training, and 3) affective factors. Unlike the first two correlates, the affective dimension of foreign language learning has been selected for in-depth research analysis in empirical part of the book. This part addresses achievement in foreign language learning by visually impaired learners through the lens of the three affective factors, namely coping competence, learner autonomy, and locus of control related to attribution theory. Their impact on foreign language achievement is measured by means of correlation quantitative and descriptive qualitative (interviews) research methodology.

The three correlates are researched from the *perspective* of visually impaired learners learning a foreign language in EU education systems. Yet, in the empirical part, this perspective narrows down to a context of visually impaired adolescents

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[5] The statistics are available at the FIRD website — www.firr.org.pl and in the Collective Report on Social Rehabilitation Services Provided for Disabled People in Poland [Zbiorczy Raport z Diagnozy świadczonych usług z zakresu rehabilitacji społecznej dla osób niepełnosprawnych w Polsce]. The publication was funded by the Stefan Batory Foundation and the Ministry of Labour and Social Policy under the Fund of Citizen Initiatives (Kaczmarek, 2011: 5).

learning English as a foreign language in a special school in Poland. Exploring the research problem the researcher draws on insights from such *scientific domains* as typhlomethodology, typhlopedagogy and typhlopsychology.

The author decided to research affective factors for three reasons. Firstly, affect is a grossly underresearched area in the field of typhlomethodology. While research into affect abounds in SLA, it does not exist in typhlomethodological literature. Secondly, the fact that learners' language achievements depend on how learners feel about language learning is even more true for individuals with vision loss or deficits since they bring to a foreign language classroom a wide and very complex range of emotions. Thirdly, cognitive aspects are still prioritised over affective aspects of foreign language learning, both in special and mainstream education. Therefore, there is a need to provide empirical evidence for validity of a discussion on affective foreign language teaching to visually impaired learners. Once this validity is proved, an affect-based model of effective foreign language teaching may be developed. Drawing such a model constitutes a secondary objective of the present monograph.

It should be pointed out that the three affective factors to be researched are studied within various branches of psychology, yet they have also been found relevant to applied linguistics. SLA researchers hold the view that coping competence as an indicator of resilience to learned helplessness may influence students' achievements (e.g. Biedroń, 2003: 97). Researchers also believe that autonomy correlates positively with success in foreign language learning (cf. Wenden, 1991; Dickinson, 1993; Benson and Voller, 1997; Sinclair, McGrath and Lamb, 2000). Locus of control, in turn, which is closely connected with self-esteem, may also account for academic failure or success in second language acquisition (cf. Chastain, 1976: 88; Findley and Cooper, 1983; Komorowska, 1987; Tarone and Yule, 1995; Brown, 2000: 146).

As far as coping competence and autonomy are concerned, any discussion on the coping strategies use and autonomous behaviour of special education needs learners may at first seem to be irrelevant and impractical. This is due to stereotypical thinking about blind or partially sighted learners perceived mainly as passive, unable to take responsibility for the learning process, and dependent on other people's assistance. However, contrary to popular beliefs, these two categories of learners are able to manifest resilience to learned helplessness and autonomy in the learning process when they are provided with favourable conditions such as the guidance of a skilful teacher and appropriately adjusted resources. The issue of coping competence has not been discussed in typhlopedagogical literature in reference to foreign language learning. With regard to autonomy, the issue has been discussed, though not extensively, in the European Commission's 2005 report and a guidebook for practitioners to draw their attention to benefits of autonomous behaviour undertaken by visually impaired learners. The report *Special Educational Needs in Europe: The Teaching and Learning of Languages* merely mentions the importance of autonomy, quoting, after Little (1991, 2001, 2004), its role in planning, monitoring and editing an indi-

vidual's learning progress when internalising experiences. Yet, the report does not outline the ways of achieving autonomy with blind and partially sighted students or provide persuasive evidence for the emergence of autonomy in such learners. On the other hand, a practical guidebook financed by the European Social Fund within the European EQUAL Initiative for language teachers in Poland working with vision deficit students devotes a whole section to the issue of autonomy (Piskorska, Krzeszowski and Marek, 2008). The reader can find various valuable tips on promoting autonomous behaviour, all of which are also applicable to sighted students, such as strategy training or self-assessment. Still, the practical guidebook does not provide any scientific evidence for the existence of relationship between autonomy and visually impaired learners' achievements. The present monograph, unlike the report and guidebook, offers an in-depth approach to the issue of autonomy and attempts to bridge the gap between theory and practice.

With regard to Weiner's (1985) attribution theory, it seems that perceived causality may play an even greater role in foreign language learning achievements in the case of blind and partially sighted learners than in their sighted counterparts. This may be related to the fact that vision loss or deficit has considerable impact on an individual's affective domain. As Majewski (1983: 235) has noted, blind people, especially the adventitiously blind, experience personality disintegration and interrelated adaptation malfunctions. As a result they struggle with such emotional states as low self-esteem, a lack of motivation, a lack of psychological adaptation to their disability and high anxiety. In foreign language learning, apart from cognitive factors, affective variables are undoubtedly decisive in learners' achievement. They may block input from the language acquisition device (Krashen, 1981: 101–102). There is a great deal of variability among foreign language learners with respect to the strength of the affective filter, but the hypothesis can be put forward that people with vision loss or deficit often display attitudes that are not optimal for second language acquisition and consequently develop a high affective filter. This may be manifested by their external locus of causality, also called locus of control (LoC), which is characterised by dependence, compliance and passivity (cf. Arlin and Whitley, 1978).

The monograph intends to sensitize not only language teachers, but also decision makers involved in language policy and families of visually impaired students, to the role of affective domain in language achievement. It needs to be stressed, however, that the monograph is not a guidebook for them on developing their 'craft' and skills, but rather it is a compilation of scientific information, which constitutes a background for the research presented. Its main purpose is to present the current state of the art in teaching foreign languages to visually impaired learners, emphasising the role of various correlates of their foreign language achievement. This is reflected in the theoretical part that reports the assumptions underlying language education in the context of special education in the contemporary European Union and provides insights into the ways visually impaired people learn languages. Nevertheless, practical implications from these theoretical deliberations are also offered. Readers may learn how the

above-mentioned assumptions and the ways visually impaired acquire first language translate into language teachers' daily routines. They may also learn how to make the most of visually impaired learners' learning potential by the use of special didactic devices, material adaptation, development of individual plans and curriculum, or the application of Psychotherapy-based FL Teaching Model proposed by the author at the end of the empirical part.

To the author's current knowledge, there are no books available that undertake an in-depth exploration of the problem of visual impairment and foreign language learning. From the very onset, the author conceived this book as aimed at a wider audience and not merely a handful of readers specializing in both the field of foreign language education and visual impairment. The structure of the book allows readers unfamiliar with either of these fields to follow the study described in the empirical part. The very broad overview of foreign language education and visual impairment in the European Union presented in Chapter 1 may appeal to readers who need an update on the current state of the profession (both novice and experienced language teachers). It may also be of interest for readers who do not yet have any background knowledge of language teaching in the context of special needs learners (such as students in modern languages departments). Readers do not necessarily have to be involved in any way in language teaching. People engaged in special education who would like to extend their knowledge to the relationship between visual impairment and language learning and teaching may appreciate the monograph.

The book may also have some educational value for academics and teacher trainers, who should be acquainted with at least some basic facts related to special education policy, and the impact that vision loss or deficit may have on various aspects of the learning process. Pre-service foreign language teachers should be aware that working with special education needs learners in an integrated school system is nowadays part of the daily work of many teachers. Even student teachers who will not be working with sensory needs pupils may work with other special education needs learners, such as those with diagnosed giftedness, learning difficulties or dyslexia.

Finally, for the technical information in the book, I relied not only on typhlopedagogical literature in English, but also on sources in Polish, German and French. The last two are of primary importance since they actually gave rise to the worldwide interest in education for the visually impaired. All the titles of articles and books mentioned in the text and in the bibliography are provided in the original language and translated into English in square brackets, which should facilitate comprehension for readers unfamiliar with other languages than English. Some concepts and terms recurring throughout the monograph and essential for understanding subsequent parts of the book are in bold print when they appear in the text for the first time. Italics, in turn, are used to make a distinction between some notions, not necessarily appearing later in the book, or to give parenthetic explanations, as well as for the titles of books and journals.

0.2. The contents of the book

Some readers may feel dissatisfied with the fact that many interesting issues related to the field of visual impairment are not reflected in the content of the present monograph. The author's reasoning, hopefully plausible, was that the monograph should discuss only those aspects of visual impairment that are necessary for understanding the nature of the research presented and specific attributes of the subjects participating in it. Therefore, the author did not immerse herself too much in the biological aspects of visual perception, or neurological issues related to non-linguistic processing in blind and partially sighted learners. Furthermore, there are some issues which cannot be elaborated in the book due to the scarcity of available literature and research findings. The typhlomethodology of foreign languages, which the monograph concerns, is a relatively new branch of science and its achievements so far are quite small as compared with such domains as typhlopedagogy or typhlopsychology.

The book is divided into two parts: theoretical and empirical. The first part, consisting of two chapters, focuses on various considerations related to foreign language learning and visual impairment.

In the first chapter the reader is acquainted with the European policies related to education of special education needs learners, general education and language education of people with visual impairments. The chapter discusses in detail the European Union's most important programmes and projects targeted at promoting language learning and teaching in the context of learners with visual impairments.

The second chapter, in turn, develops a coherent and cohesive understanding of the impact of visual impairment on all interrelated developmental domains (i.e. cognitive, motor, social-emotional and language). It also discusses how blind children acquire various language aspects (phonology, lexis, syntax, pragmatics) in their native language and how it may impact foreign language learning. The chapter proceeds to depict how visually impaired learners function in a foreign language classroom. Here, the role of holistic education is stressed and available research findings in the field of typhlomethodology of foreign language are presented. Finally, insight is provided into correlates of foreign language achievement such as tailoring language education, language teachers training, and affective factors.

The third chapter of the monograph, in turn, extends the understanding of the selected affective factors' influence on language achievement by visually impaired students. It presents the research conducted by the author in which the relationship between the three factors (coping competence, learner autonomy, and locus of control) and achievement in English was explored. Not only does the chapter provide insights from correlation analysis but also from interviews. The chapter starts from rationale for the study and methodological considerations, a description of pre-empirical and empirical research stages to culminate in the author's proposal of Psycho-

therapy-based FL Teaching Model and research implications for language teachers, decision makers, and families of visually impaired students.

0.3. Key concepts and terminology

It seems worthwhile to shed more light on the basic terminology that will appear throughout the book. First the term **special education needs** (SEN) is explained and some historical background on **special education** is provided. To avoid conceptual blurring the terms **foreign language typhlomethodology** and **foreign language methodology** are clarified. Finally, the terms **blind**, **partially sighted** and **visually impaired** learners will be explicated.

The present monograph is about special education and **special education needs** (SEN) learners (also known as *learners with special educational needs*), specifically those with sensory difficulties. Special education did not begin until the 16th century; however, starting shortly after the onset of the Christian era in western society, some attention had been given to the care and protection of handicapped children. As the very name suggests, this branch of education deals with educating pupils who require specific teaching techniques and some modifications of usual school practices. Bogdanowicz (1996) asserts that these learners are not able to cover the regular school curriculum due to their learning difficulties. Such pupils are referred to in the literature as special education needs learners and they include the gifted, the mentally challenged, the emotionally disturbed, those with impairments of vision, hearing or speech, and those with orthopaedic and neurological handicaps (cf. Majewski, 1983; Sękowska, 1998). In the literature, one may also come across the term *learners with specific needs*, which is sometimes used interchangeably with the term *special education needs learners*. It seems to the author, however, that the former is applicable to a wider range of learners' needs, including needs requiring special education treatment. This is reflected in the content of the book *Nauczanie języka obcego a specyficzne potrzeby uczących się* [Foreign language teaching and learners' specific needs], which addresses the needs of gifted, unmotivated, anxious, very young and adult students (Knieja and Piotrowski, 2011).

As Child (2007: 349) noted, in the last thirty years or so, our attitudes towards special education needs learners and teaching methods applied in special education have changed. He draws attention to the fact that even the language has changed correspondingly, because previously 'it tended to create a stigma, even to the point of abuse, and in some cases it exaggerated the downside of problems' (ibid.). In the past one could come across in literature such terms as *idiot*, *moron*, *educationally sub-normal*, *mentally deficient* and *dull*. Nowadays, all the terms with negative connotations have been replaced by the phrases *special needs* and *special education*

needs. Some people, however, perceive the new terms as discriminatory, since they still imply some social, mental or physical deviation from the average. Indeed, in some definitions deviation from the norm is stressed, though it may have both subtractive (*various deficiencies*) and additive value (*special abilities or talents*) (Jastrząb, 1995). In American and European literature, the term *mentally retarded* is still used to refer to the narrower concept of cognitive abilities. The replacement of categorization with less formal descriptions is also observable in the use of the words *mild*, *moderate*, *severe* and *specific* to refer to various learning difficulties or eyesight condition. These terms refer to the degree of difficulty or deficiency, rather than to the source. This change in terminology has led, in turn, to a greater focus on pupils being educated in mainstream school settings and to revisions in the content, resources and delivery of the curriculum.

Apart from the language, the scope of the term *special education needs* has also changed. In the past children were categorized according to their disabilities and not according to their educational needs. The emphasis has now shifted from the child's disability to the particular educational provisions needed. The form of a child's need is not necessarily determined by the nature of his/her disability or disorder. Some voices argued in favour of abolishing the statutory categorization *handicapped pupils*, since a single label cannot determine the educational provision required. Special provisions were recommended in cases of severe, complex and long-term disabilities, whereas in other cases integration was crucial wherever feasible. Nowadays, disabilities are still identified; however, they are categorized under seven headings referring to general areas of development: physical, motor, cognitive, language, social, behavioural and emotional. They are exemplified by such problems as hearing and visual impairment, learning difficulties, autism, emotional and behavioural difficulties, and dyslexia (ibid.).

It is worth mentioning that *special education needs* is a broader concept than *cognitive disability*, which is measured by means of intelligence quotient (IQ) tests. Confusion may sometimes arise, since the terms used to describe levels of cognitive disability and SEN are the same. Atkinson and Hornby (2002) point out a difference between *special education needs* and *mental health*. The latter includes problems such as eating disorders, anxiety disorders, substance abuse, depression, psychotic conditions, attention deficit hyperactivity disorder (ADHD), physical impairment (e.g. deafness, blindness, thalidomide injury) and autism. As those authors state, the problems are so serious that state schools are not able to provide for the needs of these learners, who require highly specialized physical and mental tasks in care and education.

In 1978 the so-called Warnock Report — probably the most influential report on children with special education needs — appeared in Great Britain. Several of the conclusions from this report were promulgated in the Salamanca Declaration, published by the United Nations Educational Scientific and Cultural Organisation (UNESCO) in 1994 and later incorporated in education acts around the world (ibid.). In line with the conclusions, the main aim of special education should be to help pu-

pils towards understanding and independence within the limits of their capabilities — an aim that is also central to education in general. In the 21st century, providing special education became the aim of governmental policy in advanced countries. The current education policies in Europe do not focus any more on the concept of *inter-individual differences*, in which one learner is compared with another, but rather on *intra-individual differences,* which focus on how a learner's abilities in one area compare with his/her abilities in other areas. The idea of grouping learners in special classes, as the concept of inter-individual differences suggests, has been abandoned where possible. Instead, instructional procedures for each learner are determined by intra-individual differences — that is, by his/her abilities and disabilities.

Since the main subject of the present monograph — foreign language learning and teaching in the context of blind and partially sighted learners — overlaps with a relatively new domain of science, namely the **typhlomethodology of foreign languages**, there is a need to explain this term. As Krzeszowski (2001: 5) notes, no better term could have been coined to denote a science dealing with teaching the blind and partially sighted, since *typhlos* in Greek means 'blind'. The science has emerged in the last decade or so, at a time when equality of education, including foreign languages, has been intensively promoted in the European Union. The term *typhlomethodology* has been adopted in Europe, especially in Central and Eastern Europe, where the science has gained a notable status. This is reflected in substantial growth in the number of conferences devoted to the education of visually impaired people (e.g., the international 'Education for All' Conference held every two years in Warsaw).

In the Anglo-Saxon culture, typhlomethodology is barely known as a science, which is evident from its absence from comprehensive English dictionaries. In Great Britain or the USA, the terms *education of the blind* or *visual impairment pedagogy* are used; however, neither of them refer exclusively to foreign language education. Specialists in the field whom I have encountered worldwide were frequently bewildered to hear the recently coined term **foreign language typhlomethodology**. Furthermore, they indicated that although the terms *education of the blind* and *visual impairment pedagogy* are used to denote all aspects of education, foreign language education is not a focus of attention as it is in many European countries.

The typhlomethodology of foreign languages has become an independent branch of science, though it relies to a great extent on research methods and instruments used for sighted learners. Foreign language typhlomethodology is an interdisciplinary domain drawing on achievements in the area of applied linguistics, pedagogy, psychology, sociology and cultural studies. Its research scope covers all aspects of foreign language teaching and learning, including 1) the foreign language, 2) the teacher, 3) the learner, 4) the teaching materials, 5) the context in which teaching or learning takes place, and 6) approaches, methods and techniques used for foreign language teaching (ibid.). In all six of these areas, there are various distinct problems for study, such as autonomy, motivation, goal setting, attributions, the selection of

teaching materials, gradation, technical support for effective learning, the impact of vision deficit and its onset on learning, and many more.

The question of what distinguishes *foreign language typhlomethodology* from *foreign language methodology* may be raised. It seems that the only difference between these two branches of science are the techniques used for teaching. It can be argued that identifying other differences may be discriminatory (Piskorska, Krzeszowski and Marek, 2008: 16).

Finally, the terms *blind*, *partially sighted* and *visually impaired learners* need to be clarified, since there is a great deal of confusion about the use of the terms, which are used differently by laypeople than they are by specialists in the field of visual impairment.

In defining these terms I will rely on the European Blind Union (EBU) Policy Statement on Low Vision from 2003, which was prepared by the EBU Commission on the Activities of Partially Sighted People and the EBU Commission on Human and Social Rights.[6] There was a lively and fierce debate, as the authors of the document state, to define for sighted people, who the visually impaired are. Since the terminology had changed during the previous fifteen years, it was not always easy for outsiders to understand the discussion.

It is worth mentioning that there are three types of definitions related to visual impairment, namely medical, functional and legal definitions. Before presenting and clarifying them, it seems justified to provide a historical review to facilitate a better understanding of the current definitions. From the late 1980s up to the mid-1990s, the EBU Commission's primary task was to formulate a legal definition of partial sight and promote its adoption throughout Europe. Finding a satisfactory definition turned out to be a difficult job. Nowadays in the majority of developed countries, visual acuity as a global indicator cannot be treated as the only or main criterion for access to services. In WHO's 'International Classification of Functioning, Disability and Health' (2002) we read that functional vision and its impact on normal life skills and tasks is a better measure. The task of defining partial sight from a functional point of view was therefore undertaken, starting by listing nine visual parameters relevant for an improved assessment of partial sight in individuals. These parameters were: light adaptation, colour vision, fixation, glare sensitivity, low contrast sensitivity, magnification needed to read newspaper print, night vision, visual acuity and visual field.[7] Assessing visual function on the basis of these parameters seemed

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[6] The European Blind Union is a non-governmental, non-profit making European organisation founded in 1984. It is one of the six regional bodies of the World Blind Union. The EBU represents the interests of both blind and partially sighted people living in Europe. Its objectives and powers are set out in Article II of the EBU Constitution. Nowadays the EBU has 45 member countries, each represented by a national delegation. Its work is directed by an Executive Board of 13 elected members who are accountable to a General Assembly held every four years. The Central Office of the EBU is housed in Paris. It is responsible for communication within the EBU and for supplying information to the general public. More information on the EBU is available at www.euroblind.org.

[7] All nine parameters were combined in a questionnaire that was later presented at the Fifth General Assembly, with the intention to introduce it in all European countries. The questionnaire was also

more accurate than assessments based on visual acuity and the field of view alone. The next step in tackling the problem of defining partial sight was to prepare some principles on the accessibility of provisions for partially sighted people. The principles pertained to various rights and services provided by public institutions, the government, and organisations of blind and partially sighted people.[8] The final step of the EBU Commission was to decide who is included in the group of partially sighted people. Threshold values and weightings for the nine parameters mentioned above were established, and the criteria for inclusion based on a visual functioning questionnaire were created.[9]

Discussion of a legal definition of partial sight based on functional vision parameters continued from the mid-1990s until the end of the 90s. However, the EBU Commission discussions took another direction. It was concluded that blind and partially sighted people should take part in society as equals with other people and that organisations should work toward 'A Society for All'.[10] Therefore, the commission abandoned the idea of making sharp distinctions between blindness and partial sight, asserting that all people with visual impairment should be supported in their efforts to participate in society.

This change in perception of the social role of people with visual impairment found its reflection in terminology. In the past the term *visually impaired* was used to refer to those who are at present called *partially sighted*. Nowadays *visually impaired* is used as an umbrella term to denote both *blind* and *partially sighted*. Furthermore, a politically correct term was coined, namely *visually challenged*, which reflects awareness and sensitivity to another person's physical disadvantage or deviation from the norm.

To make the discussion of terminology even more complicated, in typhlopedagogical literature and EU education documents, another term is sometimes found, namely **low-vision**, which (like *partially sighted*) indicates limited sight.

The discussion of accurate definitions of partial sight and blindness still continues. As for a medical definition of low vision, the EBU affirms the definition proposed by WHO:

A person with low vision, also called a person with partial sight, is one who has impairment of visual function, even after treatment, and/or standard refractive correction and has an acuity of less than

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introduced by Fritz Buser at the International Conference on Low Vision 'Vision 1993' in Groningen, the Netherlands.

[8] These principles were introduced and accepted at the Fourth General Assembly. It is worth mentioning that they also included recommendations on how to formulate membership criteria for organisations for blind and partially sighted people.

[9] The criteria for inclusion were going to be discussed at a conference held in Poznań in 1994, to be attended primarily by partially sighted people and their organisations, representatives from local and governmental institutions. Unfortunately, the conference was cancelled due to the small number of registrations. The conference cancellation delayed the process of developing a legal definition of partial sight based on functional vision parameters.

[10] The concept 'Society for All' was directly copied from the Swedish Organisation of Visually Impaired People.

6/18 to light perception, or a visual field of less than 10 degrees from the point of fixation, but who uses or is able to use, vision for planning or execution of a task.[11]

The definition stresses the following points: significantly reduced vision, performance affected by vision, which can be still used, and the possibility of vision training. Low vision indicates that a person's vision is less than normal. A partially sighted person needs to be helped with low vision devices such as large print, magnifiers, and illumination. This medical condition may result from many different ophthalmologic and neurological disorders. Blindness, in turn, according to WHO's standard definition, refers to a medical condition in which visual acuity (VA) is less than 3/60 in the better eye with the best possible correction. A blind person lacks visual perception due to physiological or neurological factors. The International Classification of Diseases 10 (Update and Revision), also known as the ICD-10, distinguishes four levels of visual function: normal vision, moderate visual impairment, severe visual impairment, and blindness.[12] Moderate and severe visual impairment has been combined together and grouped under the term low vision. Table 0.1 presents the categories of visual impairment according to WHO.

Table 0.1. Categories of visual impairment according to WHO

Category	Corrected VA — better eye	WHO standard definition	Working definition
0	6/6–6/18 1.0–0.3 Snellen	Normal	Normal
1	6/18–6/60 0.3–0.1 Snellen	Visual impairment	Low vision
2	6/60–3/60 0.1–0.05 Snellen	Severe visual impairment	Blind
3	3/60–1/60 0.05–0.02 Snellen	Blind	Blind
4	1/60–light perception 0.02 Snellen	Blind	Blind
5	No light perception	Blind	Total blindness

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[11] Visual acuity (VA) is acuteness or clarity of vision, which is dependent on the sharpness of the retinal focus within the eye and the sensitivity of the interpretative faculty in the brain (Cline, Hofstetter and Griffin, 1997). Throughout this monograph, VA is expressed in terms of metric notation, e.g. 6/18, which means that an individual can see from 6 meters away what a person with normal eyesight would see from 18 meters away. The simplest way of testing visual acuity is to see whether a person is able to count fingers at a distance of six meters. The Snellen chart, also called E-chart, is also widely used for assessing visual acuity. If vision is so impaired that a person cannot see the biggest E in the chart, he or she is considered blind.

[12] The ICD-10 was endorsed by the WHO Assembly in May 1990 and was introduced in WHO member states starting from 1994. The recent version of the classification has already started and will continue until 2015 (http://www.who.int/en/).

The medical definitions and classifications are useful for estimating the number of partially sighted and blind people in a given area to facilitate planning for the development and resourcing of present and future services. The definitions are frequently used in medical reports and in certain publications pertaining to the legal status of people with vision deficits (Piskorska, Krzeszowski and Marek, 2008: 23). However, in many contexts, including education, the medical definition should not be used as the only criterion for eligibility for services such as inclusion of students in school programmes.

In the last twelve years it has been apparent in debates among the EBU Commission members that other aspects of vision functioning seem to be as important as vision acuity or field of view. It has become clear that it no longer makes sense to exclude people with visual impairment from services or from membership in any organisations or associations on the basis of medical criteria. Scientific research has proved that these criteria do not have direct impact on the problems low-vision people face in their lives (Hyvärinen, 1985: 1–16). Additionally, data from large-scale studies in the Netherlands and the UK shows that many low-vision persons suffer from additional disabilities, which makes discussions of new vision parameters based on medical conditions irrelevant (Bruce, Aubrey and Errol, 1991; Meijer and Gorter, 1998). The impact of a visual impairment depends to a great extent on other individual factors that are not considered in the medical definition. For these reasons, WHO has developed a functionality-based definition of low vision, in which a partially sighted person is defined as a person for whom reduced vision affects one or several of the following activities: 1) reading and writing, 2) orientation and mobility, 3) daily life activities, 4) communication, and 5) maintenance of any visual task (EBU Policy Statement, 2003: 9). WHO's functionality-based definition, unlike the standard medical definition mentioned earlier, considers blindness starting at light perception or when a person does not have usable vision. Different scales of blindness have been developed to define the extent of vision loss. The term *blindness* is frequently used to refer to severe visual impairment with residual vision or to a lack of vision with remaining light perception. In total blindness, there is the complete lack of form and visual light perception, clinically recorded as NLP (no light perception).

The importance of the functionality-based definitions of low vision and blindness lies in the labels people are given. An individual with visual acuity of 2/60 may still be able to use his/her vision for mobility; but is medically labelled a blind person, and is treated as blind, despite his/her usable vision. Thus, there is a need to make a distinction between *legal blindness* and *functional blindness* or *functional low vision*. The term *legal blindness* was created to establish eligibility for government assistance such as certain financial benefits (travel concessions, scholarships) and services. An individual can be certified as blind when he/she is unable to do any work for which eyesight is essential. Nevertheless, a legally blind person may still have useful vision for performing certain tasks. This means that he/she has functional vision for particular purposes.

In the United Kingdom a person may be registered as blind if his or her visual acuity is 3/60 or worse (he/she can see at three meters or less what a normally sighted person can see at 60 meters), or 6/60 if his/her field of vision is very restricted. A person may be registered partially sighted if his/her VA is between 3/60 and 6/60 with a full field of vision, or up to 6/18 (on the Snellen chart 18 is the number of the fourth line from the top) if his/her vision is very restricted. In the Polish legal system there is no complete and accurate definition of blindness. Likewise there are no precise criteria for establishing the parameters of blindness. Visual parameter descriptors widely used for disability certification are different for blind children under the age of 16 and blind adults (VA in the better eye after correction 0.2 and 0.3 respectively, according to Snellen, and a visual field of 30˚ for both groups).[13] The issue of treating the same eyesight conditions differently in the case of children and adults has been raised in many debates by the PAB, and the eligibility criteria for the two groups are currently being made uniform.[14]

The term *legal blindness* has not been applied in the context of teaching and learning. A learner who is legally blind may be partially sighted in terms of function, and unlike a functionally blind learner, he/she is able to use printed resources in a classroom. Legal blindness certification is, however, helpful in the sense that it guarantees access to various educational benefits such as Braille printed books or computer equipment adjusted to the learners' needs.

The range of definitions of visual impairment presented above indicates how complex it can be to describe accurately the condition of a learner's eyesight. Visual impairment is not dichotomous, but occurs as a continuum ranging from partial sight to total blindness with a lack of light perception. Visually impaired learners constitute a bipolar cline, but within that cline, the borderlines between particular visual conditions are blurred. There is no disagreement as to the bottom borderline marked by total blindness and lack of light perception. The upper borderlines, however, are vague, since there is no single universal way to define what vision deficit or visual dysfunction should make a person eligible for a given category. Eligibility criteria may depend on numerous factors other than the individual's eyesight per se, such as an inability to perform certain tasks, to work in certain professions or to function independently in some daily situations. Therefore, the visual impairment categories incorporated in either the medical or the social model are necessary, but they should be adjusted to the context. Visual impairment eligibility criteria ought to be different for establishing an individual's potential for learning, for working, and to define his/her impairment or disability for medical purposes.

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[13] According to the Ministry of Economy, Labour and Social Policy Statute on disability certification (dated 15 July 2003 — Journal of Laws 2003 No. 139, item 1328) and the Statute on disability criteria assessment for individuals below the age of 16 (1 February 2002 — Journal of Laws 2002 No. 17, item 162).

[14] This refers to a regulatory project of the Ministry of Economy, Labour and Social Policy in which disability criteria assessment for blind persons below the age of 16 and adult blind people are to be made uniform (1 February 2002 — Journal of Laws 2002 No. 17, item 162).

For educational purposes, the condition of partially sighted or blind children's eyesight is assessed in terms of its visual and non-visual parameters. In this process, all the complex aspects of the condition are considered. Apart from visual acuity and field of vision, one should also examine light perception (especially in the case of albinism and aphakia), various types of strabismus, nystagmus (ocular ataxia), colour blindness, or one eye condition.[15] Moreover, each learner's visual capacity should be assessed on an individual basis in both a synchronic and diachronic dimension. In this way information can be obtained on possible changes in a learner's visual capacity, its dynamics, medical prescriptions on eyesight saving in various situations and kinetic abilities (cf. Piskorska, Krzeszowski and Marek, 2008: 24). From the point of view of teaching methodology, the most fundamental distinction between learners is the division into low vision groups and totally blind groups, which corresponds to a distinction between the fourth and the fifth category in WHO's categories of visual impairment. Low vision learners with light perception, unlike totally blind learners, are able to read printed letters by means of magnifiers and other innovative technologies. This distinction determines the teaching techniques and learning strategies that can be applied in the two groups, both in and out of the classroom. Furthermore, the distinction is crucial in the process of preparing teaching materials.

In the context of education, not only should the extent of visual impairment be taken into consideration, but also the onset of impairment, which has a strong bearing on the teaching methodology. In the case of blindness, a distinction between *congenital* and *adventitious blindness* has been made. Congenitally blind people are born without vision, while adventitiously blind people are those who lost vision after the age of five.[16] The latter retain visual memory, which enables them to develop appropriate images for various concepts (Palak, 2000, in Zawadzka-Bartnik, 2010; Majewski, 2001).

Since there is no consistency in the definitions of visual impairment categories used worldwide, it is difficult to reconcile the results from many international reports. There are confounding factors that distort demographic descriptions of partially sighted populations due to rather subtle semantic differences in definitions. For example, in India a person with VA 6/60–3/60 is defined as blind, while according to the WHO classification he/she is low-vision.[17] Consequently, with some definitions one may get a number and profile of a visually impaired population that cannot be

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[15] According to *Gale Encyclopedia of Medicine*, albinism is an inherited condition present at birth, characterized by a lack of pigment that normally gives colour to the skin and eyes. Aphakia refers to a condition in which the eye lens is absent. Strabismus (misaligned eyes) is the term used to describe any condition in which the eyes are not parallel. In nystagmus, a person suffers from rhythmic, oscillating motions of the eyes (Turkington and Frey, 2006).

[16] According to WHO's data and statistics, the main cause of congenital blindness is genetic disorder. Other important causes are congenital infections such as the protozoal infection toxoplasmosis and the viral infection rubella (www.who.int/research/eng).

[17] In India the broad definition of visual impairment is in the Persons with Disabilities Act 1995 (Equal Opportunities, Protection of Rights and Full Participation) and in the National Programme for Control of Blindness (NPCB). For more information see www.bpaindia.org.

compared with the data for such a population when the definitions recommended by WHO are applied.

Finally, it is worth noticing some changes in terminology introduced in the last several years. In the past partially sighted or blind people described themselves in accordance with the traditional WHO medical model as *visually handicapped* or *disabled people*. In 2001, under the influence of the civil rights movement, the International Classification of Functioning and Health (ICF) replaced the International Classification of Impairment, Disability and Handicaps (ICIDH) started by WHO in 1980. The ICF is a tool for measuring the health condition of individuals and the environments they live in. This made partially sighted and blind people realize that they are capable of getting involved in society in the same way as normally sighted people, if they are provided with low vision aids and modern technologies. This change in perception gave new scope to the term *visually impaired*. In the ICF, which incorporates both the medical model and the social model, partially sighted and blind people are no longer referred to as *disabled* or *handicapped* but as *visually impaired*.[18] This term has been accepted worldwide, which is evident in the title of *The British Journal of Visual Impairment*. There is of course some relationship between visual impairment and disability, which is evident from the fact that some blind and partially sighted learners are not able to learn, despite new technologies being provided. However, the EBU rejects the idea that there is a complete causal relationship between visual impairment and disability, as was propagated for a long time in the medical model.

As for the term *blind*, there are some voices in favour of replacing it with a more appropriate term. In his article in the *British Journal of Visual Impairment*, Bolt (2004: 52–54) examines various denotations and connotations of the word *blindness* and concludes that they 'constitute a psychosocial burden that perpetuates prejudice'. His analysis gives rise to the hypothesis that a more progressive terminology could lead to reduction of this burden. However, his suggestion to introduce the term *persons with visual disabilities* seems controversial, especially in the light of the aforementioned arguments against using the term *disability*. Bolt is undeniably correct in his assertion that the term *blind* has negative connotations, which are reflected in dictionary definitions of the term. In the Encarta World English Dictionary (1999) only one of the thirteen entries pertains to the medical condition. Two of them refer to 'blind rage' and 'blind fear' — extreme, uncontrollable phenomena that make the

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[18] According to WHO's International Classification of Impairments, Disabilities and Handicaps (1980) impairment is 'any loss or abnormality of psychological, physiological, or anatomical structure or function'. Impairments are treated as disorders at the organ level, including defects in or loss of a limb, organ or other body structure, as well as defects in or loss of a mental function. Disabilities, in turn, are a restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being. They are functional limitations or restrictions caused by an impairment — disruptions of function at the level of the whole person. Handicaps are a 'disadvantage for a given individual, resulting from an impairment or disability, that limits or prevents the fulfillment of a role that is normal (depending on age, sex and social and cultural factors) for that individual'.

subject behave irrationally. The remaining definitions are split between concealment and ignorance. Bolt (2004) also rejects the idea of introducing the terms *sightless* or *unsighted*, since both terms indicate that the person is without sight, which is not true of everyone who is registered as blind. In fact, according to the Royal National Institute for the Blind, only 18% of those eligible for registry as blind have nothing more than light perception (Bruce, McKennel and Walker, 1991: 6). Furthermore, only about 10% of the legally blind have a complete absence of any visual experience (Kleege, 1999: 14).

Finally, the terminology related to learner categories, which will be used throughout the monograph, should be specified. To reflect the social aspect in the current approach to visual impairment, the umbrella term *visually impaired* to refer to both blind and partially sighted learners will be used. The author will also refer to **blind learners** as **learners with total vision loss**. When a distinction is necessary, the author will talk about **congenitally** and **adventitiously blind learners**. To avoid repetition, the author will use the terms **partially sighted learners**, **low vision learners** and **learners with vision deficit** interchangeably. At some points, when contrasting visually impaired learners with the rest of population, the author will refer to the latter as **sighted learners** or **normally sighted learners**. Also, abbreviations to refer to various categories of learners will be used throughout the book: **SENLs** — special education needs learners, **VILs** — visually impaired learners, **PSLs** — partially sighted learners and **BLs** — blind learners.

PART ONE

THEORETICAL CONSIDERATIONS

CHAPTER 1

Foreign language education in the European Union and visual impairment

Keywords: Education for All policy, Individual Educational Programmes, Language for All policy, double exceptionality, labelling, English for the Blind programme, language initiatives for the visually impaired in Europe.

1.1. Introduction

For a long time FL teaching could not be accessed by all people. It was reserved for the elite or for those who learned an FL in a naturalistic setting. In the period following World War II there was a massive boost in FL learning. FL learning development has been gathering further speed since the 1980s with the rising demand for multilingual citizens. It should be pointed out that the changes in FL demand were brought about by the creation of the European Union (EU). Its language policies perceive EU countries' linguistic and cultural diversity as a great asset. Thus, FL education is one of the EU priorities, which is reflected in 'Education and Training 2020' work programme (ET 2020).[19] The EU language policy stresses the importance of FL learning expressed in the principles:

— mother tongue plus two,
— early start in FL learning,
— quality education,
— the key competence for the EU citizen,
— lifelong learning, and
— equality and access to FL education for all people, including those with special education needs.[20]

At the present time FL learning constitutes an integral part of general education. The main objective of FL teaching is to develop intercultural communicative

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[19] For details see Strategic Framework for European Cooperation in Education and Training.
[20] For details see the White Paper on Education and Training (1995).

competence in FL learners. Furthermore, the role of psychological factors such as autonomy or reflection in FL learning has been recognised.

Up to the mid-1990s European FL policy had not recognised the needs of SEN learners. The Education for All principle it seems, was the very first incentive which triggered a discussion on the topic. The present chapter shows how various EU documents set the ground for recognition of VILs' rights to FL education. Furthermore, it presents how the needs of VILs are addressed in different European programmes related to FL learning and teaching. All the programmes discussed herein, contribute to the promotion in the VI context of the major EU policies related to such strands as:

— equal opportunities in education and inclusive strategies,
— democratic citizenship and social cohesion,
— linguistic diversity,
— mobility of all the EU citizens,
— development of language, digital and intercultural competences (the Lisbon Key Competences),[21]
— lifelong learning of VI people and disadvantaged groups regardless of their socio-economic background to improve employment and the sustainability of social models (the flagship initiative of 'Europe 2020').

1.2. Legal and policy context

The chief goal of education is to provide pupils with the skills required to be able to function as members of society. One such skill is the ability to communicate in an FL, which is of paramount importance in multilingual and multicultural Europe. What is more, education carries out its emancipatory task compensating for inequality brought about by specific conditions such as disadvantaged socio-economic background or poor health condition. In line with the **Education for All** policy, the learning needs of all pupils regardless of their deficiencies should be met. This is reflected in the legislation, which in the majority of the EU countries is common to both mainstream and special education. Creating equal opportunities in education also means that SEN pupils including the VI, like other learners, may benefit from the acquisition of competences regarded as necessary in the contemporary world. Among the key competences in which they can achieve proficiency, there are language skills, ICT skills, reading, mathematics, and science. Language competence is the major factor in the development of European citizens and, in a more and more globalized world, the command of English is increasingly important for occupational mobility for both people with full sight and those with visual impair-

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[21] For details see *Lisbon Strategy and the Information Society* (2007).

ment. Furthermore, language learning seems to be even more important for people suffering from visual impairment as it reduces the gap caused by the lack of sight or by severe visual impairment. Since visual impairment affects all spheres of human life, including communication, mobility, and relationships, language learning may enhance social integration and positively influence their self-esteem.

Equal opportunities in education are also reflected in inclusion policy, which is being promoted in the EU. It allows VI pupils to learn FLs together with their mainstream school counterparts, unless there is a contra-indication for inclusion. Still, inclusive education is not the common practice in many European countries such as Latvia, Czech Republic, Belgium (Flemish Community) and Germany, in which more than 85% of SEN pupils are taught in special schools (*Promoting Equity, Social Cohesion and Active Citizenship*, 2006: 80).

The significance of FL learning and inclusion in the lives of VI pupils has not been recognised for a long time. The changes in legislation and social perception of disability, which have occurred in the recent decades, brought us to the point where special education is one of the priorities for the EU expressed in the ET programme for 2020.

1.2.1. Special needs education

The current tendency in the EU to develop a policy towards FL teaching to SEN pupils and their inclusion into mainstream schools finds its reflection in legislation and normative acts, in which such terms as *disability* and *special education needs* appear. The former is viewed by the EU as a physical or mental impairment that 'has a substantial and long term adverse effect on the ability to carry out normal day-to-day activities' (Centre for Inclusive Education, *Education for All*: 4). This definition has been accepted across EU countries. However, there is a growing debate about the use of the term special education needs. Still, there is no consensus between policy makers, researchers, and practitioners as to the scope and definition of special education needs. In the introductory section, I explained that in the present book the term *special education needs* is understood as a broader term than *disability* or *specific learner's needs*, as it covers more categories of educational needs. It may refer to emotional, behavioural, and social difficulties.

It is worth noticing that the educational systems in the EU member states, both in terms of policy and practice, have been developing within very specific contexts and are therefore individual. Specific countries do not apply in their educational legislation and policymaking any definitions, which are generated externally. They define within their legislation what they mean by special education needs, identify various categories of the construct, and make provision for this in different ways. Thus, definitions and categories of SEN included in policy documents vary across the EU member states and make difficult any comparative analyses between the

countries.[22] Some countries distinguish only one or two categories of special needs while others define even more than ten of them. The majority of countries categorise SEN pupils into 6–10 types. These differences, according to the report *Special Education across Europe in 2003*, may be attributed to administrative, financial, and procedural regulations (2003: 126). What is, however, common to all EU countries is a shift from definitions, assessment, and provision based on a *medical model* towards those based on a *social model*. In the *Strategic Framework for European Cooperation in Education and Training — ET 2020* (12 May 2009) three broad cross-national categories based on perceived causes of educational failure, and not medical ones, are used. They refer to:

1. *the disabilities category*
(pupils with clear organic reasons for their difficulties in education, such as learners with vision impairments),
2. *the difficulties category*
(pupils who have emotional and behavioural difficulties or specific difficulties in learning),
3. *the disadvantaged category*
(pupils who need additional resources to compensate for problems caused by cultural, linguistic, and socioeconomic backgrounds).

Nowadays the concept of SEN is on the agenda of almost all European countries. However, this is a recent phenomenon. Zawadzka-Bartnik (2010: 19) recapitulates the European policy towards disabled persons with a statement 'it has been changing over the years from their elimination from society, through isolation towards attempts at integration with a society' (my own translation).

As to language education for persons with disabilities, it is guided by the principles included in the legislation of particular EU member states. The underlying philosophy of particular Education Acts is based on several international documents pertaining to the rights of persons with disabilities. These international documents underpinning all countries' national policies encompass various conventions, declarations, statements and resolutions.

A frame of reference for all the actions of the European Agency for Development in Special Needs Education is also provided by the international documents.[23]

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[22] Comparison of the EU member states in the field of special education, especially on quantitative indicators, is made even more difficult due to the fact that some countries provide precise data while others only general estimations. Providing exact figures is difficult for these countries which have a decentralized education system (for example in Finland, Denmark, and Sweden) or in which segregated provision is only estimated on the basis that pupils are generally educated in the mainstream system. However, some schools or specific regions may always provide other solutions than in the mainstream schools (cf. *Special Education across Europe in 2003*, 2003: 127).

[23] The European Agency for Development in Special Needs Education is an independent, self-governing body functioning in Europe. It was established by the ministries of education in its member countries to act as a platform for cooperation in the area of special education.

International level guiding principles affecting special education are outlined within numerous documents issued by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) — the organisation founded on the principle of equality for all.[24] Among the documents there is the *Universal Declaration of Human Rights* (1948) — the key human rights instrument — which explains that human rights are vested in all human beings and that everyone is entitled to the enjoyment of all human rights and that this entitlement extends to people with disabilities. What is especially relevant to special education is the second point of Article 26 in line with which education should strengthen 'respect for human rights and fundamental freedoms' and 'promote understanding and tolerance'. There are also many international conventions with the United Nations guidelines on education such as:

— the *Convention against Discrimination in Education* (1960) and Articles 13 and 14 (right to education) of the *International Covenant on Economic, Social and Economic Rights* (1966);
— the *Convention on the Rights of the Child* (1989), predominantly Article 28 related to education;
— the *Convention on the Protection and Promotion of Diversity in Cultural Expressions* (2005);
— the *Convention on the Rights of Persons with Disabilities* (2006), particularly Articles 7 on children with disabilities and 24 on education. The Convention is of primary importance since it advocates inclusive education at all levels of education.

The principles included in all the conventions can be summarised under three fundamental rights:

1. *The right to education*

All learners, including those with special education needs having some problems in a particular area of development, are entitled to education. The education systems should provide education for all SEN children and adolescents, including blind, deaf and deafblind pupils, at compulsory school age, regardless of the complexity of their needs. In addition to access to education provision, the right to education also means the obligation to eliminate discrimination at all stages of education. Sensitisation on the rights of disabled children to education is of paramount importance. Information dissemination and national campaigns are indispensable to challenge the cultural

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[24] Initially UNESCO promoted the rights of persons with physical disabilities and it primarily focused its actions on disability prevention and rehabilitation. An evaluation of the UNESCO policy in the 1960s spurred a demand for fuller participation by disabled persons in an integrated society. The 1970s marked a new approach to disability in which the concept of human rights for persons with disabilities was promoted. Since the 1980s many substantive and promotional efforts were made at national and international levels to improve the lives of persons with disabilities with the goal of their integration into society.

barriers and discriminatory beliefs, which impede access to education. Laws which differentiate between pupils who are deemed to be 'educable' and 'non-educable' should be eliminated.

2. *The right to equality*

All learners, including those with special education needs, have the indisputable right to equal opportunity in terms of having access to and achieving success in education. They should be guaranteed educational resources and support adequate to their individual needs. Article 24 of the 2006 Convention goes even further referring to various types of needs. In the case of pupils who are blind, deaf or deafblind, their learning environments should 'maximize academic and social development'. It can be achieved by facilitating their learning with 'Braille, alternative script, augmentative and alternative modes, means and formats of communication, orientation and mobility skills, peer support and mentoring'. To ensure the realization of the right to equality appropriate measures should be taken such as employment of teachers, including those with disabilities, who are qualified in Braille and training professionals to be able to work with fully blind and partially sighted pupils at all levels of education. Such training should 'incorporate disability awareness' and 'the use of educational techniques and materials to support persons with disabilities'. Additionally, pupils with disabilities should have access to the same curriculum and opportunities to enter public examinations. Offering shorter optional curricula for pupils with disabilities can serve to discriminate and to limit their future opportunities.

3. *The right to be part of society*

All learners, including those with special education needs are entitled to attend mainstream schools, which should follow 'school for all' policy and cater for the needs of each individual learner. Children with disabilities should not be confined during their school years and even beyond to institutions, which, even if they provide special care, separate them from society and in this way provide them with considerably reduced, or no opportunities for mainstream social engagement. Many disabled children with sensory impairment (vision loss), communication and learning difficulties or restrictive mobility are excluded from mainstream schools because policy-makers are not aware of these children' abilities and potential for learning. Therefore, inclusion of learners in the mainstream teaching system is advocated while the special schools system is only recommended in the situation when all means for keeping an SEN learner in the regular school alongside his peers have been exhausted. Schools should be provided with appropriate policies and guidelines on how to create an effective inclusive environment which responds to the different needs of learners. Promotion of respect for difference should be enhanced.

The three central elements set out in the conventions are forcefully reaffirmed in the *World Declaration Education for All* (1990), a UNESCO document, which in Article 3, point 5 devotes much attention to the issues crucial for learners with disabilities such as universalising access to education and promoting equality in education. The United Nations *Standard Rules on the Equalisation of Opportunities for Persons with Disabilities* (1993) had a great impact on the perception of the rights of persons with disabilities and their access to education. The document outlines the preconditions for equal participation of persons with disabilities in different spheres of life, specifies the target areas for their equal participation, and the measures which should be implemented to achieve it. Among the target areas there is also education. According to Rule 6, the states should 'recognise the principle of equal primary, secondary and tertiary educational opportunities for children, youth and adults with disabilities, in integrated settings' and should 'ensure that the education of persons with disabilities is an integral part of the educational system'. The above-mentioned document gave rise to the UNESCO conference which adopted the *Salamanca Statement on Principles, Policy and Practice in Special Needs Education and a Framework for Action*, known in its shorter form the *Salamanca Declaration for Special Education Needs* (1994).[25] Prominent among the remaining problems discussed in the Declaration are the following five issues, which I find most relevant for our subsequent deliberations on language education targeted at visually impaired pupils:

— *Inclusive education*

Inclusive schools allow all children to learn together irrespective of difficulties and differences they may have. Such schools must recognise and respond to the diverse needs of their pupils by accommodating different styles and rates of learning. Mainstreaming pupils with disabilities should be an integral part of national policies aiming at education for all.

— *Curriculum flexibility*

Curricula should be adapted to the special needs of pupils and not vice versa. Therefore, schools should provide curricular opportunities to suit learners with different abilities and interests. SEN learners should not receive a different curriculum but the regular curriculum enriched with additional instructional support.

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[25] The Framework for Action on special needs education was adopted at the World Conference on Special Needs Education: Access and Quality which took place in Salamanca, Spain from 7 to 10 July 1994. It was organised by the Spanish Ministry of Education and Science and UNESCO. All the European countries have ratified the 1994 Salamanca Declaration.

— *Assessment*

Assessment procedures should be reviewed. Formative assessment should be implemented in the regular educational process in order to modify teaching and learning activities to improve SEN learners' attainment.[26]

— *Technology assistance*

In order to enhance success in teaching SEN pupils appropriate and affordable technology should be used.

— *Preparation for adult life*

SEN pupils should be assisted in the process of the transition from school to adult working life. Schools should provide them with skills, which persons with disabilities need to become economically active and independent.

At the European level, there are also a number of documents, which set out EU countries objectives in relation to education of persons with special needs. Those documents imply a degree of commitment on the part of member states to implementing various solutions and they can be divided into two groups: these referring to education generally and those focusing specifically on special needs education. The former encompasses various statements of Council, for example the Report from the Education Council to the European Council *Concrete Future Objectives of Education and Training Systems* (2001), which outlines a comprehensive and consistent approach for education policies in the context of the EU or the Communication from the Commission *A Coherent Framework of Indicators and Benchmarks for Monitoring Progress towards the Lisbon Objectives in Education and Training* (2007), which identifies special needs education as being one of the 16 priority objectives to be considered within the Lisbon 2010 objectives. According to the Framework and the Council Conclusions of May 2007, special needs of learners are the core indicator used for monitoring progress in the field of education and training towards meeting the objectives set out in the Lisbon Strategy. All the information on special needs education is monitored by the European Agency for Development in Special Needs Education, which gathers data from various European countries' reports on such issues as percentages of SEN learners in mainstream education or learners receiving additional support at school.

A *Strategic Framework for European Cooperation in Education and Training* (2009) known as ET 2020 is the first European document, which devotes so much attention to the issue of special education. Within the proposals for the 2020 EU

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[26] Formative assessment is commonly contrasted with summative assessment which aims at monitoring educational outcome frequently for purposes of external accountability. Responding to students' needs by means of formative assessment is thoroughly discussed in a new publication by Tuttle (2009).

objectives for education, SEN learners are viewed again as a priority. The ET 2020 priority theme for 2009–2010 is to 'promote equity and active citizenship through the Member States' and to develop policy cooperation in supporting SEN learners. Specifically, it promotes 'personalised learning through timely support and well-co-ordinated services' and to 'integrate services within mainstream schooling and ensure pathways to further education and training'.

Apart from the EU documents pertinent to general education, there are also documents specifically referring to SEN learners. Most of them concern inclusion of SEN pupils in mainstream education such as the Resolution of the Council of Ministers of Education on *Integration of Children and Young People with Disabilities into Ordinary Systems of Education* (1990) and *Standard Rules on the Equalisation of Opportunities for Persons with Disabilities* (1993) — the UN document ratified by the member states. Following this, in 1996 the Commission published a communication on the *Equality of Opportunity for People with Disabilities*. A number of Council resolutions launched between 2001 and 2003 gave rise to the most important document, which guides national policies for special education in the member states, namely *Equal Opportunities for Pupils and Students with Disabilities in Education and Training* (2003).[27] It is also worth mentioning the *Lisbon Declaration: Young People's Views on Inclusive Education* (2007), which incorporates the voices of SEN learners from 29 countries attending secondary, vocational and higher education. Among other proposals learners express their need for inclusive education, which allows them to interact with learners without special needs and which can be mutually beneficial for them and their counterparts.

The above presented international and European documents constitute the framework for working out effective special educational policies. The European Agency for Development in Special Needs Education collects the information on special needs education policies in the member states and presents its findings in the form of thematic reports. A comprehensive review of special education in Europe is covered by two publications, namely *Integration in Europe: Provision for Pupils with Special Educational Needs: Trends in 14 European Countries* by Meijer published in 1998, and a more recent two-volume report entitled *Special Needs Education in Europe: Thematic Publication* by Meijer, Soriano and Watkins published in 2003. It included the data provided by the Information Network on Education in Europe (EURYDICE). The limitations of the present book do not allow discussing the policies of particular countries in detail, therefore only general tendencies observed at the European level will be outlined. All the member states have already implemented or are implementing policies promoting inclusive education. Depending on their approach to inclusive education, the countries may be categorised under three groups:

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[27] These resolutions are not directly related to education though they imply inclusive education. Among them there are *Towards a Barrier-free Europe for People with Disabilities* (2001), *Towards a United Nations Legally Binding Instrument to Promote and Protect the Rights and Dignity of Persons with Disabilities* (2003), and *Promoting the Employment and Social Integration of People with Disabilities* (2003).

— The 1st group

The countries, which developed a policy in which almost all SEN pupils are included within mainstream education. A variety of services is provided in mainstream schools to facilitate inclusion. Norway, Sweden, Iceland, Spain, Italy, Greece and Portugal follow this *one-track approach.*

— The 2nd group

The countries in this group developed a wide range of approaches geared towards inclusion. SEN pupils are offered a variety of services apart from special and mainstream schools. This *multi-track approach* can be found in the United Kingdom, Ireland, France, Luxembourg, Denmark, and Austria.

— The 3rd group

This group includes the countries, which have two distinct education systems: special schools or classes for SEN learners and the mainstream schools for other pupils. The former do not follow the mainstream curriculum. The two systems often are or have been until very recently under separate legislation. This *two-track approach* is followed by Poland, Germany, the Netherlands, Belgium or Switzerland; however these countries are changing their policy towards the multi-track system.

The shift from the two-track approach to the multi-track approach is visible in the majority of European countries, which had special schools and institutes. Nowadays these schools tend to be transformed into special centres, which are referred to in various countries as expertise centres, resource centres or knowledge centres cooperating with mainstream schools. The centres specialise in providing teachers and other professionals with training and courses, supporting mainstream schools and parents, developing and disseminating materials and teaching approaches or methods, assisting individual learners, and helping SEN pupils to enter the labour market. There is also a trend in all European countries to use **Individual Educational Programmes** (IEP) for SEN pupils, which plays a crucial role in special needs education within the mainstream setting. IEP presents information on the degree and type of adaptations to the mainstream curriculum and serves as a tool for evaluation of SEN pupils' progress. With regard to adaptations suggested by EIP, they may take various forms and they may even mean omitting some subjects from the general curriculum (Watkins, 2009: 130–137).[28] In Poland, the VI pupils who are diagnosed with a hearing impairment do not have to attend FL classes.

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[28] Resource centres may be found in such countries as Austria, Norway, Finland, Sweden and Denmark. The Netherlands, Germany, Portugal and Greece are currently implementing the system.

1.2.2. Education of the visually impaired

It needs to be noticed that no serious attempt was made to provide learning opportunities to VILs until the close of the 18th century when the right to education of blind and partially sighted children was recognised in France. This would have never been the case but for a few Frenchmen who sensitised the public to the needs of VI people. Among them there is Denis Diderot (1713–1783) who published in 1749 *Lettre sur les aveugles à l'usage de ceux qui voyent* [Letters on the visually impaired for the use of the fully sighted]. His letters are perceived in the history of pedagogy as the beginning of education for VI people. Undoubtedly, the name of Valentin Haüy (1745–1822) also deserves to be mentioned here. Haüy, referred to as the father and apostle of the blind, opened in Paris in 1784 the first school for the blind called the National Institute of Blind Youth. With twelve blind children as his first pupils the school was so successful that the idea of teaching these SEN learners to read soon spread over to other countries. Subsequently, special schools for the blind were opened in Liverpool (1791), London (1799), Vienna (1805), Berlin (1806), Amsterdam and Stockholm (1808), Zürich (1809), Hungary (1827) and Boston and New York City (1832). Haüy's activities and his book 1786 *Essai sur l'éducation es aveugles* [Essays for education of visually impaired] laid the foundation for teaching blind and partially sighted students in the German and Russian educational institutions (Walthes, 2007: 141). Indisputably, the name of Louis Braille (1809–1852) cannot be omitted here, since the system developed by this adventitiously blind pupil remains an invaluable tool of learning and communication for the people with total lack of vision.

The international and European education guiding principles and the special education policy currently being implemented in Europe have an impact on the lives of all SEN pupils, including those with visual impairment. There are a few organisations, which cater for special educational needs of pupils with vision loss or deficits. Among them there is the International Council for Education of People with Visual Impairment (ICEVI). Acting in partnership with the World Blind Union (WBU), the ICEVI initiated a campaign the *Education for All Children with Visual Impairment* (EFA-VI). The main objective of the EFA-VI programme is ensuring to all children with blindness and low vision the right to education. Another organisation which actively influences the EU education and social policy is the European Blind Union (EBU). The EBU's main aim is to ensure that the interests of more than ten million blind and partially sighted persons are considered in all EU decisions affecting them.[29] The EBU's main task is to ensure an effective implementation of the UN *Convention on the Rights of People with Disabilities*, to provide current information

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[29] The European Blind Union Commission for Liaising with the European Union has been focusing recently on the European Accessibility Act. In 2011 a joint campaign was launched with Age Platform Europe, ANEC and the European Disability Forum to ensure the Commission will make all public websites accessible to disabled persons by 2015.

on specific legislation pertinent to VI persons in Europe, and to record the extent to which national legislation provides the rights guaranteed in the Convention.

Among the EBU Rights Commission statements defining the characteristics and needs of blind and partially sighted people in relation to the relevant UN Convention articles there are also those relevant to education. Firstly, the Commission notices the need for the active and continuing support of well-qualified professional staff capable of counselling, providing emotional support and information on the social, psychological, physical and educational development of persons with visual impairments. This help should be directed at parents of blind and partially sighted infants since early identification and diagnosis are indispensible to long-term optimum academic and social development.

Another issue raised by the Commission concerns the requirement of provision of teaching materials. Both students' books and presentations made by teachers should be prepared in an accessible format (Braille, large print, audio) most convenient to a VI learner's needs. BLs particularly require skilled support from qualified professional staff that have expertise on graphical materials. Regardless of the intensity of visual impairment, all VILs should be given an opportunity to participate fully in non-curricular school activities of their choice such as sporting and leisure activities.

To ensure the social development of BLs and PSLs, they should have a chance to socialise and interact not only with their peers with visual impairments but also with fully sighted children of a similar age to learn from each other and share experiences. VILs also need access to technology and special equipment, which allows them to overcome communication and information deficits arising from the loss of vision. Adaptive equipment (e.g. screen readers, Braille printers, scanners, voice output reading machines) is required not only in the educational establishment, but also at home or other places of study. VILs need training and support, at least at the beginning, to make use of equipment and technology appropriately.

Regarding school curricula, VILs should have the same access to the range of subjects and curricula that are available to their sighted counterparts. Yet, they are entitled to equipment and technology support, which allow them to achieve academic success like other pupils. Since the loss of vision or its deficit means that students need more time to perform an academic task than other pupils of comparable ability, the former should be allocated appropriate additional time and provided with special conditions (e.g. computer equipment, additional lighting, magnifying glass) to undertake assessment and examinations on an equal basis with fully sighted pupils. Furthermore, all materials used for assessment and examination need to be adapted i.e. prepared in a format most convenient for a student. VILs also need to be able to submit their written assignments in the format of their choice to ensure parity with other pupils.

The EBU Commission also stresses the importance of learning Braille, including Braille used for languages, music notations, science, and mathematics. At the same time the VILs need to optimise the use of residual sight to read large print and

use computers with adaptive technology and a range of skills such as keyboard skills, mobility skills, or daily living skills. BLs and PSLs need to be educated in these daily living and orientation skills and techniques to enable them to function independently and inclusively in society. The specialist subjects developing these skills should be an integral part of physical, academic and social education, and they should be introduced as early as in primary school and continued throughout secondary education.

The EBU Commission devotes much attention to the acquisition of educational and vocational qualifications corresponding to abilities (e.g. learning an FL or playing a musical instrument), which may determine VI persons' capacity to obtain and retain employment and their integration with the sighted community. Thus, it is crucial to provide VILs with the opportunities, the support and the necessary accommodations, to enable successful completion of secondary education and the undertaking of tertiary and vocational courses.

With regard to inclusive education, the EBU Commission's stance is that VILs' needs can be met in integrated settings in all types of environment (academic, social, physical) as long as the range and quality of required support is provided and appropriate accommodations are introduced. Nevertheless, there are some BLs or PSLs, whose academic and social development cannot be ensured in the mainstream system due to the nature of their disability or additional disabilities. Therefore, they need to be educated in special schools, which cater for their individual needs. Regardless of learning setting, the needs of VILs set out above must be met.

To ensure meeting VILs' needs appropriate measures should be taken to employ teachers, including those with disabilities, who are competent in Braille at all levels of education and address other issues relevant to teaching pupils with visual impairment. In the case of a shortage of qualified staff, special training should be organised. Such training courses usually include modules on basic knowledge on visual impairment, psychosocial aspects of low vision, daily living skills and mobility, Braille and technical devices, the use of appropriate augmentative and alternative methods of teaching, developing educational materials. The training curriculum is not only based on theoretical elements but also on practical experiences. After training completion teachers should be able to understand VILs' needs and characteristics, teach writing and reading in Braille and integrate this teaching into normal teaching programmes. Teachers should also be able to assist pupils with vision loss or deficit in optimising the use of residual sight. Other expected outcomes of such training include the ability to utilise and access ICT accommodated to the needs of VI pupils, to support students in non-curricular activities, and to assist them in successful integration into the social and cultural life of the educational establishment. A great contribution to training teachers in Europe for working in the visual impairment field has been made by the European Network for Vision Impairment Training Education and Research (ENVITER).[30]

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[30] Seven leading European Institutes for the Blind or Visually Impaired formed this European network in 2001. The ENVITER members are specialised schools, colleges or institutes working with visually impaired pupils. ENVITER represents some of Europe's leading specialists in the field of visual impairment. The main objective of ENVITER is providing a forum for the exchange of know-

The EBU Commission also raises the issue of the accessibility standards and guidelines, which although comprehensively discussed in Article 9 on Accessibility, are relevant for education. BLs and PSLs need educational settings in which schools are designed and built to conform to the EU standards. Additionally, classrooms and halls should be furnished and equipped (spacious classrooms, task lightening, braillers) to accommodate to the needs of VI pupils. Finally yet importantly is the issue of public transport to school which is related to personal risk or safety. VILs may experience difficulties in commuting to schools due to heavy Braille books or equipment that needs to be carried. Therefore, additional funds need to be provided to ensure comfortable transport (cf. *European Blind Union Legislative Database*).

Many of the above-mentioned issues have been incorporated in the 2009 *Dublin Declaration 'A Europe for All Blind and Partially Sighted Citizens'* published by the EBU.[31] It stresses the value of an accessible and inclusive society in which VI persons have the same opportunities as people without any impairments. In the context of education, these issues are particularly important. Having access to information in such formats as Braille, large print or audio may frequently determine a VI person's education and subsequently his professional career and private life. Education in the mainstream system, in turn, enables a VI pupil to fully exploit his learning potential and skills, and enhances his self-esteem.

The EBU prepares systematically strategic plans with the objective it aims to achieve. Among the objectives there are also those related to education. In the *Strategic Plan 2007–2011*, the EBU set the following objectives:

— ensuring that VI children have access to the standard curriculum and the opportunity to learn skills compensating vision loss;
— ensuring that VI children and their parents decide on the form of education (mainstream or special schools);
— ensuring free educational materials and books;
— ensuring free technical equipment necessary for learning;
— ensuring that support staff working in mainstream schools receive adequate training;
— ensuring that VI students have access to good technical, psychosocial and pedagogical support (*Strategic Plan 2007–2011*: 7–8).

The report of the EBU Culture and Education Commission for the period 2007–2011 prepared in 2009 by Ion Podosu shows the increasing tendency of the European education systems towards inclusive education, though experts in many countries pointed out that this method is frequently highly unsuitable for some VI learners.

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ledge, expertise and experience of its members. It also promotes good practice in the field. For more information see www. enviter.eu.

[31] The Declaration is a result of the Citizens' Europe for All conference held in Dublin, Ireland, on 15–17 May 2009.

In Italy, Law 104/1992 ensures VI persons are able to attend mainstream school at all levels of learning. Furthermore, in Italy special schools educating VI pupils totally disappeared apart from those specialising in vocational training for young VIs in such fields as massage, telephony or computer programming. Italian legislation guarantees to VI pupils that they receive the necessary support for their school integration. Local authorities are in charge of support programme funds and complementary activities aimed at reducing effects of visual impairment. Problematic issues concern the lack of educational material and human resources, particularly support teachers. Frequently these assistant teachers are not properly trained and therefore do not have awareness of the great learning potential of VILs. Law 104/1992 stipulates the assistance which should be provided to VI pupils. It should cover access to technology and provision of textbooks in electronic format. In 2008 the problem of textbook adaptation was solved by the Ministry of Education. All textbooks used by pupils and students in mainstream schools need to be accessible both in Braille and large print. Provision of the access technology necessary to learn and auxiliary educational materials is ensured by the national health system and the Blind Associations Federation of Italy. The national health system identifies VILs through the mediation of its local health agencies and makes personalised functional diagnoses specifying personal special educational requirements. Italian VI pupils and students have access to Braille format or enlarged texts through the library for the blind in Monza, which signed an agreement with the major printing houses for provision of the digital files of the textbooks. Additionally, the Italian Union of the Blind and Partially Sighted coordinates the audio book national centres, which also have Daisy format textbooks with navigation facilities.

In Spain, Law 2/2006 guarantees access without discrimination to the national curriculum in the mainstream system, with the provision of resources indispensible for the instructive educative process of VI pupils. Local education authorities are in charge of this provision. In the Spanish education system diversity is the basic principle of educational assistance. Schools are obliged to adapt teaching to the needs of VI children and people. Therefore, educational institutions have as one of their objectives the educational progress of VI persons. In order to contribute to their progress schools offer flexible groups, support in mainstream schools, curricular adjustments in teaching programmes or the working out of individual educational plans. Education organic law, particularly its Article 72, states that educational authorities should guarantee VI pupils the assistance of specialised teachers and qualified staff for an optimum time of educational instructive process. Furthermore, Article 72 stipulates curricular changes necessary for optimising educational processes for VI youngsters. Educational authorities should also ensure cooperation with non-governmental organisations in order to facilitate teaching and better social integration of VI pupils. Unlike in the USA, in Spain there are no laws, which would oblige publishing houses to publish books in the formats accessible for blind and partially sighted. Currently, the national organisation of the Spanish blind negotiates terms

and conditions with the publishing houses to make textbooks available in PDF format, which facilitates Braille transcription.

In the United Kingdom, legislation regulations are very general. They encompass laws for disabilities and people with special educational needs and directives for ensuring the equality of chances for people with disabilities. Educational institutions are allowed to adjust education settings for VI pupils and provide manuals and other special educational resources in accessible formats. It is worth noticing that BLs in the United Kingdom have the opportunity to learn Braille, both in regular and special classes. Regrettably, due to population changes the number of children who are Braille literate is decreasing. Many VI children learning in mainstream education settings have their own laptops with assistive technology, which enables them to read and write texts in print. At later stages of learning, it is difficult to convert them from print into Braille. Additionally, all BLs and PSLs cover a special course on orientation and mobility. The training is also available for VI students in university campuses. The findings from the EBU Commission Report are consistent with the results of the surveys conducted by the Royal National Institute of Blind People (RNIB). According to the data, only about 4 percent of blind children and young people in the United Kingdom are able to use Braille (Keil and Clunies-Ross, 2002). Since some of them suffer from learning difficulties, they are not expected to become fluent Braille readers (Keil, 2012). With regard to funding, VI pupils in the United Kingdom receive financial support from their schools or local authorities through the statutory education framework. VI students may apply for a grant to obtain assistive technology. However, this grant frequently does not cover all the costs. A very important issue for VILs is copyright. In the United Kingdom the copyright law allows all VILs and their schools to scan books, articles and newspapers necessary for education. With regard to textbooks, schools are allowed to scan all necessary curriculum materials and convert them to accessible formats. Since this procedure is time consuming and costly, a new way of providing materials is being worked out. Currently, a model for the provision of electronic textbook files is being tested, which is funded by the Government Department for Children, Schools and Families.[32]

In France, legislation is also quite general like in the United Kingdom. Equal access to education, culture, work, and environment is promoted for all people with disabilities. In schools, VI pupils are supported by assistant teachers (support teachers) who work overtime to teach students the Braille alphabet, orientation and mobility skills, the use of access technology, and daily living skills indispensible for autonomous life. Regarding access technology, it is lent to VI pupils by the educational department. Books and other auxiliary materials are prepared for VILs by the printing houses of the regional institutes for the blind. In France one can find many examples of cooperation between VI persons' organisations and publishing houses.

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[32] Publishers Lookup UK is a website which gives details for teachers seeking to source electronic formats of textbooks for VI students in higher education and publishers looking for cooperation partners.

Significant progress was made in recent years with the opening of the virtual library Sesame and Serveur Helene. The server was opened in May 2000 and it has more than 1200 books in the public domain.[33]

In the Czech Republic, VI pupils are guaranteed the opportunity to go through the learning process with the assistance of the Braille alphabet. Special competences indispensible for VI pupils' functioning in the mainstream system are included in educational programmes. Pedagogical centres, which are located all over the country, cater for teaching these competences. Since there are no special regulations pertinent to the provision of textbooks in alternative formats, the Czech VI pupils need to buy them either from their own resources and donations or from resources granted by the state to their families, providing they are eligible for such state contributions. Some schools and special pedagogical centres can procure educational means mainly through libraries and the printing house of the Czech Blind Organisation. Recently, cooperation between blind organisations and printing houses has been started to provide textbook in accessible formats. There are no laws, which would bind publishers to prepare curricular materials for VI pupils.

As to Bosnia-Herzegovina, its legislation pertinent to education enacted by the Parliament of the Srpska Republic and Bosnia-Herzegovina Federation only mentions that education of persons with disabilities may be carried out in regular (mainstream) and special schools. Only the latter enables VI pupils to learn and develop compensatory skills. Mainstream schools, due to unclear legislation and lack of practical experience in the field of visual impairment, do not provide training in these skills. With regard to technical means and auxiliary material provision, it is a problematic issue particularly in mainstream schools. Despite favourable legislation, VI pupils and students still have problems with access to these materials. Only two libraries specialise in digital book provision. As in other European countries, in Bosnia-Herzegovina there is no mandatory legislation stipulating collaboration between organisations for blind persons and editors. VILs have access to libraries, which are permitted to scan, copy, duplicate and record all types of auxiliary materials in Braille, mp3 and digital format.

In Montenegro education of VI pupils is stipulated in Article 15 of the law regarding children with special needs in education. VILs are guaranteed support by using preventive, pedagogical, and corrective-compensatory and socio-integrating programmes as part of mainstream educational programmes. Regrettably, Montenegrin programmes concerning mobility, space orientation and social communication are still not well developed. The law for children with special needs' education

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[33] The pilot project was launched in 1999. The partners participating in the project were Institut National de la Recherche en Informatique et en Automatique (INRIA), Institut National de la Santé et de la Recherche Médicale (INSERM), Institut National des Jeunes Aveugles (INJA), Université Pierre et Marie Curie, Paris 6 (UPMC). The Serveur Helene includes books in the public domain (books accessible on the web), adapted sources of books (files prepared by schools for Braille printing) and original files (files stored on a highly secured server for further adaptation by transcription centres). More information is available at http://www.serveur-helene.org/.

in Article 8, paragraph 2, specifies that all educational means must be adjusted to the needs of VI pupils. The strategy for inclusive education, in turn, explains that all school facilities, transportation to and from school, educational means and manuals serving VILs are free of charge. Only institutions specialising in educating VILs have adequate technology to transcribe books into Braille.

The Finnish Law of Basic Education, in turn, stipulates conditions for special education. Education is organised in this way as to enable all disabled pupils attending any type of school. Education is based on the 2004 law regarding education of children with special educational needs, the 2007 strategy for integration of children with disabilities and the 2008 law of inclusive education. The category of VI pupils is framed inside special education needs, which the legislation concerns. Regarding books and auxiliary materials for VILs, they can only be accessed through the mediation of the Celia library. It was founded by the Finnish government and its activity is regulated by the law. The local public educational authority or health care system are responsible for provision of special technical means to all VI pupils up to the sixth grade. Older pupils are provided with technical equipment by the Finnish social security system. With regard to books, the Finnish copyright law stipulates the right of persons with visual impairment to access information, which is available for all readers.

Comparing the legislation in all the countries included in the EBU Commission Report Romania seems to have the most substantial legislation regarding VI pupils. However, there is a lack of implementation of this legislation into practice. The education law in its Article 44 states that 'Special education should have appropriate teaching plans, schools programmes, alternative didactics methodologies and textbooks, depending on the type and the degree of the disability, and approved by the Ministry of Education'. The same law regulates the situation of VI pupils who should be provided with support teachers trained in special psychopedagogy. Education of VI children should be focused on retrieving and compensating lack of vision. It may be achieved by performing some activities related to orientation and mobility, and visual deficiency correction. According to education law 448, Article 16, Romanian pupils who are blind or partially sighted are entitled to educational support services, manuals in accessible formats, provision of assistive equipment and the use of this equipment providing they attend special schools. In mainstream settings, pupils are not eligible for such school facilities. With regard to assessment, VI pupils in Romania are allowed to use equipment and assistive software during examinations at all levels of education and in all types of schools. Article 17 of the same law stipulates cooperation between mainstream and special learning units and the community with respect to providing educational counselling corresponding to the individual specific needs of VI persons. In Romania there is no law which would oblige editors to cooperate with schools educating VILs or organisation for blind people. At the national level, however, there is collaboration between the Romanian Association for the Blind and the Ministry of Education with respect to transcribing manuals into Braille format. Printing houses generally accept duplicating audio books but not transcription into electronic format.

All the countries participating in the EBU Culture and Education Commission's survey were also asked to provide an answer to the question related to choice of education. In the majority of countries parents, legal representatives and to a certain degree a VI child, have decisive roles in this educational decision (cf. Podosu, 2009). The data collected from the survey shows that despite some differences such as unequal implementation of legislation, there is a certain degree of commonality. Generally, special schools have better provision of Braille transcribed manuals and assistive technology than mainstream schools. Undoubtedly, the European countries' educational systems catering for the needs of the VILs are still being structured.

Some European countries did not respond to the EBU survey or did not participate in it. Poland was among these countries, which did not contribute to the EBU Culture and Commission Report. Since the research described in the empirical part of this book concerns FL teaching and learning by VILs in the Polish context, it seems justified to give some insight into the achievements made in Poland towards meeting the objectives set by the EBU Commission on Culture and Education.

In Poland, the rights of VI pupils are guaranteed under the terms of the Act on the System of Education of 7 September 1991, last amended in August 2011, and the relevant rules and regulations (World Data on Education 2010/2011). The system is obliged to create for VI pupils the most favorable conditions in three types of schools: special schools and residential special schools for the blind and visually impaired, integration schools or integration classes in mainstream schools, and typical mainstream schools providing inclusive education. In line with the Act and the pertinent regulations of the Ministry of National Education, parents are granted the right to choose from the three educational settings for their children. Furthermore, education is adjusted to the needs, age and developmental level of every VI child. VI pupils are guaranteed that content and teaching methods will be adapted allowing for individual development of their needs and predispositions. In 2010 the legal changes in special education were introduced, which also had an impact on VI pupils. The changes aimed at systematically increasing the quality of teaching methods, creating a more flexible education system catering for pupils' individual needs and adapting the external exams to the specificity of the disability (*Poland SNE Country Data 2012*). Individual educational and therapeutic programmes constitute the ground for education of VI pupils, regardless of the type of school they opt for (in the past such programmes only existed for special and inclusive schools). The Polish legislation outlines the process where a VI pupil is assessed and given an official statement of SEN describing his needs and school provision (*Special Needs Education Country Data 2010*).

In Poland, the issue of inclusive education is not as controversial as it used to be in the past. According to the data presented in the country report for Poland published by ICEVI, in 2000 there were 3192 VILs in regular schools whereas 1088 VILs attended special schools. At the primary school level, the number of VILs was three times higher in mainstream education setting than in special education settings. The same tendency could be observed at the middle school level (2.5 times higher) and the secondary school level (1.6 higher) (Kuczyńska-Kwapisz, Walczak and Witczak, 2002).

Though inclusive education is laid down in the Polish legislation, it is not as widely practised as in other European countries. In the above-mentioned report Kuczyńska-Kwapisz, Walczak and Witczak (2002) claim that the problem lies in the lack of preparation of teachers working with BLs and VILs in regular schools.[34] Due to the shortage of funds, only some schools employ support teachers, some of whom may be accessed from the Polish Association of the Blind. Although a proposal to create positions for support teachers failed, the Ministry of National Education (at this time called the Ministry of Education and Sport) managed to appoint coordinators responsible for inclusive education in regional educational offices. The authors also claim that there is a tendency for parents to put their blind and VI children into regular schools at first and then change to special residential schools.

Professor Marek — a renowned expert on typhlomethodology — in his interview published online also notices challenges inherent in the Polish system educating VILs.[35] He asserts that special schools are better prepared for meeting the needs of VILs, whereas mainstream schools without supportive teachers can be a source of great frustration and disappointment for both VI children and their parents. This inclusive education often ends after two or three years when a VI child decides to continue education in a special school. He concludes that the integration system will not be successful due to the lack of funds for hiring support teachers and producing adaptations of educational materials (Marek, 2000a).

In the last decade, however, the situation has been gradually changing. Though there are still no funds for support teachers, more and more teaching resources and adaptive educational materials are being produced. The EQUAL projects financed by the state and the Social European Fund led to the opening of an online resource centre targeted at VI students and teachers working with VILs in all educational settings.[36] Furthermore, the project enabled the working out of rules for materials adaptation (Paplińska, 2008). Currently, VI students may procure school textbooks in three ways: 1) borrowing Braille or larger print textbooks from the library of the Polish Association of the Blind, 2) borrowing Braille or larger print textbooks from the schools specializing in teaching VILs, and 3) ordering the printing of textbooks at the Central Publishing and Recording Institute of the Polish Association of the Blind. VI students may also access books and articles from the Digital Books Library which offers such book formats as audio recordings, text files, DAISY, Braille print outs and large print copies.

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[34] In Warsaw, the Academy of Special Education (the Division of Studies in Blindness and Visual Impairment) launched the project under which 25 in-service teachers were trained by the division academics. The teachers participating in the project also covered a practical teaching course teaching blind and visually impaired first grade pupils. There have also been attempts to exchange experiences between regular school teachers in the teacher training centres (cf. Kuczyńska-Kwapisz, Walczak and Witczak, 2002).

[35] Professor Bogusław Marek is an academic and English instructor at the Catholic University in Lublin, Poland where he is in charge of a resource centre for VI students. He also teaches ESL to BLs and PSLs.

[36] An online resource centre is available at www.adaptacje.uw.edu.pl.

The EBU Commission on Culture and Education, being aware of the challenges inherent in educating VILs in all European countries, developed the *Plan of Action for the term 2011–2015*, which had the following objectives:

— continuing to stress the importance of the teaching, learning and use of Braille[37] which, due to modern technology developments, is not given priority in many schools nowadays;
— fostering comprehensive early intervention, support services and adequate training for support staff working with VI children in mainstream schools;
— improving advocacy skills in promoting equal opportunities to access education, including tertiary education, and to advance the diversity and equality aspect in collaboration with ICEVI;
— identifying current levels of good practice in giving VI persons access to arts and to cultural events and facilities to provide the basis for recommendations and guidelines that may be used as a tool for giving support and lobbying;
— promoting accessible sports activities for all blind and partially sighted persons with additional disabilities (e.g. Braille chess);
— developing specific initiatives to further the participation of blind and partially sighted people in musical activities, and in collaboration with other interested actors at European and national level;
— continuing cooperation with the Liaison Commission in the project 'books without borders' for the benefit of blind and partially sighted and other print disabled persons.

It is also worth mentioning the initiative of the EBU Commission for Liaising with the EU (PROGRESS 2012) aimed at lobbying the national authorities of the member states for the adoption of an internationally binding treaty at the World Intellectual Property Organisation to transfer accessible books between the countries.[38] The treaty would undoubtedly be beneficial for education, as it would enable an exchange of adaptive teaching resources and educational materials.

Since education of VILs is inseparably connected with employability, the EBU has launched various projects aimed at improving qualifications and skills of VI people, who frequently encounter barriers to entering the labour market. Among the core skills necessary for improving VI people's employability is the command of foreign languages.

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[37] This objective builds on the contents and outcomes of the 2011 World Congress Braille 21 Innovations in Braille in the 21st century organised by the World Blind Union and held on September 27–30 in Leipzig, Germany. The congress's conclusions were that Braille is an essential means of accessing information for blind people in the world. It also called on researchers and innovators to cooperate on affordable Braille technologies in such areas as Braille education, successful employment, independent living skills, speedy transcription and reading of Braille. For more information see the website of the World Blind Union — www.worldwindunion.org.

[38] For more information on EBU activity in the framework of the Community Programme for Employment and Social Solidarity (PROGRESS) see the website of the EBU.

1.2.3. Language education of the visually impaired

There is a problem with estimating the VI population, whom language education policy concerns. Since FL education is obligatory for all VI learners in the EU at all levels of education, it may be assumed that the data on VILs also corresponds to the data of VILs taking FL provision. Yet, very few countries have statistics specifically depicting the number of students with visual impairments. Even if they do, they vary in terms of approaches to visual impairment classification. As has already been mentioned, some countries measure visual impairment while others measure only disability as a whole. For these reasons, reliability of aggregated statistics for Europe can be questioned.

The recent data on VILs comes from the 2008 world report *Students with Disabilities, Learning Difficulties and Disadvantages Policies, Statistics and Indicators.* It is difficult to see in the report a clear pattern for the overall category of VILs. Some countries register a drop in the percentage of VILs, particularly those with full blindness, while others report a small increase. In the Slovac Republic, for example, there was the biggest decrease in the number of VILs. However, their number may be underestimated since the observed trend may be related to the fact that the majority of VILs were moved from special schools to mainstream schools.[39]

As has been already stressed in the book's introduction, FL skills are the key skills, which each EU citizen needs to be able to learn and update during his life. FL learning is of an even greater value for VI people than for fully sighted people since it allows the reducing of the gap caused by the lack of vision or by severe visual impairment. In our modern society dominated by image and speed, a blind or partially sighted person is undoubtedly in a less favourable position than his sighted counterpart, as vision deficit has an impact on all aspects of human life such as mobility, communication, and human relationships. A command of FLs allows a VI person to cross boundaries to access different opportunities and cultures in the domain of social contacts. It also provides a positive impact on a VI person's self-esteem.

In terms of contribution to the EU policies, FL learning has a great role in generating European added value. Firstly, it opens up job opportunities as emphasised in the Lisbon Agenda 2000, which calls for inclusion and equality of all in the learning process. Secondly, a command of FLs contributes to improving mobility in Europe — a task, which constitutes a great challenge particularly for VI people. Since FL learning by VI people frequently entails the use of adaptive technology, it also contributes to the EU education objective related to development of ICT skills.

The special role of FLs in SEN people's lives has been discussed by Zawadzka-Bartnik (2010), and Domagała-Zyśk and Karpińska-Szaj (2011) who evaluated FL learning in the context of speech and hearing rehabilitation of hearing impaired students. With regard to visual impairment, the significance of FL learning has been noticed by a number of SLA researchers, for example Marek (2000b), Krzeszowski

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[39] Turkey and Mexico, in turn, had the biggest change in the opposite direction.

(2001), Aikin Araluce (2005), Czerwińska (2008a), or Wyszyńska (2013). Learning English, indisputably the most dominant FL in the contemporary world, is particularly important if a VI person's mother tongue is not very widespread. The reasons for FL exposure described by the above-mentioned authors are probably best recapitulated in the European Commission 2005 Report *Special Educational Needs in Europe. The Teaching and Learning of Languages. Insights and Innovation*: 'Foreign language learning provides a set of life skills and personal development channels that embrace, define, and extend social development for many learners' (2005, 142).[40]

In the past, modern languages were treated as a subject only for the élite. VI pupils, especially those with multiple disorders could not benefit from FL education provision. Nowadays, in the EU context, FL education for VI pupils is viewed in relation to broader principles of equal access to education. This brings us back to the Charter of the Fundamental Rights of the European Union 2001, Article 21 and the UNESCO *Education for All* initiative, which helped to focus attention on a broader range of pupils, namely those with various impairments frequently being excluded or marginalised within education systems including FL education. Ainscow and Haile-Giorgis (1998) notice that the challenge of exclusion from education has been put on the political agenda as a result of the 1990 World Conference on Education for All: Meeting Basic Learning Needs which was held in Jomtien, Thailand. It seems that the improvements of educational opportunities of SEN pupils eventually triggered considerable debates related to how best to proceed to provide effective FL education provision for this category of learners, including those with visual impairment. This gave rise to the **Language for All** initiative, which spread out across EU countries. It has been thoroughly discussed by McColl in her 2000 book entitled *Modern Languages for All*, in which the substantial benefits of FL learning provision to SEN students, both in mainstream and special school setting, are demonstrated. The author notices that the desire and need to communicate with the people around us is 'a powerful motivator and enabler' and if that need is not in some learners, some other motivation has to be found. Furthermore, she notices that students with all abilities can successfully learn an FL, since they all have the potential to do so. She puts it in the following words:

… given the right opportunity, conditions and motivation, they can succeed. We need only look at what they can achieve in their first language — that is their potential. The question for us educators is: how close to that potential can we enable them to get? (McColl, 2000. Quotation from the European Commission 2005 Report *Special Educational Needs in Europe. The Teaching and Learning of Languages. Insights and Innovation* 2005: 151).

In her subsequent publication *Foreign Language Learning and Inclusion: Who? Why? What? — and How?*, the author claims that FL learning makes sense for all learners regardless of their ability, provided it is set within the context of the com-

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[40] The European Commission 2005 Report *Special Educational Needs in Europe. The Teaching and Learning of Languages. Insights and Innovation*, has been compiled at the University of Jyväskylä, Finland. The contributors of the Report are the leading specialists in SEN from the United Kingdom, Poland, Norway, Austria, Finland, Germany, the United States, Italy, Spain, Hungary and France.

munities that use the language, and explicit links for learners are made with regard to what is distant-and-strange and what is close-and-familiar.

The spread of interest in the field of FL teaching to SEN pupils in Europe started in the late 1990s. However, in Central and Eastern Europe undergoing SEN reforms, the focus was initially put on other issues such as integration and inclusion rather than on FL provision. It seems that the breakthrough moment was 2005, when, in response to Tender DG EAC/23/03 — Teaching Languages to Learners with Special Needs, the above-mentioned EC Report was issued. The Report, covering diverse SEN contexts and representing various types of expertise, now serves as the basis for developing FL provision for policy-makers across the EU. The EC document contains good practice examples, stresses the role of professional integration between FL and SEN teachers, both of whom are 'the main instruments in ensuring that policy is converted into practice', and points to the need of 'greater synergy between educationalists, researchers and policy-makers' (Foreword to the EC Report, 2005: 4).

The already mentioned Language for All idea is also reflected in the 2005 EC Report. In its Executive Summary, one may read that a major emphasis in the field of FL learning is 'educational provision for all which leads towards each citizen having some competence in at least two Community languages (MT+2)'. Furthermore, 'all young people in the European Union, whatever their disability, whether educated in mainstream or segregated schools/streams, have equal rights to foreign languages education'.

The publication also refers to the final FL learning outcomes: 'even the reportedly "most challenging" of SEN categories in terms of inclusion, namely those pupils with behavioural, social and/or emotional difficulties' are capable of achieving success in FL learning. There is also another argument for the FL learning inclusion of SEN pupils, which is put forward by Gyarmathy (2005), namely **double exceptionality**. According to the author, there are large populations of gifted SEN learners with learning difficulties who can cover their deficits by using their high abilities, including language abilities. The same observation was made by Fetzer (2000, in Jedynak, 2012) who noticed that giftedness is a characteristic that may co-exist with other characteristics or disabilities.

It is worth noticing that access to FL education by VI people is largely linked to **labelling** — a notion whose significance is equally profound in the SEN and multilingual/multicultural contexts. In the Executive Summary to the 2005 EC Report one may read: 'There is a view that certain SEN pupils should not learn foreign languages because the time and resources should be better spent on their first language and/or other subjects. Why ask them to learn a second language when they cannot even master the first?'. The assumption that VI pupils are different from their fully sighted counterparts and thus require a different approach is linked to labelling. The view presented above, whilst not supported by any evidence, is commonly voiced across Europe. It may be held by parents, teachers, administrators, and policy makers. Labelling is a discriminatory act against learners requiring special needs. Though some VILs may perform lower in L1 or other subjects, they can benefit from

FL learning. Labelling learners seems to be only justified in order to prepare diagnosis and arrange adequate services, while de-labelling is necessary when it comes to FL education provision, especially when one considers the individual learning potential and needs of VI people. These thoughts are best expressed by Perttunen, Hännikäinen and Lounaskorpi — contributors to the EC 2005 Report:

> a disability such as visual impairment itself is not the reason to modify the mainstream curricula and, for instance, exclude foreign language learning. To deny them this is to deny them opportunities for accessing the European experience, which goes beyond even mobility, be it physical or virtual. Language learning is a lifelong undertaking, and in school education we have a responsibility to get all children started.

In the Executive Summary it is also explicated why inclusion of SEN learners in FL learning practice should be enhanced rather than encouraging them to bypass FL learning due to low FL communicative performance expectations. The main reason for inclusion is linked directly to European citizenship and the promotion of lifelong learning. Any exclusion from FL learning provision is equivalent to denying SEN pupils access to the benefits related to this citizenship. Not only is FL learning part of the social dimension of European integration but also a means to benefit on personal grounds. In the FL learning process skills such as attention, listening, responding and communicating are developed, all of which are also important in general special education. Furthermore, VI learners may use the skills more effectively in FL than in L1, and consequently perform better in FL, for example in counting. However, some VI pupils may never achieve high levels of FL proficiency. Still, modest linguistic achievements are not as important as their personal experience and development of such features as persistence or risk-taking. In the Executive Summary the issue of VILs' success in FL is elaborated:

> … success extends beyond communicative competence and includes other significant educational domains and key competence-building areas involving personal and social development … success is not a question of foreign language learning for the sake of learning a language, but foreign language learning as a platform for enhanced education and personal development.

The significance of FL learning provision is also stressed in the document *Planning, Teaching and Assessing the Curriculum for Pupils with Learning Difficulties — Modern Foreign Languages* (2001) issued by Qualifications and Curriculum Authority (QCA) in the United Kingdom. The document points to diverse benefits related to acquiring knowledge and understanding a modern FL, among them development of intercultural understanding:

> Knowledge and understanding of an MFL begin with pupils exploring their immediate physical environment through the senses. They may become aware of, and understand, the differences between such an environment and a more distant locality. Pupils gain knowledge and understanding of differences in language and culture through materials, artefacts and meeting people from places, which are socially and culturally different from their home environment.

Apart from appreciating the richness and diversity of other cultures and recognising that, there are different ways of perceiving the world, VILs learning an FL may also broaden and deepen their knowledge, skills, and understanding related to linguistic competence, knowledge about language and creativity. These three major

concepts, together with intercultural understanding, underpin FL learning. The QCA provides explanatory notes for all these concepts. SEN pupils competent in using an FL are 'able to adapt their knowledge and skills' and 'take the initiative and cope with unexpected responses and unpredictable situations'. Having knowledge about FL standard structures and patterns, SEN learners manipulate language using its modified forms for different purposes and contexts. In this way they develop creativity — the ability to express ideas and feelings using a limited range of language — which prevents them from experiencing frustration because they are restricted in what they can say and write. Apart from using language creatively and imaginatively SEN pupils also have the opportunity to practise risk-taking while manipulating language.

FL learning is primarily related to developing language skills. VILs learning an FL should be able to respond appropriately to spoken and written language, listen for gist or detail, skim and scan written texts for the main points or details, and write clearly and coherently. However, FL learning is also related to developing a range of learning strategies related to 1) memorisation of words, phrases, and spelling, 2) identification of patterns in an FL, and 3) use of previous knowledge, context and other clues to work out the meaning of what VILs hear or read. All these learning strategies may be used by VILs in either language or non-language contexts.

Member states recognise the importance of FL learning to the EU VI citizens by implementing the recommendations outlined in the EC 2005 Report. The recommendations stipulated in the EC 2005 Report known as the EC document *Teaching Languages to Learners with Special Needs* are based on two basic principles, namely the equality of FL educational provision and access to the European educational dimension. Furthermore, these recommendations aim at ensuring that some policies and initiatives already started as the result of the European Year of People with Disabilities 2003, will be continued. A closer look at the recommendations reveals that they have been carefully prepared in terms of achievability, influence, and potential multiplier effects.

Since the list of recommendations is quite extensive, herein I will highlight only the most salient points related to VILs. Other recommendations, though equally important for member states such as defining the status of sign languages, have not been discussed. For the convenience of reading all the recommendations have been grouped under four headings, namely *FL provision educational systems*, *Societies and social collective of the EU*, *Strategies*, and *Implementation in learning environments*.[41] The recommendations specified in the EC 2005 Report concern all SEN groups, however in the text I will keep on referring to VILs as one of the elements of the SEN diversity jigsaw. With regard to the recommendations related to *FL provision educational systems* they are the following:

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[41] The levels to which all the recommendations have been assigned in the original document were named *systems*, *societal*, *strategy, and practice*. Since they are too general, and do not communicate precisely what is covered in each group, they have been changed in the present book into the new category levels.

— The FL teaching profession across Europe still needs to respond appropriately to ever-greater diversity in classrooms, which entails further adaptations in the FL learning systems leading to benefits for VILs. This can be achieved by further articulation of the right to FL learning for all VI people to schools, teachers, parents, alongside pointing to good practice examples and successful outcomes in this field. The successful attainments of VILs should be defined in terms of linguistic and communicative competence and benefits in term of European citizenship, multilingualism, multiculturalism, interculturalism, and personality building.

— There is a need for developing national European Language Label groups or other relevant bodies (for example local resource centres specialising in FL advisory services for teachers, parents, and VI pupils) in further ensuring that the principles incorporated in the relevant documents are maintained and enhanced. These documents include among others the Treaty of Amsterdam (2000) and its *Article 13*, the European Parliament Resolution (2001) *Equal Rights for People with Disabilities*, and the European Disability Forum *Madrid Declaration* (2002).

— Since identification of learners encountering problems in FL learning is of primary importance, especially with respect to the lack of data on FL provision for this group, there is a need to further develop diagnostic approaches and frameworks to identify 'at risk' pupils.

— There is a need for collecting data on the creation of localised professional competence-building solutions. This can be achieved by means of localised surveys among FL teachers who may provide information on potential problems with inclusion of VILs into mainstream language classrooms. The information should be further disseminated to decision-making bodies to show what costs and educational programmes should be planned for the future. The obtained data may also serve for planning SEN theory and practice within FL learning and teaching, for initial teacher education.

— Preparing FL teachers for working with VILs needs to be implemented in initial language teacher education for both SEN specialists and non-SEN specialists. Individual FL learning strategies used by VILs need to be incorporated into teacher education programmes. Furthermore, there is a need for further professional competence-building for all FL teachers, and not only for SEN specialists. In this way, the interests of VILs in mainstream schools may be accommodated.

— Teaching/learning materials adapted to VIL's learning styles need to be ensured. Materials designers need to construct multi-sensory thematic units (10+hours) which build upon topics contextualising the EU experience. Modules should be flexible enough to accommodate a range of SEN learners. The materials should include information packs with teacher/parent guidance.

— Since ICT guarantees effective FL teaching and learning, provision and maintenance of ICT hard and software need to be subsidised. Moreover, training in using applications adapted to VILs should be provided to FL teachers. Financial incentives also need to be provided for maintaining technical support for schools.

— VILs need to be given a chance to learn FLs in the same way as their fully sighted counterparts. Therefore, the potential of alternative FL learning programmes, such as for example CLIL, need to be examined with the view of introducing it to school curricula for VILs.

— In order to ensure that performance appraisal will not hinder inclusion of VI pupils into mainstream language classrooms, evaluation processes need to recognise performance thresholds suitable for lower end and alternative forms of achievement (cf. European Commission, 2005: 156–157).

With respect to *Societies and social collective of the EU*, the following recommendations have been put forward:

— The view on FL learning being a fundamental element in basic education of VILs needs to be enhanced in all member states. It also needs to be reiterated that VI people have the right of entitlement to experience FL learning appropriate to their needs and abilities.

— Indicators of FL learning uptake and duration by VILs, both in special and mainstream schools, according to age, category and target languages need to be provided.

— Good practice examples, successful stories of VILs and added value of FL learning are the three issues which need to be articulated across member states. This may be achieved by establishing a resonance group working together to produce a publication targeted at policy-makers and educators. Such a publication reasserts the role of FL in the lives of VI people. The resonance group should cooperate with localised providers (teachers, organisations) to ensure transferability of good practice examples across the EU.

— There is a need for establishing a multilingual Internet-based materials repository for VILs set up as a Language Portal operating similarly to the Educational Resources Information Centre (ERIC) database.[42] The materials bank should include training resources for FL teachers. Since assistive technology and Internet constitute an indispensible part of FL learning/teaching, there is a need to examine websites accessibility, interoperable technologies and applicability of language learning resources for VILs, mainly in relation to the potential of adaptive technologies.

— Further development of the CEFR and the ELPBVI need to be continued to discriminate between achievement thresholds at the lower end. Furthermore, it should be examined whether there are any possibilities to add or modify the already existing CEFR guidelines or methodological features to adapt them to

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[42] ERIC is an online digital library providing access to educational resources and teaching/learning materials. The information system is sponsored by the Institute of Education Sciences of the United States Department of Education. The database is targeted at education researchers, educators and the general public. The mission of ERIC is to improve effectiveness of teaching, learning, and educational decision-making.

the needs of VILs. It should also be examined to what extent available on-line diagnostic tools and instruments used by older VILs for developing autonomous FL learning support the self-assessment of learning progress at the lower end of the scale.

— There is a need to consolidate expertise for designing developmental solutions, for example identifying key FL/SEN teacher competence-building solutions. This expertise may be provided by interdisciplinary fusion groups of researchers, practitioners, and policy makers across the EU.

— A parent-teacher decision-making support system needs to be created. This may be achieved by establishing a project consortium to design collaborative virtual learning environments, which enable FL teachers and VILs, or VILs and their parents, to plan optimal language learning routes. This system may be helpful in establishing a VIL's profile based on his/her abilities and disabilities, and consequently used for developing an IEP. Furthermore, a project consortium aimed at extending European networking on FL learning needs to be further developed to enable communication between VILs within their group, and between VILs and FL teachers (cf. European Commission, 2005: 154–155).

As to *Strategies* where research and practice-based knowledge is used to provide specialist insight, they are incorporated in the following recommendations:

— Bridging researcher-practitioner expertise is necessary to prepare a pan-European literature review of FL learning by VILs. The review should cover various aspects of learning, for example ICT or CLIL and complement the already existing online resource *A bibliography of modern languages foreign languages and special education needs* (Wilson, 2013).[43]

— There is a need for examination of how to develop good practice and instruments of quality appraisal of FL learning provision to VILs. A good strategy is to design a template with a set of guidelines to follow.

— There is a need for interdisciplinary cooperation between research institutes, professional associations, schools, and other bodies specialising in FL learning/teaching to VILs. This may be achieved by establishing interdisciplinary forums to discuss theory and practice of both VILs and FL learning, or providing newsgroup style bulletin boards to allow teachers and educators to voice their opinions and share experiences on VILs and FL learning. Other ways involve the supporting of less experienced FL teachers by more experienced FL and VIL-oriented teachers, engaging VIL's parents or carers in decision-making on whether and how their VI child should learn an FL by providing them with authoritative guidelines and evidence of first-hand experience, designing

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[43] The online bibliography was started by David R. Wilson from the University of Leeds, who teaches FLs to SEN students at Harton Technology College in South Shields. The resource has been systematically updated and revised.

FL learning programmes for adoption into IEP which encourages a positive approach towards learning achievement. Finally, encouraging interdisciplinary cooperation may be achieved by designing special frameworks for FL teachers or parents managing IEP on VIL's performance or learning goals. VILs with modest linguistic aims incapable of reaching certification performance levels in FL, should instead be given a chance of lateral progression, which means that they take an alternative FL (L3) up to a similar performance stage (cf. European Commission, 2005: 158).

With respect to the recommendations related to *Implementation in learning environments* (for example schools or colleges) they are as follows:

— School-based policy statements on FL provision and FL benefits for all VILs need to be developed. The goals of FL learning for VILs need to be identified such as European citizenship, communicator self-esteem, intercultural learning, or social networking. Yet, they cannot only concern achieving communicative competence.
— The language potential of SEN teachers needs to be considered. Some teachers, without formal qualifications such as FL teachers, are sufficiently competent to use an FL in other classes (e.g. geography or history classes), and thereby ensuring FL learning across the curriculum (cf. European Commission, 2005: 159).

The member states vary in terms of the extent to which the above-mentioned recommendations are implemented, which is due to the specificity of the national contexts. Many of the recommendations operate successfully already, for example in the western European countries. In Central and Eastern Europe, one can also notice many encouraging changes, though in comparison to the rest of Europe they may be perceived as small-scale developments.

More than a decade ago, at the European ICEVI Conference *Visions and Strategies for the New Century* held in Cracow in Poland, a noted authority in the field of FL teaching to VI students — Professor Bogusław Marek — made the point that the importance of the field was beginning to be recognised in Central and Eastern Europe, however many problems were still left unsolved. They concerned a great shortage of specialist teaching resources and materials, which could be used for VI learners requiring non-visual methods. This is why mainstream teachers were reluctant to admit VI pupils to their classrooms. Those who did needed to struggle with the problem of adapting course books and resources into Braille, even if there was only one VI learner in a classroom. Other problematic issues identified by Marek (2000b) were as follows:

1. the lack of legislation supporting effective inclusion;
2. the lack of resource centres where support teachers could prepare teaching materials in Braille or produce tactile graphics texts;

3. inadequate training provided to pre-service specialists in visual impairment (e.g. in teacher training colleges or special education departments, in which emphasis was rather on theory and not on practical skills).

Some of these problems are still inherent in the Polish special education reality, for example a shortage of professional support teachers who ensure that lessons and FL teaching strategies are modified to VILs' individual needs. Yet, since September 1st 2012, Polish legislation allows school headmasters to employ assistant teachers if necessary. The prospects for a dramatic change in the availability of FL materials for VILs were described by Marek in 2000 as grim. Still, advances in technology in the last decade, have rapidly changed a situation. Nowadays, BLs and PSLs can benefit greatly from assistive technology programmes, personal digital assistants (PDAs), optical character recognition systems scanning printed material and speaking the text, or Braille embossers turning text files into hard-copy Braille. All these technological facilities removed many barriers to FL learning by VILs who can take tests, read FL books, complete homework, and do research along with their fully sighted counterparts. FL teachers may also make use of all these facilities to produce tactile graphics, Braille, or scanned texts. Impressive as it may sound, the education policy enhancing the use of adaptive technology for VILs has also a negative effect since only a small minority of VI people have attained mastery in Braille reading. Adaptive technology development discourages young VI persons from learning Braille whereas adolescent and adult VI persons may find it too difficult to master the Braille reading method, which is based on the sense of touch. Therefore, learning an FL traditionally, 'that is by combining spoken and written words, becomes very difficult or impossible, owing to the fact that the individual can no longer rely on his ability to manipulate written words (reading/writing)' (*ELLVIS — English Language Learning for Visually Impaired Students*, 2011: 1).[44]

As I have mentioned before, ensuring full access to FL learning may vary across the EU, just as the methods of responding to diversity differ. No formal report has been prepared by the member states on the implementation of the Language for All principle. It seems that the problems inherent in general education provision to VILs outlined in the Report of the EBU Culture and Education Commission can also largely be extrapolated to the field of FL teaching.

Yet, in the 2005 EC Report one may find some problematic issues in the fields of FL teaching and SEN raised by its contributors. Among them there is the lack of professional integration and the lack of mainstream teachers' preparation towards accommodation of VILs within language classrooms. The Executive Summary, in turn, addresses the issue of education provision to in-service FL teachers, which may not keep pace with the processes of inclusion and increasing classroom diversity.

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[44] The ELLVIS Report was generated after implementation of the Comenius Project 'English Language Learning programme for Visually Impaired Students'. The ELLVIS project (October 2009– March 2011) has been funded with support from the European Commission and it intended to improve the access of VI people to language learning.

Admittedly, many positive changes in language education to VILs can be attributed not only to technology advances described above, but also to SLA researchers and practitioners teaching FLs to VILs. A revival of qualitative methodology and focus on individual learner differences, which are the recent trends in the SLA studies, make the field of FL teaching to VILs more appealing to researchers, who disseminating their findings and recommendations may affect policy making. It was already the case with scientific knowledge on individual learning styles, which gave rise to the designing of a range of methodologies for pupils with diverse learning styles. New methods of teaching for VILs advocated enhanced multi-sensory input and adaptive support.

The interest in individual learner differences also gave rise to the development of IEP, which will be discussed in detail in section 2.4.3.1.3. In the case of VILs such individual educational plans are crucial for two reasons. Firstly, VI pupils may frequently be diagnosed with multiple disabilities, either temporary or permanent. Secondly, their abilities including linguistic predispositions can be multi-faceted. Thus, designing and adapting IEP to an individual VI student's needs is nowadays practised across EU countries, both in special and mainstream schools.

Finally, the value of cooperative and collaborative action needs to be mentioned since it also contributes to the implementation of the EC 2005 Report recommendations. The action takes the form of various projects involving partners from one or more member states.

1.3. The European Union initiatives

For a long time FL learning and teaching to VI people has been a neglected area of education. In the last decade or so a number of various projects and programmes have been launched promoting FL learning and teaching in the context of VI people. The following sections provide insights into:

— *Pedagogy and Language Learning for Blind and Partially Sighted Adults in Europe*,
— *Eurochance*,
— *Listen and Touch*,
— *Accessible Language Learning for Visually Impaired People (ALLVIP)* with its two follow-up projects *English Language Learning for Visually Impaired Students* (ELLVIS) and *Vocational English Training for Visually Impaired People* (VET4VIP),
— *Per Linguas Mundi ad Laborem*,
— *European Language Portfolio for the Blind and Visually Impaired* (ELPBVI), and
— *LangSEN Project*.

1.3.1. Pedagogy and Language Learning for Blind and Partially Sighted Adults in Europe

As has been already stressed, mastering an FL opens more job and mobility opportunities to VI adults. Bearing this in mind, the EBU led a two-year project focusing on effective teaching to this specific group of VILs. The project known as *Pedagogy and Language Learning for Blind and Partially Sighted Adults in Europe* was supported financially by the Education and Culture DG of the European Commission. It involved the partners from the EBU network united within the Grundtvig Learning Partnership that is the Pancyprian Organisation of the Blind (POB, Cyprus), Czech Blind United (SONS, the Czech Republic), the Slovak Blind and Partially Sighted Union (UNSS, Slovakia), and the European Blind Union (EBU, France). In line with the main principle of the Grundtvig programme, the partners cooperated in the field of adult education by being involved in a number of actions ensuring the wide impact of results such as project research, transnational meetings, exchanges of staff and adult students, exchanges of good practice and experience.[45]

The above-mentioned organisations agreed upon the fact that their national infrastructures were not adapted to the needs of adult VI people who wanted to learn an FL. They also noticed that the lack of Braille course books and other resources used for FL learning and teaching frequently discourage VI adults from developing their language skills. For this reason, the Grundtvig partners decided to cooperate in order to socially and professionally integrate VI adults through improvement of their accessibility to FL learning. In particular, the project was looking for the ways in which the competences of mainstream school FL teachers can be reinforced.

Though the project planned for 2008–2010 has already been completed, its results may serve as a starting point for further initiatives in the field of pedagogy for teaching VI adults. The final product of the project is the publication *Good Practice for Improving Language Learning for Visually Impaired Adults*, which addresses the main issues related to the language education of VI adults. Among them, there are VI adult students' motivations for learning FLs, training of FL teachers, a skills framework for teaching FLs to VI adults, and suggestions for a renewed pedagogy for teaching VI adults.

With regard to VI adults' motivations to study an FL they are similar in all the partner countries and they are not remarkably different from those of fully sighted people. VI adults learn FLs within the framework of the obligatory language education (i.e. university or college students), yet they express their need to update their learning or start learning new FLs. VI adult people's main motivations are twofold: personal and professional. As to personal motivations they include:

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[45] The Grundtvig Programme, launched in 2000, focuses on the teaching and study needs of learners who take adult education. Grundtvig has supported the mobility of 7000 people involved in adult education by the year 2013.

— developing intercultural competence to better understand the cultures of other countries;
— strengthening capacity for international mobility: being communicative in an FL when travelling abroad gives a feeling of independence;
— strengthening linguistic skills or refreshing memory without any precise objectives;
— treating FL learning as a hobby or pastime;
— socialising with target language speakers and other adult students;
— accessing information in international media;
— learning an FL for pure pleasure of learning (enjoying the sound of an FL);
— participating in various international events (exchanges, camps etc.);
— broadening the scope of books which can be read and websites which can be explored on the Internet.

As regards VI adults' professional motivations they are as follows:

— increasing chances for finding a job and career advancement;
— international mobility (travels for professional reasons are easier and more efficient if one knows FLs);
— international communication: the command of FLs facilitates contacts with colleagues, clients, and suppliers from abroad;
— participating in meetings and seminars in other countries as part of their work requirements;
— serving customers: the command of FLs often guarantees retaining various jobs traditionally open to VI people such as call centres, switch board operators, masseurs, physiotherapists, tourism professionals (cf. *Good Practice for Improving Language Learning for Visually Impaired Adults*, 2010: 6–8).

The project partners also analysed the situation of a VI person willing to learn an FL in France, Cyprus, Slovakia, and the Czech Republic in terms of accessibility of learning materials and FL courses. The results of the analysis show that the difficulties encountered by VI adults are related to the two main factors, namely the teaching approach and the organisation of teaching.

The former covers FL teachers' skills, the methods, and the tools, which are used during the teaching process. The post-project publication noticed a number of problems with the teaching approach such as the lack of skilled teaching staff, the lack of awareness among teaching staff as to specific needs of learners, the focus of courses on visual information, and the lack of digitalised course books. All these problems have also been noticed by other researchers, for example Marek (2000b), Krzeszowski (2001), Aikin Araluce (2005), or Wyszyńska (2013).

The majority of FL teachers in the partner countries do not have any background knowledge on visual impairment and its consequences for learning and teaching. With the lack of awareness of what vision loss or deficit is, they are not able to estimate what a VI person can or cannot do while learning an FL. Another

problem, equally important to the lack of awareness of visual impairment and its implications, is the lack of adapted FL learning materials. The post-project publication makes a point that 'pedagogy is mostly sight-based, and courses rely on visual perception and the audiovisual approach' (*Good Practice for Improving Language Learning for Visually Impaired Adults*, 2010: 10). Undoubtedly, the problem does not only refer to the partner countries participating in the project. In Poland, for example, many popular course books used widely in mainstream FL education or private language schools are inaccessible to VI pupils since they contain large numbers of pictures and graphic solutions for explaining grammar. Adapting all these images into a form accessible for VILs is time consuming and sometimes even impossible (Jedynak, 2011c). The same viewpoint is held by Ossowski and Muszalska (2007: 163), who notice that 'some difficulties in acquiring language competences by VILs result from low accessibility of adequately prepared textbooks and teaching aids accommodating the needs of learners with sensory impairments' (my own translation).

Another problem faced by the VI adults surveyed for the purpose of the project *Pedagogy and Language Learning for Blind and Partially Sighted Adults in Europe* was the lack of adapted techniques and assistive technology available in language classes in universities and training centres. This corresponds to the observations made by Jedynak (2008a). In the stories of FL VILs, which she presented, one of the problems faced by the university students with visual impairments was the lack of Technology Enhanced Language Learning (TELL).

The findings of the Grundtvig project also give some insights into the organisation of FL teaching to VILs. There are two aspects of teaching which were investigated, namely composition of classes and timetables. The former seemed to be very problematic since meeting the needs of all the students with diverse vision conditions was the unattainable goal for FL teachers.[46] The latter was related to the time of planning courses for adult learners, which was mainly in the evening. Such scheduling was not convenient for the adult VILs who needed to cope with the problem of lack of mobility.

There were also many other difficulties, not directly related to the organisation of teaching but rather to infrastructure and mobility, which the adult VILs faced while learning FLs. Firstly, the majority of language teaching centres were located in big cities and those situated in the suburbs were not prepared for students with visual impairments. Furthermore, the adult VILs' attendance at FL courses depended on the availability of other people. Those students who lived in isolated places had a more difficult access to FL courses. Additionally, the adult VILs in Cyprus had the difficulty with mobility because the public transport did not cover the whole island. For all these reasons, many adult VILs opted for private FL classes.

The post-project publication *Good Practice for Improving Language Learning for Visually Impaired Adults* also tackles the issues of the training of FL teachers.

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[46] Depending on the eye condition, some VILs need more light while others are not able to read with much light. Furthermore, some Braille users are fast readers while some others may be slow.

From the analysis of the requirements for future FL teachers it is evident that in none of the partner countries there is a specific training programme to teach FLs to adult students with visual impairments. Since teaching VILs requires conveying specific skills, the authors of the project identified the three areas, which should be covered by FL teachers. Among them there are:

1. Awareness of what vision deficit is,
2. Specific teaching approach,
3. Application of specific materials.

With respect to the first field, FL teachers should have knowledge on the rights of VILs and the special services they are entitled to receive. They should also have the psychological knowledge related to the nature and severity of visual impairment. Since some adult FL learners may lose their sight at a later stage of their lives, FL teachers should understand the traumatic experiences of these students and implement this knowledge into their teaching process. Additionally, FL teachers should be made aware that students with different degrees of vision deficit (partially sighted with various visual impairments, congenitally blind, and adventitiously blind) have varying needs in the classroom.

Specific teaching approach, in turn, is related to adjusting teaching process to the needs of VILs. This involves using alternative sensory modes, increasing use of accessible audio-visual methods alongside aural methods, developing paradigmatic thinking and the ability to guide a VI person. Since teaching VILs requires certain modifications related to class interactions and input provision, FL teachers should learn how to work one-on-one and in small classes, and how to tailor feedback and context to the needs of students with vision deficit.

Since FL teaching is impossible without the application of adaptive materials and assistive technology, FL teachers should master the knowledge on how to adapt the written material and the classroom setting to the varying needs of VILs, and how to make information and teaching materials accessible to VIls (Braille, large print, tactile drawings, audio, models, electronic documents, etc.).

The project partners prepared specific suggestions on improvement of pedagogy for teaching VI adults, which are largely incorporated within Chapter 2 in section 2.4.3.1 devoted to tailoring language provision to VILs. It seems that the most striking observation made by the partners of the Grundtvig project *Pedagogy and Language Learning for Blind and Partially Sighted Adults in Europe* is the lack of correspondence between legal or policy solutions and practice, which is expressed in the following words:

> The studies and exchanges carried out by the partners show that despite the provision of international conventions, the conditions for their national academic teaching organisations to take into account the specific needs of VI students are still not in place. (*Good Practice for Improving Language Learning for Visually Impaired Adults*, 2010: 36)

Nevertheless, as the project collaborates notice, the guidelines to facilitate the access of students with vision deficit to FL learning do exist. They are promoted by

organisations working for the social and professional inclusion of VI persons. The operational strategy targeted at universities and language teaching centres primarily concerns raising awareness for FL teachers. This may be achieved by addressing the issue of visual impairment in FL curricula. Currently, FL teachers are not provided with any information on the disabilities of their students and frequently are confronted with a situation when they have to teach a VIL. The operational strategy also includes the adaptation of FL teaching aids and other materials, the use of assistive technology, and the development of more on-site specialised training for FL teachers, including the application of alternative sensory teaching techniques. Finally yet importantly is the issue of the dissemination of existing e-learning materials and the development of new materials.

All the issues raised by the project partners are of paramount importance for all the member states. In Polish tertiary education, for example, one may notice the gradual implementation of the above-mentioned guidelines. The foundation Institute of Regional Development in Cracow, among other actions, also promotes FL learning and teaching to VILs. Its series publications raise awareness of university academics and FL teachers as to how to run classes with VI students (*Guidelines for the Teachers Teaching Blind and Partially Sighted Students*) (FRSE, 2007a), how to adapt materials for students with visual impairment (*Blind and Partially Sighted Students — a Guidebook for Universities. Adaptation of information materials*) (FRSE, 2007b) and how to adjust teaching techniques to the needs of such students (*Teaching English to Blind and Partially Sighted Students*) (FRSE, 2007c). With respect to the use of assistive technology, which is tackled in detail in Chapter 2, its vital role for VILs in language classrooms has been repeatedly stressed by Wiazowski (1996, 1998, 2000, 2001a, 2002a). Currently, VI students have a wide range of options for learning FLs through ICT, for example learning over Skype or having one-to-one lessons over the Internet. E-learning is particularly promising, yet in the case of VI people it should be supported with individualised tutoring so as they do not experience too much isolation during learning process.

1.3.2. Eurochance

Eurochance is another European project promoting FL learning among people with vision deficits. Though already completed, it is worth mentioning here, as together with its follow-up projects, Eurochance enabled blind and partially sighted people to learn English and German as FL by means of Internet. Thanks to the project FB and PS people not only in Europe but also throughout the world can use the Eurochance language modules with digital language textbooks.

Eurochance was implemented from 2003 to 2006. The project involved eight partners from various member states.[47] It was targeted at VI administrative assistants, in-

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[47] The partners participating in Eurochance were: BRAILCOM, o.p.s., the Slovak Blind and Partially Sighted Union, Eurovision, Ltd., Berufsförderungsinstitut Steiermark, The Faculty of Economics

terpreters/translators, professionals in the authorial field, computer operators, VI staff involved in vocational training, vocational teachers for FB people, the professional community, and the whole VI community, specifically those with full blindness.

The main objective of the project was to improve the qualifications and skills of VI people who being competent in FLs increase their chances for better employment. Eurochance was accompanied by an informative campaign directed at all potential employers of VI people, therefore the aim of the project was also making the professional community aware of VI peoples' knowledge and competences. Finally, the project also aimed at motivating VI people to take part in the social, political and economic spheres of life. The Eurochance authors agreed upon the point that the project will be successful if its results are accessible to a wide spectrum of end users even after cessation of the Leonardo da Vinci programme funding.

The Eurochance courses are designed to teach language in a vocational context, i.e. for work. Consequently, it was not considered appropriate to design them with beginners in mind. In order to specialise and acquire a useful, functional knowledge of the FL in the specific vocational areas proposed in Eurochance, students need to have some previous knowledge of the FL. The primary product of the project were the vocational digital language course books for learning English and German. Currently courses in Spanish and Italian are also offered. In terms of the CEFR levels the following target levels (not the starting levels) are available to VI people:

Intermediate English and German: B1–B2
Advanced English and German: B2–C1
Intermediate Spanish and Italian: A2–B1

All the courses offered within the Eurochance project have been optimised to be accessible for FB and PS people using adaptive technologies, such as screen reading with speech synthesis and/or refreshable Braille displays, or screen-magnification. The interactive digital Eurochance textbooks are available for VILs on the website of the digital language school centre called LangSchool.[48] Now, a few years after the project has been completed, the textbooks are offered not only for English and German but also for Italian and Spanish. Since LangSchool is a vocational type of school, a basic knowledge of FL is required to understand unit content. Thus, only intermediate and advanced courses are offered to VI students.

The authors of the project assert that LangSchool is not merely a website, but rather a learning environment in which, like in a real school, there are FL teachers, students, textbooks, study plans, exams, and study results. It is worth noticing that across Europe there are already a few digital language schools. They function in Norway (no.langschool.eu), Italy (it.langschool.eu), Slovakia (sk.langschool.eu), the Czech Republic (cz.langschool.eu), and Spain (es.langschool.eu).

VSB-TU Ostrava, Lawton School S.L., MediaLT, Leabank Management Services. For more information see the Eurochance website — www. eurochance.brailcom.org/index.

[48] The digital textbooks are available at the website www.Langschool.eu.

According to the manual for tutors, Eurochance has been designed to fulfil the following functionalities:

— Conception and publishing of quality learning materials, specifically developed for the learning platform and the specific needs of visually impaired people;
— A tried and tested interface guaranteeing accessibility and user-friendliness for blind and visually impaired students;
— A distribution platform able to place FL learning materials at the disposal of learners and tutors;
— A mechanism for assessment and accreditation of results obtained;
— An administrative structure, able to deal efficiently in providing contact with students, as well as administering information, advice and orientation;
— A monitoring mechanism to assure overall quality.

Analysing the digital textbooks it can be noticed that the theme-based units are oriented towards the practice of functions and skills. Therefore, VILs's progress is not measured against their achievements in grammar, but rather functions and skills in which some grammar points are practised. The units concern all the issues which VI people may find useful while searching for a job. At the advanced level, for example, such themes appear as 'Sound Engineering and Telecommunications', 'Physiotherapy and Nursing', 'Telemarketing and Call Centres', or 'European Institutions, Legislation and Projects'. LangSchool VI students who did not manage to master the content required for a given unit may contact their tutor for extra help. Additional explanations of grammar points are also available in the Grammar Bank or Grammar Database. All the units include the following components: vocabulary (written and pronunciation), grammar, and interactive self-evaluation exercises for practice.

The standard types of exercises include multiple-choice questions, true/false statements, transformation, substitution, sentence completion, selections, dictation, cloze and gap filling. They can be completed by using a screen reader selected for the proper language or by listening to native speakers' speech recordings. Apart from the standard exercises, there are also Voice Over Internet Protocol (VOICE) interactive exercises in which a student has a chance to practise speaking the FL with his/her tutor. During the VOICE sessions, students may ask a tutor to work with them on pronunciation, grammar and vocabulary, or to get involved in simulated role-plays, general conversations, or discussions based on the specific content of a lesson.

In LangSchool, like in distant learning schools, the tutor has an important role. He/she acts more as a consultant, a guide, or an evaluator, rather than a person who provides explanations. A VI student, in turn, absorbs material by self-study. In this respect, the Digital Language School is a place where a VIL's language learning autonomy is developed. In the student guidelines, VILs are even informed that they take responsibility for their learning; yet, they are also ensured that the Eurochance team, local organisations, or personal tutors can provide them with extra help if necessary.

The authors of Eurochance were not only aware of the significance of language learning autonomy but also of language learning strategies. In the LangSchool guidelines, intended only for this digital language school, VI students are informed on how effectively they can learn an FL.

> — 'You need to spend as much time on revision and homework as you would in a traditional course.
> — It is up to you to plan your time and keep up with assignments. You must create — and keep to — your own schedule.
> — You will often need to solve problems or research information independently. Questions can be answered by e-mail, but that takes time.
> — You need to read and write carefully.
> — Computer Skills: You must be comfortable using computers, Internet, VOIP, email, and assistive technology such as Jaws' (LangSchool.eu Guide for Students).

LangSchool VI students are provided with study plans according to which they study the particular units under the supervision of their tutor. Study plan templates point to the time allotted for self-study (e.g. unit content and test), VOIP session (e.g. role-plays, conversations), and written work (e.g. translation, writing a short biography or an essay, answering some questions, or describing a place or an object). As has been already mentioned, in a language course VILs use digital textbooks, which are available online. At the end of each unit or block of units students are tested on their progress. The test is a reference point for their final performance evaluation.

As one can see, LangSchool described above is a typical example of distance education in which VILs and tutors are separated by distance and time.[49] Unlike other subjects, FL learning requires a special approach, even more so if one considers the target group of learners, namely students with vision deficits. Here, communication between learners, and tutors and learners is of vital importance. In the manual for tutors available at the LangSchool website the issue of differences between learning language and other subjects is highlighted as follows

> It requires the acquisition of a set of reflexes based on a grammatical, phonetic and semantic code, and is therefore difficult to learn if there is no opportunity for interaction in a framework of stimulus and response, in an active process of dialogue and exchange.

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[49] Distance education, though considered a new form of education, in fact has a long tradition. This mode of delivering education and instruction often on an individual basis, dates back to as early as 1728 when the Boston Gazette published an advertisement of Caleb Philips — a teacher offering weekly mailed lessons to students interested in the new method called Short Hand (abbreviated symbolic writing method aimed at increasing speed and brevity of writing). Nowadays new technologies enabled distant education to evolve and assimilate traditional teaching techniques supporting learning. Among the advantages of distant education there are flexibility of learning (synchronous and asynchronous interaction), reduction of costs, self-paced learning modules (Jedynak, 2011a: 11).

Nowadays, in any discussions on new technology-based education, one can hardly refrain from comparing it to traditional education. However, in the context of VILs, any arguments against new technology-based education seem invalid. Technologies undoubtedly promote and enhance FL learning among VI people who would frequently be left without any chances for traditional FL learning but for projects such as Eurochance online. Unlike regular special or integrative schools, or private language schools, Eurochance with its digital language school centre Lang-School makes it possible for VILs to participate in language courses stretching over a longer period and to have sustained contact with language tutors through the Eurochance platform. Among the other benefits of Eurochance one should also mention its flexibility and choice — VILs can study at times convenient for them possibly even away from home. An important aspect of digital schools is the extended nature of the courses, which allows time for greater reflection and introduction of various activities and assignments related to students' interests. Additionally, VI students do not have to experience peer pressure and may learn an FL at their own pace. Another advantage of the Eurochance platform is the opportunity of intensive dialogue between students and tutors. This face-to-face environment enables tutors to respond better to VILs' individual needs. Such interactions are frequently impossible in conventional classroom setting. As to the Eurochance learning materials, they take into account the isolation of the VI distance-learning student. They are VI student-friendly, self-explanatory, and attractive. Any problems, which may appear while using the learning materials, have been anticipated by the content specialists. Finally, it is worth mentioning the compilation of successful learning stories provided at the Eurochance website, which are a great motivational factor for VI learners to learn FLs. The case studies section provides the examples of VI job seekers from various European countries, who became competitive workers on the labour market due to their FL competences.

It needs to be recognised that despite the numerous advantages of Eurochance online mentioned above, it may be the source of some difficulties, for both VI students and their tutors. Needless to say, both VILs and tutors lacking confidence in using the technology itself will not manage to participate in Eurochance. For those less experienced in using a computer, adequate training and support should be provided. It should also be noticed that distant learning is targeted at the specific type of learners and tutors. The semiautonomous nature of learning in a technological environment requires more motivation, increased responsibility for learning and self-direction than in conventional classroom settings. Students who do not have sustained motivation and are not able to manage their time and work independently as individual learners and group members will not be successful in this mode of learning. At the same time, the Eurochance student should be able to socialise and build a positive group dynamic. This may pose a problem for a VIL who is inexperienced in sustaining dialogue and commitment online, particularly when he/she feels insecure with an anonymous tutor.

1.3.3. Listen and Touch

The Listen and Touch project is described as a 'first-class European project promoting language learning and linguistic diversity' among VI people who want to learn FLs (European Commission, 2008. Preface to *Languages. Mobility creates opportunities. European success stories*). The project was funded by the European Commission Directorate General Education and Culture and it involved six partners.[50] It arose from the need to teach FLs to VI adult people whose learning, in most European countries, is hindered by many barriers such as limitation of resources and overreliance on visual teaching styles. The Listen and Touch project in the framework of the Socrates Programme: Lingua 2 — Development of Language Tools and Materials, was aimed at developing a methodology to teach FLs to VI adult people and creating teaching materials adapted from a successful English course for fully sighted learners. The methodology was based on the communicative approach — an approach never previously tested with VI adult people. The project gave rise to the publication entitled *Methodology of Teaching a Foreign Language to the Blind*, which provides guidelines for teaching four language skills and aspects such as lexis, grammar and structures, and pronunciation. The new methodology, developed in the course of the project, put the VI learner in the centre of the teaching process with the teacher being a facilitator and co-communicator rather than a resource and instructor. Furthermore, FL teachers were advocated to use a multisensory approach relying on the senses available to FB people such as hearing and touch (since they are most frequently used in teaching the project was called *Listen and Touch*), taste and smell. Though the new methodology was in line with the communicative approach, it also recognised the importance of the total physical response method and techniques from various methods as being alternatives to the use of visual input.

Methodology of Teaching a Foreign Language to the Blind is available in English, German and Greek. Its first section introduces the background and preparation necessary when working with VILs. It raises teacher awareness on such issues as eyesight assessment, the role of environment, teaching resources provision, and general teaching methodology guidelines. The second part, in turn, is more practical and gives more insight into particular language teaching issues such as teaching the four language skills and language aspects (to be discussed in detail in Chapter 2). Additionally, in this section one can find examples of good practice provided by experienced teachers working with VI students.

Another product of the Listen and Touch project is the adapted English language course (Streamline English) with a Braille manual for learners with full blindness. The interactive CD-ROM English course includes tests, a variety of vocabulary exercises, a talking dictionary and audio recordings to improve VILs' listening com-

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[50] Among the partners there were Euroinform Ltd. (Bulgaria), National Association of Blind Entrepreneurs (Bulgaria), School for the blind of Northern Greece 'Hellios' (Greece), bfi Steiermark (Austria), Rochester Independent College (the United Kingdom), and Virtua Ltd. (the United Kingdom).

prehension skills. The project partners also carried out pilot language courses with FB people to obtain their response to the outputs of the project. The authors of the project had positive feedback on the project not only from the European countries but also from the Middle East and Argentina (European Commission, 2008).

1.3.4. Accessible Language Learning for Visually Impaired People

As has been already mentioned, one of the greatest challenges faced by VI people was the shortage of adequate FL courses and available training facilities. LangSchool (*Eurochance* product) and Streamline English courses (*Listen and Touch* product) enable a computer-based and interactive self-study with speech synthesisers, scanners and online contact with tutors and other learners. According to Deharde (2010), the problem with the majority of available language learning software is that it is not fully accessible for VI people due to the lack of navigation options and the extensive use of the mouse. Drag and drop or gap-fill activities, which are heavily mouse-based, pose many problems for VI people. The partners of the Socrates project *Accessible Language Learning for Visually Impaired People* (ALLVIP) found a solution to the problem.[51] They developed interactive language learning software in which the tactile and haptic experience is combined with a 3D sound environment. Haptic interface makes cursor movements and objects on the screen tangible. The new interface offers significant advantages over auditory-based interfaces, which are only focused on speech input or output. Deharde notices that they provide the possibility of interacting more closely with the interface than auditory systems do. Tactile devices communicate with VI people through their sense of touch, while haptic devices combine tactile perception with kinaesthetic (i.e., the position, placement, and orientation) sensing. The new interface facilitates and improves activities with localisation, orientation, and identification of 'learning objects'. An important device developed by the project partners was a force-feedback joystick whose potential can be experienced in combination with 3D-sound in the virtual rooms.

After development of software and the testing of its prototypes, first language courses were designed together with audio files and activities. Several changes were required in user interface and course design after testing how particular lessons worked in practice. Evaluation of language courses was conducted by learners and teachers from schools for the blind and by the Scottish Sensory Centre at University of Edinburgh. Each language course contained ten units corresponding to several

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[51] Eight partners were involved in the innovative ALLVIP project: Bildungszentrum für Blinde u. Sehbehinderte (Würzburg, Germany), Bundes-Blindenerziehungsinstitut (Wien, Austria), Deutsche Angestellten-Akademie (Frankfurt-Oder, Germany), GedonSoft (Bremen, Germany), Odilien-Institut (Graz, Austria), the Royal Blind School (Edinburgh, Scotland), the Scottish Sensory Centre (University of Edinburgh, Scotland), and Tandem Hamburg horizont dialogo e.V. (Hamburg, Germany).

pages or screens arranged in a linear fashion so as to facilitate moving from one unit to another. All navigation was done entirely by the force-feedback joystick buttons so the VI person could fully concentrate on language learning. The courses focused on oral language, listening comprehension and pronunciation, all of which were practised in the following tasks and activities:

— *Virtual rooms*
(moving in virtual rooms and discovering various objects)
— *Notebook*
(acoustic notebook for recording students' comments)
— *Recording and pronunciation exercise*
(listening to words and expressions, recording the student's own voice and making comparison)
— *Dialogue Situations*
(listening to dialogues including vocabulary and translations)
— *Multiple Choice*
(standard multiple choice exercises)
— *Drag and drop activities*
(sorting words and expressions)
— *Gap-fill*
(standard gap-fill exercises)
— *Memory Game*
(typical memory game)
— *Grammar*
(explanations concerning grammar and pronunciation rules)
(English Language Learning for Visually Impaired Student — Final Report).

Deharde (2010) asserts that all these activities and exercises mentioned above, with the exception of the virtual rooms, are common, standard and even old-fashioned for FS students; however for those with visual impairment handling and performing these tasks with the novel innovative software is a big step forward. In order to use language games and activities the VI person has to move to virtual rooms by moving the force-feedback joystick. In a language module concerning parts of a house, the VI learner is able to enter all virtual rooms, 'touch' and discover various pieces of equipment and furniture. Pushing or pulling the force-feedback joystick the learner can change his/her position to experience e.g. a virtual window and 3D sounds emitted outside a window such as street noise (traffic, pedestrians, singing birds). When the learner changes the distance to the virtual window, the noise becomes more or less audible. Immersing in this virtual environment the VILs can learn new vocabulary and language structures.

The ALLVIP concept provided a novel way of introducing an FL to people with visual impairments, particularly the fully blind. The project gave rise to three products, namely

1. a language course
'*English for German-speaking learners*' (level A1),
2. a language course
'*German for English-speaking learners*' (level A1), and
3. an authoring system for the development of learning software for VILs.

Since the final results of the ALLVIP project were not as satisfactory as had been planned, at the end of 2009 the innovative software was used and further developed in two follow-up projects *English Language Learning for Visually Impaired Students* (ELLVIS) and *Vocational English Training for Visually Impaired People* (VET4VIP).

In the Comenius ELLVIS project funded with support from the European Commission, four language institutions (two tandem language schools, one language institute, and one adult education centre) and three schools for the blind were involved. The project coordinator was the Machiavelli Centre in Florence, Italy. The project aimed at adapting the English language course for young blind learners of three different native languages (French, Italian, and Romanian). ELLVIS target groups were primarily FB and PS people who cannot read and write Braille, FB and PS people with multiple disabilities (e.g. spastic people having problems with using a normal keyboard and a mouse), and trainers from training centres for VI people.

The necessary improvements in the already existing self-learning course concerned its adaptation to the learners' various native languages and the needs and interests of learners of various ages. The project partners also revised and refined the data and file structure in the English language course, and the audio files and content in the German language course. They also added some cultural information to the language courses, updated the teacher's manual, and improved both the user interface and stability of the software. The ELLVIS English language course was completed in March 2011 and its materials for French, German, Italian, and Romanian learners are currently available free of charge (cf. *English Language Learning for Visually Impaired Students — ELLVIS. Final Report*).

The ELLVIS project transferred the innovative results of the ALLVIP project and managed successfully to adapt the English language course to the needs of FB child and adolescent learners of various native languages. Above all, the project contributed to the increase of skills and competences in the field of cooperation on the European level. In the course of the ELLVIS project development, cooperation networks were created which afterwards were used for knowledge dissemination and transfer to schools for the blind in the partners' countries and in other European countries.

ALLVIP also gave rise to *Vocational English Training for Visually Impaired People* (VET4VIP). The project is a response to the needs of adult VI people not being able to participate in conventional language courses, in which there are no teachers experienced in working with VILs or the necessary technical equipment

for the special needs of such learners. The project involved ten partners coming from various special areas of expertise including language schools and schools for VILs in five countries: Germany, Italy, Ireland, the United Kingdom, and the Netherlands.[52] Each partner had its own motivation for getting involved in the project. For example, a language school in Totnes, in the UK, specialising in teaching the English language and culture to mixed nationality groups coming from all over the world, joined the VET4VIP project after two blind Tibetans enrolled to the English classes in 2005. The two students made remarkable progress in English due to numerous adaptations implemented by teachers and students who shared their classroom. Language in Totnes school joined the project to share its experience and expertise.

Before the VET4VIP project was launched, a survey had been carried out by nine partners to examine the current situation for conventional language schools and teachers working there in terms of their preparation for teaching VILs. The survey concerned current teaching methods, teaching materials, classroom management and general issues related to teaching VILs. Teachers with prior experience in teaching language to VI people, who constituted a minority in the surveyed group, emphasised that visual impairment was not a barrier to teaching this category of learners. However, teachers with no such experience complained about the lack of teaching materials and pointed to the problem with FS students who might not accept different teaching methods adjusted to VILs' needs. Based on the achieved outcomes and the fact that English is a language of universal importance, the VET-4VIP project partners decided that there is a need for developing training modules of business English for VILs. They also decided that the product of the Socrates ALLVIP project — a force-feedback joystick for haptic feedback — should be used in the new English course since the device enables VILs to carry out a variety of language exercises. Additionally, they worked out a plan to produce a training

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[52] The following partners were involved in VET4VIP: 1) Deutsche Angestellten-Akademie (DAA) Berlin — a vocational training institution providing services all over Germany, the beneficiary and the coordinator of the project, 2) Tandem Hamburg horizont dialogo e.V. — an adult training institute known for modern high-quality, efficient and personalised language training in vocational education, 3) Bildungszentrum für Blinde u. Sehbehinderte — a nationwide social service provider for vocational rehabilitation and training of VI adult people, 4) Centro Machiavelli Tandem Florence — a language school promoting the interaction between students and real daily life in Italy by providing linguistic and cultural tools and creating opportunity for exchanges, 5) UICI, Italian Union of Blind Florence — the Italian Union of the VI, 6) Language in Dublin Ltd. — an English language school providing adult and junior English courses and teacher training courses, 7) Language in Totnes — a small language school in the UK teaching English and culture courses to international students, 8) Royal National College for the Blind (RNC) — a specialist college for VI people with 165 learners and 220 staff, 9) Bartiméus Onderwijs — a Dutch provider of services for VI people of all ages, 10) Capital Language Services B.V — a Dutch language and communication training company developing and organising tailored corporate language, culture and communication programmes.

framework for existing qualified FL teachers to prepare them to integrate VILs into their classes.

The final objective of the VET4VIP project was enabling language schools to offer vocational language training to VI adult people, who after school graduation or completion of rehabilitation training, are frequently left without any job perspectives. Language training, especially for business purposes, and training for a job could open new possibilities for VI adults on the European labour market. Since there are very few interactive language-learning materials available for people with visual impairments and some of them would rather attend regular language courses, the project partners decided to overcome this problem by developing innovative and technologically adequate didactic materials for regular language schools. VET4VIP created a training framework for FL teachers providing them with the skills necessary to integrate VI adults into their regular language classes with learners without visual impairments. Additionally, the project made use of the innovative force-feedback technology of ALLVIP to develop the vocational courses in English. The new vocational English modules can be adapted over time for both new content and new languages. In this way, the modules support linguistic diversity for VILs (*Vocational English Training for Visually Impaired People — VET4VIP. Final Report*).

The VET4VIP project contributes in many ways to European Union policies. Firstly, the adaptable training language modules, which may be used by language schools or as self-learning modules, are an important step for the integration of VI people into mainstream language training. Secondly, the project's approach and products may be used by all language schools across Europe. Also one should not forget such an important aspect of the project as the partnership, which contributed to the exchange and transfer of different experiences from schools representing different backgrounds. Undoubtedly, the project could not have been completed without the involvement of all project partners. Finally, the project based on an innovative talking/tactile technology provides common guidelines for teaching people with visual impairments. Currently the dissemination of the project results is continued in the form of the VET4VIP courses offered within the Grundtvig programme at both European and national level. According to the VET4VIP Final Report, this is the first step towards European standardisation in FL training for VI people.

1.3.5. Per Linguas Mundi ad Laborem

The project *Per Linguas Mundi ad Laborem* (my own translation: Through languages of the world to employment) was executed from the first half of 2005 to the end of March 2008 within the framework of the EQUAL Community Initiative. The initiative was funded by the European Social Fund (ESF) and co-funded by

the EU member states. EQUAL's innovation is related to the fact that unlike the previous initiatives and programmes which focused on specific target groups, it tackles the problem of discrimination and inequality which appear in these groups. Its main objective was to test new ways of delivering policy priorities in the four thematic strands constituting the four pillars of the European Employment Strategy (EES), namely increasing employability, encouraging inclusive entrepreneurship, facilitating adaptability, and promoting gender equality[53] (Andrzejewska, 2008: 7–8).

Each member state could choose the thematic field in which it wished to generate and test its new ideas for combating all forms of discrimination and inequality within and beyond the labour market. Poland focused on the first thematic area. According to the ESF regulations, increasing employability may be executed either by 'facilitating access and return to the labour market for those who have difficulty in being integrated or re-integrated into a labour market which must be open to all' or by 'combating racism and xenophobia in relation to the labour market' (1 Regulation No 1081/2006 of the European Parliament and of the Council of 5 July 2006 on the European Social Fund and repealing regulation (EC) No 1784/1999). Poland aimed at reinforcing the social inclusion of people who were disadvantaged because of their visual impairments. The key to inclusion was language learning, which makes VI people competitive workers on the labour market.

Professional fulfilment constitutes an important aspect in people's lives, particularly in VI people's lives since employment facilitates rehabilitation and social integration (Sękowska and Sękowski, 1991; Majewski, 1996; Szczupał, 2004; Speck, 2005; Gorajewska, 2005; Czerwińska, 2006). In Poland, the employability of people with visual impairments is still an issue on which much is debated but little is done in comparison to other member states. According to the data provided by the Polish Association of the Blind, 76,256 VI people were registered as in 2004. In this group 39,486 VI persons were active in the labour market (age group 16–64 years). Only 5,530 VI people from this group found regular employment and just 2,744 had a job on the open market. According to the data provided in Galant's 2008 publication *Per Linguas Mundi ad Laborem — Final Report*, the employability rate for VI people in Poland fluctuates between 10–15% while in so-called 'old' member states it amounts to 25%. For this reason, a project such as *Per Linguas Mundi ad Laborem* was of paramount importance in the Polish context.

Per Linguas Mundi ad Laborem involved four project partners: the Polish Association of the Blind, Warsaw University, Warsaw Academy of Special Needs, and the John Paul II Catholic University of Lublin. The whole project was administered by PFRON (State Fund for Rehabilitation of People with Disabilities) — the organisation most experienced in managing European funds allocated to occupational and social rehabilitation, and employment of people with various disabilities. The project

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[53] The fifth thematic area was added at a later stage, namely the socio-economic integration of asylum seekers.

aimed at providing English language courses to persons with visual impairment and training courses to teachers for work with VILs.

According to the data provided on the website of the Office for Persons with Disabilities in the University of Warsaw, eighty people with a dysfunction of vision were able to participate in free of charge intensive English courses. During the courses VILs could also benefit from the comprehensive assistance of the vocational advisory centre. The VI course participants were taught English by means of innovative multimedia didactic aids accommodated to their needs.

An important aspect of *Per Linguas Mundi ad Laborem* was engaging English teachers in the project, particularly those already experienced in teaching VILs. Those who were fully qualified English teachers but lacked such experience could enrol onto free of charge postgraduate courses. The postgraduate studies for teachers were based largely on the **English for the Blind** programme set up in 1990 at the Catholic University of Lublin, Poland by professor of English Bogusław Marek.[54] The programme aims at designing and producing adaptations of didactic materials accessible to VILs and offering support to VI university students of English. The programme also offers English language courses to congenitally or adventitiously blind children and adolescents. This initiative relies entirely on volunteer commitment. Additionally, it provides specialist training in visual impairment for students of English specialising in ELT methodology. The Catholic University of Lublin is the first university in Poland to offer MA seminars on teaching FL to VILs.

In the *Per Linguas Mundi ad Laborem* project teachers followed the syllabus components covered by students of English in ELT specialisation at the Catholic University. The syllabus included not only theoretical classes (typhlology, psychology and pedagogy of VI persons, typhlodidactics of the English language) but also practical classes (developing materials for learning and teaching English accessible to VILs, practical techniques of using didactic materials, and fifty hours of hands-on experience during teaching practice).

Each project partner had its contribution to the final project outcomes. The Polish Association of the Blind was in charge of VI participant selection, contacts with potential employers interested in employing people with visual impairment and setting up a computer language centre for VILs. Warsaw University was responsible for preparing a book with methodology guidelines for teachers of English working with VILs, adapting the course books to VILs' needs (Braille, electronic and Daisy formats), organising a training course for ten teachers of English and a language course for forty adult VI persons. Warsaw Academy of Special Needs was responsible for initial evaluation of needs in the area of teaching English to people with a visual impairment and for adaptations of ELT materials for partially sighted learners. The John Paul II Catholic University of Lublin was allocated such tasks as organising

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[54] In 2002 Professor Marek was granted the Order of the British Empire for the English for the Blind programme.

a training course in the area of visual impairment for ten teachers of English, organising an English language course for twenty VI adults, setting up a computer centre for VILs and developing a tactile graphics production centre. In the beginning the centre was used for project related actions; however in time it gained the status of a national centre for tactile diagrams. The university also conducted a pilot study on the effectiveness of adaptations of multimedia interactive English language courses. The tools which were used involved Intelikeys, and VirTouch interactive mouse with Braillelike cells facilitating a VI person with total sight loss to have control over the invisible cursor (Marek, 2006; Marek et al., 2008).

The project proved to be exceedingly successful. Its evaluation results show that twenty-three teachers obtained their qualifications in teaching English to VILs. Furthermore, within the project, Warsaw University published in 2008 a book *Uczeń z dysfunkcją wzroku na lekcji angielskiego. Wskazówki metodyczne dla nauczycieli* [Learner with visual impairment in an English lesson. Methodological guidelines for teachers]. The book by Piskorska, Krzeszowski, and Marek was the first publication in Poland with methodological guidelines for teachers teaching English to VILs.

With regard to VILs, sixty people completed English language courses in Warsaw and twenty four in Lublin. Additionally they were trained in computer skills to be able to make effective use of electronic didactic materials. The language exam certification is a great asset for VI language course participants and increases their employment perspectives. The language proficiency tests, in line with the Council of Europe standards, were passed by sixty three VI participants.

Per Linguas Mundi ad Laborem may serve as a good practice example for other member states. In effect, the project triggered transnational partnership between the UK, the Czech Republic, Slovakia and Poland, collectively called VISION E3 and transnational partnership between Italy, Greece, and Poland within the programme New Ways for Disabled in Europe — NWDE. The main purpose of these partnerships was strengthening the innovation principle, increasing the effectiveness of national actions through exchanging experiences, working out new solutions and applying the solutions already implemented by other member states related to VI persons' employment, together with its supportive instruments and legal framework (Andrzejewska, 2008: 13). It is worth mentioning that within the NWDE programme a publication on good practice appeared entitled *Good practices in rehabilitation of persons with disabilities Italy-Poland-Greece*. The 2007 publication by Apostolos, Czerwińska and Kuczyńska-Kwapisz compares models, methodologies, tools, and practices used for VI people's employment. It also gives insights into the education and rehabilitation system of people with vision deficits in Poland.

The effects of the *Per Linguas Mundi ad Laborem* project were examined by Czerwińska (2008a). The researcher aimed at establishing the evaluation of language courses provided to the VI within the project. The 45 FB and PS learners who participated in the study were interviewed on the adaptation of teaching resources such as course books, electronic materials, graphics, descriptions substituting illustrations, and multimedia. Additionally, individual interviews were conducted to diagnose the prob-

lems the VILs faced while learning, and participant observation technique was used to collect data on the teachers and VILs involvement in the lessons.

The study results show that 64.5% of the VILs in Warsaw and 80% in Lublin evaluated the adaptive materials provided to them as very good and good, while 21.4% in Warsaw and 20% in Lublin as satisfactory pointing to numerous technical errors which appeared in the initial stage of the language courses. With regard to course books, they were evaluated highly by 60.6% and 86.6% of the course participants, in Warsaw and Lublin respectively. 25% of the VILs in Warsaw pointed to problems with Braille numeration. Some VILs complained about the wrong choice of a course book abundant in illustrations and exercises requiring eyesight. What posed a problem for the PSLs was glossy paper reflecting too much light, small spaces between the texts, too small letters, and too subtle contrast between letters and background. The FB language course participants wished there had been more tactile graphics instead of illustration descriptions or teachers' explanations (Czerwińska, 2008a: 115–120).

All in all, the project *Per Linguas Mundi ad Laborem* may be evaluated as successful. Observations and critical reflection in the course of the project gave rise to a number of valuable publications on FL teaching material adaptation (Czerwińska, 2008b), material adaptation for PSLs (Kończyk, 2008) and BLs (Wdówek, 2008), teaching FL to VILs (Czerwińska, 2008a; Piskorska, Krzeszowski and Marek, 2008), teaching Braille to teachers of English (Marek, 2007), new ideas for rehabilitation of VI people (Marek et al., 2008), and equality in education (Paplińska, 2008).

1.3.6. European Language Portfolio for the Blind and Visually Impaired

As has been already stressed in the book introduction, VILs may have problems with learning autonomy which, particularly in special schools, may be restricted by teachers or curricula. A tool whose main aim is to foster language learners' autonomy is the ELP. Its version accommodated to the needs of the blind and partially sighted is known as the ELPBVI. It helps to put across language teaching to learners with visual impairment in the context of the European standards presented in the CEF. The appearance of such an important document is closely linked to social and education policy in Europe, which stresses both the equality and autonomy of its citizens. The ELPBVI was created in 2007–2009 by a European consortium of specialists within an EU-funded project.[55] In 2010 the portfolio was validated and

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[55] The experts were from Bulgaria, Greece, Great Britain, Austria and Germany. The EU funded project is known as the European Language Portfolio for the Blind and Visually Impaired, Project No 225869-CP-1-2005-1-BG-LINGUA-L2. More information is available at www.elpfor-blind.eu.

accredited by the ELP Validation Committee at the Council of Europe (accreditation number 108.2010). The portfolio is targeted at unsighted language learners aged 16 or over. Similarly to the ELP, the ELPBVI was developed with the support and encouragement of the Council of Europe to facilitate FL learners to build a record of their language skills and reflect on their language and intercultural experience (*Tell Me How project. European language portfolio for the blind and visually impaired: Teacher's Booklet*, 2011).

Undoubtedly, the ELPBVI is a specific model of the ELP since, unlike paper versions of the ELP for sighted learners, it was developed as an electronic application to meet the needs of FB learners. As Tsotova (2012: 21) notices, the ELPB-VI is a tool consistent with the international accessibility standards 3, namely Web Content Accessibility Guidelines (WCAG) 2.0.[56] Furthermore, it is characterised by user-friendly navigation adapted to the needs of FB users and compatibility of the application with popular browsers and assistive technologies. For this reason in the ELPBVI there are no charts commonly used in other ELP models or the inaccessible formatting. All information is presented in a linear fashion. A VI user may enter data without any effort and verify his input by means of a screen reader or Braille terminal. The application enables a VI user to transfer data to various parts of the portfolio, calculate self-assessment scores, monitor language learning process by recording the dates of self-assessment, print (also in Braille), download the entire portfolio or some parts of it which can be extracted in all formats, and even e-mail them directly from the electronic application (Tsotova, 2012: 22). Another adaptation of the portfolio to the needs of VILs is its wording which gives regular and accessible notice of what a user may expect in a following subsection and what he/she has covered so far. Learners' navigation is facilitated by a User's Guide linked to all the sections. The authors of the ELPBVI also considered the supportive role of the teacher including a Teacher's supplement to the User's Guide. The ELPBVI can be used for free for personal and educational use either as a desktop or online application.[57] The latter requires opening an account to login with a personal password. This version is more recommended than the desktop application since it is regularly updated.

Despite all these adaptations, the ELPBVI incorporates the features mandatory for all ELP models. Hence, the portfolio is recognisable and comprehensible across Europe. Its three part structure (Language Passport, Language Biography, Dossier), the Council of Europe logo presented on the homepage, the beginning of each part, the standard text supplied by the Council of Europe Language Policy Division, ELP terminology and standard self-assessment scales are all compliant with the ELP structure for sighted learners.

The *Language Passport* is a summary document briefly recording the levels which the user managed to attain for each skill. In this part of the ELPBVI VILs may find a special supplement called additional information for the blind and visually impaired users, in which the purpose of the subsequent sections is explained. In the

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[56] The guidelines are available online at http://www.w3.org/TR/WCAG20/.
[57] The application is available at http://elpforblind.eu/elpbvi/front.php.

Language Passport the user is requested to provide information on his/her personal details, the languages he/she uses, language skills, details related to his language learning and intercultural experience. The user is also asked to list certificates and diplomas related to their language learning history.

In the Language Passport there are two self-assessment scales. The former is in the form of a standard self-assessment grid, however it is presented as plain text. The scale shows the main categories of language use at all six levels listed in the CEF. The latter presents proficiency levels adapted to VILs' learning setting, i.e. the setting in which assistive technology is used, no visual input is provided and some unfavorable environmental conditions (e.g. high noise level) have to be overcome.

As to the *Language Biography*, it gives the VI user the opportunity to have an insight into the learning process and evaluate themselves as language learners. In the sections *My personal language background* and *Languages I have learnt and my present language learning*, the VI user needs to analyse his/her learning not only in formal but also informal settings. In this way, he/she raises awareness of the value of learning outside the classroom, for example by chatting via the Internet with a friend abroad. In the section *Checklists*, there are tasks corresponding to criteria in the *Self-assessment scale* of the Language Passport. The checklists enable the VILs to reflect on their current language learning and afterwards to set and prioritise goals for learning. The last section *My language learning experience* also encourages the VILs to assess their learning styles and find the one which works best for them. Additionally, the ELPBVI users can reflect on their intercultural experience.

With regard to the last part of the portfolio, namely the *Dossier*, its main function is to support with evidence that the VIL attained the particular proficiency level claimed in the Language Passport. In the ELPBVI Dossier one can enclose audio or video recordings of the VIL speaking in the FL, electronic copies of diplomas and certificates, scanned copies of written texts, statements of competent people such as teachers or native speakers to testify that the VIL successfully performed a given task.

The ELPBVI performs the same functions as the standard ELP, namely reporting and pedagogical function. As a reporting instrument the portfolio enables its VI users to document transparently their language skills, and language and intercultural experiences. The learners also obtain clear information on how their language skills correspond to the CEF levels. With regard to the portfolio's pedagogical function, The ELPBVI encourages VILs to acknowledge and reflect on all their language learning, both in formal settings and outside the classroom. Additionally, the portfolio builds students' self-evaluative skills through the use of self-assessment scales and checklists (Tsotova, 2012: 24–25).

Above all, the ELPBVI develops its users' reflective skills, which are nowadays prioritised in European education (see for details Jedynak, 2014a). Self-assessment requires from VILs analysis of a given problem such as his/her learning experiences, which in turn gives rise to critical reflection. It is particularly visible in the

subsection of the Language Biography, which contains a questionnaire on learning experiences. In the first part of the quiz VILs are encouraged to think about themselves as FL learners and to categorise themselves as either a 'play safe' learner or a 'risk-taker'. The task requires deep analysis of their behaviour related to learning and consequently contributes to building their capacity as reflective learners. In the second part a VIL rates various tasks he/she can do in a classroom. Some of the tasks are very controlled while others require from a learner to use guesswork and deduction. The authors of the ELPBVI Teacher's Booklet claim that feedback from individual teachers confirms that the portfolio brings a strong positive influence on the language learning of VILs (Tell Me How, 2011: 11).

Undoubtedly the growing capacity for reflection is a critical issue when we speak of VILs' learning autonomy. The issue of learning autonomy in the context of VILs is relatively new (Jedynak, 2008b). Due to individual differences in a classroom (age, degree of vision deficit, stage of cognitive, social and emotional development) FL teachers are compelled to work individually with a VI student. Since student-teacher work is only infrequently possible due to time constraints, a VIL needs to take responsibility for his/her learning process. The ELPBVI is a perfect instrument for enabling a VIL to become independent from a teacher and get self-knowledge outside the classroom (Jedynak, 2013: 72–74). It should be noticed that there is a role for teachers in this process, who should guide students towards reflective learning.

The authors of the Teacher's Booklet to the ELPBVI assert that there is positive feedback on the portfolio's use in Greece, Bulgaria and Germany. The VILs in these countries developed reflective ability — an inseparable element of autonomous behaviour. Still, there are no long-term study results on a wide population of VILs which would prove effectiveness of the portfolio.

Introducing the portfolio to VILs FL teachers should remember about integrating it with a language course. The ELPBVI should be viewed not as a separate aspect of a lesson but rather as:

— a reference point to which teacher and learner can go when there is a need for clarification as to the level of competence at which the learner is performing;
— a record which is constantly at hand for noting important developments in the learner's proficiency, experience and perceptions of his/her learning process;
— a focal point for stimulating a dialogue between teacher and students' (Tell Me How, 2011: 5).

Introducing the ELPBVI in a classroom may be a challenging task for teachers, especially for those inexperienced in teaching FL to VILs. Therefore, it seems recommendable for teachers to learn first on assistive devices such as Braille devices or screen readers. Tsotova (2012: 25) goes even further claiming that teachers should transform the traditional understanding of language performance before they start teaching FL to unsighted learners (e.g. reading can become listening

using a screen reader and a task like 'look and describe' transforms into 'touch and describe').

The success of the ELPBVI project gave rise to the 'Tell me how' project run by the same project consortium.[58] The main motivation behind the project was to support VI people in FL learning by introduction of the ELPBVI to three areas: mainstream education, special education, and individual tutoring. The partners of the 'Tell me how' project organised training workshops for teachers in partner countries and piloting sessions with VI portfolio users.

1.3.7. LangSEN Project

Finally, it is worth mentioning the initiative taken by the ECML to promote FL learning among SEN people, including those with visual impairments. The LangSEN project (Languages for People with Special Educational Needs) was implemented as a ECML medium-term programme in the years 2004–2007. It was coordinated by Zoltán Poór (University of Veszprém, Hungary) and involved the team members from Malta, Poland, the United Kingdom, and Serbia and Montenegro.[59]

The project arose from a deep concern for SEN people's need to communicate despite physical, cognitive, sensory, speech and language, or learning problems. The ECML recognised the importance of 'opening up bridges between their internal world and the wider community' through learning foreign languages (European Centre for Modern Languages: 1).

The main aim of the project was to raise awareness of the value of FL learning to SEN people and disseminate good practice examples from the SEN context. The LangSEN project team members focused on the following aspects related to FL learning:

— the concrete learning problems resulting from various physical, sensory and speech-and-language difficulties;
— the similarities and differences in FL learning among SEN people with various difficulties;
— the insights from neuro-, psycho- and sociolinguistics on the language acquisition and language learning of people with various difficulties;

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[58] 'Tell Me How! — Dissemination of the European Language Portfolio for the Blind and Visually Impaired' (ELPBVI+), Project No 511622-LLP-1-2010-1-BG-KA2-KA2AM, www.elpforblind. eu/tellmehow. New partners who joined the project were from Italy and Malta. The ELPBVI expanded not only geographically but also the model of the ELP became available in Italian.

[59] The following specialists in the field of language education and visual impairment were collaborating in the project: Christine Firman (Education Division, Malta), Bogusław Marek (Catholic University of Lublin, Poland), Bencie Woll (London City University, United Kingdom), and Jelena Mazurkievic (School of Primary and Secondary education 'Milan Petrovic', Novi Sad, Serbia and Montenegro).

— the social context and ways in which effective FL learning for such people can be promoted;
— the resources, tools, approaches, methods and techniques which are most effective for FL learning for SEN people;
— the professional competences of FL teachers necessary for conducting language classes in the SEN context.

As has been already stressed on numerous occasions throughout this chapter, up to the late 90s of the 20th century, the situation regarding FL education of VI people throughout Europe was not the subject of investigation. Much that we know on the issue comes from the report of the EBU Culture and Education Commission prepared in 2009 (for details see 2.2.2). The LangSEN project also intended to focus on investigating the situation of all SEN groups. Apart from examining the condition of language education, the project members also specified other objectives such as:

— collecting and disseminating evidence of existing good practice;
— enhancing the need for inclusive language education for SEN people by raising awareness of teacher educators, representatives of the educational media, national, regional and local educational authorities;
— encouraging teacher educators and the above-mentioned representatives to take small steps towards promoting the idea of FL learning among SEN people;
— ensuring access to the project outcomes in an electronic format.

Despite the project timeframes (2004–2007), LangSEN has never been completed due to the temporary absence of the coordinator. However, the project is going to be continued in the future.

1.4. Summary

The EU promotes democratic citizenship, social cohesion, mutual understanding and respect for everyone. These ideas are reflected in the legislation throughout the member states. The Education for All policy guarantees to the VI that their learning needs will be met while the inclusion policy gives them the right to experience learning within mainstream schooling. The Language for All initiative spread out across EU countries acknowledges the substantial benefits of FL learning provision to SEN students, including those with visual impairments. The command of FLs compensates for sensory, psychological, social and communication deprivation. In terms of contribution to EU policies, FL learning by VI people has a great role to play in generating European added value. It opens job opportunities and increases mobility in Europe as highlighted in the Lisbon Agenda 2000. It also contributes to

the EU education objective related to development of ICT skills since FL learning by the VI is nowadays complemented with adaptive technology. The EU has regularly been launching projects and programmes to promote FL learning and teaching in the context of VI people.

1.5. Commentary

It seems that the time when VI people were segregated from society has passed. In the era of globalisation, rapid IT development, the EU and national legal systems, VI people can eventually experience various aspects of life in the same way that fully sighted people do.

With regard to FL education provision, in the last decade or so, one may notice an abundance of programmes targeted at VILs. Equal education based on inclusion is the norm in the majority of the EU countries. One may dispute, however, whether education related opportunities of VI and FS people translate into equal chances for employment. European Labour Market Reports indicate clearly that VI people are considerably in a worse situation than the general population. Moreover, there is a visible discrepancy between the employment opportunities of the VI in West European countries and the Central and Eastern European countries. In the former the VI are employed under ordinary conditions while in the latter they are only offered sheltered employment in special workshops.

Among the main obstacles to the employment of VI people there are not only sight and health conditions but also disability pensions, general unemployment related to the global economic crisis, low job qualifications and experience of VI people, employers' prejudiced attitudes, poor legislation, family reasons, and the structural transformation of the economy.

The data collected from the European countries indicates very high unemployment rates amongst VI people which can be estimated at about 70%. A 2001 report prepared by the EBU — 'The Employment of Blind People in Seventeen Countries' — cites the following rates of unemployment in some member states: France 39%, Italy 40%, Germany 72%, Poland 87%. If we, however, limit the analysis to Sweden, we can see that this country with its 5.5% is a remarkable exception in this gloomy picture (see for details *Eurochance — English and German for Visually Impaired people. European Labour Market Report*).

When pondering the employment opportunities of VI in Europe, there is one question that comes to mind: What accounts for such striking differences between Sweden and other European countries? It seems that Sweden, unlike other European countries, not only introduces various programmes for the VI, including those related to language learning, but also takes post-programme measures such as mediation between the VI and their potential employers.

While analysing the employment types delivered in specific European countries, we may observe a common trend. In the interview, Fred Reid — a blind former lecturer at the University of Warwick in England and the joint author of a series of reports called *The Hidden Majority* — notices that the VI 'tend to be shepherded into jobs considered to be VI people's jobs' such as telephony. In Italy VI people deal with so-called 'reserved occupations'; in Spain 80% are involved in the selling of state lottery tickets (Reid's online interview); in Poland they work basically as massage therapists and physical therapists (Majewski, 2007: 153).

It is tempting to pose a question: In what way do the VI people — beneficiaries of all the programmes discussed in the present chapter — make use of their FL competences to join the main market employment? Regrettably, no official statistics are available on the issue. It seems justified to disseminate a survey to the VI participating in various European programmes to evaluate not only the programme itself but also to give an account on the employment they were offered after upgrading their skills. To my knowledge, the Polish participants of the EU funded *Per Linguas Mundi ad Laborem* project were not provided with any employment either from the public or private sector, and maintain themselves on disability allowances. This situation does not necessarily mean that the employment support in Poland is not effective; it may also reflect a global economic crisis in the European market.

There is a need to work out sophisticated support networks in which a sighted worker paid for by the state will be helping a VI person to select the areas of professions needed in Europe and preparing the measures to support job integration. Such a modern solution has been implemented in Sweden, the United Kingdom, Austria and Germany. Poland, in turn, is systematically going about changing the situation of the VI and it has already started a rights-based system of employment support. Also recent changes in Polish legislation strengthened the rules for reimbursement from public funds of the extra costs related to employing people with disabilities. The summary report of the Hidden Majority studies in the recommendations section stresses the importance of state-funded support services (Reid and Simkiss, 2010). Undoubtedly the changes require developing new policy documents or complementing existing policy documents in the field of employment, social affairs and inclusion. The above-mentioned remedy to the high rate of VI people's inactivity in Europe entails costs. In view of the fact that Europe faces an economic slump, implementation of support networks for the VI may be a long-term process.

CHAPTER 2

The visually impaired as language learners: Selected issues

Keywords: incidental versus intentional learning, comparative approach vs individual differences approach, blindisms, echolalia, verbalisms, echolocation, the younger the onset of blindness = the better performance in auditory abilities, implications for FL teaching, cognitive and psychological characteristics, holistic education, audio description.

2.1. Introduction

As has been already stressed throughout the book, in the EU the learning of foreign languages is regarded as a priority for all citizens regardless of their disabilities and additional learning needs. In the language learning process, vision plays an important role. When the visual impairment is present at birth (congenital), it is more likely to affect development and L1 acquisition than when it is acquired at later stages (adventitious). Undoubtedly, L1 experiences have an impact on FL learning; therefore, it seems justified to have insights into L1 acquisition to predict potential problems of VILs in an FL classroom.

Research from the cognitive and learning sciences, education sciences, and developmental psychology has converged to yield a clear and compelling profile of VILs — people who are capable of learning despite visual impairment. Furthermore, they are claimed to have an enormous potential for FL learning due to their excellent auditory skills and good memory.

With regard to L1 final achievements, however, they may be infrequently delayed in comparison to their counterparts without vision deficits, particularly in the early learning stage. Also in FL learning, research confirms observations that VILs diverge from their fully sighted peers, which may be put down to some affective factors discussed thoroughly in the chapter. Yet, research also indicates that successful FL mastery by VILs can be attained under some specific conditions.

Successful FL learning of VILs depends principally on three factors considered in the chapter: tailoring language education provision, language teachers and VILs'

individual traits. The former involves purposeful and strategic decisions on allocation of teaching and learning resources accommodated to the VILs' needs. The latter, in turn, includes various correlates of language success related to VILs' affective domain such as self-esteem, self-efficacy, motivation, learner autonomy, coping competence, attribution and locus of control.

For the overwhelming majority of VILs FL learning is attainable. Yet, some of them, particularly with multiple impairments and/or cognitive deficits, may find FL learning too overwhelming. Still, as Karpińska-Szaj (2013) notices in her book, there are numerous compensatory functions of FL learning such as psychological or therapeutic, which always make an FL learning effort worthwhile.

2.2. Learning theory

Before I explore the ways in which VI people learn language, first it is necessary to explain what the researchers mean by the concept of learning. The issue of learning has been tackled by various human development theories, which arise from differences in philosophical views about the way people function and how these functions can be observed to derive generalisations about behaviour. There are at least three ways to group theories of human development.

Psychoanalytical theorists link learning process to development of human interactions; *behaviourists* believe learning is related to human behaviour and its shaping; *cognitivists* place their emphasis on intellectual development being the most important aspect of human learning; and *humanists* base their philosophy on the importance of feelings in learning.

Another group of theories are those, which view human development through a hierarchy of needs gratification. This hierarchy is exemplified by *Maslow's description of steps*, from physiological (hunger, thirst), to safety-security (lack of danger, order, routine), to love and belongingness (friends, spouses), and finally to esteem (self-esteem, self-respect); or even higher to self-actualisation (the realisation of a person's full potential) which is infrequently achieved by people.

Another way of approaching human development is based on making distinction between the *nature* versus *nurture*. The proponents of the nature position see human development from a physical and maturational viewpoint, while the supporters of the nurture perspective see it as dependent on the environment and external factors. Interactionists, in turn, see a link between nature and nurture standpoints, and attribute much of development to the expanding cognitive system (see Child, 2007: 159–178 for details).

Undoubtedly, there is no one right theory, which is related to the fact that classrooms are nowadays rarely homogeneous. It is also elusive that educational systems, believing in the 'All children can learn' phrase, will create instructional approaches

producing learning in all children. In fact, teachers face heterogeneity of learners, even within a group of VILs. Each VIL learns at his own pace, at his cognitive level, with his own learning style, and with his unique needs.

Learning already begins when an infant acquires sensory knowledge about the environment. Without this sensory input there would be no brain intake and consequently no cognitive growth and establishment of beginning patterns of information. In time the human brain starts attaching meaning to the sensory input such as smile, touch, caretaker's voice, which are interpreted as expressions of security and comfort. One of the first acts of cognition is the brain's attempt to find relationships between bits of sensory data (Bishop, 2004: 56). To use a Piagetean term, the process of equilibration begins in which a current scheme assimilates a bit of information and by absorbing it, becomes changed a little — accommodated (Müller et al., 2013: 52–55). Each time these patterns of responses to the sensory input are formed in the human brain, neuronal connections are strengthened.

Human learning may therefore be described as a change in behaviour due to new experience. This experience is in the case of VILs restricted to other senses than vision. Learning is frequently identified with *doing*. This is especially visible in the discovery learning proposed in the Montessori method, and process-oriented teaching which creates environments for exploration, challenges to be met, and problems to be solved. Learning also requires some structure and natural order. Generalising learning depends on the perception of similar structure, relating information to be applied to other situations, manipulating to form conclusions, and creating new ideas (Bishop, 2004: 56). For learners who are severely delayed, for example those with vision loss and various multiple disorders, generalising learning may be problematic. Hence, teaching based on conditioning instruction works better with them. However, BLs without any additional deficits are able to cope successfully with generalising learning provided adequate teaching methods and aids are in place.

2.2.1. Visual impairment affect on learning

Vision is tile interpretation of the nerve stimuli, which the brain receives from the optic nerve. The focusing of light by the lens, onto the retinal wall and the optic disk stimulates the optic nerve (Silverstein, 1987). Indisputably, vision plays an important role in learning. According to Ashcroft and Zambone (1980: 21), 'vision is the fastest and most efficient way to quickly perceive information about the environmental surroundings' and 'approximately 90% of a sighted person's learning is through visual input'.

The nature of visual impairment itself may determine the degree of impact on early development and learning. In the case of children with total vision loss, other sensory channels are used to provide initial sensory input data to the brain. Yet, as Bishop (2004: 59) notes, 'this information does not have the same motivational

power as vision does'. In congenitally FB infants, it is possible for other senses to take over the area in the brain, which processes the visual information. It is possible due to the neuroplasticity of the human brain (to be discussed in detail in section 2.2.4). In the case of PS infants who retain some vision, it is advisable to use early stimulation with light, and black and white pictures or patterns since it maximises the development of available vision. Bishop also makes a point that the amount of available vision affects both learning and early development. The more vision is retained, the more normal or near-normal development can occur. However, as the author states, FB infants are also capable of reaching 'normal' developmental mile-stones if more practice and appropriate intervention are provided.

The authors agree upon the point that congenital visual impairment, present at birth, is more likely to affect development and learning than adventitious impairment (Barraga and Erin, 2001; Bishop, 2004; Jedynak, 2008c). For example, children with retinoblastoma (having eyes removed surgically usually within the first two years) have exceptional perceptions of the space around them due to the input of spatial orientational data provided to the brain before surgery.

The lack of visual stimulation affects the VI child's learning and development in many ways. Firstly, the VI child has a problem with observing the world, and interpreting different facts. Without observation there is no brain programming initi-ation. This, in turn, can obstruct the reaching out to people or objects, which initiate interaction with the environment. A visual impairment may also prohibit and dis-courage the VI child from making voluntary movement that gives rise to cognitive data collection. It needs to be noticed that interaction with the surrounding world is necessary for concept development and construction of reality (to be discussed in de-tail in section 2.2.2.1). Bishop draws attention to the important role of caretakers and teachers who should introduce necessary sensory stimulation to the young VI child by encouraging body movement and space exploration. Movement is important not only for the maturation of the motor system, but also for triggering interaction with the surrounding reality. Concept development, the VI child's construction of reality, and meaningful language acquisition depend primarily on this interaction.

What differs between FS children and FB children is **incidental learning**. The former learn many skills incidentally (e.g., teeth brushing, bathing, dressing, self-feeding), while the latter need instructions to master the skills. This is due to lack of imitation abilities that develop largely from parent or peer observation.

Visual impairment also affects learning social skills. The VI child, particularly the FB child, frequently has difficulty with establishing self-identity, which separ-ates the 'me' from 'not me' — a visual concept. Consequently, problems with self-image and self-concept emerge. Unlike the FS child, the child with vision loss often needs to be taught intentionally how to develop social skills, which make children acceptable to each other. **Intentional learning** is also characteristic of FS children; however it is more typical of the school period and not early childhood. Bishop (2004: 61) asserts that learning social skills is especially important in the early years since success in inclusive education also depends on social acceptance.

Vision absence or reduction also affects the emergence of various age-dependent cognitive skills based on experience such as classification, conservation, and spatial imagery.[60] Specific instruction can prevent delays in cognitive development and resulting delays in the acquisition of reasoning skills and problem solving capabilities.

A great contribution to a better understanding of the sequence and rate of development achieved by VI children was made by the PRISM project — a longitudinal data collection study conducted by Dr. Kay Ferrell.[61] Her data protocol concerned the information on early intervention provided to 202 VI infants and toddlers, ranging from newborns to five year olds. The subjects were either blind, partially sighted, or visually impaired with additional disabilities. In the course of the five-year study Ferrell managed to collect data on the acquisition and sequences for 19 developmental milestones (considered to be most affected by visual impairment by specialists in the field). Her findings indicate that the greatest impact on developmental outcome appears to be the presence of disabilities in addition to visual impairment, though differences were also documented based on gestational age at birth and some types of visual disorders. Differences were also found in the rate and sequence of acquisition of developmental milestones and developmental inventory scores. However, those differences tended to disappear over time (Ferrell, 1998: 1).

The above-mentioned findings show that VILs without multiple disabilities are able to acquire the same milestone skills as their sighted counterparts. It must however, be recognised that without early intervention, minimisation of the negative impact of vision impairment on development and learning is impossible.

2.2.2. Role of vision

Since vision affects learning, it also has an impact on language learning. The following sections focus on the role of vision in cognitive, motor, and social development, all of which are related to language learning. The supporters of the Chomskyian hypothesis would rather question the direct link I find between cognition and language; still I assert that the extensive literature on research into cognitive development of VI children allows their standpoint to be refuted. So far, there is no data on tracing simultaneous cognitive and linguistic development in the same subjects with vision deficits (Mills, 2004). This would undoubtedly shed more light on the nature of the relationship between cognition and language.

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[60] Conservation refers to a child's ability to see that some properties are conserved or invariant after an object undergoes physical transformation. The term was coined by the psychologist Jean Piaget.

[61] The project lasted five years (1991–1996). The original federal grant for the project was awarded to Teachers College, Columbia University in October 1991, then transferred to the University of Northern Colorado in June 1992. The final report was generated in 1998. More information is available at the website http://www.unco.edu/ncssd/research/prism/execsumm.pdf.

2.2.2.1. Cognitive development

Human learning is inseparably connected with cognitive growth triggered by new perceptual experiences. Perception defined by Rayan (2006: 268) refers to 'awareness of things through the physical senses, especially sight'. Our perceptual learning is frequently regarded as a skill taken for granted. In fact, it involves a complex process in which we construct perceptions from information coming through our senses and transform them in our mind (Gregory, 1990: 4).

It is believed that how we interpret perceptual experience depends on the knowledge stored in our brains. Therefore, one may assume there is a certain link between perceptual processes and verbal knowledge stored in the brain. Obviously enough, verbal labels describing the same visual experience may differ depending on a person, but the mere experience always concerns the same reality (e.g., distance, colours, perspective, shadows etc.). The perception process does not include purely the use of senses but also the cognitive activity of the brain. It is supported by Gregory's findings (1990) who investigated the relation between *visual experience* and *thinking*. The author asserts that senses 'provide evidence for checking of hypotheses about what lies before us' (Gregory, 1990: 56). In the case of a PB person, the possibility of visual verification of hypotheses is limited and for an FB person it is just impossible.

As I have already mentioned, researchers frequently compare VI and FS subjects of the same chronological age to investigate to what extent vision affects their cognitive, motor, social, or linguistic development. Research into the cognitive development shows that generally FB children follow the same developmental sequence as their FS counterparts. Yet, although the former reach the same developmental benchmarks, they tend to do so at a slower rate even if they are provided with support and training (Bishop, 2004: 68–69).

According to Bishop (1996: 8), cognitive delays may occur particularly in severely VI children without any additional disabilities. The author also discusses the concepts crucial for the theory of cognitive development such as object permanence, cause-effect relationship, or concept development.

With regard to object permanence, which is a visual skill and typically the first measure of intelligence, it is frequently developed in FB children first for people and then for objects. It may be because FB children have a greater attachment to people around them providing security and reliability, objects in turn are perceived as unreliable and disappearing as if by magic. In sighted counterparts, the opposite dependence can be observed.

As to the cognitive phenomenon of cause-effect, it was observed that VI children have problems with comprehending the sequence of steps in an action or consequences of actions. This relationship is difficult for FB children unless they are intentionally included in the action process (e.g., a child helps a mother to prepare scrambled eggs and in this way stops believing food appears magically on a plate). Bishop notices that any delays in this respect may be alleviated if a VI child is provided with a great deal of concrete experience with cause-effect toys

or actions. Practising 'what happens when...' games may also contribute to cause-effect development. The amount of remaining vision seems to be crucial here; the less vision, the greater the cause-effect problem, and the need for more concrete experience.

With reference to concept development, it is probably the most critical cognitive area for young VI children because such concepts form the basis for all further cognitive growth. Cognitive processes such as classification, conservation, or one-to-one correspondence depend on adequate concept development. Indisputably, it is harder for an FB child than for an FS child to learn the properties of objects or the ways in which they can be categorized. Similarly, one-to-one correspondence is difficult to learn without physical visual experience. An FB child needs to be taught intentionally ('one for you'; 'one for me') while an FS child can learn it incidentally observing for example everyone getting a spoon at every meal.

Since FB children lack visual memory and visual imagery, they have to systematically be taught each action or behaviour physically including:

— spatial orientation/position in space (both for self and objects);
— figure-ground (selecting main properties or ideas from a field of distractors; these properties may be either tactile or auditory);
— closure (missing parts);
— discrimination of objects (same or different distinction) (Bishop, 2004: 69).

Concepts are also correlates of intelligence. Absence of concepts may result in a depressed view of a VI child's cognitive ability. Bishop (1996: 8) stresses the importance of concept development, particularly in the first three or four years of life when the foundations of intelligence are laid. She also notes that VI children's intelligence develops in a different way, and by different routes due to limited visual experience. Since FB people do not have visual memory and visual imagery being the basis for formal reasoning, it is difficult to identify the mechanisms of intelligence functioning. In order to develop intelligence early intervention education should provide opportunities to VI children by constructing alternate neural paths in the brain. Concept development should be emphasised by teachers and families. If any delays are detected they are recommended to go back to basic concepts and give supplementary experience to strengthen them further. Since concepts are manifested in language comprehension and language use, I will discuss the issue in detail in the subchapter 2.2.2.4 devoted to language acquisition.

Considering cognitive development of VI children one issue needs to be explained. In all research based on the comparative approach, developmental 'norms' are based on observations of sighted children. Not only developmental scales are highly visual-experience oriented but also many standardised tests measuring cognitive factors such as e.g., intelligence. To my current knowledge, there are still no developmental norms for FB children. It may be put down to the fact that there

is a lack of any EU, national or regional database from which inferences could be drawn. As long as there are no available norms, VI children will continue to be compared developmentally to FS children, and 'delays' may continue to be recorded.

Bishop (1996: 8) asserts that current research suggests that 'blind children may have their own set of norms (i.e., they may not follow all of the same sequences, in the same order, at the same time, as sighted children)'. It is also reflected in Warren's books where he stresses the distinction made by researchers between **comparative approach** and **individual differences approach**. The former explicitly used by the author in his early books is based on the norm and evaluates VI children's capabilities and characteristics in relation to the corresponding capabilities and characteristics of FS children, all in relation to chronological age based on cognitive ability.[62] As Warren claims, it implicitly assumes a 'blindness as a deficit' model. The latter, in turn, is based on the premise that there is variation within the population of VI children and most of his recent studies are based on this approach (see for details *Blindness and children. An individual differences approach*, 1994).

Reviewing the studies on cognitive development in VI children one may identify various factors, which account for more developed cognitive abilities. Warren (1994) divides them into two categories:

1) *Status variables* e.g., early visual experience or residual functional vision which are not readily amenable to manipulation;
2) *Environmental variables* which may be readily manipulated and are potentially under the control of parents, professionals, and teachers.

It should be noticed that despite the fact that status variables cannot be changed, environmental variables have an equally great impact on the course of acquisition of cognitive abilities. The role of parents, teachers, and professionals is to provide a stimulating learning environment facilitating development of cognition. The stimulation may be in one of the following areas:

— the nature of the curriculum,
— the VI child's participation in the curriculum,
— the use of out-of-school time,
— the expectations held for the VI child's cognitive growth and educational progress,
— training programmes focusing on the acquisition of the concepts which are frequently problematic to the VI child (cf. Warren, 1994: 93).

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[62] In any analysis of VI children it is necessary to consider prematurity since many VI infants are not born at full term. In many studies an analytic procedure called correction for maturity is used.

FL teachers may also contribute to optimisation of the environmental factors by encouraging VILs to participate in out-of-school FL learning (e.g., project learning, collaborative learning, reading online resources). They may also accommodate FL curricula to the needs of VILs, for example by introducing FL vocabulary after making sure learners have appropriate representations for the concepts in L1.

2.2.2.2. Motor development

Since language develops through sensory exploration and comprehension of the world, language development of a VI child will be effected not only by such factors as cognition but also motor skills. In an FS child, the eyes 'explore' the world and motivate motion caused by an interest in objects and people. An FB child, though physically capable of activating muscles, in fact frequently lacks the motivation to move as there is no reason for it. Fraiberg (1977: 220) draws attention to the importance of early *eye-hand coordination* and *ear-hand coordination*. The former enables the FS child to reach what he sees and wants. It makes him move from one place to another in pursuit of what he sees. The latter allows reaching for an invisible object located at a distance on the basis of a sound clue only. It makes the FS child reach out for the object or search around the source of a sound. Consequently, he becomes mobile, creeping or walking and simultaneously mapping the concrete world surrounding him. In the case of an FB child, eye-hand coordination and ear-hand coordination need to be practised, otherwise the child would remain immobile.

Research into motor development started in the 1950s. Longitudinal studies conducted by Norris et al. (1957) between 1945 and 1952 sought to establish developmental norms for the population of 295 VI children with no additional impairments. Sixty children from this group were specially supervised by psychologists and social workers. Ashcroft (1959) focused not only on sensorimotor development but also intelligence and social development. Warren (1994) gathered information on level of mobility and medical condition, which allowed him to work out a prognostic rating scale to estimate the VI child's potential for optimal development and future functioning. All the findings show that there is no significant correlation between degree of functional vision and the investigated variables with the exception for mobility (Warren and Hatton, 2004). Warren's work (1994) is frequently quoted as the first to report on considerable individual differences in the group of children with visual impairments. The observations and test results revealed that some of the children were at the level of sighted developmental norms, while others diverged from the norms.

However, the results of the early studies need to be approached with caution since some methodological problems can be observed. They are based on the claim of no additional deficiencies, which allowed the researchers to reach the conclusion that since no mental or neurological handicaps were present, the differences they

observed may be put down to contrasting environmental circumstances. Yet, the sub-sequent evaluations found that many of the participating children revealed patterns of neurological abnormalities and deviation in intelligence scores. Additionally, the authors of early research were criticised for biased sample selection (e.g., two-thirds were females) and the fact that the pre-testing level of intelligence of the experiment-als was noticeably higher than those of the controls. Finally, criticism was also ex-pressed with regard to prematurity factor of the individuals blinded from retinopathy of prematurity (ROP) (Warren, 1994).[63]

Despite all the objections, it seems that the results of the above-mentioned studies in the part devoted to sensorimotor development may be treated as valid. Differences in motor activity of VI and FS children are noticeable even by people who are not specialists in the field. It is worth mentioning that the motor development of the FB subjects is assessed by the *Cattell Infant Intelligence Scale* which measures mental de-velopment from 3 to 30 months, and evaluates both motor control and verbalizations. The scale was originally developed in the late 1950s. It is untimed; however infants are usually examined for about 20 or 30 minutes. The items at each level cover the preced-ing period of development. The examiner assesses motor ability by a series of tasks in-volving manipulating objects (e.g., cubes, pencils, and pegboards). Sample items from the test (with age norms on the Cattell scale) include lifting a cup at 6 months, ringing a bell at 9 months, putting a cube in a cup at 11 months, and marking with a crayon at 12 months. At the same time as assessing motor ability, the infant's attempts to com-municate are also recorded. Results are reported in terms of mental age and IQ score.

Ferell's (1986) research results based on the Cattell scale revealed that the FB children achieve motor developmental milestones (fine and gross), perception and perceptual motor integration later than the infants without vision problems. Fraiberg (1977) analysing Norris et al.'s study notices that there was a delay of the FB chil-dren in comparison to the FS ones. The former were able to walk independently without caretakers' guidance at the age of twenty-four months, while the latter were able to achieve it within the first year of life. In Fraiberg's own research in which she studied the gross motor development of ten FB infants from birth to two years, she observed a regular pattern of development for them, but it differed from that of the FS infants. A considerable delay was found in self-initiated mobility of the FB infants due to the lack of visual incentive. The prolonged period of immobility in the first year of life is a serious threat to the ego development of the FB child. It lessens his ability of independent exploration and his discovery of the objective rules, which govern objects and events in the external world (Fraiberg, 1977: 220).

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[63] ROP was diagnosed for the first time in 1942. The disorder usually develops in both eyes and it is one of the most common causes of visual loss in early childhood. ROP can lead to lifelong vision impairment and blindness. It primarily affects premature infants weighing about 2¾ pounds (1250 grams) or less that are born before 31 weeks of gestation. Currently the clinical research on ROP in-clude: 1) the cryotherapy (freezing treatment), 2) light reduction, 3) supplemental therapeutic oxygen for prethreshold ROP (for more details see Wade et al., 2012).

Apart from psychological research, there is also medical research data supporting the view of a great contribution of vision to motor development. Prechtl et al. (2001) examined video recordings of fourteen FB infants who showed clear delay in head control and abnormal, exaggerated type fidgety movements, and prolonged period of ataxic features in postural control. Levtzion-Korach et al. (2001) compared the developmental data concerning ten motor skills of forty FB children to a control group of FS children. By means of the *Bayley Developmental Scale* and the *Revised Denver Developmental Screening Test* (*Denver Scale*) they proved that the FB children were delayed in all the measured skills.[64]

Delays in motor development may be caused by a number of factors. Brown and Lowry (2004) reviewed available literature on the issue and established that apart from lack of vision as an incentive to move into space, limited movement and exploration can be also attributed to:

— lack of vision to visually observe and imitate movement (Hatton et al., 1997; Warren and Hatton, 2004);
— inability of sound to serve as a substitute for vision as incentive to reach (Sonksen et al., 1984);
— overprotectiveness of caregivers resulting in fewer opportunities for movement (Norris et al., 1957; Sonksen et al., 1984);
— movement delays due to delays in mastering object permanence to entice movement into space (Bigelow, 1992; Fraiberg, 1977; Sonksen et al., 1984);
— lack of secure parent attachment (Sonksen et al., 1984);
— inability to see the parent's response during exploration (Tröster et al., 1994);
— fear of movement into the unknown due to inability to visually monitor new or changing environments (Sonksen et al.,1984);
— delays in establishing body image (Sonksen et al., 1984);
— low postural tone (Brown and Bour, 1986; Hamilton, 1982; Hart, 1984; Jan et al., 1975);
— lack of movement components required for self-initiated movement (Brown and Bour, 1986; Sonksen et al., 1984; Maida and McCune, 1996).

All the studies cited above point at a detrimental impact of vision loss on motor development. Delayed motor development may also cause delays in language de-

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[64] The Bayley Scales of Infant Development were originally developed by psychologist Nancy Bayley to measure not only motor development (fine and gross), but also cognitive and language (receptive and expressive) development of infants and toddlers from birth till the age of three. The scale consists of a series of developmental play tasks and its assessment is frequently used in conjunction with the Social-Emotional Adaptive Behavior Questionnaire (for more details see Hack et al., 2005). The Denver Scale is a test for screening cognitive and behavioural problems in preschool children. It was developed by William Frankenburg and applied in research for the first time in 1967 by Dobbs. The test can be administered by a pediatrician or other health professional and the scale reflects what percentage of a certain age group is able to perform a certain task related to one of the four groups such as (social contact, fine motor skill, language, and gross motor skill) (Frankenburg et al., 1990).

velopment. It is supported by Fraiberg's observations of her case study blind subject named Peter who without independent locomotion was not able to explore the world, to learn about it, and consequently to verbalise about it. The changes were noticeable when the child was encouraged to mobility:

> Within a very short time he was walking independently, and his motor skills improved rapidly. During this period we saw a great improvement in Peter's overall physical appearance. He gained weight, he acquired muscle in his pipe-stem arms and legs, and his skin lost its pallor. … It was at this time that Peter's language began to make tremendous leaps. As he discovered objects, handled them, discriminated and named them, his vocabulary enlarged very quickly. He was actively encouraged, at the same time, to express his needs and wishes in words. … it is important to note that a good deal of his speech was echolalia and did not, properly speaking, serve communication. Also, for a long time, his speech had no affective quality. (Fraiberg, 1977: 43)

As has been said repeatedly throughout the book, success in learning depends largely on creating favourable opportunities for the VI child. This involves providing help with his special needs and psychological support aimed at encouraging mobility. Providing the VI child, especially the FB child, with an adequate stimulating environment and proper parental handling can potentially shorten the motor development delay, but probably not eliminate it entirely. Brown and Lowry (2004) give examples of some strategies, which can be used to facilitate movement and exploration:

— providing experiences with sounds in the environment and attaching meaning to the sounds;
— providing hands-on facilitation of movement components and movement patterns if needed;
— through demonstration, providing experiences with objects and reaching to objects with touch and sound;
— facilitating optimal use of vision and enhance visual cues;
— establishing defined spaces with objects in consistent locations;
— facilitating active reach and movement into space by providing sensory incentives, small defined spaces, and frequent opportunities for success;
— providing safe environments in which to move and teach protective skills;
— allowing time for familiarisation with new spaces;
— providing predictable routines which allow children to anticipate what is going to happen;
— collaborating closely with family and caregivers to address their safety concerns and to encourage opportunities for movement and exploration;
— facilitating attachment with caregivers in order to provide security and confidence in moving and exploring;
— identifying strategies for parents to provide feedback to the VI child during exploration;
— providing active experiences in all areas of the house through sounds, touch, and vision in order to familiarise the VI child with the environment;

— establishing a defined play space in which the VI child can enjoy independent play;
— increasing the size of the defined space incrementally in order to facilitate the child's understanding of larger environments;
— encouraging family and caregivers to provide sensory input during daily routines that will assist in the development of body awareness;
— collaborating with physical therapist or occupational therapist to analyse movement components that will facilitate self-initiated movement.

It needs to be said that although FL teachers should be aware of the specificity of motor development in VI children, he or she should not take for granted that all the learners in a classroom will display serious delays in this respect. When the VI child enters school, his gross motor skills may still deviate from his sighted counterparts but body coordination and mobility largely improves provided adequate training. Since locomotor abilities are prerequisite to many activities, in an FL classroom where in the initial stages Total Physical Response requiring movement prevails (e.g., jumping, hopping etc.), FL teachers should be prepared for VILs' limitations in this respect. At this stage, it is also worth mentioning that mobility, so vital in early childhood education and in the independent life of people with sensory impairments, is frequently approached by VILs with apprehension and reluctance. This is supported by numerous findings from the comparative studies on physical fitness, which generally show an advantage of FSLs over VILs. The study results also implicate that VI boys exhibit higher levels of fitness than VI girls, except in flexibility (Winnick and Short, 1985; Blessing et al., 1993; Skaggs and Hopper, 1996; Lieberman and McHugh, 2001; Łabudzki and Tasiemski, 2013). Physical fitness is important for VI people since the activities of daily living demand increased energy. Furthermore, research shows that it is also correlated with socialisation and pursuing a full range of life options (Stein, 1996). Since socialisation is related to communication, it may be said that it also correlates to language development and language use.

Apart from gross motor development, FL teachers should also be aware of the serious problems their learners may experience with fine motor skills engaged in smaller, more precise movements, which involve the use of hands and fingers. The tasks requiring precision (e.g. the tasks in which scissors or utensils are used) need a great deal of practice.

Finally, I would like to draw attention to specific motor behaviours called **blindisms** since for a novice FL teacher commencing his professional career with VILs such mannerisms exhibited by people with visual impairment may be perceived negatively as a sign of lack of discipline. Blindisms are similar to autistic behaviours and include rocking back and forth, eye-rubbing, stimulation of residual vision at close range by finger waving or hand flapping directly in front of the eye with the best vision. All the mannerisms have been described as automatic self-stimulation, as a device to reduce anxiety and frustration, and as signs of 'retarded' development. Since blindisms have a reverse affect on the social interaction of VILs with their

peers and FS people, the issue will be elaborated in the subsequent section devoted to social-emotional development.

2.2.2.3. Social-emotional development

Social skills often learned through observation constitute a particular challenge for VI children, especially for the congenitally blind. Without vision the FB child is not able to see how people interact with each other, and which social norms are acceptable. All gestures and body language related to good manners should be already taught in the preschool years. Bishop (2004: 71) enumerates the following behaviours which need to be mastered by VILs: smiling, shaking hands while greeting, waving a hand 'bye-bye' while leaving, covering one's mouth while yawning or sneezing, nodding the head to indicate acceptance, shrugging shoulders to indicate disagreement, taking turns and waiting patiently, not picking one's nose in public.

Analysing the social skills of VI children, I shall take into consideration only those facets of social development which may be relevant for FL teachers. Other aspects, though important for professionals in the field and parents (e.g., negative reaction to strangers or separation problems) are not tackled here. The following aspects are given insights into *conversation* and *interactive skills*, *play skills*, and *emotions*.

To measure the social development and adjustment of VI children, researchers have used a variety of standardised scales. Among the most common diagnostic tools are the *Vineland Social Maturity Scale* and its adaptation to the context of VI people known as the Maxfield-Fjeld (MF) scale.[65] The 77 item scale encompasses general self-help ability (eating, dressing), motor skills (fine, gross, and locomotion), occupation skills and self-direction, and socialisation skills (play, leisure, interpersonal skills, coping skills).

The first data on social-emotional development comes from Maxfield and Buchholz's study (1957) in which they applied their *Social Maturity Scale for Blind Preschool Children.* The researchers relied principally on information obtained from an interview with the VI child's parents or other caregivers, supplemented sometimes by a direct observation of behaviour. The research results showed that the social quotient of the FB and PS children as a group was considerably lower than this of FS children (M = 83.54 and M = 100 respectively). However, it should be noticed that there was a great deal of variation within the VI group (scores ranged from 26 to 163 with SD = 29.28), which means that a homogeneity approach to VI children is inappropriate. Analysis also revealed that among the factors affecting a higher social quotient there are early intervention, health, specialised training, and environmental stimulation.

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[65] The Vineland Social Maturity Scale was developed in 1930 by Doll. It was designed as an indicator of social competence, self-help skills and adaptive behaviour for sighted individuals from infancy to adulthood. The scale consists of 117 items which are divided in seven categories.

The differences observed in the social-emotional development of VI and FS children are also reflected in the mother-child interaction, particularly the acquisition of a dialogue concept. Urwin (1978 and 1983) investigated interactions of FB children with their mothers and noticed impoverished parent-child responsiveness, which is both a cause and a result of impoverished joint attention capacity of children with vision loss. Nevertheless, in a study of two infants with congenital profound VI, Urwin found that the nature of caregiver-child responsiveness is largely adaptive; once the mother has discovered particular cues that elicit the response of her VI child, he was able to use these cues repeatedly. For example, mothers in the study used phased touching routines to alert the babies attention, tracing their fingers around the babies mouths, and blowing on their faces. Yet, despite the effective interaction cues that facilitated the dyadic relationships between the VI babies and their mothers, both infants in the study had difficulties in their triadic interactions (i.e., ones which require children to incorporate objects into their interactions with adults and establish reversible exchanges of actions on objects). Urwin reports that neither infant exhibited spontaneous showing behaviours to initiate joint interaction with the mother. Any reverse actions of giving and taking only emerged after specific training provided by the mother.

The more recent data shows that in comparison to FS infants the FB infants exhibit a more limited repertoire of facial expressions and less responsiveness. They also less frequently attempted to initiate contact with their mothers (self-initiated interactions), and comply with simple requests and prohibitions (Tröster and Brambring, 2006). The initial social skill of maternal bonding and the intimate interaction affected by the lack of eye contact may be lost if intervention is not provided. Bishop (1996) suggests alternative ways of building the bonding may be used such as nuzzling, tickling, and talking. Similarly to the above-mentioned researchers' observations she asserts that VI children have difficulty with communication, particularly initiating, maintaining, and bringing closure to conversations. She attributes the problems not only to the inability to observe facial expressions and body language, but also to the VI child's lack of experiences and egocentricity. A remedy to the problems may be conversational skills practice, especially in early childhood. It may involve reading a story and asking the child to fill in details or even retell the story, talking about events, people, objects, or encouraging the VI child to talk about himself or situations which he has encountered.

With regard to play skills of VI children there was extensive research conducted in this field. Tröster and Brambring's (1994) research results show that VI children's play skills in the areas of exploratory-sensorimotor, functional-relational, and symbolic play are significantly delayed. The author found that the delay is nearly 30 months with respect to symbolic play. The comparison of the FB and PS groups revealed that the latter engaged in levels of play behaviour that were more advanced. All the VI children in the study performed at least 2 years behind in cognitive play compared to FS counterparts.

Other interesting findings come from the research conducted by Schneekloth, (1989), Erwin (1993), Rettig (1994), Skellenger and Hill (1994) and Celeste (2006)

who proved that VI children engage in greater amounts of solitary play than their sighted counterparts. The above-mentioned researchers established that the amount of solitary play was related to the severity of the visual impairment. Schneekloth, for example, in his comparative study found a significant difference between the FB, PS, and FS children in the amount of time they spent in social/play contact (56% for FB, 37% for PS, and 14% for FS).

The research into the nature of play also reveals some interesting facts about the population of VI children. Schneekloth noticed that the FB children played in a manner that was more concrete, less varied, and less flexible than in the case of the FS children. Skellenger and Hill established that as the amount of usable vision increased, the children engaged in more functional-relational play and less exploratory and sensorimotor play. According to their data, almost 75% of play behaviours exhibited by the FB group were exploration and sensorimotor as compared to more than 40% for the PS children. Moreover, less than 2% of the play behaviours for the FB group were functional-relational, while the PS children engaged in this type of play over 40% of the time. Chen (1996), in turn, focused on the symbolic play of the VI infants aged 20 and 30 months with their parents.[66] Interestingly enough, she noticed that in play situations, which were either action-based or reference-based routines, these infants engaged in symbolic play behaviours at a level comparable to FS infants.

The researcher hypothesises that the structure of the routines provided the necessary scaffolding in terms of a predictable sequence and parental prompts to engage the infants in this higher level of play. Chen concludes that such facilitation plays a great role in social development of the VI child, particularly in solitary play. As an example she gives a female PS child who displayed developmentally appropriate play behaviours across all the categories of play expected for FS children. While observing her taped solitary play session, Chen noticed that the VI girl exhibited the same type of symbolic play (i.e., doll play) as she had engaged in with her two older sisters and a mother.

In terms of play in young VI children there have been mixed reports. Most findings, unlike Chen's results, show that VI children, especially FB children, are delayed in symbolic play. The first researcher to mention the presence of functional play and the lack of pretend or symbolic play in FB children was Fraiberg (1977). Tröster and Brambring (1994) hold a view that the delays do not have to be an indication of cognitive or social delays. They put forward a hypothesis that symbolic play (i.e., one in which traditional toys represent realistic versions of real objects or persons) in VI children may be demonstrated in other ways than in FS children. For example, it may be manifested in the language they use rather than object or toy manipulation.

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[66] Symbolic play refers to the ability of children to use objects, actions or ideas to represent other objects, actions, or ideas as play. For example, a child may push a block around the floor as a car or put it to his ear as a cell phone.

Schneekloth also focused on child-adult interactions and noticed that the FS children interacted almost exclusively with peers, whereas the VI children spent about 30% of their interaction time with peers. The researchers attempted to find the reasons for FB children's preference to engage more in interactions with adults than peers. McConnell and Odom (1999) assert that VI children like all children with disabilities receive fewer positive responses to their social bids or attempts to engage in social interactions and, as a result, demonstrate less interest in their peers, which makes them more prone to social isolation. An interesting observation about social play and interaction was also made by MacCuspie (1996) who established that VI children were inclined to have fewer friends and sometimes confused 'assigned school buddies or helpers' with true friends. Jones and Chiba (1985), in turn, discovered that in comparison to children with disabilities other than visual impairment, the VI children in their studies were more frequently rejected by their peers. Furthermore, in peer sociometric tests, VI children were rated as 'popular' by the pupils who were identified as 'unpopular' by their peers (Jones, Lavine and Shell, 1972). Consequently, social interactions between FS and VI children tend to be severely compromised. Therefore, social play may give rise to feelings of frustration, rather than self-efficacy and independence, which are characteristic of the social experiences of FS children.

Professionals in the field of child development (e.g., Rettig, 1994; Cutter, 2007) offer a number of suggestions, which guarantee development of the VI child's full potential during social play:

— The VI child should be able to experience free play.

— Teachers and parents should discuss with the VI child in advance all the options available in terms of play materials, equipment, activities, and playmates.

— The VI child should be encouraged to identify his favourite activities and to tell how he plans to use the upcoming playtime.

— Teachers and parents should resist the tendency to discourage the FB child from exploring their environments as it is through such exploration that concepts are formed.

— Adults should encourage the VI child to take part in symbolic and dramatic plays by mock-imitating his fusses, coughs, splutters and sneezes to dramatize his actions.

— Teachers and parents should suggest make-believe activities to the FB child beginning with simple objects or routines that he is already familiar with (e.g., 'Let's pretend to be a cat'). Then it is recommended to graduate to make-believe activities involving more than one player and eventually increase the level of abstraction, such as by using the same object to represent different things at different times.

— Teachers and parents should offer the FB child specific instruction in symbolic play by demonstrating pretend activities.

— Adults should provide real-world playthings (e.g., doorknobs, keys, sponges, pots and pans) for the FB child to enhance hands-on experience.

— Adults should select play materials in terms of their tactile qualities (texture) and appearance and create in this way a sensory-rich play environment.

The last aspect of social-emotional development to be discussed here are emotions. It has been reported that some FB children experience specific problems in the affective domain, such as emotional expressiveness, emotional recognition, behavioural mannerisms, rituals or stereotypies (Cass et al., 1994).

Emotions constitute a synchronised responsive system to diverse situations such as, for example, FL learning. They allow all individuals to react to events which affect their welfare. A part of this system is facial expression. Research on facial expression in FB children is particularly extensive, which reflects the researchers' interest in finding the answer to the crucial question: Are human facial expressions dependent on observational learning? Matsumoto and Willingham (2009) found convincing evidence that the spontaneously produced facial expressions of emotion of the FB individuals are the same as those of FS individuals. The findings should be interpreted with caution since the researchers were not able to prove whether the FB subjects' facial expressions of emotion were innate developments or the individuals adapted them from their socio-cultural perspective. Galati et al. (2001) also found no considerable differences in facial expressions of emotions between ten FB and FS eleven-year old pupils. However, they found that the frequency of certain facial movements was higher in the FB children than in the FS children. In the case of the FS children the researchers also managed to prove the impact of social influence on facial expressions of emotion (FS children often masked their negative emotions).

Roch-Levecq (2006) who also explored FB children's emotions asserts that children with congenital blindness are delayed in understanding other people's minds. In her study she attempted to investigate whether this delay was related to a more primitive form of inter-inherent features by which infants draw connections between parental mirroring of the infant's display and nerve sensations. Her subjects were twenty FS children and twenty FB children (congenitally blind) aged from four to twelve who performed a number of tasks examining false belief, and emotion understanding and construction. The FB group scored lower on the false belief tasks. It also failed to express emotions by means of the face to adult observers as correctly as the FS participants did. The adults' ratings of the children's expressions were connected with the children's scores on the false belief tasks. Roch-Levecq postulates that it is the evidence that understanding people's minds might be secured in primitive personified forms of relatedness.

Roch-Levecq (2006) asserts that FB children with congenital blindness are able to understand cause-effect relationships, which evoke basic emotions such as e.g., happiness, sadness, fear or anger. She continues that such children are able to identify emotions from their own perspective (e.g., How do you feel when you failed a grammar test?). Dyck et al. (2004), in turn, report that they are also able to do it from

the perspective of others (e.g., Peter is given a new computer for his birthday? What will he feel?).

Not only are FB children able to identify emotions but also explain explicitly what they mean by a given emotional state (e.g., to be angry, to be disappointed). In Dyck et al.'s study the FB experimentals are reported to have the semantic knowledge of the words related to emotions even more extensively than the FS controls. Yet, both above-mentioned studies also demonstrated that in a task which required FB children to represent mental states more implicitly they performed worse than the FS children. In Dyck et al.'s study the FB participants were also found to be less able than their FS counterparts at recognising vocal intonations characteristic of different categories of emotion.

Socio-emotional development of VI children is also manifested in the use of **blindisms** also known as mannerisms or stereotypies. I have already touched upon the issue in the section devoted to motor development. Here, I would like to focus on the affective facet of the perseverative or ritualised movements and postures. VI children's parents report that the most prevalent blindisms are eye-poking, body rocking, hand and finger movements, and manipulation of objects. Blindisms may be manifested not only in the repetitive movements of body but also speech articulators. For example, FB children may use explosive sounds such as lip smacking, popping, or clicking their tongues as a means of orienting themselves in the physical world. One may also find these features in autistic children. However, in that context they have been linked with compromised mental flexibility (Lopez et al., 2005). In the context of VI children the stereotypies are related to certain attentional aspects of pre-school behaviour such as the ability of the child to shift attention when so directed by an adult (Tadic et al., 2008). Some researchers also speculate (e.g., Landau and Gleitman, 1985) that stereotypical behaviours exhibited by VI children and sometimes also by VI adults function as a stimulation when the stimulus of vision is absent or reduced. From my own observations I can say that VILs seem to exhibit blindisms to handle emergency and anxiety emotional problems, i.e., they reduce apprehension, for example, during a test by rocking on a chair, since they are not acquainted with the stress reduction strategies which are used by sighted people.

It must be stressed that these mannerisms are distinguished from similar behaviours observable in mental retardation (Pring and Tadic, 2010) since they are emotionally, not cognitively based. Behavioural mannerisms are noticeable and may cause unease of FS people. Frequently, FB children are not fully aware of their stereotypies and their perception by sighted peers or adults. Therefore, these behaviours may have a reverse affect on their social interactions. The behaviours may disappear as the VI child matures and appropriate stimulation is provided. The reduction of stereotypies has been a constant concern not only for parents but also for teachers, educators, and professionals working with VI children.

Blasch (1978) notices that the application of various techniques to reduce blindisms does not guarantee the behaviour will be extinguished. Many behaviour

modification programmes based on directive counselling and modelling turned out to be erratic, inconsistent, and usually ineffective. In one study with six FB students aged 6–20 years, Blasch attempted to test the effectiveness of using punishment (pre-recorded sound of chalk screeching on a blackboard) and positive reinforcement to reduce mannerisms. The findings show that the treatment was effective and there was a marked decrease in the stereotypical behaviours of the students. Data also indicates that a reduction in one kind of behaviour did not produce a corresponding increase in another kind (symptom substitution). In fact, Blasch observed that other untreated behaviours also showed a decrease in four of the six experiments. Nevertheless, without further treatment, the technique had only a short lasting effect and after ten days the behaviours emerged again.

The considerable body of research presented above suggests that FB children may be delayed in socio-emotional development in comparison to their FS peers. The differences are more striking in communication and interaction, and play situations whereas in emotions expression and recognition they are not so noticeable. The research results also provide evidence that vision plays a major role in facilitating the process of human bonding, play, and emotional expression.

The findings have practical implications for teachers and educators who should be aware of aberrant social skills in FB children. Since BLs are not able to observe and interpret the context or situation in which interactions take place, the learning of all non-verbal skills will be particularly difficult for them. Therefore, they need detailed guidance from all their teachers on how to exhibit acceptable social behaviour. They should be made aware of their facial movements, the results of these expressions on their interlocutors, and the relation of these expressions to their feelings. For example, in a role-play situation in an FL classroom teachers may need to provide precise guidelines to students on how they should behave and express their emotions in outgoing social circumstances (e.g., facing each other and not looking around, nodding the head to show attentive listening, drawing an interlocutor's attention not by touching him or shouting but by using specific strategies). Teachers should also consider the fact that VILs are used to solitary play and interactions with adults, which accounts for their reluctance to engage in collaborative learning. Achieving socially acceptable behaviour in VILs is possible if it is taught early and continuously enhanced by all teachers during their classes. Finally, I need to stress the importance of family in socio-emotional development. Good parenting (i.e., acceptance of a child's impairment, constant support, peer play encouragement) contributes to a VI child's social-emotional maturity and adaptive interpersonal behaviour.

2.2.2.4. Language development

As I have already demonstrated, vision loss affects congenitally FB children's development in different ways. It influences the children's cognition, mobility, and social behaviour. Since language development is a complex process, inseparably

related to cognitive, motor, and socio-emotional development, it may be implied that language must also be, in some way, affected by lack of vision.

The relationship between language development and cognitive, motor, and socio-emotional development seems unquestionable. The VI child's cognitive, motor, and social skills are mediated by the use of language in a sense that all his activities are accompanied with language, which transcends the immediate concrete reality. Learning new concepts related to objects (e.g., a table or a dog) or skills (e.g., dancing or making friends), for the VI child, requires as much direct experience of the world as possible to enable the development of structured understanding. This process is based first on identifying types of objects or actions (a chair, dancing), then understanding that the specific instance becomes a generalised concept (a given term may be applied to more than one type of object (chairs may be wooden, metal, or plastic) or settings (dancing may be performed on a dance floor, at home, in a street), understanding that there are terms for describing the relative qualities of objects (a hard/soft chair, slow/quick dancing), and finally understanding terms for describing the relationship between objects (on/under a chair, dancing on a dance floor/ between people). The use of language in the process of learning new concepts allows the VI child, particularly the one with congenital blindness, to place individual experiences in an ordered and predictable world. Segal (1993: 69, in Anthony et al., 1993) makes a point that understanding relationships in the world is necessary before knowing the relationships between words in a sentence. Each time children make any connection in the surrounding reality, they actively search for the code to communicate what they have learned. Segal notices that this process is difficult for the FS child. Undoubtedly, it is much more difficult for the FB child who is not able to observe the world and discover these relationships by means of sight.

A crucial question which arises here is to what extent vision is necessary in the process of language acquisition. Wade and Swanston (2001: 420) notice that vision is fundamental where human culture is concerned. Not only does it enhance and fulfil our aesthetic needs but also enables us to share experiences coming from the surrounding environment, through the use of language and other forms of communication. In some situations such as e.g., oncoming danger, relying on one's senses seems particularly important. Similarly, Mathieu (1961: 271) recognises the importance of senses, particularly sight. The author asserts that through our eyes we 'become the eye witnesses of the versatility of human culture'.

Vision is particularly important in the early stages of linguistic development. A young child relies largely on non-verbal, visual communication. In the case of an FB child, access to visual information is blocked. Dunlea (1989) notices that visual input is especially important in early parent-infant interaction since it provides the child with the incentive for determining the meaning of the language she is hearing. FB children cannot learn as fast as their FS counterparts can. Physical properties of objects such as shape, size, and movement, which enable the child to classify and define objects, are not available to a child with total vision loss. Moreover, vision

also provides caregivers with clues about the child's verbalisations. As Anthony et al. (1993: 71) note:

> Caregivers rely on eye gaze and gestures (reaching and pointing) in order to understand early vocalisation and to determine the focus of the child's attention. By following the child's eye gaze and taking note of her gestures, caregivers are able to interpret the child's early speech and respond appropriately.

The FB child is unable to provide caregivers with cues about her early verbalisations. It was also noticed that FB children's sensory experiences are not readily coded into language. FB children also initiate few questions and their use of adjectives is sparse. It may occur that they acquire the sounds, which make up the language, but may not grasp the meaning intended by the speaker.

Pérez-Pereira (2006: 311) finds the research on language development in FB children interesting for two reasons. Firstly, the author asserts that the more we understand the process of language acquisition in congenitally FB children, the better we can help them to progress in their development. Secondly, the study of these children can help us understand the role of vision in language development, and test theories of language acquisition.

Indeed, research into language development in FB children allows finding more arguments for a debate on the nature-nurture questions in language acquisition which was started by Chomsky. Analysing the findings of various research, which I will present in detail in subchapter 2.2.2.4 devoted entirely to language acquisition, one conclusion came to mind, namely inconsistency of the findings and hence lack of compelling arguments in the nature-nurture debate.

Researchers have disagreed sharply on the effects of blindness on language development: some claim there are major differences between FB and FS children (nurture argument) while others find great similarities between them (nature argument). Early research into language acquisition of FB children carried out from the 50s till the late 80s of the 20th century demonstrated an advantage of FS children over FB children (e.g., Cutsford, 1951; Fraiberg and Adelson, 1973; Fraiberg, 1977; Andersen et al., 1984). The differences in early language reflected differences in cognitive development. It was found that when FS peers actively form hypotheses about word meanings, FB children acquire largely unanalysed 'labels'. They are slow to extend words and rarely overextend any (see details in the earlier section 2.2.2.1 on cognitive development). Similarly, although verbal role-play appears early in FB children, they have problems with incorporating this kind of language into conversations with others. This is, as Andersen et al. (1984) notice,

due to problems with reversibility, specifically the ability to understand the role of shifting perspectives in determining word meaning. All in all, research findings suggest that FB children have difficulties in just those areas of language acquisition where visul information can provide input about the world and be a stimulus for hypotheses formation about pertinent characteristics of the linguistic aspects.

Contrary to early research findings, recent studies indicate that there are great individual differences which exist among FB children. Therefore, making generalisations about the FB population must be considered with caution. Probably the most important finding from the recent research (e.g., Pérez-Pereira and Conti-Ramsden, 1999, 2001, 2004) is that despite enormous diversity in degree of vision deficit, cultural backgrounds, conditions of child rearing, motivations and talents, all children whether FS, PS, or FB, despite some delays, have eventually successfully mastered their native language. This outcome indisputably has its explanation in biology. Language seems to be universal since the capacity to acquire it is innately given to the whole human race regardless of their vision deficits.

Gleitman and Newport (1995) also discuss in their article environmental and biological influences on the acquisition of language by FB children and conclude that significant aspects of language development are dictated by biology. They make the point that FS and FB children do not differ biologically. However, some language acquirers e.g., those deprived of first language exposure until late in life, experience changes in their biology and therefore far more dramatic effects on the process of language learning may occur in this case.

The researchers emphasise the biological underpinnings of language acquisition, however they also repeat that a part of the normal acquisition process clearly involves learning from environment. This leads us to the role of input in language development of FB children.

2.2.2.4.1. Input

There is an abundance of research into the input speech FS children receive. It concentrates on its features; in what ways speech addressed to children differs from speech addressed to adults, and effects these differences have on the development of language (Snow, 1986). The available literature on the role of input in language development takes place within a general theoretical debate as to whether environmental factors such as input may in any way impact language acquisition.

The study of the input speech provided by mothers to their FB children reveals that it abounds in imperatives which are not so frequent in the speech directed at FS children of a comparable age (Landau and Gleitman, 1985). Though imperatives are commonly used in the input provided to FS children at an early stage of language development, in time they become less and less frequent. The researchers' interpretation of their finding is that the input speech of FB children's mothers changes at a slower rate. This leads to a slower rate of language development of FB children. Landau and Gleitman, however, make the point that this input only accounts for a delay in the acquisition of the verbal auxiliary.

Also Kekelis and Andersen (1984) examined the influence of visual impairment on caregiver-child interaction to determine how adults typically modify their speech while talking to FB children. Six children aged 1–3 years with varying degrees of

vision (four children had little or no vision and two children had normal vision) were video-recorded in naturalistic interactions with their families. The researchers observed fewer attributions and descriptions in the language input to FB young children aged 16–22 months. Furthermore, a characteristic of the input was a greater incidence of labels. This finding was surprising since the researchers had believed that FB children would need more verbal information about the surrounding reality than FS children to be able to categorise experience. Additionally, Kekelis and Andersen noticed that parents of FS children wait for an indication from the child that he is interested in an object. Parents interacting with FB children had a problem with recognising when the child understood a description of an object. As a consequence of labels in the input provided to FB children they also used more labels in their speech than FS children. This is evidence for a delay in the language development of FB children. Apart from labels and attributions, Kekelis and Andersen also examined topics represented in child-parent interactions. Their findings indicate that parents provide highly directive input, and initiate a greater proportion of topics than parents of FS children, focusing almost exclusively on child-centered topics. An interesting observation made by the researchers was that almost 50% of topics initiated by parents were not related to a context which FB children could perceive. This may also account for the FB child's difficulty in interpreting the language. As a consequence of child-centered topics provided by caregivers, FB children also initiate more child-centered topics than FS children. The researchers are of the opinion that it is another indication of delay in the development of environment-focussed language related to the structure of the input.

Also, Moore and McConachie (1994) examined interactions between FB children and their parents. In their comparative study eight FB children and eight children with severe visual impairment participated, visited at home and video-recorded during interactions with familiar caretakers. Their findings indicate that parents of FB children are more likely to initiate interactions. The researchers also found that parents of FB children:

— used verbal comments unaccompanied by actions more frequently,
— were less likely to talk about objects which were at the child's current focus of attention;
— were more likely to describe the properties of objects to the child using general terms such as pronouns or general nouns;
— tended to request verbal information from their children in contrast to the parents of severely visually impaired children, who were more likely to describe objects for them.

Both FB and children with severe impairment received more requests for action than any other utterance type and all parents rarely mentioned the attributes of objects. Moore and McConachie conclude that the differences between the groups may

be attributed to the difficulties experienced by parents of FB children when attempting to initiate and sustain interactions.

The studies described here point to differences in language input provided to FS, FB and severely visually impaired children. Andersen et al. (1993) recapitulate the previous studies saying that FB children generally receive less appropriate linguistic input than FS children, which together with the conceptual consequences of being deprived of vision gives rise to their poor linguistic development.

Recent data, however, indicates that caretakers modify language input to the needs of FB children. Mothers are more persistent in attempts to initiate and continue conversations with their FB children than mothers of FS children. Furthermore, the input provided to FB children abounds in a much greater number of descriptions of objects, their location, or the action to be performed by their children than mothers of FS children (e.g., Pérez-Pereira and Conti-Ramsden, 1999, 2001, 2003).

Though research on the role of input in language development of FB children yields inconsistent results, what is common to all of them is the observation that the language input may be modified differently by adults and consequently it may have an effect on FB children's language. Both families and teachers should engage in satisfying interactions with FB children based on providing input that is rich in detail and variation, responsive to FB children's interests, and presented in a natural manner.

With regard to FL teachers, they should be aware that language input provided to FB children may differ from that used in interactions with FS children. As a result they may expect from FB pupils the use of labels, child-centered topics, and the use of general terms for describing objects. Similarly to teachers teaching a native language to FB pupils, FL teachers work on language proficiency and they have a special role to play in the language development of FB children. They may modify language input using attributes of objects instead of labels, environment-focused language instead of child-centered topics, and detailed description of objects instead of general terms such as pronouns or nouns.

A final point, which needs to be made in reference to language input provided to FB children, is that its structure as described above, may favour imitation. This issue was examined systematically by Peters (1983, in Bishop and Mogford, 2004: 163). Imitation of input is manifested by repetitive, echolic, and out of context use of language, which will be discussed comprehensively below.

2.2.2.4.2. Echolalia

Pérez-Pereira (2006: 311), who has been exploring language development in children with vision loss, makes the point that FB children learn language relying particularly on a rote-learned or Gestalt strategy. Therefore, they have a tendency to use many frozen phrases or formulas especially at the initial stage of learning. This language, abundant in meaningless phrases or sentences, based on echoing or

copying structures is referred to as **echolalia**.[67] A typical presentation of echolalia might be the following: An FB child is asked 'Do you want to play with them?'; the child echoes back 'Do you want to play with them?', followed by a pause, and then a response, 'Yes. But what games do they usually play?'.

In typical echolic speech FB children echo what they just heard from FS people whereas in delayed echolic speech they repeat language heard earlier in association with a particular subject or event. The main reason for automatic repetition of vocalisations seems to be lack of world experience. The early language of FB children does not seem to mirror their developing knowledge of the world, but rather their knowledge of the language of others. Echolic speech emergence has nothing to do with imitative learning which is typical of all FS children who acquire new language through imitation. In the case of FB children, echolalia occurs as mimicry or automatic imitation without explicit awareness when re-enacted behaviour is based on previously acquired motor or vocal patterns. Echolalia can be also observed in FS children; however, it disappears around the age of three with some ability of self-regulation (Ganos et al., 2012). Echolalia occurs in FB children more frequently than in FS children for several reasons. Firstly, there exists a variation in acquisition styles in which some children learn chunks of language without analysing them. Secondly, some FB children may be delayed in language comprehension but they also may have a more sophisticated memory. Thirdly, vision loss may cause difficulty in segmenting contextual events and these in turn contribute to problems with segmenting the related language. Finally, the structure of input may favour imitation (Peters, 1983, in Bishop and Mogford, 2004: 163).

In the past echolic speech was viewed from a pathology orientation, especially in behavioural literature. It was regarded as behaviour which tends to delay or preclude acquisition of the meaning and structure systems of language (see for details Warren, 1994). In the last three decades, researchers have approached the problem of echolalia from a developmental perspective, and eventually shifted the perspectives of echolalia from a negative behaviour to a multi-faceted, developmental phenomenon. Recent research into echolalia of FB and autistic children implies that echolic speech is not an undesirable and non-functional behaviour but it reflects the human drive to participate in communication by speech. Echolalia can be communicative (within context and with 'apparent communicative purpose') or semicommunicative (an 'unclear communicative meaning'). Among the communicative functions of echolalia there are turn-taking, requesting, self-regulation and rehearsal to aid comprehension (Prizant, 1983; Ganos et al., 2012).

According to Pérez-Pereira (2006: 311), FB children progressively start analysing components of frozen phrases and formulas they use, and in time proceed to use them along with other elements in more varied combinations. From my own

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[67] The word echolalia derives from the Greek ἠχώ meaning 'echo' or 'to repeat' and λαλιά (*laliá*) meaning 'speech' or 'talk'. Echolic speech constitutes one of the most salient aspects of communication disorders in autism. Apart from autistic and blind children it may also occur in aphasia, schizophrenia, dementia, catatonia, and epilepsy.

experience, I can say that persistent echolic speech may also be present in FB middle school pupils. If persistent echolic speech continues in late childhood or adulthood and it gives rise to a breakdown in communication, teachers may advise their FB students to consult speech and language pathologists to determine support and assistance in developing their language comprehension.

2.2.2.4.3. Verbalism

Another phenomenon characteristic of FB children learning language is **verbalism** also called 'parroting'. The term was coined by Cutsford (1951, in Bishop and Mogford, 2004: 158) and for a long time it has been strongly associated with the language used by FB children. Verbalism refers to the use of language without the back-up of concrete experience, i.e., the use of language which has no meaning for FB children (Cutsford, 1952). Examples of verbalisms are colour terms or situations which FB children have no first-hand experience with because of lack of vision (Landau and Gleitman, 1985). Verbalisms may also take a form of expressive language characterised by repetitions of some statements or facts heard before. Cutsford's definition of verbalism was questioned by Dokecki (1966). Indeed, it is difficult to agree that FS people use only the terms for which they have concrete experience and never use words to express abstract concepts (e.g., a neutron). Defining verbalism Cutsford had in mind all the terms related to vision such as 'see' or 'look', which in his opinion are meaningless for FB people and they should be extinguished in educational practice. However, from Landau and Gleitman's findings (1985) one may conclude that words related to visual experience such as 'see', and 'look' carry a meaning for FB language users. In fact, these words are among the first verbs which appear in the early vocabulary of FS and FB children in their spontaneous speech. Gleitman and Newport (1995) provide evidence for the meaningful use of the verbs describing a situation in which two groups of three-year-olds (FS but blindfolded and FB) were asked to look up. In response to the command the FS children tilted their faces upward, presumably because they understand that *look* has to do with visual-perceptual inspection. The FB children raised their hands instead, keeping their heads immobile, as though they also understood that *look* is related to perceptual inspection; however in the absence of working visual system, this inspection must be performed necessarily by hand. Gleitman and Newport's interpretation is reinforced by another finding, namely that FB youngsters do distinguish the perceptual term *look* and contact term *touch*. When the FB child had a command 'You can touch that table but do not look at it', he responded by gingerly tapping it, but when a command 'Now you can look at it' appeared, the child started systematically exploring all the surfaces of the table with his hands. According to the researchers, both populations came up with interpretations of quite abstract words in a way that is fitting to their own perceptual lives.

Von Tetzchner and Martinsen (1980, in Bishop and Mogford, 2004: 158) also proved that Cutsford was wrong attributing verbalism to a lack of concrete visual

experience. In their study eight FB children and eight FS children (blindfolded) de-fined words from a list of household objects and then participated in a recognition task. Both groups produced a high percentage of verbalisms. Frequency of verbal-ism among the FB subjects was inversely related to general language skill. The FS group generated more verbalisms than when they used vision; that is they were more frequently unable to recognise an object but able to define the meaning of a word. These observations support earlier claims that verbalisms are typical of FB children. The high incidence of verbalisms among the blindfolded FS group, in turn, indicates that their verbalisms are due to lack of visual cues rather than lack of visual experi-ence. Furthermore, the similarity between the groups in recognition contradicts the common assumption that the FB employ recognition strategies that are not readily accessible to the FS.

In the light of the above-mentioned findings the original definition of verbalism introduced by Cutsford needs to be amended. Verbalisms appear when FB children are able to provide an acceptable definition of a word but are unable to accurately identify the object symbolised by the word due to lack of visual cues. It should also be stressed that it is not only restricted to FB individuals, and that in intellectually normal FB people, it affects only certain areas of language rather than the language as a whole (Civelli, 1983). Furthermore, unlike echolalia, verbalisms persist in ado-lescence and adulthood. Civelli in her study investigated FB people aged 13–26 and all of them demonstrated the use of verbalisms.

FL teachers should be aware of the use of verbalisms by FB school learners. One of the most challenging areas in FL teaching to FB children is colours. Novice FL teachers whom I encountered frequently refrained from introducing names of colours claiming they are meaningless to their pupils with vision loss. Yet, as Von Tetzchner and Martinsen managed to prove with 'look' and 'see', verbalisms carry meaning for FB people. Moreover, even if there are slight differences in describing concepts, the majority of FB people develop appropriate physical representations similar to their sighted counterparts and they are most frequently able to give precise definitions of words such as 'blood' or 'moon' etc. using visual terms such as 'red', 'yellow' which are not accessible to them (see for details the study by Jedynak, 2011g).

Therefore, as Demott (1972) suggests, if FB children are not able to identify familiar objects tactually but can define the names for the objects, teachers should work over improvement of tactual recognition skills and provision of rich experience rather than restrict language, i.e., avoid using the names of colours, words related to visual perception, or distant objects that cannot be recognised tactually. Personally, I also see a social dimension which should be considered in the educational debate on the need of using verbalisms by teachers, namely the fact that FB pupils need to function in the society of FS people and language is a vehicle which allows their social acceptance and integration.

2.2.3. Sensory compensation in learning

At the XIVth International Seminar on Preschool Blind (1990) in Raleigh, North Carolina, the participants highlighted the importance of vision, asserting that it is 'the primary learning modality and source of information for most children' and that 'no other sense can stimulate curiosity, integrate information, or invite exploration in the same way, or as efficiently and fully, as vision does'. The FB child can learn compensating its vision with the remaining senses such as hearing, smell, touch, movement, and taste. However, without the integration of these senses with vision, a picture of reality provided to the child is incomplete and learning process is more difficult than in the case of FS children.

A question that is inseparably related to a discussion on compensation of senses in learning is whether sensory modalities such as vision, hearing, smell, touch, and taste function independently or interactively in the perception of events, and if there is interaction, how it develops. The study of FS neonates shows that within the first ten minutes after birth they looked to the side on which a clicking sound occurred with greater than chance frequency (Wertheimer, 1961, in Warren, 1994: 19). This evidence for innate connection between vision and audition has been replicated in many other studies under more controlled conditions (e.g., Muir, 1982). The observations of neonates allowed the advancement of *a theory of the primitive unity of the senses*. According to the theory, vision and hearing are equivalent with respect to what they denote to the neonate about external events, and there is no real distinction between these modalities as separate sources of information (Bower, 1974). Interestingly enough, the motor (hand) system is also linked to the non-differentiated visual-auditory system. Bower extended his theory to congenitally FB infants. In support of his position, he cited the evidence from Freedman's study (1964) and Urwin's study (1973). In the former a 16 month old FB infant turned her eyes towards a sound source while in the latter an FB infant of the same age reached out to grasp noise-making objects. However, the observable integration of senses was not of much importance since Urwin noticed that by six months it gradually disappeared despite considerable reinforcement and practice by the age of ten months. Warren (1994: 20) speculates that FB infants 'must construct the significance of auditorially specified objects in relation to their own motor behaviour during the latter part of the first year without the benefit of vision'.

Integration of senses in infants was also studied by Nielsen (1991) who noticed that FB infants are frequently isolated from external auditory stimulation and consequently they tend to focus on sounds created by their own activities rather than external sounds. Nielsen asserts that living in such a restricted environment might lead to the development integration of auditory-tactual relationships. In the case of FS infants even a small amount of vision may mediate their visual attention to external spatial events. Recapitulating, vision without a doubt plays an important role in

FS infants, and even sparse evidence from FS infants allows speculating that partial vision is of benefit.

With regard to the development of perceptual capabilities, the evidence suggests that neither auditory nor tactual perception develops differently in FB and FS children. There is, however, little evidence on the developing integration of senses. It is speculated there might be differences in the developing integration of hearing and tactual perception and motor development.

A question that has occupied researchers' minds was whether loss of vision may be compensated by the use of other senses. Warren (1994) analysing the available research expressed his doubts as to whether blindness may be accompanied by an improvement in the basic acuity of hearing and touch. Indeed, his doubts in the mid-90s were justified since the research conducted up to that time did not yield persuasive results. Moreover, the findings were inconsistent: on the one hand there was the evidence that FB people show superior performance in the discrimination of some stimulus properties but on the other hand this evidence was balanced by the reports in which no differences between FB and FS people were demonstrated.

The studies indicating superiority of FB people mostly concerned their auditory abilities. For example, Miller (1992) proved that they perform better on various tasks involving complex auditory stimulation, which according to her was due to better developed habits of attention, and not necessarily differences in basic sensory discrimination (see more details in section 2.3.1 on phonological development). Ashmead et al. (1998), in turn, examined FB children's spatial hearing abilities. In their study they tested how well participants were able to tell the direction a sound was coming from. FB children performed only slightly better than FS children, which may suggest that the former make better use of their sense of hearing rather than their sense of hearing is ramped up to compensate for vision loss.

Morrongiello et al. (1994), in turn, focused in their research on examining the sense of touch. In their test FB and FS blindfolded children were to identify different types of object, some of which were miniature versions of large objects (e.g., a bicycle) while other objects were oversized versions of small objects (e.g., a big key). Both groups of children achieved similar results; got the same number of objects correct, had problems with the same objects and used the same strategies to identify the objects. However, when D'Angiulli et al. (1998) reduplicated the study with adolescent children they found that FB youngsters developed superior tactile strategies compared to FS participants.

There were also studies in which the sense of smell was examined. They concentrated on comparing the threshold at which FB and FS young people can identify smells they were exposed to. The findings indicate there are no differences between FB and FS youngsters in either the threshold or the ability to identify different smells. Yet, the FB participants in the study gave a wider range of labels to the smells. This suggests that they pay more attention to smells (Rosenbluth et al., 2000). Another study compared the olfactory abilities of eight people who became blind early in life and sixteen FS persons in a control group matched for age, sex, and handedness. The

results indicate that the FB participants developed compensatory perceptual mechanisms in the olfactory domain that involve basic sensory processes, such as the detection of odours (Cuevas et al., 2010).

Apart from the senses discussed above there are also other equally vital senses such as taste, equilibrioception (balance), proprioception (body awareness), and thermoception (temperature). Systematic research on these senses has begun only recently with the development of neuroscience and new technologies. Leporé et al. (2009) mention the studies which have found that FB people are adept at detecting the objects' presence (e.g., 'feel' windows when walking down a corridor). This is due to their superior abilities to feel subtle changes in temperature and distinguish between the auditory echoes caused by objects (e.g., walls or windows). Identifying an object by the sound or echo it makes is known as **echolocation**. FB babies and children use extra hand movements while crawling; they slap the floor or objects to create a kind of auditory and sensory feedback. The reflected sound facilitates exploration and manipulation of various objects. Older FB people may make clicking noises to observe the changes in sound as the distance between them and obstacles shifts.

The research results discussed above indicate that FB people are not born with more acute senses that compensate for lack of sight, but rather in time when they grow older, they are able to use these senses more effectively. It seems that this ability is related to a degree of stimulation provided from environment by families and teachers. FL teachers may also have a role to play in this process. They may enhance the remaining senses of their FB pupils by shifting from two-dimensional to three-/four-/and five-dimensional teaching (e.g., introducing FL vocabulary by 3D models accompanied with auditory and olfactory stimulus) (for more details see section 3.5 on tailoring foreign language provision).

Finally, it needs to be said that groundbreaking progress in the field of neurology, which we have faced in the last decade, allows presenting more convincing arguments for sensory compensation in FB people. For example, the recent neurological findings by Renier et al. (2010) indicate clearly that congenitally FB people use the visual brain area to improve other senses (see details below in section 2.2.4 on neurological considerations).

2.2.4. Neurological considerations

The case of the congenitally FB person has been of interest for linguists and philosophers for several centuries. Many questions they posed would remain without answers but for development in the field of neuroscience and cognitive neuroscience which are relatively new disciplines. The former encompasses neurology, psychology, and biology. It enables the understanding of many aspects of the physiology, biochemistry, pharmacology, and structure of the human brain. The latter, in

turn, combines the knowledge from cognitive psychology, neuroscience, and clinical studies related to brain damage to enhance understanding of the higher level processes of cognition via imaging technology (Goswami, 2004). Neuroscience and cognitive science make use of various methods of functional neuroimaging.[68] Without the invention of non-invasive neuroimaging tools, researchers could only speculate how the brains of FB individuals process information while learning.

From the developmental neuroscience perspective researchers begin to understand various linguistic, cognitive and behavioural manifestations associated with congenital blindness and visual impairment. Much that they know nowadays about sensory compensation in FB people comes from neuroscientific data. An international team of researchers led by neuroscientists at Georgetown University Medical Center (GUMC) found that congenitally FB people make use of the visual parts of their brain to improve their sensation of sound and touch (Renier et al., 2010). This helps explain why FB persons have such advanced perception of these senses and frequently exceed FS people. By means of functional magnetic resonance imaging (fMRI), the researchers were able to discover that the FB people use specialised modules in the visual cortex processing the spatial location of an object when a person localises it in space (the visual cortex lit up when participants were engaged in auditory and tactile tasks). The researchers suspect that the different functional attributes that make up vision (e.g., analysis of space, patterns, and motion) are still present in the visual cortex of FB people. However, instead of using those areas to process information provided by the eyes, they use them to process information they obtain through the sense of hearing and touch. Interestingly enough, in the FS subjects participating in Renier et al.'s study the visual cortex was mostly deactivated while performing a set of auditory or tactile tasks. The researchers also observed that there was a direct correlation between brain activity and performance in the FB subjects, which means that the more accurate they were in solving the spatial tasks, the stronger the spatial module in the visual cortex was activated. The study results are concluded by Josef Rauschecker — the lead researcher in the team and professor in the Department of Physiology and Biophysics at GUMC:

> This shows us that the visual system in the blind retains the functional organization that was anatomically laid out by genetics, but that the brain is plastic enough to use these modules to analyze the input they receive from different senses. … The neural cells and fibers are still there and still functioning, processing spatial attributes of stimuli, driven not by sight but by hearing and touch. This plasticity offers a huge resource for the blind.

These groundbreaking findings may help FB people in learning orientation and mobility skills. Currently, GUMC researchers, collaborating with colleagues in Belgium, are working over sensory substitution device — goggles — that will be able

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[68] These methods include positron emission tomography (PET), functional magnetic resonance imaging (fMRI), multichannel electroencephalography (EEG), magnetoencephalography (MEG), near infrared spectroscopic imaging (NIRSI), and single photon emission computed tomography (SPECT).

to process visual stimuli and turn them into auditory cues which will help FB people better navigate in the world.

A question that arises here is how it is possible for the visual cortex to process auditory or tactile information. Professor Pascal Belin from the University of Montreal explains that in neonates all areas of the brain dealing with vision, hearing and all other senses are connected. In time, these connections begin to separate from one another forming independent centres responsible for each of the senses. In the case of a congenitally FB infant the connections remain and, consequently, sound processing takes place in the visual cortex and auditory processing centers. Belin also continues, saying that this process may look different in adventitiously FB individuals in whom all brain areas responsible for processing various functions are already formed due to separation of myelin — the fatty sheath surrounding affected nerves (for more details see Zatorre et al., 2004).

The observations made by the above-mentioned researchers are related to the issue of brain neuro-plasticity and a critical period, also known as a sensitive period — a concept crucial for understanding failures of individuals in mastery of various skills including FL pronunciation learning (for details see Jedynak, 2009).[69] While in the case of FS people's brains there are more arguments for than against the critical period, in the case of FB people it is just the opposite. Some data supporting the critical period comes from studies of Braille readers, which show that the restriction of developmental progress in early childhood and early adolescence limits the chances of Braille mastery after the age of puberty (Pring and Tadic, 2010). These results do not entirely accord with findings that are more recent.

The neuroscientific literature that appeared in the last decade or so abounds in studies illustrating the remarkable ability of the brain to reorganise itself after visual loss. As Voss (2013) notes, visually deafferented regions within the occipital cortex of early FB people have been repeatedly shown to be functionally capable of performing a range of non-visual tasks. Therefore, it is believed that such crossmodal plastic phenomena might be regulated not by a rigid critical period but rather a sensitive period. While crossmodal plasticity has been proved in congenital and early FB individuals, there is still a debate about whether people who lost their vision later in life can also benefit from such compensatory changes.

The researchers from Brain Development Lab in the University of Oregon have also contributed to the discussion on brain neuroplasticity. For years they have been investigating the brains of FB and deaf individuals, people learning their first or

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[69] According to Siegler (2006), it refers to a life phase during which a person has heightened sensitivity to exogenous stimuli that are compulsory for the development of a particular skill. Without the appropriate stimulus occurring during this period it may be difficult, or even impossible, to develop some biological behaviours later in life (e.g., first language acquisition which must occur before the cerebral lateralisation is complete i.e., before the end of puberty). The theory of critical period has been extended to second language acquisition. It is reflected in the 'younger = better in the long run' hypothesis. However, it is not so widely accepted. Singleton and Lengyel (1995) argue there are many exceptions to the critical period hypothesis.

second spoken or signed language at different ages, and children of different ages with different cognitive capabilities. The researchers argue that different parts of the human brain have different degrees of neuroplasticity depending on experience. There are some parts of the brain that are able to change throughout life; some that can only change noticeably by experience and depend on positive input to develop to their fullest potential, particularly during certain periods; and some that consistently function the same way regardless of differences in experience during development. The researchers make the point that in people who are FB or deaf the areas of the brain that are most able to change are enhanced by various experiences. Yet, these parts of the brain are also the most vulnerable in people who have or are at risk from developmental disorders. The researchers give an example of one brain system that works in this way, namely the system essential for selective attention (the ability to stay focused on one thing even in the presence of distractions) which constitutes an important foundation for learning in children (for more details see Stevens and Neville, 2011).

The researchers have also attempted to establish how the brain of FB individuals mediates in learning various aspects of language. Bishop (1999) discusses comprehensively the complexities of language learning. She says that brain development involves more than just growth from simple to complex structures and 'pruning' of neurons and synaptic connections that are non-functional. As behavioural and cognitive functions emerge and become automatised, the underlying brain representations also undergo reorganisation. Bishop argues that there are different modes of neurodevelopmental change and language acquisition is a process which can entail 'learning to ignore and inhibit irrelevant information, as well as forming new ways of representing complex information economically'.

An interesting study related to the performance of FB individuals in auditory language tasks was conducted by Röder, Rösler and Neville (2000). Their findings indicate that in some auditory tasks FB people outperform those who are sighted, which was evidenced by a higher activation level in the occipital brain. FB people were also found to process auditory language stimuli faster than FS people. The researchers also report that the FB individuals had better abilities than the sighted controls related to auditory localisation (attending to sounds in peripheral auditory space) and auditory discrimination (detecting a rare target tone among frequent standard tones). These findings mean that FB people have a superior predisposition for learning native and foreign language pronunciation.

In another study also related to auditory sensitivity, Prof. Pascal Belin of the University of Montreal and his colleagues investigated auditory abilities needed to detect changes in pitch. Twenty six FB and FS subjects aged 21 to 46 participated in their study. The subjects' task was to listen to a series of sounds and judge if they were falling or rising in pitch. The FB participants were either congenitally blind or had lost their eyesight after the age of two. The researchers found that the FB subjects who either were born blind or lost their eyesight at an early age had better results than the FS subjects on pitch recognition tests. Moreover, they were able to

detect pitch even when the speed of change was 10 times faster. No differences were observed in the tests between the FS subjects and those who became blind after the age of five. The researchers argue that their results considering the age factor are more reliable than earlier experiments which showed conflicting results. Undoubtedly, it is more evidence for neuroplasticity of the human brain and an argument supporting the theory that the critical period for auditory abilities occurs around the age of five. Belin and his associates' findings support the thesis *the younger the onset of blindness, the better performance in auditory abilities*, which is in line with cerebral plasticity being optimal during the early years. Their finding may account for talents of many FB musicians, piano tuners, and language learners sensitive to pitch (Belin et al., 2004).

Röder et al. (2000), in turn, employing functional magnetic resonance imaging (fMRI) investigated how speech processing activates the visual cortex in FB individuals. Participants who were congenitally FB or FS listened to sentences, with either an easy or a more difficult syntactic structure, which were either semantically meaningful or meaningless. The results of the study demonstrate that FB adults, similarly to FS adults, activate classical left-perisylvian hemispheric language areas during speech comprehension. However, unlike FS adults, they display an activation in the homologueous right-hemispheric structures and in extrastriate and striate cortex. Röder et al. also noticed that the perisylvian and occipital activity varied as a function of syntactic difficulty and semantic content. The findings indicate that the cerebral organisation of the language system is considerably shaped by the available input.

The researchers also investigated the functioning of the brain of FB and FS individuals while processing Braille (Sadato et al., 1996). Using positron emission tomography (PET) to measure activation during tactile discrimination tasks in Braille readers blinded in early life and normal subjects, the researchers observed that in the FB participants the primary and secondary visual cortical received input from the somatosensory system. The finding was confirmed by using functional magnetic resonance imaging (fMRI). The researchers even used a process to temporally disable the visual cortex in the FB Braille readers to check whether it interfered with their reading. It turned out that the FB subjects could still feel the Braille dots like an FS person but they could no longer comprehend what letters were hidden behind the dots because they temporally lost the ability to process the dots into language. In the FS controls no activation of the visual cortex while reading Braille was recorded. Interestingly enough, a simple tactile stimulus, not related to Braille letter discrimination, produced no activation of visual areas in either group. The researchers suggest that in comparison with simple tactual discrimination, reading Braille involves the task difficulty, as well as learning component, which may explain differential activation in the primary cortex. It is also speculated that in FB individuals, cortical areas normally reserved for vision are activated by other sensory modalities. However, it only takes place in people who have been blind from birth or early childhood. As researchers explain, the neurons

of such people which process visual images into sight in FS people become specialised in reading the raised dots of Braille. It is also supported by evidence from FB people from an early age, proficient in Braille, who after a stroke in their visual cortex were no longer able to read Braille.

Interesting findings, which also shed more light on how FB individuals learn, come from the research carried out by UCLA Department of Neurology scientists. Investigating the brains of long-term FB subjects the researchers noticed that visual areas of their brains were smaller in volume than in FS examples. Yet, the reverse trend was observed for non-visual areas in which they observed significant enlargement. For example, the frontal lobes, which are involved with working memory, were found to be abnormally enlarged. According to the researchers, this is the evidence for compensation for the reduced volume in areas normally devoted to vision (Leporé et al., 2009). The findings may account for enhanced skills of FB individuals, for example those related to memorising information, which may be used in FL learning.

Superior memory abilities are also reported in the study by Raz et al. (2007). Better performance of FB participants was demonstrated with various memory tasks such as a long-term item recognition task with aurally presented words and environmental sounds (e.g., barking of a dog). FB subjects' superiority was particularly visible in serial memory and in serial learning. The researchers argue that the superior serial memory of the blind, apparent in both the short-term and long-term aspects of memory, is not a result of their advantage in item recall per se, but rather is due to practice.

It is also worth mentioning the study by Röder and Rösler (2003) who tested the hypothesis of whether lack of vision leads to impoverished semantic networks resulting in the use of data-driven rather than conceptual encoding strategies on memory tasks. In the study congenitally FB and FS subjects had to encode environmental sounds either physically or semantically. In the recognition stage, both conceptually and physically distinct, and physically distinct but conceptually highly related incentives were intermixed with the environmental sounds encountered during study. The subjects' task was to indicate whether or not they had heard a sound in the study phase. The findings show that FB adults demonstrated elevated memory both after physical and semantic encoding. After physical encoding FB subjects had lower false memory rates than FS subjects whereas the false memory rates of FS and FB participants did not vary after semantic encoding. Röder and Rösler also examined whether compensatory changes in memory skills are restricted to critical periods during early childhood. They employed late FB adults who participated in the tests with the same paradigm. When matched for age, they demonstrated similarly high memory scores as the congenitally FB subjects. These findings show compensatory performance changes in long-term memory functions as a result of vision loss. They also provide evidence for the high adaptive capabilities of the human cognitive system.

FL learning does not only involve sound processing and memorisation but also imitative behaviour. FL learners observe and learn from others various actions and

behaviours crucial for social interaction, which is operated by the mirror neuron system. There is much speculation about the functions of the mirror neurons. It is believed that they may be important for understanding the actions and intentions of other people, and for learning new skills by imitation, for example language skills. Ricciardi et al. (2009) attempted to determine whether vision is a necessary prerequisite for the human mirror system to develop and function. Employing fMRI the researchers compared the brain activity of congenitally FB and FS individuals during the auditory presentation of hand-executed actions or environmental sounds, and the motor pantomime of manipulation tasks. FS subjects additionally performed a visual action recognition task. The results showed that FB subjects 'activated a premotor-temporoparietal cortical network in response to aurally presented actions that overlapped both with mirror system areas found in FS subjects in response to visually and aurally presented stimuli, and with the brain response elicited by motor pantomime of the same actions' (Ricciardi et al., 2009, abstract). Additionally, the researchers demonstrated that the mirror system cortex responds more to motor familiar than to unfamiliar action sounds in both FB and FS individuals.

The results indicate that the system of mirror neurons can function even if a person has lost his vision. In FB individuals the sound of an action engages the mirror system for action schemas that have not been learned visually. Furthermore, this activity is not mediated by visual imagery. Ricciardi et al.'s findings also show that FB people with no visual experience can interact effectively with others since their mirror system is based on abstract supramodal sensory representations of actions.

Undoubtedly, the neuroscientific findings presented above contribute to better understanding of the learning process in FB individuals. From the available neuroscientific data one may create a profile of a potential FB student learning an FL who is endowed with superior auditory abilities, particularly pitch discrimination abilities, and great memory.

Furthermore, neuroscientific findings related to brain neuroplasticity have obviously significant repercussions for the development of appropriate neuroprostheses for FB people (a non-invasive system for stimulating the visual cortex) and for the training and rehabilitation of people with blindness.

2.3. Insights from first language acquisition — implications for foreign language teaching

Up to this point all the complexities of the learning process in VI individuals have been demonstrated, specifically those with congenital blindness. The majority of behavioural studies presented above document a delay in language acquisition in FB children. However, some behavioural and neuroscientific studies discussed

here have revealed superior auditory and memorisation abilities of FB individuals. Though there is a tendency to foster a negative view of FB people's predisposition to learn without vision, these features may place FB pupils at an advantage in FL learning compared to FS ones (Jedynak, 2011h).

What needs to be said at this stage is that VI people including those with blindness are able to master L1 successfully. If so, they are also capable of learning an FL. Numerous specialists in the field of typhlopedagogy and practitioners indicate that VI individuals have managed to learn an FL (e.g., Mathieu, 1961; Nikolic, 1987; Krzeszowski, 2001; Marek, 2006; Aikin Araluce, 2005; Jedynak, 2011h; Wyszyńska, 2013). Mathieu (1961: 269) put it aptly into words saying that 'visually-handicapped children are not handicapped when it comes to learning foreign languages'.

In L1 acquisition of VI children any reported delays have been attributed to delays in cognitive, motor, and social development. Since FL competence is built upon L1 competence, one may predict certain problems in FL learning resulting from L1 deficiencies. The subsequent sections will provide insight into the development of phonology, lexis, syntax, and pragmatics.

2.3.1. Phonological development

Phonological development of VI infants starts at the babbling stage which appears to emerge in both VI and FS babies at the same time, i.e., between 6–7 months (Warren, 1977). This is the evidence that cues provided by lips and jaw are simply redundant for triggering the babbling activity. Fraiberg (1977) who was observing the vocalisations from ten FB babies noticed that they are generally less frequent than in FS babies. It was suggested that it is due to the fact that FB infants tend to be more silent in interaction because of their attending to the caretakers' vocalisations. As to duration of babbling Burlingham (1961) reports that this stage of language development continued for a longer period than in FS infants. She puts it down to the mouth pleasure derived from the motor activity of articulation rather than being related to the development of communication, which would lead on to first words. Since the VI child's early phonological development, together with preverbal communication, are not crucial for understanding the impact of L1 acquisition on FL learning, the issues will not be discussed here (for more details see Rowland, 1983 or Bishop and Mogford, 2004).

2.3.1.1. Sound perception

Without visual input, FB speakers can only rely on the auditory signal to recover phonological information (Ménard et al., 2009: 1407). Neuroimaging data has demonstrated that FB individuals are better at auditory discrimination than FS ones, at least older children and adults. However, behavioural studies conducted

from the 1960s till the 1980s produced contradictory results regarding auditory acuity in the two groups.

Early studies report a less well-developed auditory perception in FB speakers (Lux, 1933; Elstner, 1955; in Bishop and Mogford, 2004: 154). An audiometric study by Semzowa (1961), in turn, demonstrated no differences in the perceptual skills of FB and FS groups. Stankov and Spilsbury (1978) obtained similar results for FB subjects in speech identification tasks in distorted conditions. However, they performed better than FS subjects in frequency discrimination in music in clear or reduced tempo conditions. The studies by Starlinger and Niemeyer (1981) and Niemeyer and Starlinger (1981) in a series of perceptual experiments demonstrated no differences in frequency discrimination thresholds, intensity discrimination thresholds, or duration discrimination thresholds between FB and FS groups. Yet, in higher-level identification tasks (e.g., binaural integration of pure tones and noise) FB speakers considerably outperformed FS subjects. More recent studies (Hugdahl et al., 2004; Gougoux et al., 2004) indicate that FB speakers have superior non-speech auditory perceptual abilities and higher peak discrimination abilities (Ménard et al., 2009) than FS speakers.

The fact that there is a discrepancy in research results regarding sound perception may reflect great individual differences existing among FB speakers, which have been repeatedly emphasised by Pérez-Pereira. Even if one considers the study results supporting FB speakers' advantage in sound perception over FS ones, it merely implies that FB people have better auditory perceptual modes. However, deducing from the data that superior auditory abilities must necessarily be manifested in absolute pitch and predispositions for playing musical instruments would definitely be too far-fetched. Inconsistent research findings may also result from inappropriate subject selection procedures used across the studies. Only in recent studies have the researchers managed to employ heterogeneous groups in terms of speaker age, age at blindness, or degree of blindness.

Finally, a point that needs to be made is that superior auditory perception skills do not have to be linked to better production skills and FB speakers do not necessarily have to perform better in FL phonology/phonetics even if they are endowed with predispositions to achieve success in this aspect. Success in FL pronunciation is also inherently linked to psychological factors to be discussed in subchapter 2.4.3.3.

2.3.1.2. Sound production

A considerable number of researchers discuss the issue of speech production in FB speakers. In particular, they found interest in investigating the effect of not being able to perceive the articulatory movements on FB people's speech. Contrary to most of the studies describing sound perception in FB adult speakers, those devoted to sound production have been conducted primarily with FB children.

Probably the earliest studies addressing speech production in FB individuals were carried out in the 1970s and they show that vision is helpful in early as-

sociation of sounds with the corresponding visual representation of the lips. As Ménard et al. (2009: 1407) notice at the very early language acquisition stage, infants start recognising relationships between auditory parameters and visual events. The studies with FS infants show that babies, by the age of four months, demonstrate strong capacities to imitate labial movements of sounds visually presented (Kuhl and Meltzoff, 1982; Legerstee, 1990). Lewis (1975) found in his study that in comparison to FS babies at the pre-babbling stage those with vision loss display less imitation of labial speech gestures. Also the electromyographic and sonographic data of FB adolescents' articulations indicates that FB infants produce far less lip movement while articulating vowels than FS babies; however only minimal deviations from FS groups were observed in the acoustic properties (Göllesz, 1972). In a more recent study by Ménard et al. (2009) the researchers investigated the production and perception of French vowels by FB and FS speakers. 12 blind adults and 12 sighted adults served as subjects. At the production level, they recorded repetitions of the ten French oral vowels, extracted formant values and fundamental frequency from the acoustic signal, and finally computed and compared measures of contrasts between vowel categories for each feature (height, place of articulation, roundedness) and group (FB and FS). The findings point to a significant effect of group on production, with FS speakers producing vowels that are spaced further apart in the vowel space than those of the FB speakers. Bishop and Mogford (2004: 154) suggest that all these differences in vowel production may be due to a compensatory restriction of the oral resonance chamber, which means that FB speakers select an alternative route of vowel production to achieve the same acoustic result as FS people.

Much contribution to the study of speech production in FB children has been made by Mills (1983, 1987) and Elstner (1983). Elstner proved in her study that lack of vision has consequences for the strategies used to produce phonological targets. Mills and her colleagues, in turn, investigated in their study the syllables and words produced by a small number of the congenitally FB children. An analysis was carried out on spontaneous speech. For the purpose of research the German consonants were divided into two categories: those sounds with highly visible articulatory movements (labials and labiodentals e.g., /b/, /m/, /f/) and those sounds with scarcely visible articulatory movements (alveolars, palatals, velars, glottal e.g., /t/, /j/, /k/, /x/, /h/). The findings show that the FB children make more errors than the FS children in the production of target sounds with a visible articulation (41% and 21% respectively). The researchers also discovered a higher number of phonological confusions between groups of visually dissimilar consonants (labial /b/ vs velar /k/) for the FB subjects in comparison to the FS ones. In the case of the sounds with a non-visible articulation, the difference between the two groups was not significant. The FS subjects were also significantly better at producing the sounds with visible articulation than the FB ones (79% compared with 49%). This data indicates that visual cues with regard to sound articulation are vital for accurate sound production. Mills and her colleagues carried out an analysis of the sounds substituted in the errors. The results show that

the FS children rarely substitute a sound from other visual categories (rarely produce /n/ instead of /m/) but rather another labial. As to the FS participants, they make such cross-category substitutions much more frequently (34% compared with only 10% in the FS subjects).

The different pattern of phonology acquisition found in the research described above does not lead necessarily to a disorder but it merely means that FB children are temporary delayed in one aspect of phonology. The findings suggest that loss of vision makes FB speakers adopt different control strategies for the visible labial articulators. The compensatory abilities of the other articulators are also likely to be used by FB speakers to make up for the limited movements of the lips and allow them to reach the acoustic target. Teaching FL pronunciation to BLs is not contra-indicated only because they may follow a different development of the phonological systems. FL teachers should know that FB pupils may have difficulties with the sounds, which have a visible place of articulation, and devote more time over prac-tising these sounds (Jedynak, 2014c). It should also be recognised that the above-mentioned studies with the exception of Ménard et al.'s study, mainly report on phonological problems of FB children. From my own professional experience, I can say that although FB pupils do indeed sometimes demonstrate problems with labials or vowels both in L1 and FL, they also seem to quickly learn accurate articulation of sounds, and in time tend to take advantage of their auditory abilities to successfully master target pronunciation and even surpass FS pupils in this respect.

2.3.2. Lexical development

The pattern of phonological acquisition also affects the vocabulary, which is produced at this age. Since this pattern is different in FB and FS children, one may also expect differences between these two groups in the early lexicon. Vihman et al. (1985) have noticed that in comparison to FS children those with vision loss produce far fewer words containing a highly visible consonant. With regard to the onset of language, i.e, the occurrence of the first words, only a few studies report on a delay (Fraiberg, 1977; Reynell, 1978). However, Mulford (1989) argues that blindness alone cannot be responsible for a language onset delay. He analysed 14 other studies which indicate no major delay in early language development. The studies also indi-cate that FB children generally follow the normal acquisition of the first 50 words (Blanken et al., 1993). Since FL education usually starts when the child has mastered L1, there is no need to provide insight into all these studies whose results only in-directly affect FL learning.

With regard to the structure of FB children's mental lexicon, the findings show that it varies slightly from that of FS children. In the study by Nelson (1973) words were divided into different categories such as general nominals, action words or

modifiers. The study results indicate that the three groups are represented comparably in the FB children's lexicon. Yet, some differences can also be observed within the categories, namely in comparison to the FS subjects, the FB participants have more terms for sounds and household items but fewer for animals. This may be put down to the restricted experience of FB children.

Urwin (1978), in turn, attempted to classify FB children to one of the groups based on the structure of the early vocabulary, namely either referential or expressive. Referential children use a large number of general nominals, specific nominals and action words with few function words, whereas expressive children use fewer general nominals and more multiword phrases. The results of Urwin's study indicate that FB children may be called expressive as they use few general nominals. However, they also seem referential in some other features. Certainly, these results may vary depending on the learning situation (Mulford, 1989).

There are two facets of L1 lexical development, namely semantics and morphology, which are reflected in FL learning and thus need to be considered while planning FL teaching to BLs. One semantic phenomenon has already been discussed in section 2.2.2.4 on language development, namely verbalism (the use of language e.g., *colours* or sighted terms such as *look* without the back-up of concrete experience). Other issues related to semantics concern the use of deictic and locational terms, the use of personal pronouns, understanding concepts, and development of prototypical representations. The comparative studies of FB and FS speakers' lexicon tackling semantic and morphological problems are particularly important as they enable the predicting of certain difficulties which may emerge in FL and the developing of efficient ways of teaching FL vocabulary to BLs.

2.3.2.1. Deictic and locational terms

A question frequently posed by FL teachers is: Can FB students understand their L1 words related to vision and spatial relationships and if not, what is the point in teaching them these words n FL? In section 2.2.2.4.3 on verbalism it has already been demonstrated that the visual verbs such as 'see' and 'look' are meaningful for FB people, though they have a different meaning than for FS people (they refer to the haptic modality). For Kelli from Landau and Gleitman's study (1985) 'see' means 'be aware of', and 'look' 'to explore haptically'), but she is aware that the verbs have different meaning for FS people. Interestingly enough, these verbs can also be used by blind children to refer to the auditory modality (Mills, 1987). So far, it has also been mentioned that due to restricted experience FB children also display undergeneralisation/underextension and related lack of overgeneralisation/overextension. The phenomena are common in FS children, however only in their early language development.

FB children also seem to have difficulties with the acquisition of spatial and personal deictic terms (e.g., 'me', 'you' and 'here', 'there' etc.). Mulford (1981) in his experimental study investigated deictic terms, namely 'this' and 'that', and 'here'

and 'there' in two groups of FB and FS subjects. The FB children even at the age of six were still making errors. McGinnis (1981), in turn, observed that in the FB children's spontaneous speech deictic terms were rare and used without clarifying gestures. Similarly to FS children, they learned personal deixis (personal pronouns) before spatial deixis. Unlike FS children, they mastered the proximal terms (this, here) before the distal terms (that, there).

The acquisition of locational terms is also delayed in FB children, however it is still not certain whether it follows a different route than in FS children. Bigelow and Bryan (1982) investigated the acquisition of 'in', 'on', and 'under' and they noticed that the FB children, unlike the FS children, place an object in relationship to themselves more quickly than two objects in relation to one another. According to Clark (1973), familiarity of a relationship between objects (e.g., a cup is on a saucer) has an impact on the order of acquisition. Orientation to self seems to be stronger than familiarity with the objects. Ongoing research by the author concentrated on the acquisition of a locational term 'in front of', which is frequently mastered late by FB children. It seems that the interpretation of 'in front of' depends on the nature of the object. If an object has features typical of a front surface, then the preposition means 'before this surface' as opposed to the interpretation 'before the speaker'. The FB person needs to know first what these fronting features are to interpret the preposition correctly.

The above findings may be explained in terms of a delay in the acquisition of the underlying cognitive concept of space. As Mulford notices, this assumes a close relationship between cognition and language acquisition. They also have some didactic implications for FL teaching. FL teachers need to make sure that FB students properly understand deictic and locational terms in their L1 before introducing them in FL. With young FB learners the use of realia (e.g., a toy house) is recommended. With older FB learners who still do not understand the change of reference point according to the object or do not recognise fronting features of objects, the use of realia (e.g., the relationship between the position of two students in a class) or clarifying gestures are advisable.

2.3.2.2. Personal pronouns

FL teaching, particularly to young FB pupils, may be a challenge for teachers. Not only deictic and locational terms pose a problem for young BLs but also personal pronouns. Difficulties in the acquisition of personal pronouns are a natural consequence of a delay observed in the acquisition of the spatial concept.

In order to use correctly the personal pronoun 'I', a child needs to first establish a sense of himself as separate from the environment. Self-concept allows him to evaluate himself and it includes what and how he thinks about himself. In the majority of normally developed children self-concept develops between 18–30 months when they are able to describe themselves in their own language (e.g., I'm tall or

small, a girl or a boy, good or naughty, happy or sad). Self-concept is related to self-esteem — a major key to success in life and self-recognition (when a child looks into the mirror and recognises him-/herself). The issues will be discussed in detail in subchapter 2.4.3.3 on affective considerations in FL learning. Since the FB child is not able to recognise his reflection in the mirror, the development of his self-recognition and self-concept is naturally delayed.

The first studies investigating personal pronouns in FB children were conducted by Fraiberg and Adelson (1973) and Dunlea (1989). The researchers noticed that FB children appear to be delayed in the acquisition of the first pronoun 'I'. They also started to use pronouns productively very late (at nearly four years of age). According to the researchers, it is due to the delayed development of self-concept, which is linked to the later development of symbolic play. The children under investigation also produced a great proportion of reversal errors (first-person for second-person pronouns and vice versa). Furthermore, they used a high frequency of proper names in place of first and second person pronouns. This may, however, reflect the input provided to FB children by adults. In languages such as Kaluli in which this simplification of using proper names does not occur, children do not have problems with shifting roles (Schieffelin, 1985).

Mulford (1981) attempted to explain a delay observed in FB children. He claims that the delay is due to the problem of determining shifting roles for which FS children can use visual information. Pérez-Pereira (1999) asserts that these studies do not offer quantitative data, making replication impossible, and relied on authors' personal appreciation of data. He also makes a point that the view the studies offered fueled the idea that FB children resemble autistic children, who typically produce numerous reversals.

It is also worth mentioning the research results obtained by Pérez-Pereira (1999) which contradict the above-mentioned findings. The author found the evidence that not all FB children produce reversal errors and that they do not differ much from FS children in this respect. Furthermore, they found that FB children's use of personal reference terms followed a developmental pattern similar to that of FS children. They both start to produce the first pronouns in formulaic expressions before the age of two and between 2 and 3 years, all of them produced a great number and variety of pronouns in flexible structures. Pérez-Pereira also established that imitation of utterance previously produced by the interlocutor does not seem to be a sufficient explanation of reversals. His finding runs counter to one of the most widespread hypotheses. He concludes saying that difficulties with pronouns are not a general characteristic of FB children as a group.

It should also be noted that despite the fact that languages vary, in most of them children must also learn the singular/plural distinction and gender for the third person singular forms. Gender errors were studied by Mills (1986). She reports on a greater occurrence of errors in gender selection in FB children than FS ones. Moreover, the errors continue in FB children even up till the age of 5 and 6 whereas in FS children they disappear at the age of 4. Certainly, these errors should be put down to the problems in determining the sex of the referent, which is difficult in the absence of vision.

The studies presented above show that the problems with personal pronouns are either typical of FB children or they do not appear at all. From my own experience I can say that personal pronouns are difficult only for young BLs. With the onset of the concrete operational stage the overwhelming majority of FB pupils are able to shift perspective and adopt a distinctive point of view which is necessary for correct production of personal reference terms. What may sometimes continue even up to late school times is the frequent overuse of proper names instead of pronouns. This however is not because of BLs' unawareness of how language functions but rather it is a way of drawing attention of a particular interlocutor in a group of speakers.

2.3.2.3. Understanding concepts

It has been already repeatedly said that FL teachers must make sure that their BLs properly understand terms in L1 before they are introduced in FL. A question that may be posed is: What about a situation when an FL teacher finds that an FB student has developed inappropriate representation for a given concept? It seems that the teacher would then need to explain what that particular concept means. Spatial relationships and personal pronouns discussed already are typical problems for young learners with vision loss. There are, however, a few categories of problematic concepts which FL teachers may need to explain even to adolescent or adult BLs.

The academic debate on understanding concepts goes back to the 19th century and it is essentially linked to the role of language in this process. Benjamin Whorf argued that concepts are created, or at least made knowable by means of language. Vygotsky and then Luria contributed to the debate with their idea of practical experience as an inseparable element of language used in conceptual development. This practical experience starts from play with a constant flow of language. In this way the link between language and concrete reality is reinforced. Furthermore, in play the child controls objects and uses language to project what their toys will do. The FB child has different conditions for concept development. Without vision he is frequently hesitant to explore because of fear of the unknown and overprotection from adults. Due to the lack of concrete experiences he is not able to develop meaningful concepts or the language to describe or think about them.

Probably the first study on the meaning attached to words by FB people was carried out by Cutsford (1951). The researcher claims that FB children's words are meaningless which is evidenced by the fact that these children give definitions of words such as 'blood' or 'moon' using visual terms such as 'red' and 'yellow' which are not accessible to them (Cutsford's detailed achievements have been already discussed in section 2.2.2.4.3 on verbalism). Pérez-Pereira (2006: 358) points to a few problems with Cutsford's investigation. Firstly, metalinguistic knowledge (conscious access to the meaning of words) may vary from the real meaning that FB children have. Furthermore, conception of meaning seems to be limited in a sense

that the meaning of a word does not only emerge from sensory experience and its conceptualisation (reference). The child also creates meanings of words based on sense relations (grammatical meaning), and adults' intentions (pragmatic meaning). Pérez-Pereira concludes that FB children can use the information provided by language itself to learn the meanings of words. This is supported by the fact that colour terms appear in the same position as other qualifying adjectives.

However, the research on meaning interpretation clearly shows that FB people attribute similar meanings to some specific words as FS people, but not identical. Dunlea (1989) points to the problem saying that FB children have limited access to perceptual characteristics of the external world, which is reflected in the limited non-abstract character of concepts and lack of generalisation. Indeed, FB people may have particular problems with forming meaning for concepts that cannot be explored hapticly because they are out of their reach (e.g., the sun) or those which are too large to perceive as a whole (e.g. a church). In Jedynak's study (2011g) an adult student of English was surprised to discover that 'a moon' is not always round like the sun, and a newspaper article with the word 'a battle' in the headline did not mention 'horses' but referred to partner relationships.

In an FL classroom, a teacher should predict potential problems with forming meaning. He/she may need to elicit from BLs how they understand a given concept to avoid confusion in FL. If necessary, meaning should be explained in L1 by either providing a tactile representation of an object (e.g., a plastic model of the moon with different shapes) or combining tactile and auditory techniques (e.g., a model of a dog and a sound of a barking dog, or performing any action which has an audible component). However, some words cannot be physically experienced (e.g., colours). FL teachers may introduce them in a target language in the same way as it is done by early education teachers, namely by linking properties to some objects (e.g., blue sky, green grass, yellow sun).

2.3.2.4. Prototypical representations

Concrete experience is essential for all children to develop cognitively but it is central to FB children's learning. Without concrete experience FB people may not only have problems with understanding meaning but also developing appropriate prototypical representations for different concepts.

Prototypes are related to the averaged experience with a class of objects, qualities and phenomena, and they result from conditions determined by the environment, culture and other regional specificity (Wierzbicka, 1992; Ungerer and Schmid, 1996). The theory of prototypes is related to effectiveness of language teaching. It was demonstrated that the prototypicality of stimuli contained in pictures used to teach concrete nouns has a bearing upon word storage and retention. A question that arises here is: Are there any differences between L1 prototypes developed by FB and FS individuals?

To my knowledge the issue of prototypes has not been systematically examined in the field of linguistics. In one comparative analysis of prototypes Jedynak (2008d) administered two tasks to 18 FB and 18 FS adults aged 17–22. The FB participants all lost their sight before the age of two. The first task demanded from the participants the providing of words (associations) to the categories named 'birds', 'furniture', 'fruits', 'clothes', 'weather conditions' and 'sport'. The subjects were explained that the words should refer to the objects, which have the most characteristic features of a given category and may be called a representative of this group. In the second task the participants' abilities of grading words representing one category were compared (the most characteristic object was to be classified in the first position before others with fewer common features characteristic of a given category). Some differences in prototypicality between the groups was found. Firstly, the FB subjects developed a wider range of prototypes in all 6 categories. For example, in the category of 'bird' they provided as many as 4 prototypes: a swan, a duck, a sparrow, and a pigeon whereas the FS ones only two: a pigeon and a sparrow. Differences between the groups are hard to explain. Partly they are related to perceptive modality (i.e., FS people more often see pigeons and sparrows than ducks and swans). In the case of the FB subjects, however, the researcher suspects that perceptive reality is not relevant here but rather the input provided by caregivers (i.e. probably FB people more frequently hear about swans and ducks through stories and fairy tales than about sparrows and pigeons). Yet, in the case of a 'weather conditions' category the impact of perceptive haptic modality on prototypicality was more visible (90% of the FS subjects opted for rain whereas the FB subjects went for drizzle, hail, snow and rain). Prototypes developed by the FB adults reflect their experience with reality, which was particularly evident in prototypical representations for the category of 'sport' (jogging was a typical sport and not football because they frequently took part in the former) and for the category of 'vegetable' (peas was more prototypical than carrot because it was served for years in a school canteen).

Various limitations of the study (e.g., a small sample) mean that generalising and applying the results to the whole FB population is not possible. There is definitely a need to duplicate the study to support the results of Jedynak's study. Nowadays all the language course books both in Braille or enlarged print introduce FL vocabulary relying on L1 prototypical representations developed by FS individuals. If there are differences in prototypicality between FB and FS people, teaching FL vocabulary to BLs should probably be revisited.

2.3.2.5. Morphology

There are conflicting research results on the acquisition of morphology by FB children. Any deviations observed in the conducted studies might have been equally put down to lack of vision as to other factors. Elstner (1983), for example, attributed a delay to a multiple handicap. However, Maxfield (1936, in Bishop and Mogford,

2004) did not find indications of any major delay in older FB children and Landau and Gleitman (1985) confirmed the observations with older children.

The majority of researchers agree that with the exception of personal and possessive pronouns, no other morphological problems can be expected from FB children. Dunlea and Andersen's (1992) findings show that at first young FB children use relatively few morphemes in formulaic structures and imitations. The typical morphemes are plural, third person of present indicative, and locative prepositions 'on' and 'in'. The researchers observed that the stage of productive morpheme use emerges later than in FS children. Dunlea and Andersen attribute this delay to the cognitive difficulties FB children have in conceptualising the number of entities of the external world, the spatial relationships of entities, and the agency of others. However, Pérez-Pereira (1999) makes a point that at the beginning FS children also use morphemes in formulaic and limited-scope structures such as pivot schemas or item-based constructions. For this reason, no special explanation is necessary to understand FB children's language.

Dunlea and Andersen also report on FB children's advantage over FS children in the use of some morphemes, such as the regular past. As to the acquisition of other morphemes no differences were observed. Both FB children and their sighted peers use over-regularisations of irregular morphemes (e.g., goed) at the same ages. According to Pérez-Pereira and Castro (1997), this is evidence that FB children are creative just like FS children and that the morphemes are the result of the use of a general rule deduced from the analysis of language provided in input.

From the above-mentioned findings it can be said that the morphological development of young FB children is not impaired or delayed, but it is at first only different from that of young FS children. Differences between FB and FS children seem to be the result of processes adaptive to the absence of visual information. Therefore they should not have an effect on FL morphological development of BLs.

2.3.3. Syntax

With regard to syntax, the researchers agree that generally it develops in FB children in the same way as in FS children. The similarities were observed not only during the first steps of grammatical development but also during the acquisition of complex sentences. At 2.6 years of age or shortly thereafter FB children start using coordinate and subordinate sentences and at 3.6 start producing a great variety of complex sentences, though they are infrequent. Around 4 years of age, they produce all types of coordinate and subordinate sentences (Pérez-Pereira, 2006: 359).

Nevertheless, some qualitative differences were observed. Landau and Gleitman (1985: 48–49) investigated in detail syntactic development in three FB children. They noticed that the children were slower than their sighted peers in the acquisition

of the verbal auxiliary in English (e.g., do, be, have, shall/should, can/could, may/ might, etc.), but no major delay was observed with any other construction. The researchers established that this delay was related to the structure of input provided by mothers. The analysis of input revealed that it contained fewer instances of the verbal auxiliary since the mothers used more imperatives containing no verbal auxiliaries (e.g., The block goes here.) and fewer declarative and questions which contain auxiliaries (e.g., Should the block go here?). The delay in this specific aspect of syntax does not seem to have any major consequences for either further L1 acquisition or FL learning, which usually starts when FB children catch up with FS children in the use of the verbal auxiliaries. Nevertheless, it seems necessary to investigate the syntax acquisition in a language other than English, for example in one of the languages which use different structures in imperatives and questions (Blanken et al., 1993: 682).

2.3.4. Pragmatics

Language communication is efficient if the listeners are able to properly assess the information to which they have access either directly or indirectly. This ability of meaning transmission depends primarily on two factors, namely structural and linguistic knowledge (e.g., grammar, lexicon etc.) of the speaker and listener, and the context of the utterance (any pre-existing knowledge about those involved in communication, the inferred intention of the speaker). Having this ability language users are able to overcome apparent communication ambiguity. Children take considerable time to acquire this ability. In the case of FB children, it is even longer. Blanken et al. (1993: 686) assert that FB children's language is more pragmatically deviant from FS children because the former are not able to take the listener correctly into account. The researchers attribute it to a slower development of the theory of mind, which is typical of autistic children.

Pragmatic problems generally concern young children, however they may continue even later. The problems include getting the attention of a listener and sustaining conversation. FB people, unlike those who are sighted, are not able to use verbal cues (e.g., eye contact, directing gaze etc.) to initiate conversation. The study of pragmatics in FB children drew the attention of numerous researchers. Mulford (1981) demonstrated that young FB children frequently use touch or the proper name of a listener to attract his attention. Furthermore, they also display inappropriate behaviour such as pinching. Erin (1986), in turn, made an interesting observation on the use of questions by FB and FS children aged 4 to 10 years. It turns out that the former use questions more often than the latter to sustain conversation. Olson (1983) in his research investigated FB adolescents and noticed that they verbalised more than FS children. Similar observations were made by Dunlea

(1989) who proved that FB children used language to keep in touch with their care-takers and other people to a higher extent than PS or FS children, who could rely on visual resources. Moreover, FB children were more likely to produce non-inter-active language when they produced utterances without illocutionary force. Their utterances also lacked discourse-maintaining functions, and probably represented the emergence of verbal play strategies, which replace object play for FB children. Dunlea also studied illocutionary acts and noticed no remarkable differences in their acquisition order by FB and FS children. Despite a remarkably similar overall pattern of pragmatic development, Dunlea observed that the FS used more offering and attention-drawing gestures (pointing, showing etc.) and the PS persis-tently used vocal-getting behaviours, such as vocalising and fus-sing. Dunlea also analysed the relative frequency of use of various illocutionary acts. She noticed that FB children used requests to a greater extent than FS children (20% and 16% respectively). FB children also used attention getting verbal expressions more fre-quently than FS children do and the same pattern was found in relation to the use of verbal routines, and protests/refusals/rejections. In contrast, FS children used more assertions and were more persistent than FB children were. A similar trend was observed for offering/showing.

Pérez-Pereira and Castro (1997) are of the opinion that FB children use lan-guage with similar functions as FS children and that they generally learn to per-form these functions at the same time as FS children. The researchers assert that any differences that may emerge disappear at the age of 4.6 years. They link the differences to the adaptive strategies used by FB children and their limited access to information about external reality. Pérez-Pereira and Castro discuss thoroughly all the differences. One of them is the use of self-oriented language by FB chil-dren instead of externally oriented language. This explains why FB children use descriptions of their own actions or their own intentions to carry out an action, or expressions of their wishes. It was observed that FB children more often produce language with reference to locations of objects and actions, qualities of objects, and the description of external events. This is due to FB children's restricted ac-cess to information of the external world. It was also found that FB children pro-duce fewer verbal expressions to offer, show, or draw an interlocutor's attention (socially oriented speech). Pérez-Pereira and Castro put it down to the lack of the motivating factor of perceiving their interlocutors. Similarly to Mulford, the re-searchers noticed that young FB children use a relatively high proportion of calls or vocatives to get information about the presence and location of other people in the surrounding environment.

Also Peters (1987, 1994), investigated the pragmatic language aspect. She notes that FB children are dependent on the vocal channel of social communi-cation. At first, they rely to a great degree on partially analysed segments of the speech they hear in routine situations. The strategy of learning and using whole phrases or formulas for specific contexts and activities facilitates participation

of FB speakers in social interactions and shared activities with other people. In comparison to FS children they use more routines and repetitions/imitations. This is manifested in their immediate, delayed, literal, and expanded imitation. In time they discover all the complexities of language and how a language system works.

With regard to participation in communicative conversations by FB children, there are conflicting data. Some studies indicate that it poses a particular problem to FB speakers just like for autistic children (e.g., Moore and McConachie, 1994) whereas others (Pérez-Pereira and Conti-Ramsdem, 1999, 2001, 2004) show no differences in this respect between FB and FS children. Pérez-Pereira and Castro (1997) assert that there are some methodological limitations, which need to be recognised in the previous studies. They point to the fact that analyses in these studies were incorrectly performed based on proportion of initiations relative to mothers' initiations. When the studies were duplicated and frequency of initiations was calculated, it turned out that FB children initiate as many conversations as children without visual impairment. Furthermore, FB children also produce relatively few conversational breakdowns and take as many turns as FS children.

FL classes, unlike other classes in which a mother tongue is used, offer favourable conditions for practising pragmatic aspects of language. FL learners are involved in communication, participating in language activities such as role-plays or language games. What is more, while performing various communicative tasks they may assume a new identity. Under diverse conditions created in an FL classroom FB learners, frequently marginalised in out-school and in-school communication and oversensitive to criticism, become more likely to engage in interactions with FS learners and adapt new communication strategies offered by their peers or teachers. Reframing a relationship with interlocutors allows an FB learner to speak from a different position; not a person with visual impairment but rather a person whose identity he assumed. New identity construction and negotiation also allows him to open up more to FS speakers and consequently enhance his feeling of self-worth and success in FL learning.

FL teachers have a significant role to play in this process. Firstly, they can assign more 'powerful' identities in role-plays activities to FB learners having problems with communication or self-esteem. Secondly, they can practise with both FB and FS students, various aspects related to maintaining a conversation in the absence of nonverbal cues or the use of different illocutionary acts.

To my knowledge, SEN courses preparing pre-service teachers to FL teaching in mixed abilities classes do not devote much attention to all the intricacies of pragmatic development in FB speakers. Yet, the knowledge of the acquisition of conversational skills or the expression of communicative intents by FB learners is fundamental, particularly in the times of the communicative approach and inclusive education which demand regular interactions between FB and FS pupils in an FL classroom.

2.4. The visually impaired in foreign language classroom

2.4.1. Holistic education

It is difficult to map the history of holistic education because as Forbes and Martin (2004) notice, the core ideas of holism are not new but timeless and can be found in the sense of wholeness in humanity's religious impetus. The idea of education as a lifelong enterprise can already be traced in the works of the ancient philosophers. The proverb inscribed on the temple of Apollo at Delphi *know thyself* describes holistic education in the best and briefest way. A holistic educational approach develops not only the intellect of students but also helps them grow emotionally, creatively, and spiritually; enabling them to become more fully rounded human beings.

From the perspective of wholeness, education, including language education, is much more than providing a learner with a certain amount of academic information. Above all, it is about developing his potential as a human being (Epstein, 1998). It also holds true for SEN education. Language education to the VIL is not only about teaching him language skills and language aspects which ultimately can be translated into academic achievement but also about providing him with a sense of being, ensuring his emotional balance, giving him a chance to enjoy doing things and sharing this enjoyment with others. Therefore, FL teachers should prioritise enhancement of the holistic growth of the VIL which consequently will contribute to better language learning.

The traditional educational system endorsing uniform schools with rigid core curricula do not offer possibilities of the whole learner development. In the SEN or mainstream context, such a conventional approach to learning does not agree with Gardner's multiple intelligences — the theory particularly relevant to VILs since due to their sensory deficiency they need to adjust their learning patterns to compensate their absence of sight. Therefore, it is crucial for the FL teacher to take into consideration learning style variation when developing instructional materials for such a group of learners. It should be noticed that the current trend in the EU to integrate SEN pupils into mainstream schools does not render uniform education but on the contrary, it requires an individual-centered approach. Only in this way may full inclusion be feasible in the member states.

In the sections presented below various researchers share insight into FL learning processes in learners with vision deficit. They tackle such issues as language programmes and teaching approaches, language learning strategies, cooperative learning, and instructional tactile materials. From all the research one convergent point emerges, namely that VILs are viewed as whole, complex individuals with intellectual and affective needs — people who benefit from FL learning not only in

terms of their academic achievements but also in terms of personal growth. They learn to observe and understand themselves in relation to people without visual impairments. They start to believe in their abilities and make use of their potential (find employment as teachers and translators), discover the ways in which they can learn effectively and learn social skills, which enable them to function successfully in society and cooperate with FS people.

2.4.2. Review of literature

The first publications on practical FL learning and teaching and visual impairment appeared in the 1930s. Since that time there has been an abundance of books with practical hints on how to teach FL to VILs. Yet research into SLA and visual impairment is still in its infancy. The scarcity of studies in the field of second language acquisition for VILs may be due to the generalised assumption that 'these students follow the same patterns of learning as their sighted counterparts; provided there is reasonable competence in the mother tongue, second language will be learned successfully, as literacy skills transfer across languages' (Cummins, 1984, in Aikin Araluce, 2005: 77). Yet, there are some researchers who explore various aspects related to FL learning by VILs since they believe that VILs and FSLs do not follow the same route when acquiring an FL. These scholars also attempt to find the factors which influence the VILs' learning process. Finally, they work over the ways of improving the teaching process so as to bring the best learning outcomes.

Below I report on the publications related to FL teaching to VILs starting from the early language programmes for BLs and approaches for teaching FLs to VILs. Then insight is given into some SLA studies tackling various language aspects in VILs. The aspects pertaining to FL achievement correlates are thoroughly discussed in section 2.4.3.

2.4.2.1. Language programmes and teaching approaches

It seems that the first publication on visual impairment and FL learning was *Teaching Foreign Languages in Schools for the Blind* written by a blind teacher William Patrick Morrissey in 1931. The book raised awareness of the potential of FB people for learning languages. The author claimed that loss of vision opened new ways for learners who may develop their auditory abilities to a greater extent than FSLs. In his view, FL learning is primarily a matter of using the sense of hearing. Vision, though helpful in learning, is not a prerequisite for successful mastery in an FL. Interestingly enough, Morrissey was of the opinion that FB people are predisposed to being teachers, particularly FL teachers.

It is also worth mentioning Flood's article *The value of Latin in schools for the blind* (1934). The paper concerned not only the possibility of teaching Latin to BLs

but also application of a mainstream syllabus to schools for the blind. Flood's idea was welcomed with enthusiasm at the 32nd biennial convention of the American Association of Instructors of the Blind.

As Aikin Araluce (2005: 79) notes, for the next 30 years after the appearance of the above-mentioned publications, there was almost no literature related to the subject. In the 1960s the Office of National Rehabilitation of the USA initiated a programme to train FB people to learn and then teach FLs. The experimental language courses were located at Georgetown University and monitored by the Georgetown Research Centre and supervised by Professor Dostert, who, among many other achievements, developed the methods of teaching FLs to VI people.[70] The participants for the Russian and German language courses were recruited from various parts of the USA and they represented both VI and FS people. The course of 40 hours per week was taught by means of the aural-oral method. The course participants were first acquainted with the FL sound system and then with FL vocabulary and grammar. They were also encouraged to self-study in the language laboratory. The mastery of reading and writing in FL Braille and for Russian the use of the Cyrillic keyboard were required from the course participants.

The project turned out to be successful as in two years it produced qualified simultaneous translators of Russian and German and also teachers of these languages. The course participants were employed later on as teachers in mainstream schools as well as in special schools (Dostert, 1963; McDonald, 1966). The project opened a new field of activity for people with visual impairment first in the USA and then in other countries.

Since the Georgetown project FL training to VI people became more and more popular. For example, the idea was employed by the Catholic Guild for the Blind in New York City which in 1968 introduced an ESL programme for blind immigrants who had decided to settle in the USA and whose motivation to master English was very strong. The learners were taught English in line with the then fashionable oral-aural method. They started from a massive exposure to oral patterns of language followed by the English Braille, teaching gestures and facial expressions used by FS people. The course prepared the blind immigrants to function socially and professionally in various situations, which they might have encountered. The teaching materials and resources prepared for BLs did not require so many modifications; the flashcards were substituted by tactile materials and the content of standard lessons needed to be complemented with useful mobility tips (Aikin Araluce, 2005: 81). This adaptation is not, however, always easy; Marshall (1968) even calls it hard, and time-consuming since it requires teachers' additional involvement. Teachers need to

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[70] Since Leon Dostert was born in France, he had used his language abilities acting as an interpreter. During WW II Dostert joined the army and worked as the chief interpereter to Eisenhower. He also had a role in the Nuremberg trials acting as the interpreter. After the war he pioneered language laboratory instruction at Georgetown, set up language training centres in foreign countries, and launched literacy programmes in Turkey.

prepare a variety of objects, which FB students can touch as only in this way can the learner experience language learning in a meaningful context.

In 1987 Nikolic's publication drew attention to a marked talent of VI people to successfully learn FLs. The author claimed that this potential was linked to the learners' aural sensitivity and intense memory training. For these reasons, he advocated FL teaching to VI people within the framework of the mainstream education curriculum.

The 1980s witnessed the end of the long lasting oral-aural method and gave way to a concern for developing writing ability in an FL. The importance of literacy was also recognised in special schools. Nikolic emphasised in his article that BLs must first master reading and writing in L1 Braille if they want to achieve success in reading and writing FL Braille. As Braille's basic phonic structure can be translated across most language codes, proficiency in Braille can be transferred from L1 to English. However, some problems with double Braille symbols (those that have different meanings in L1 and FL) may occur. The problems only concern certain specific letters. Nikolic also highlights the importance of an adequate adaptation of teaching materials, which should not be changed to make an adjustment for mental development but to compensate for vision loss or deficit. They should also make use of the remaining senses.

Teaching literacy skills in both L1 and FL Braille is a challenging task — far more difficult than mastering these skills in print. As Nikolic notices, Braille reading is a slower process than print reading. Therefore, he advocates special courses on speed-reading in mother tongue Braille. Such courses teach BLs how to use both hands more actively while reading Braille.

The importance of literacy was also recognised by Guinan (1997) who pointed out that this component was frequently ignored in FL classrooms. She harshly criticised language courses taught by means of the oral-aural method for neglecting reading and writing skills. In her view, FL teachers contribute to a delay or elimination of this literacy component since they do not have knowledge of Braille. Consequently, VILs, particularly those with vision loss, are poor at spelling — the skill which in the case of English is crucial. Guinan sees a need for training FL teachers who are specialists not only in EFL but also in the education of VI children.

As has been already mentioned in 3.4.1, it is advocated to teach FLs through the holistic approach to VILs. The approach was implemented by Wyszyńska (2013) through the experimental method of FL teaching for VI students called the *psycho-linguistic therapy Touching the World* in which language competences are developed in parallel with the process of overcoming mental blockers. In her PhD thesis the author explains that her method consists of two layers, namely mental and linguistic. The former affects psyche through the sandtray therapy, controlled breathing practice, the Brain Linkage Method, and the edu-kinaesthetic area.[71] The latter, in turn, is based on a two-pathed language acquisition, namely lexis and grammar which are analysed through the Re-charged Direct Method, supported with collage

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[71] The sandtray therapy (a container with sand) provides sensory experience and meets the need for kinaesthetic experiences. The very tactile experience of touching and manipulating sand is believed to reduce tension and anxiety (Kalff, 1980) and cause 'a loosening of the tongue' (Wyszyńska, 2013).

and water clusters, involving the media of sand and water, and definite techniques within the area of tactile-audible perception (Wyszyńska, 2013: 89).[72]

The therapy based on the humanistic approach proved to be effective for FL learning. The researcher noticed that apart from increase in language competences the therapy also enhanced self-growth and self-actualization of the VI students. It helped them to overcome barriers and release feelings, to increase positive qualities of self, such as joy, peace and self-esteem. Additionally, manipulating sand and water encouraged the VILs' self-expression.

2.4.2.2. Language learning strategies

The process of FL acquisition also involves language learning strategies. Since Rubin and Stern's introduction of the concept to SLA in 1975, language learning strategies (LLS) have created much controversy over the past years. Various classifications of LLS have been offered (e.g. Rubin, 1981; O'Malley et al., 1985; Oxford, 1990) and a new term has been suggested to be used — instead of 'strategy', 'self-regulation' (Dörnyei and Skehan, 2003).

LLS also aroused the interest of the researchers exploring SLA in VILs. In the qualitative-quantitative study by Jedynak and Wesołowska (2014) the researchers investigated the influence of visual impairment on the choice of vocabulary learning strategies by three groups of learners, namely non-blind (NB), partially blind (PB), and fully blind (FB) learners (the abbreviations were used by the authors and differ from the ones used throughout the present book). All the subjects were Polish learners of English at an intermediate level. The researchers also intended to discover which of the strategies were shared by all the learners, regardless of the degree of sight loss and which were unique for one particular group of learners.

The study was retrospective in nature. The subjects participated in a task in which they had to say what strategies they had used to learn various vocabulary items belonging to four categories (five items each): abstract nouns, idioms, phrasal verbs and prepositional phrases. In order to elicit the participants' responses the instrument of an open-ended questions interview was applied. The subjects were encouraged to produce longer responses (e.g. describe a situation/context in which you learned a given lexical item) instead of providing short yes/no answers. The researchers recorded all the subjects' production for further analysis (categorisation of strategies used by the subjects). The subjects could indicate the lexical items, which they had already learned from contexts other than those in the researchers' experiment, and those for which they were not able to report on a strategy they had used.

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[72] Re-charged Direct Method is based on the Direct Method question-answer interaction. The modified, re-charged version comprises two additional modules: 4-second acquisition, parallel reading and dicto-listening. 4-second acquisition works as the *presentation* of new structures, then speaking comprehension focused on *practising* them, and finally the *production* issue, achieved through parallel reading and dicto-listening that remains for the second repetition (Wyszyńska, 2013: 93).

The subjects' responses were classified to the following groups: K *Known before*, 0 *do not remember strategy*, I *Keyword*, II *Using imagery*, III *Representing sounds in memory*, IV *Employing action*, V *Mental association*. The participants reported on ten various strategies, which could be classified to I–V groups: 1) *English keyword (I)*, 2) *Polish keyword (I)*, 3) *Imaginary object (II)*, 4) *Imaginary scene (II)*, 5) *Familiar sound (III)*, 6) *Rhythm and sound (III)*, 7) *Combination of sounds (III)*, 8) *Employing action (IV)*, 9) *Mental link (V)*, 10) *Familiar context (V)*. The strategies use in the three groups is displayed below.

Table 2.1. The results obtained from the three groups on five types of strategies

Strategies	Non-blind		Partially-blind		Blind
	N	% per individual	*N*	% per individual	*N*
I	41	61.19	26	46.43	26
II	8	11.94	5	8.93	9
III	6	8.96	16	28.57	10
IV	3	4.48	4	7.14	1
V	9	13.43	5	8.93	15

In order to examine how the NB, PB, and FB groups varied in terms of using the particular strategy groups, the chi-square test for independent observations was applied. The data analysis showed statistically significant differences between the groups only in the use of strategy groups I, II, and V ($\chi2$ (8) = 16.28; p = .030). This means that:

a. the group of the NB subjects used the strategies I more frequently than the other groups;
b. the group of the PB subjects used the strategies III more frequently than the other groups;
c. the group of the FB subjects used the strategies V more frequently than the other groups.

Data analysis was also conducted to compare the three groups of learners in terms of using each strategy group separately. Here, statistically significant differences were found between the three groups of learners only in the use of strategy group III ($\chi 2$ (2) = 7.98; *p* = .021).

With regard to the strategies used for learning various categories of vocabulary some differences were observed between the groups. In the category of abstract nouns, there was an apparent tendency to use the keyword strategy, based either on an English word (mainly the NB group), or a Polish familiar word (all three groups). Another strategy type (used predominantly by the FB group) concerned focusing on the sound

of the word. In the case of idioms, the responses clustered around the main three strategies. The overwhelming majority of the respondents from the NB and FB groups used their imagination to learn an idiom (strategy II) or tried to create an effective mental association (all groups, with the FB opting mainly for the use of the items in a familiar context). When the subjects could not picture the item in their minds in the ways mentioned above, they would resort to the keyword included in the phrase. Only the PB (and one NB person) used the strategy, which required the use of hearing (strategy III). As to phrasal verbs, the majority of the subjects from all the groups only focused on a familiar word in the phrase (e.g. 'catch' in 'catch up with', strategy I). The remaining responses concerned imagery (strategy II) and sound (strategies III) as well as mental association (strategy V). In the category of prepositional phrases, three tendencies were observed. The scores of the NB were spread among all different strategies, with the keyword as the chief one. The FB subjects, in turn, showed a preference towards the keyword and mental association strategies. The majority of the PB subjects mainly used their sense of hearing, aided by the keyword strategy.

The study results imply some relationship between the use of FL vocabulary learning strategies and vision. Furthermore, they suggest that the groups vary in strategy use. The keyword strategy was definitely favoured by all the groups. The PB learners, similarly to the FB group, also selected the strategies related to representing sounds in memory. Furthermore, the PB group, who could still rely on their vision, opted for the keyword strategy in which they used auditory impressions rather than visual ones. Unpredictably, the PB subjects tended to rely more on the sense of hearing than the FB participants. Interestingly enough, the latter appeared to have developed other skills, rather of a mental nature, which they used to comprehend our visual reality and learn new FL lexical items.

Due to study limitations (small sample size, individual learner differences within the groups related to the onset of sight loss in the PB group), it is difficult to generalise about the use of FL vocabulary learning strategies by learners with and without vision deficits. Nevertheless, the research findings, which provide some insights into SLA and cognition of VILs, should encourage practitioners to teach FL vocabulary learning strategies to all the learners regardless of their vision deficits. Yet, FL teachers should be cautious, as not all strategies will be equally preferred by VILs and FSLs. The research results imply that apart from the keyword strategy the learners with visual impairments should be also encouraged to develop strategies based on sounds in memory and mental association (Jedynak and Wesołowska, 2014: 327).

In a discussion on language learner strategies utilised by VILs it is worth mentioning about the LANGLEARN-L project. Its main purpose is to exchange views on various learning strategies employed by VILs, their teachers and parents, and staff working in higher education, to make L1 and FL learning more efficient. The subscribers to LANGLEARN-L discuss the issue in terms of scholarly research as well as in terms of personal observation.

2.4.2.3. Cooperative learning

Apart from literacy component and learner strategies the researchers also noticed the role of cooperative learning in successful FL mastery. As has been mentioned in section 1.2, contemporary EU societies have a greater awareness of various impairments than a few decades ago. Kirk and Gallagher (1989: 60) used the following words to refer to this mentality shift 'We have moved from a social posture of rejection and the charitable isolation of visually impaired children to the acceptance of them as contributing members of society'. School, including the FL classroom, is the most important place, after the family environment where students can be taught how to use their potential for social development. Here VILs face new and various responsibilities, adapt to taking new roles, learn how to interact with both VI and FS people, how to live with them and make friendships. Language teachers can contribute to the stimulation of VILs' social skills.

The relationship between social predispositions and FL achievements was noticed by Stern (2001) who asserts that FL learning involves not only a new linguistic and cultural environment but also social environment. Stern (2001: 381) says

> Certain social and emotional predispositions can either help or hinder him [a VIL] coping with this aspect of language learning. To be outgoing and uninhibited is often also recommended as an appropriate strategy to be adopted by learners, particularly in the development of communicative skills.

Social skills can be developed during class interactions. The importance of peer interaction and peer group learning has been stressed by numerous SLA researchers (for example Crawford-Lange, 1987; Liepina, 2003). Since VILs differ from FSLs in physical development, and there are so many individual differences within a group of VILs related to the severity of the visual impairment which impact their social development, the application of traditional ways of learning could not develop social skills in these learners.

There are various forms of learning which can be enhanced in an FL classroom. Prets (2000) distinguishes the main four types. In *individual learning* a learner learns independently. *Competitive learning* is similar to individual learning, however here a student is assessed by specific measures and compared to other classmates. *Team competitive learning* makes students cooperate in teams but compete with other teams. The last type called *cooperative learning* requires students working in teams, which do not compete with each other. The first three forms of learning may be used successfully in traditional classrooms; however they will not work with VILs. As to individual learning, many VILs are not autonomous enough to experience such learning (the issue will be elaborated in section 2.4.3.3.8). A great disadvantage of competition in an FL classroom is the fact that it gives rise to a division into winners and losers and consequently creates misbalance in class or loss of motivation. Though one may argue that competition is indispensible in the contemporary world,

it seems that the skill of working in a team seems to be far more important. Thus, cooperative learning seems to be the best way of inducing VILs to work since it contributes to the development of their social skills, sense of responsibility, and building of a positive bond between classmates.

In the case study conducted by Kalnbērzina et al. (2008) at Strazdumuiža residential secondary school — training centre for visually impaired and blind children the researchers intended to verify the hypothesis of whether cooperative learning indeed contributes to higher language achievements (grammar) and better social skills. The study involved class observation to evaluate the subjects' social skills, a language test to set the subjects' grammar level, and a questionnaire on the participants' experiences with group learning. During a 12 lesson period when the research was conducted the VI students completed a number of tasks using the group work.

At the end of each week the subjects had to evaluate the group members in terms of various aspects of cooperative learning. The first aspect concerned positive interdependence, which means that each group member had a task to perform and in this way had to contribute to the group in order to reach the common aim. This part of cooperative learning was difficult for two VI students who due to their impairment were not able to do tasks independently and needed additional help from another member of the group. The researchers also used another method to encourage the VI students to become more involved in the task, namely they introduced physical activity such as gluing and cutting.

The second element of cooperative learning analysed in the study was face-to-face interaction. It involved working together, sharing resources, giving support, and encouraging each other's efforts. The VI students were working over a task which could be performed successfully only if the participants shared their information.

The third element of cooperative learning investigated in the study was both individual and group accountability. The VI students had to fill in evaluation sheets in which they assessed the performance of each group member. The students' performance was assessed according to the same criteria by teachers. The assessment sheets were presented to all the groups to make them aware of the improvements, which needed to be made. Consequently, the group members were expected to become more active learners and more accountable for their individual performances. At the end of the research, the VI subjects had a chance to provide feedback on how the evaluation sheets helped them in cooperative learning.

The fourth element of cooperative learning concerned interpersonal and small group skills. During the study the VI students had a chance to learn social skills such as listening carefully and later on practised acquired skills. The researchers elicited from the VI students how they interpret group work and how they evaluate their social skills. The students' feedback was regarded as an important element of raising the VI students' awareness on what aspects of interpersonal and small group skills they still needed to work on.

The fifth element of cooperative learning analysed by the researchers was group processing. The VI students answered the questions: Have you managed to reach all the aims? and Have your social skills improved? The study participants were also

asked to provide their feedback on other group members' actions (which actions were helpful and beneficial to continue and which should be modified) (Kalnbērzina et al., 2008: 53).

The researchers noticed that in the beginning the cooperative learning method did not appeal to all the VI students. Some of them openly expressed their dissatisfaction with the new method. They did not want to work in a group and do the jobs of others. The researchers put in a lot of effort to explain to the study participants that cooperative learning is not just about working in a group and performing some tasks but rather working together, helping each other, sometimes performing the role of a teacher while at other times learning from other group members.

Analysing pre-test and post-test grammar test results the researchers noticed an improvement in all the study participants who experienced cooperative learning, though it varied from a very high improvement (10 points) to very little improvement (only 2 points).

It seems that cooperative learning may be successful with VI students. Apart from the advantages such as academic achievements the researchers also noticed that the study participants developed social skills, had greater enjoyment of learning, and higher self-confidence. There are the apparent study limitations such as a small sample (the case study) and more research is required to support the hypothesis on the effectiveness of cooperative learning in the setting of students with visual impairments (Kalnbērzina et al., 2008: 67).

Cooperative learning is difficult to implement in a classroom with VILs. The researchers discussed the various difficulties they faced while implementing the new method. Firstly, cooperative learning is time consuming, thus many language teachers may easily give up and continue teaching in a traditional way. Secondly, VILs may not accept the method if they do not have any experience in working in groups. However, the researchers claim that the aim of education is not only to transmit knowledge but rather to develop the learner's personality so as he/she can live and work independently. The aspect of VILs' autonomy will be thoroughly discussed in section 2.4.3.3.8.

It should also be noticed that cooperative learning develops not only a VIL's personality and ability to live independently but also gives him/her a chance to participate in the lifelong learning promoted by the European Commission. The social skills acquired through cooperative learning allow VI people to be involved in full social inclusion, active citizenship in the EU, and to become self-sustaining in their personal and professional lives. For these reasons, involving VILs in cooperative learning seems necessary as it contributes to EU policies.

2.4.2.4. Instructional tactile materials

The significance of FL materials and resources adaptation has been recognised as one of the most important objectives of language education for learners with visual impairments (see 1.2.3 for more details). To the best of my knowledge, there are

no more comprehensive studies on material adaptation than the one presented in the PhD thesis by Aikin Araluce (2005). Though the study was conducted in the context of mainstream education in Spain which has probably become more open to inclusive FL learning than many other EU countries, its findings may shed light on how to adapt instructional materials across other member states to enhance integration between pupils with visual impairments and those fully sighted.

Aikin Araluce being an experienced language teacher to VILs made an attempt to investigate the effectiveness of the instructional materials used for teaching English in the Spanish schools. She put forward the hypothesis that the use of instructional materials which take into account students' sensory deficiencies will have a positive impact on VILs' academic achievements and their attitude towards FL learning. The author asserts that a positive correlation between the above-mentioned variables is only possible when FL instructional materials contain tactile motivational impact equivalent to the visual stimuli usually found in textbooks designed for FS children. Furthermore, instructional materials also foster different learning styles by stimulating the different intelligences (spatial, musical, logical, linguistic, kinaesthetic, naturalist, interpersonal, intrapersonal). Among the advantages of adapted instructional materials mentioned by the researcher, there is also the development of the VI child's creativity and self-expression. Contrary to popular belief that adapted instructional materials hinder inclusive language education, the author holds the view that such materials promote the VIL's integration into the sighted classroom if the teacher designs activities which encourage cooperation between impaired and non-impaired pupils.

Aikin Araluce started her research from two pilot studies carried out in private sessions both in mainstream settings and in an experimental summer camp. The FL instructional material used in the study was carefully elaborated after observing some mainstream school English classes with FB children, consulting language teachers, FB pupils, and specialists in the field of visual impairment such as early intervention experts, specialist psychologists or peripatetic vision teachers responsible for material adaptation. In this way the researcher obtained valuable information about 'seeing' through the sense of touch which enabled her to develop original instructional materials in the form of the tactile resource pack containing tactile experience sheets with the same motivational impact as the average textbook illustration. Firstly, the materials proposed a range of activities related to eight different intelligences correlating to different modes of knowing. Secondly, the materials addressed both the cognitive and the affective aspects of the FB pupil. Thirdly, the materials created by Aikin Araluce enabled FB pupils to take part in many class activities based on the use of visual aids since tactile pictures substituted the flashcards or text drawings used by FS students. It needs to be mentioned that the tactile resource pack was visually attractive so as to encourage FS pupils to team up with FB pupils. In this way the researcher's resources created opportunities for a greater social interaction between non-impaired and impaired children. This is undoubtedly one of the best arguments for promoting inclusive education.

The quasi-experiment designed by Aikin Araluce made use of the tactile resource pack in a group of 10 VI pupils (2 PS and 6 FB) aged 6–11 attending mainstream schools. The tactile illustrations pertained to 6 units. Additionally an interactive storybook was developed to introduce and practise the language structures and vocabulary, which are commonly found in textbooks designed for children. All the materials constituted two workbooks. Workbook 1 contained the tactile experience sheets related to such topics as face, body, clothes, house and rooms, furniture, numbers, family, and animals. The tactile sheets were made of cardboard covered in flesh-coloured felt and various separate cut-out elements such as e.g. parts of the face or the house could be recognised by shape and texture. The researcher also used velcro material which enabled the children to fasten various components in any desired position. In this way the subjects could practise not only labelling but also object drawing. Workbook 2 included the interactive storybook in which there is no fixed story as characters and scenery items are tactile flat shapes which can be fastened to a neutral background in any way that the VI child wants to. The storybook can also be used by the teacher conventionally. Such instructional materials endorsed storytelling, one of the most motivating activities for children. According to Wright (1995, 1997), storytelling is recommended to children as it develops a positive attitude towards FL learning, encourages fluency and develops creativity.

The implementation of the tactile resource pack turned out to be successful. The researcher points out that it was beneficial for both FS and VI pupils.

> The sighted pupils — who, according to the EFL teacher tended to indulge in disruptive behaviour — were quite cooperative and got deeply involved in the class activities. … the tactile learning material facilitated not only the full inclusion of the blind child in the class but it also helped to motivate the sighted group, who were very impressed with the resource pack and performed all the touch-related tasks enthusiastically. (Aikin Araluce, 2005: 180)

The tactile resource pack developed by Aikin Araluce is an excellent idea, which can be used for planning FL classes for all age groups, provided more complex tactile sheets are created. The pack turned out to be effective in mainstream schools as materials adjusted to particular textbooks used by FS pupils. Undoubtedly in this setting the introduction of the tactile pack will be more difficult than in special schools or in a private session.

The researcher also designed another resource pack called the dinosaur pack to evaluate the effect of the tactile instructional materials on the motivation of FB and PS children. The experiment with the dinosaur pack took place during a residential summer camp in Alicante in July 2002. The 15 subjects aged 8–10 were either fully sighted or visually impaired. They were already acquainted with the historic and scientific aspects of the topic through 'Dinosaurs in English' — a part of an interdisciplinary school project involving language, art, drama, music, English, and natural science. The project, based on storytelling and story inventing, turned out to be successful. Before and after the application of instructional materials the children completed the questionnaire on their attitude towards FL learning. Pre-test results

showed that the FS children were more intrinsically motivated towards FL learning while the VI children were more instrumentally motivated and were more concerned with pleasing their parents. Most FS classmates enjoyed their English class and liked their teacher whereas the VI classmates showed some discontent about the class. The post-questionnaire showed that the experimental dinosaur pack contributed to the improvement of all the children towards English language learning. Aikin Araluce (2005: 195–196) is of the opinion that the change was not only due to the use of the tactile instructional material but also due to the fact that the language course was an optional activity in a summer camp.

It is worth noticing that the above-mentioned project does not only foster academic language achievements but also the holistic development of the VI child. During the experiment, the subjects developed their linguistic skills, improved FL pronunciation, and expanded their knowledge on language functions, structures, and vocabulary. At the same time, they managed to reach other non-linguistic educational goals which Aikin Araluce (2005: 195–196) categorised under five headings:

1. *Affective aims*
A positive attitude towards Learning English was fostered. The VI subjects were encouraged to continue studying English at school and outside school.
2. *Cultural aims*
The VI study participants became more interested in the cultures of other countries.
3. *Social aims*
The VI subjects learned how to interact with peers and cooperate with them in teams.
4. *Cognitive aims*
The VI learned how to search for meaning using context, visual illustrations, tactile illustrations, three-dimensional objects, words, sounds and their existing knowledge. They also developed their memory through stories, chants, and songs. Additionally, they developed imagination through creative activities such as making plasticine dinosaurs or inventing a dinosaur story. The VI children also had a chance to improve fine motor skills through assembly activities (e.g. the dinosaur set puzzle).
5. *Paralinguistic aims*
The mime and drama techniques enabled the VI study participants to express themselves and improve their nonverbal communication.

The study by Aikin Araluce shows that FL learning poses no special problem for VI children on condition that adequate instructional materials and teaching methods are used.

2.4.3. Correlates of foreign language achievement

Throughout the chapters I have repeatedly referred to the abilities of VILs, which make them predisposed to achieve success in FL learning. Among them, there was superior aural sensitivity and extremely good memory. Many VI people tend to be more linguistically talented than average. However, they are frequently not able to make use of their potential due to a number of various difficulties they encounter while learning an FL. These difficulties, not related to their learning capacity, may hinder FL learning. VILs' success in FL learning is however an attainable goal if certain conditions are met such as:

1. *language education is tailored to the VILs' needs* through the application of
i. special didactic devices,
ii. language material adaptation, and
iii. development of individualised plans (IP);
2. *language teachers* are properly trained in terms of
i. awareness of specific VILs' needs and
ii. application of appropriate teaching methods;
3. *VILs' affectivity is given more attention.*

Below I will deliver an insight into the three issues, which undoubtedly pose a challenge for contemporary education systems.

2.4.3.1. Tailoring language education

VILs' unique needs are catered for through the provision of tailored training and education. Tailoring language teaching results from inclusive education, which is currently promoted in the EU. In line with the inclusion policy, language teachers need to introduce necessary changes, which help to minimise the barriers to language learning. Removal of the barriers allows each VIL to become 1) a successful language learner, 2) a confident individual, 3) a responsible citizen, and 4) an effective contributor to community.

2.4.3.1.1. Special didactic devices

As mentioned, successful language learning by the VIL depends to a great extent on tailoring language provision to the needs of such a learner. Tailoring concerns not only the selection of appropriate teaching methods and approaches (for details see 3.4.2.1) but also the choice of special didactic devices.

In the 21st century, we experience a great advancement in the development of new technologies. As Zdobylak (2009: 26–27) notices, VI people's existence in the

visually oriented world is facilitated by a wide range of devices. She also adds that the use of computers requires constant adaptation and hard work of the distributors and producers of these devices. Language teachers may also use new technologies to assist with various didactic tasks. As Dorward and Barraga (1968: 57) notice, some teachers may need only a few adaptive devices, while others need to use several in combination.

According to Spungin (2008: 76), the equipment which can be used in a classroom with PSLs can be either optical or non-optical.

Optical devices
They make use of lenses in order to optimise a PSLs' existing vision. They enlarge or modify a visual image, alter the apparent position of an object, control light, and change the apparent size of the visual field. Optical devices for PSLs include:

— eyeglasses (bifocals, prism lenses, contact lenses) which improve PSLs' vision and reduce glare or excess light, both indoors and outdoors;
— magnifiers which increase the size of the image; they may be handheld, mounted in a stand that sits on top of the material to be viewed, or worn as a loupe over eyeglasses;
— telescopes which are used to view objects at a distance.

Non-optical devices
Their main purpose is to assist PSLs to perform everyday tasks indoors, to make maximum use of their sight and to enhance the use of their other senses. Non-optical devices include:

— bold-line paper to facilitate seeing the lines on regular writing paper; the space between the lines is also modified to accommodate larger printing by a PSL;
— large-print language course books and materials; the quality and size of the print, the typeface, and the spacing between letters and lines are important determinants of legibility;
— book stands adjusted to PSLs' needs; they help reduce postural fatigue by bringing the work closer to the reader's eyes; two types of book stands are used, namely portable tabletop stands and self-supporting stands mounted on a tripod or a heavily weighted base for stability;
— lamps with adjustable arms and controls to vary the intensity of light; such lamps provide additional or dimmed illumination which a PSL needs;
— sun-visors and other shields; PSLs sensitive to light may need to block out some of the light and glare around them; a hat or visor are also used to reduce glare and visual discomfort;
— wide felt-tipped pens and markers which are produced in various widths; they generate a bold, high contrast letter or diagram; they usually provide the

most effective contrast in black, however markers of various colours can also be used to emphasise sections in the notes and to facilitate text scanning;

— acetates (frequently a sheet of a coloured acetate) which is placed over a printed page; acetates darken the print and contribute to a greater contrast of the print with the background paper;

— line markers and reading windows which are placed over print to separate a single line or word; they are particularly helpful for PSLs who have problems with focusing attention on a particular word or to track a line of print.

The devices mentioned above can be used in an FL classroom only by the students with a partial visual impairment. BLs, in turn, rely on either traditional devices enhancing tactile and auditory learning or new technology aids, though PSLs may also use them. The former are described in detail by Piskorska et al. (2008) in their methodological guidelines for language teachers and by Czerwińska (2008b).

Devices used for tactile learning

The main purpose of the devices is to utilize the BLs' sense of touch for language learning compensating the lack of vision. The devices allow the creating of tactile graphics which convey non-textual information making use of raised images (tactile pictures, diagrams, maps, graphs). Teacher-made tactile materials not only enhance language learning by BLs but also offer an opportunity for language teachers to be creative. FB language learners may also develop tactile materials on their own. The devices used for tactile graphics are as follows:

— raised-line paper, on which lines are embossed to allow students to explore the lines with fingers;

— raised marks which are special markers, adhesive-backed materials, and glues that leave raised marks to create lines or dots which can be felt;

— raised-line drawing boards covered with rubber and equipped with a sheet of acetate; when an FBL writes or draws on the acetate with a pen or other pointed object, it produces raised lines that can be explored with fingers.

Devices used for auditory learning

With regard to devices enhancing auditory learning, they may be used as everyday portable equipment or specialised products for VILs. Such devices equipped with sound can provide visually impaired students with access to information. They can be used as everyday equipment or as a special didactic aid for FL learning and teaching. Spungin (2008) writes extensively about the most common auditory learning devices. Among them there are:

— voice organisers and recorders which allow BLs to record short notes at school and listen to them at home;

— talking books or recorded books;

— additional auditory devices such as talking watches, alarm clocks, money and colour identifiers which may also be used in an FL classroom.

New technology aids

Nowadays it is difficult to imagine FL learning and teaching without advanced technological devices. A standard computer can be easily adapted to the needs of a person with visual impairment by installing additional devices. Zdobylak (2009: 28) enumerates the most common technological devices used by learners with total vision loss. They are as follows:

— a screen reader, which allows an FBL to navigate through dialog boxes, menus, and editing fields; it also enables the reading of the text loudly from the screen in its focus and to control the computer by a qwerty (standard) keyboard by using key combinations called keyboard shortcuts; the knowledge of a standard qwerty keyboard is necessary as an FBL is not able to use a mouse;
— a speech synthesiser (a component of a screen reader) which speaks a text sent from the screen-reading programme installed on the computer;
— a screen reader which is a software programme and the interface between the computer's operating system, its applications, and the user; it allows an FB user to read the text that is displayed on the computer screen with a speech synthesiser or Braille display;
— a Braille display (soft paperless or refreshable Braille display) which is a tactile facility placed under a conventional computer keyboard enabling an FB user to read the contents of the computer screen by touch in Braille; displays vary in size (from 20 to 80 Braille cells and each cell consists of six or eight pins made of nylon or metal, which are electronically controlled to move up and down in order to show a Braille version of characters appearing on the computer screen).

The special didactic devices described here allow VILs to have better access to FL education. Wyszyńska (2013: 21) makes a point that the awareness and use of available special didactic devices leads to a noticeable development of communicative skills for VILs diminishing their physical and intellectual barriers.

The role of new technology aids in teaching English has been thoroughly investigated by Wiazowski (1996, 1998, 2000, 2001a, 2001b, 2002a, 2002b). The researcher and teacher of English has been successfully incorporating technology enhanced language learning (TELL) into the language curriculum in a special school for the VI people in Laski, Poland. In his numerous publications, he points to the fact that language learning is no longer perceived as a cognitive process but rather as a socio-cognitive process in which interaction between interlocutors is prioritised. He also discusses the advantages of language learning and teaching techniques such as computer assisted language learning (CALL) or computer mediated communication (CMC).

Though CALL and CMC are still perceived as tools that could take over the language teacher's role and contribute to the dehumanisation of learning, Wiazow-

ski evaluates them positively. With a possibility of writing e-mails, Braille is no longer a barrier for mutual correspondence between VILs and those without visual impairments. The VI students from Laski and FSLs from mainstream schools in the USA, Japan and Germany had a chance to share their knowledge, experiences, and opinions.

The project-based learning, in turn, being a part of communication training within the course of English resulted in an online multilingual dictionary of sounds and noises. A great advantage of the dictionary is that it can compete with Braille dictionaries which are difficult to use. What is more, the new digitalised sound dictionary is even appreciated by FS users. Interestingly enough, the project was not only launched by VILs but also directed by them in cooperation with learners from other countries. The VILs managed to collect, record, and digitise various sounds generated by animate and non-animate objects. Finally, they categorised the sounds, built a data base, and constructed a website. Undoubtedly, the new digitalised dictionary not only contributes to the development of VILs' autonomy but also increases BLs' effectiveness of language learning.

Wiazowski also mentions his other project with a local chat programme and an interactive 'cyberboard'. The 'cyberboard' functions as a virtual blackboard on which new linguistic elements are presented and discussed. At the same time online communication between a teacher and VILs is being practised. Wiazowski's research showed that structures used by VILs in an online chat are more complex and versatile than in oral conversations, which in his opinion proves the validity of this technique.

Despite the apparent advantages, their use may also entail some problems. Firstly, the excessive use of technology facilities by BLs contributes to a decline in Braille literacy skills. To the best of my knowledge, many FB youngsters do not recognise Braille as a primary mode of communication and they find a stylus, a slate or a Braille typewriter old-fashioned. Thus, educators, employers, and lawmakers are voicing concerns over growing problems with FB young people unable to function in a society whilst being cut off from electronic devices. For this reason there is an urgent need to teach languages and other school subjects with the use of Braille.

Secondly, new technology aids are costly and even if they are available in special schools one can hardly use them in language classes at universities and training centres. This prevents VI students from easily accessing teaching materials.

Thirdly, application of all the above-mentioned devices requires proper training of both VILs and language teachers. From my own experience, I can say that while VILs are provided with training, language teachers need to make up for typhlopedagogy training and learn on their own how to use all special didactic aids. My observations are confirmed by Czerwińska's (2008b) findings. In her extensive research devoted to FL provision to VILs based on surveys among teachers and school heads the author shows that the main problem in Polish schools is not only with the shortage of special didactic devices but also with provision of appropriate training to teachers. The researcher investigated the issue in three settings, namely in special schools, mainstream schools with inclusive education, and private language schools.

With regard to special schools, the findings show a discrepancy between the school heads' and teachers' opinions. The former claim that the schools have sufficient didactic aids and teachers have had a chance to benefit from specialist training on how to use them. The latter, in turn, raised the issue of insufficient didactic devices and teacher training negligence. In mainstream schools with inclusive education and in private language schools language teachers reported on the lack of special didactic devices. The only devices the schools used were the ones supporting auditory learning such as recorders.

Though Czerwińska's findings concern Polish education, the problem she identified is also relevant for other European countries. The European Blind Union, the Pancyprian Organisation of the Blind, the Czech Blind United and the Slovak Blind and Partially Sighted Union in their joint project report *Good Practice for Improving Language Learning for Visually Impaired Adults* stress the issue of accessibility of special didactic devices the lack of which may hinder a VIL's language learning. Also, Bocconi et al. (2007) report on the problems experienced by VI people while using e-learning products. They are related to accessibility and usability. Therefore, the authors call for a need to introduce accessibility requirements for e-learning products established by the laws in force in the different European and non-European countries.

2.4.3.1.2. Material adaptation

FL learning success also depends on accessibility of adapted learning materials. Nowadays FL learners have a wide array of language course packs containing a student's book, a workbook, CDs, colourful posters, accessories for playing games and even colourful flashcards. A textbook is full of complicated illustrations, craft activities, supplements with computer and video games. The prevalence of visual components in the contemporary language textbooks may be advantageous for the FSL but it hampers FL learning by VILs. Even if the text is conveyed in the Braille version, the VIL will struggle with complicated illustrations from the textbook. For this reason, the VIL and particularly the FBL will find the audio-recorded version less tedious. However, as Aikin Araluce (2005: 88) notices, auditory learning materials reduce his exposure to the written word, which is so important particularly in learning such FLs as English (spoken form and written representation show little resemblance).

Based on 1995 survey results Gray (1997, 1998) established that the VILs from special as well as mainstream schools in Great Britain did not enjoy equality of opportunity in the area of modern foreign languages. The instructional materials were mainly visual and VILs did not have access to the same wide range of materials and support for incidental learning as their FS counterparts. Furthermore, since Braille reading is more time-consuming and more difficult than print reading the VILs were assigned extra homework in order not to lag behind.

Analysing modern language textbooks, Aikin Araluce (2005: 86) notices that they are 'highly visual: colourful, cluttered and confusing layout renders it very dif-

ficult to adapt for a visually impaired child'. In mainstream schools with inclusive education where there is a shortage of adapted instructional materials and meaning is often conveyed through visual aids, it may be particularly difficult for a VIL to follow an English class. Some language teachers substitute pictures used in textbooks and on flashcards by either three-dimensional toys or models of everyday items, which may be explored tactilely by the FBL. They also substitute all craft activities involving drawing, painting, cutting out or sticking by three dimensional work which can be manipulated haptically, such as making plasticine or clay models of animals or puppets. Yet, such an activity considerably slows down the pace of the class. Other language teachers introduce pair work in which an FS student interprets visual cues for his FB classmate. In this situation, however, code-switching cannot be avoided. Moreover, it is said that pair work can restrict the FBL's autonomy (cf. Aikin Araluce, 2005: 87–88). It may also discourage the FBL from FL learning since he may feel like a burden for his classmates.

Making three-dimensional models or the interpreting by teachers or sighted peers of all illustrations is time-consuming; therefore the use of ready-made adapted materials (e.g. specialist Braille textbooks or specialist models for language learning) is advisable. Some language teachers also adapt instructional materials on their own.

Most European countries have centres adapting didactic materials to the needs of VILs. The English Studies Department at the Catholic University of Lublin in Poland houses the Didactic Materials Adaptation Centre specialising in developing materials, used among other things, for FL learning. In the years 2005–2008 the centre participated in the international project 'Per Linguas Mundi ad Laborem' preparing sound tactile graphics and the adaptation of English textbooks (see for details 2.3.5). In the years 2009–2012 the centre in collaboration with the University of Warsaw was selected by the Ministry of Education to develop school course books for Polish VILs.

There are a few problems related to adaptation of materials for VILs learning languages. Firstly, as Aikin Araluce (2005: 103) notices, adaptation of language textbooks is too costly and time-consuming since VILs use a wide variety of textbooks, which are selected by schools or teachers. Therefore, she advocates the implementation of the universal tactile resource pack, which she developed for the purpose of her research (for details see 3.4.2.4).

Secondly, the European Blind Union also draws attention to the lack of adapted learning materials. In spite of the fact that in European countries there are material adaptation centres, most of the adapted language materials, particularly textbooks, are inaccessible to VILs since they include too many pictures and graphic solutions (e.g. inserts to illustrate grammar etc.). Consequently, the VIL has difficulty accessing the knowledge proffered by such images and abstract representations and he has to make an additional effort to search for information missed in the language class (*Good Practice for Improving Language Learning for Visually Impaired Adults*, 2010: 10–11).

Thirdly, some language teachers do not make use of adapted materials relying entirely on oral-auditory teaching. It is mainly due to lack of proper training on how to use adapted techniques or assistive technologies. Furthermore, screen readers, voice synthesis or scanners are available only in special schools and language teachers working there may learn on their own how to use the equipment; however in mainstream schools or universities access to assistive technology is rarely possible.

Czerwińska (2008b) in her extensive survey-based research also investigated the issue of material adaptation in four different contexts, namely special school, mainstream school with inclusive education, private language school, and individual teaching planned for the purpose of the international project 'Per Linguas Mundi ad Laborem'. Her findings concur with the problems discussed above.

With regard to special schools, the overwhelming majority of teachers (88.9%) used adapted materials. Interestingly enough, 55.7% of teachers learned adaptive techniques on their own through:

— contact with VI people;
— direct teaching of VILs;
— teaching practice and contacts with school colleagues;
— other teachers' experience and IT specialist advice;
— collaboration with other special schools;
— individual observations and intuition;
— the use of Internet resources.

The other most frequently selected source of knowledge on material adaptation is typhlopedagogy courses. Teaching material modification was not made by 6.7% of teachers, all of whom had the shortest experience of teaching VILs from the respondents (1 month–2 years) and did not have any training in the basic adaptation techniques including Braille. The majority of the respondents declared spending more than 5 hours per week (37.8%) and 2–3 hours per week (35.6%) on material adaptation. They emphasised that material modification was to a great extent a creative process within a flexible framework. Since material adaptation is a complex process, language teachers in the study turned for expertise and know-how to IT specialists, other language teachers, specialists in typhlopedagogy, Braille teachers, vision rehabilitation therapists, psychologists, and arts teachers (Czerwińska, 2008b: 21–23).

Since success in FL learning depends, among other factors, on provision of appropriately adapted materials, Czerwińska (2008b: 23) developed the model of typhlo-didactic aids adaptation. The model consists of the following five stages:

1. establishing the purpose and nature of a specific didactic aid;
2. evaluating educational needs of VILs;
3. analysing all possibilities of material adaptation to VILs' needs;

4. selecting one or multiple material adaptation strategies on the basis of certain criteria such as quality of adaptation (attractiveness, permanency);
5. verification of adapted materials in practice (technical changes of adapted materials).

In the survey conducted by Czerwińska language teachers from special schools pointed to several problems pertaining to material adaptation. Among them there was the lack of funds for material adaptation, the lack or limited access to specialist equipment, and the lack of time they can devote to adapting teaching aids. The teachers from the study also called on the need to work out a guidebook with methodological tips on how to adapt language materials and to create material adaptation centres easily accessible to all teachers. Furthermore, they would like to have an influence on language materials adaptation, which is hardly possible if materials modification is not done in schools (Czerwińska, 2008b: 25–26).

Similar feedback on material adaptation was also provided by the language teachers working in mainstream schools with inclusive education. From Czerwińska's investigation there emerges a picture of the language teacher whose material adaptation strategies are frequently based on a trial and error approach or a direct contact with a VI student instead of professional typhlopedagogical knowledge pertinent to effective material adaptation. In view of the facts there is a need to implement the instruments which will ensure equal opportunities in language learning to all students regardless of their visual impairments. Such an instrument may be free of charge post-graduate typhlopmethodology courses or material adaptation training offered to language teachers.

Czerwińska (2008b: 80) also examined the situation of material adaptation in private language schools. Her data collected in Poland suggests that there is a small enrolment rate among VI people (98.4% schools never had FB students and 19.6% schools had PS students). Moreover, the majority of private language schools (73.9%) declared they had problems with teaching aids and relied primarily on audio language materials.

It seems to me that in a discussion on language materials modification one cannot omit the issue of audiovisual translation. In recent years *audio description* also known as video description or visual description has become an extremely beneficial tool for VI people in both daily lives and education. Its effectiveness in education has been proved in numerous research (e.g. Walczak and Rubaj, 2014; Krejtz et al., 2014). In audio description, as in an old-style radio play, a narrator describes actions, scene changes, gestures, and any other visual information that appears on the screen.[73] Any subject area can be enhanced by video description. In an FL classroom teachers may use language materials with audio description (e.g. film extracts

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[73] Audio description, also known as video description is used in a broad range of formats such as television, films, DVDs, downloads, visual art, performing arts, and other areas. The standards for audio description are still being finalised.

or audio described programmes available with audio description logo). Since there may be a problem with accessibility of such materials, language teachers may need to make necessary modifications on their own by translating the visual information into audio input. The application of audiovisual translation requires teachers' effort (the use of varied word choice, synonyms, metaphors and similes) which, however, is worthwhile considering the fact that VILs benefit from the technique, particularly in terms of vocabulary and listening skills development. The technique is also said to boost literacy for both VI and FS children.

Language material adaptation by means of assistive technology and audio description can facilitate language learning by VILs. However, language teachers should bear in mind that in order for materials to be least restrictive they should adapt them only to the extent necessary for efficient FL learning (Stratton, 1990). Otherwise, PSLs may be provided with adaptations unnecessary for their needs but appropriate for BLs.

2.4.3.1.3. Individualised plans and curriculum

Success in FL learning also depends on tailoring a teaching plan to the unique needs of each VIL. The member states developed and implement *Individual Educational Programmes* (IEP) for students diagnosed with visual impairments (see 2.2.1 for details). IEP plays a major role for inclusive special needs education and guarantees appropriately tailored education in the least restrictive environment (Meijer, 2003, 2005). The programme is based on two documents, namely the *individualised educational plan* developed by teachers and the *individual family service plans* developed by a pupil's parents in conjunction with professionals in the field of visual impairment. The two documents are not standard and vary from country to country. The former is prepared for a VI pupil and tends to be pupil-centered with input from the family as to the goals and services which can be provided. The latter, in turn, is family-centered, and perceives a VI pupil in the context of the family's priorities and needs (Anthony et al., 1993: 152). It should be mentioned that IFSP is appropriate for preschoolers up to the age of 3, whereas IEP is for children from 3 to 21 years. Older VI people start receiving special services from national or local education agencies (Bishop, 1996).

To ensure the maximum attainments in an FL or any other subject, an IEP is usually developed. An IEP for an FL class may be in a form of a contract between the different participants such as language teachers, other professionals, and parents. An IEP should contain the information on the VIL's current level of educational performance, the planned timeframes of FL provision, additional services which need to be provided (e.g. Braille classes, psychological consultation, orientation and mobility — O&M instruction). Furthermore, an IEP should also include the information related to the following questions:

— Are there any reasons for FL learning to be omitted from a general curriculum? (e.g. problems with O&M, additional impairment)
— What are the annual and short-term objectives of FL learning?
— To what extent can the VIL participate in a regular language programme?
— What are the necessary additional resources the VIL needs?
— What adaptations of a mainstream curriculum need to be introduced for the VIL?
— How should progress in FL be evaluated? What objective assessment criteria should be developed for the VIL to determine whether the annual and short-term goals have been met?
— What transition plan is intended for the VIL who is about to leave the school setting? (e.g. continuation of language learning, taking language certificates).

Frequently IEPs contain documentation pertaining to the VIL's health condition and consultation with diagnosticians. IEP implementation allows the adapting of the language curriculum in such a way as to ensure lateral progression, i.e. a VIL is exposed to a modest amount of one FL and then rather than progressing upwards to a higher level, he/she learns an additional FL to a similar performance stage. Such an approach based on FLs learning across the curriculum may be implemented with some VILs who have additional impairments. Yet, the majority of VILs can easily follow language curriculum if appropriate modifications are in place.

Since a VIL approaches the FL learning process differently than his/her FS counterpart, language teachers should indicate in IEPs whether the assumptions stipulated in the language curriculum may be implemented and what teaching approaches are most feasible for a given pupil. Ideally the language curriculum should provide VILs with opportunities to:

— develop all four language skills in FL, including FL Braille writing and reading for PSLs, on a regular basis, both in the classroom and beyond;
— develop communication abilities in FL individually, in pairs and groups and if possible with FL native speakers for a variety of purposes;
— use ICT and adapted resources for accessing and communicating information in FL;
— experience learning with authentic materials in FL, to support learning and for pupils' personal interest and enjoyment;
— use FL in connection with topics and issues related to other areas of the curriculum.

With regard to the objectives, the curriculum developed for FLs should enhance the same aspect and skills that are prioritised in L1 education. In her practical guide for teachers Bishop (1996: 73–77) broadly discusses eleven goals of education. Below I present only four objectives which I find particularly relevant to FL education. These objectives should be reflected in the FL curricula.

1. Improving language skills

i. using gestures appropriately:
— shaking head 'yes'
— shaking head 'no'
— using facial expressions to indicate emotions
— pointing with index finger
— shaking hands
ii. expanding vocabulary by understanding (demonstrating through appropriate use and/or explanation) the meaning of:
— things (nouns) actions (verbs)
— pronouns (he, him; she, her; it; we, us; they, them; you; me; I)
— simple describers (adjectives/adverbs)
iii. demonstrating listening skills by:
— following one-step directions
— following two-step directions
— re-telling events/simple stories in proper sequence
iv. using proper grammar/syntax:
— noun-verb sentences
— use of pronouns as subjects
— descriptors
— agreement of pronoun form (with verb; as subject)
v. initiating a conversation by asking a question
vi. listening to a question and giving a relevant response
vii. using 'polite words' appropriately

2. Acquisition of age-appropriate social skills

i. demonstrating the use of appropriate gestures
ii. playing with peers cooperatively
iii. taking turns

3. Developing classification properties

i. sorting objects by properties
— *size: big/little, long/short*
— *shape: circle, square, triangle*
— *texture: soft/hard, smooth/rough*
— *temperature: hot/cold*
— *weight: light/heavy*
— *taste: sweet/sour*
— *smell: 'good' odours/'bad' odours*

ii. sorting objects by use
— *foods, toys, clothing, tools, fruits, shoes*
iii. sorting objects by double properties
— *shape and colour, shape and size, shape and texture, size and colour, size and texture.*

4. Developing basic concepts through alternative senses

i. identifying properties by finding the one object in a group of two that is e.g. *big/little, soft/hard, wet/dry, smooth/rough, hot/cold, long/short, wide/narrow, fat/thin, round/square*
ii. identifying location by placing an object
e.g. *in/out, over/under, on top/underneath, in front/behind*
iii. identifying weight by finding the one object in a group that is
e.g. *light/heavy*
iv. identifying sound tones as
high/low, loud/soft, fast/slow
v. identifying by taste
e.g. *sweet/sour, hot/cold*
vi. identifying one/more than one, few, many
vii. determining like or different by selecting from a group of three, either two the same, or one that is different.

IEPs do not reflect all the objectives of the language curriculum since they are designed to meet the VIL's individual needs (personal, academic and visual). IEPs are developed for both VILs in special schools and regular schools with inclusive education. If a VI child is placed in an environment with unimpaired children, the IEP should stipulate the amount of time a child will spend in a regular classroom, as well as describe the activities of the child.

2.4.3.2. Language teachers

The role of language teachers in FL learning is a topic which has not been thoroughly investigated and about which little has been written. In the monograph devoted to language teachers Pawlak et al. (2009: 7) notice aptly that the student-centred approach dominant in FL classrooms resulted in neglecting the teacher's role in the FL learning process. The researchers have focused primarily on learners' individual cognitive, affective and social individual factors. Hence, there has been an abundance of literature discussing learning styles, intelligence types, motivation, learners' beliefs, the role of strategy training, autonomy development or educational discourse. What is more, the bulk of research indicates there is no

relationship between a teacher's actions in a classroom and a student's FL success (see Pawlak et al., 2009: 7).

However, one can hardly agree with the view that a teacher does not contribute to pupils' FL success. For the majority of FL learners a teacher plays a key role in the language learning process. He/she plays the role of a language model, counsellor and facilitator. Though nowadays learner autonomy is so much enhanced in education there are still many FL learners including VILs who need teachers. Such learners are either not ready to start autonomous actions without a teacher acting as a trigger or who, for a number of various reasons (for details see section 2.4.3.3.8), will never be able to develop autonomy.

Language teachers working with VILs play a special role in the pupils' lives. Apart from being organisers, assessors, resources, prompters, and controllers, they should in the first place be tutors and psychotherapists ready to offer advice and guidance, frequently related not to language but emotional problems such as lack of motivation or low self-esteem. Such roles also allow them to tailor a language course to fit the specific needs of VILs. Yet, the roles of a tutor and a psychotherapist may also lead to VI students' dependence on a teacher or being too comfortable with one teacher, one method, or teaching style. Therefore, teaching VILs requires not only language competence but also well-developed professional skills discussed extensively by Appel (2000: 284). A language teacher correcting a student's errors without sensitivity and support will turn out to be counter-productive to a student's self-esteem and confidence in FL learning.

What specific skills and competences are indispensible for language teachers teaching VILs? Rusiecki (1999: 34–35) mentions the following skills and competences, which should be taught to prospective teachers: communications skills (interaction maintenance, negotiation, problem solving), and the knowledge related to the nature of educational processes, diagnosing learners and individualisation of the teaching process. Furthermore, language teachers should also be trained how to motivate learners and help them set individual learning goals. Nowadays one can hardly imagine FL teaching, particularly to VILs, without new technologies. Therefore, initial teacher training must embrace new teaching strategies based on ICT.

Undoubtedly, the above-mentioned skills and competences, even the most impressive, are not sufficient to effectively teach an FL to VILs. FL teachers need to understand the background of a VIL; how and when he or she became blind or partially sighted; what technological help and learning environment adjustments a VIL needs. Here understanding typhlopsychological and typhlopedagogical issues seems necessary. Such issues are discussed at typhlomethodology courses. A typical typhlomethodology course contains the following modules:

— *vision rehabilitation*
(eye anatomy, physiology and pathology)
— *typhlopedagogy*

(cognitive, emotional, social development of a VI child, education of VI children in boarding schools)

— *typhlopsychology*

(psychological implications of visual impairment to secure the best interaction possible)

— *typhlomethodology*

(teaching various subjects to a VIL, approaches, techniques, materials adaptation, learner strategies)

— *Braille fundamentals*

(using peg slates and a mountbatten, learning alphabet and whole word signs, print and Braille integration for PSLs)

— *typhlo-information technologies*

(assistive technologies for VILs)

— *orientation and mobility (O&M)*

(traditional mobility aids such as guide dogs, human guides and long canes, and innovative mobility aids such as cognitive map development and user interface output technologies).

Additionally, the course participants frequently have practical classes in Braille libraries, audit classes with VILs and/or are involved in teaching some subjects to VILs. Teaching practice is the most essential part of a typhlomethodology course as it provides a prospective FL teacher with hand-on-experience and practical knowledge on what teaching to VILs really involves. It seems that the most valuable reflection from such an internship should be awareness that each VIL has unique learning needs, strengths and challenges. Therefore, an FL teacher needs to be flexible in teaching programme and method selection, adopting an individualised approach to his/her learners.

American Foundation for the Blind (2002) and Waterfield and West (2008) recommend the use of various strategies for the teaching and assessment of VILs. They are related to:

• *Position*

Teachers should try to stay in the same place and not move around while talking in a classroom.

• *Presentation of material*

Teachers should:

— express written information verbally e.g. when viewing overheads or writing on the board;

— follow a logical structure for a lesson as this makes notes and recordings easier to follow;

— allow extra time for PSLs to read through slides, assimilate information and respond before going on to the next stage;

— provide reading material and slides in advance which prevents exclusion and reduces delay;

— ensure that only one person speaks at a time so that he/she can more easily follow the conversation;

— identify contributors to a discussion verbally since a VI person may not recognise the voice.

• *Use of visual aids and gestures*

Teachers should:

— write new terms on the board for PSLs and provide an oral explanation and spelling for VILs;

— ensure that there are also verbal announcements of notices for VILs;

— verbally express feelings as VILs may not be able to see body language;

— give directions not only in gestures but also in words.

• *Assessment*

Teachers should:

— be ready to give extra time for the completion of homework and in-class assignments such as essays or worksheets since visual impairment increases the time and effort expended in activities of daily living and those related to studies;

— consider setting alternative reading assignments for VILs which require intensive work on a few selected texts rather than extensive reading;

— provide formative comments on written work in a form accessible to a VIL e.g. emailing them to him.

The analysis of the current situation of language teachers teaching VILs in the member states reveals a number of problems, which have been extensively discussed in the 2010 document *Good Practice for Improving Language Learning for Visually Impaired Adults* prepared by the European Blind Union. The report points to the fact that the main difficulties encountered by VILs in learning languages are related to the teaching approach and the organisation of teaching. The findings show that the majority of teachers, including language teachers, lack the awareness of what visual impairment is and what it implies. The report calls for improving the current methods used by teachers and implementing the Realia Method in which the senses of touch and hearing are used to convey conceptualisation and memorisation. Additionally, the document mentions the role of appropriate teacher training. Currently, information on visual impairment is rarely included in teacher training curricula. Consequently, teachers may feel helpless when confronted with a situation when they have a VIL in a classroom.

The findings from the comprehensive study conducted in Poland by Czerwińska (2008b) are as unsatisfactory as the above-mentioned results. The language teachers participating in the survey pointed to numerous challenges they had faced while teaching VILs. In the mainstream schools with inclusive education, they spend about 2 hours per week on material adaptation. Since there is no methodological guidebook on material modifications, most adaptation is done by the teachers themselves according to the tips provided by other teachers. The teachers also reported on struggling with the lack of specialist equipment for material adaptation. In special

schools, in contrast, teachers do not have to worry about the lack of assistive technology. Almost 50% of language teachers participated in special training on material adaptation strategies. Yet, they complained about the lack of guidebooks on teaching FLs to VILs, which would be accessible either in Polish or in other languages. The special schools teachers also spend more time over material adaptation than the teachers in regular schools (37.80% spend more than 5 hours per week and 35.60% 2–4 hours per week).

Finally, it needs to be stressed that most problems language teachers face are related to the lack of funding and/or lack of typhlomethodological qualifications. Mainstream schools with inclusive education can rarely afford to have specialist assistive technology for VILs, equipment for material adaptation or assistive teachers (paraeducators). With regard to qualifications, in the majority of member states there is a legal obligation for language teachers working with VILs to have them. In Poland, however, most language departments do not provide training in the field of visual impairment. Consequently, inexperienced language teachers frequently use the trial and error method while teaching VILs before they cover a typhlomethodological training and obtain qualified teacher status.

It also needs to be noticed that the role of specialist teachers has changed dramatically over the last twenty years and it continues to change. The inclusive policy imposes on contemporary teachers the need to be prepared to teach in a variety of settings with a wide range of abilities and ages. Recruitment rates of young teachers in various areas of special education are low and the gender and age profile suggests that a typical teacher of VILs is a female who is more than 35 years old and started working at school after raising a family (Mason and McCall, 2013). Therefore, there is an urgent need to attract more young people with qualifications to special education.

2.4.3.3. Affective factors

An FL learner's success also depends on how he/she feels about language learning. This is even more true for an individual with visual impairment who brings to an FL classroom a wide and very complex range of emotions. Positive emotions constitute a cornerstone of a VI person's success, not only in language learning but in all aspects of human life. Interestingly enough, language learning itself may serve as a therapeutic tool on condition that FL teachers intensify positive activation and decrease negative affect (Tomkins, 1991).

The role of the emotional aspect in learning has been emphasised in modern educational psychology. The importance of affective factors in FL learning was already recognised by Krashen (1982) in his Affective Filter Hypothesis. VI people with a low affective filter tend to develop healthy and vital friendships with both VI and FS people, which is commonly seen as an indicator of social competence.

Analysing SLA research findings one can see that not only cognitive factors (e.g. intelligence, aptitude, strategies of learning) but also those related to affectiv-

ity determine an FL learner's ultimate achievements. It is beyond the scope of the present book to report on all the available research results pointing to the role of affect in language learning. The earliest studies date back to the 1970s (e.g. Kleinmann, 1977; Chastain, 1975). They were based on the Contrastive Analysis and sought out to establish the reasons for students' avoidance of specific structures. Apart from the strictly linguistic reasons the studies also noticed the contribution of affective factors such as anxiety and motivation. The recent studies, in turn, report on the dynamic nature of affect and indicate practical ways of fostering positive emotions in an FL classroom (e.g. Crisfield and White, 2012; Gabryś-Barker, 2012; Kębłowska, 2012; Mercer, 2012; Piechurska-Kuciel, 2012). While a substantial body of literature exists on affectivity and FL learning by FSLs, there is a scarcity of studies which address the issue with various types of disabilities including visual impairment.

As mentioned, a VIL brings to an FL classroom a wide and complex range of emotions. Unlike his FS counterparts, he is more likely to experience negative emotions (e.g. fear, shame, self-doubt, guilt) and negative emotional states (e.g. high anxiety, helplessness or depression) as a consequence of vision deficit or its loss. These negative emotions and emotional states are detrimental to FL learning. Yet, he may also experience positive emotions (e.g. happiness) and positive emotional states (e.g. high motivation, autonomy and empathy, or positive self-concept) which stimulate FL learning.

Below insight is given into the following factors: 1) self-esteem, 2) self-efficacy, 3) anxiety, 4) empathy, 5) motivation, 6) attribution and locus of control, 7) coping competence and learned helplessness, 8) autonomy. The last four factors and affective factors have only recently been bracketed together. All of them refer to the emotions, feelings, and attitudes that individuals bring to the learning experience. It should be noticed that all these factors are interrelated.

2.4.3.3.1. Self-esteem

Due to the lack of direct studies examining the relationship between self-esteem and FL achievements by VILs I will attempt to bridge the gap in available SLA literature by first discussing the nature of self-esteem in people with visual impairments, its impact on their lives, and finally predicting what effect it may have on FL learning.

Williams and Burden (1997) consider self-esteem as one of the facets which form the perceptions and conceptions of each person generating his individuality or *self-concept*. Self-esteem has been elucidated by a number of linguists. For Williams and Burden (1997: 97) the term refers to 'the totality of a complex and dynamic system of learned beliefs which each individual holds to be true about his or her personal existence' and which 'give consistency to personality'. Andrés (1999) explains that the term pertains to the constant assessment that we make about personality, and the way we think and feel about ourselves. It is viewed as subjective knowledge that is manifested in our speech and behaviour. There are

various divisions of self-esteem. Humphreys (1996) divides people into high and low self-esteem groups. Brown (2007), in turn, distinguishes three levels of the concept: general or global, situational or specific, and the one related to task. Self-esteem is evaluative and opinionated (I feel good about being an average student in an FL classroom.) and not cognitive or descriptive (I am an average student in an FL classroom).

Do VI people differ from FS people in terms of their self-esteem? For psychologists the question has been of much interest and considerable disagreement. Our self-esteem as a component of self-concept is constructed not only on the basis of our inner experiences but also the interrelation we have with the surrounding world (Arnold and Brown, 1999). Undoubtedly, visual impairment entails different inner experiences especially those related to communication and understanding the world. Consequently, these experiences affect the formation of a VI person's personality (for details see 3.2.2.3 discussing social-emotional development).

Psychologists have attempted to examine the nature of self-concept to account for the frequent problems of VI people with low self-esteem. A substantial amount of psychological research used such instruments as questions 'Who am I?', life stories or personal autobiographies. Reviewing the research into self-concept and visual impairment (Fraiberg, 1977; Warren, 1994; Leonhardt, 1992; Diaz-Aguado, 1995; Ruíz and Esteban, 1996) the following general tendencies can be noticed that affect VI children's personality:

— The description FB people make about themselves is very much inner (e.g. focused on their qualities and defects, aspirations, feelings, interest and abilities, with less emphasis on external assessments, i.e. their relationships with others, ability to adapt to their surroundings).
— VI people display a difficulty in making generalisations.
— Adults play a major role in VI children's lives.
— The social significance of visual impairment.

A VI person's self-concept is as fundamental for his self-esteem as it is for an FS person. As Cook-Clampert notices (1981: 233), the manner in which a VI child learns to view himself has a great impact on his future ambitions, school accomplishments and personal happiness. Negative self-concepts of VILs, usually associated with isolation, depression, and mental health problems may even lead to suicide (Lopez-Justicia and Cordoba, 2006).

In a discussion on VILs' self-concept and interrelated self-esteem one needs to mention the role of significant others. The subjects from Lopez-Justicia and Cordoba's study who contemplated suicide had few friends, preferred life at college than at home with parents and tended to spend most of the time by themselves.

Parents who accept their child's visual impairment, convey attitudes that a child is independent and successful, contribute to his high self-esteem. Those who cannot reconcile with a child's disability, or convey attitudes that he is incapable, inadequate, and inferior contribute to his lack of confidence and low self-esteem. Lewis

and Wolfe (2006) notice that VI children are able to develop positive self-concepts on condition that they are provided with love and acceptance, opportunities to explore, high expectations, and meaningful shared experiences with others, including VILs and FSLs. The authors stress the importance of significant others in developing high self-esteem, among them being not only families and professionals but also peers. The last ones are particularly important in the adolescence period when friendships become an essential element of positive social functioning. A VIL who has friends and role-models has a strong identity, which in turn enhances his self-esteem; he feels good about himself and is willing to reach out to others.

The research findings pertaining to VILs' self-concept and self-esteem did not yield consistent results, which is probably due to the application of different assessment scales. Reviewing several studies Morse (1983) concluded that the low-vision children seem to be more unsettled by the limits of their vision in comparison to the children with more severe handicaps, e.g. total loss of vision. Furthermore, parents of the low-vision children tend to be less understanding of the impairment than the parents of fully blind children (Bateman, 1962). Peadboy and Birch's findings (1967) also indicate the differences between low-vision and fully blind children; the former are more likely to show underachieving behaviours and fatigue and are more prone to emotional problems. Also Sacks (1996) found the same differences between the two groups of children. Low-vision children have a more negative perception of themselves, express feelings of isolation and unjust fault. Similarly Freeman et al. (1991) found that due to their low self-concept they tend to reject services that would be beneficial for them. The reason for this was to avoid being labelled as blind persons.

With regard to the research into self-esteem and visual impairment, Shapiro et al. (2005) established in their study significant gender differences: males were more positive at the beginning of summer camp in comparison to females. Yet, the difference disappeared across time with female perception of competence increasing at the end of camp. The researchers are of the opinion that the improvement in the perception of competence, for both sexes across time emphasises the role of friendship and participation in the development of positive self-esteem. They also point to the role of teachers and counsellors who at a camp were constantly interacting with the VI youth praising them verbally and providing ongoing feedback.

In another research project with VI adolescents Rosenblum (2000) revealed that although most of them had negative feelings about their vision deficit, there were some differences in the intensity of negativity among individuals. Some teenagers from the study were deliberately hiding their visual impairments, whereas others were expressing unhappiness but understanding their impairment as a part of life.

There are also research findings which indicate high self-esteem of VI individuals. Kef (2000) in his study of VI Dutch teenagers aged 14 to 24 found that most of them had high self-esteem as they accepted their visual impairment, did not feel lonely, positively perceived life, believing they had received enough support from parents and peers. No significant differences were observed between low-vision,

fully blind and fully sighted individuals though the last group had a larger network of friends and family.

Also Huurre et al.'s study (1999) revealed no differences in the self-esteem of 115 PS and FB adolescent students who attended mainstream Finnish schools. The researchers found that what significantly contributed to the enhancement of self-esteem of the VI group was their relationships with friends. Griffin-Shirley and Nes (2005), in turn, investigated self-esteem, empathy and bonding with pets in 71 VI and 88 FS preadolescents. Again, no significant differences were found between the groups.

Both Huurre et al. and Griffin-Shirley and Nes argue that the lack of differences in self-esteem may be a consequence of the recent trend in education, namely inclusion and increased awareness of visual impairment by the family. Sacks (1996), in turn, notices the great role of low-vision devices used by PSLs which not only help them use their functional vision but also enhance their self-esteem.

It should be noticed that self-esteem is inherently related to the overall psychosocial adjustment to life, which for a VI person may be difficult since it is inevitably tied with independence, control, and sufficiency. One of the greatest challenges for him may be viewing himself as a person first and treating visual impairment as only one facet of his person. Another challenge is dealing with discrimination and social stereotypes. In a world placing so much emphasis on appearance, speed and imitation a VI person may feel pressure to meet society's impossible standards. Yet, individuals with visual impairments are extremely heterogeneous and vary depending on their previous experiences, support network, type of vision loss (progressive vs immediate), anxiety, or inability to work.

In an FL classroom teachers may deal with a diversity of VILs; those with positive self-concept and high self-esteem who manage successfully to function as learners and those with negative self-concept and low self-esteem who tend to be low achievers since they think of themselves failures. The latter may maximise the negative, focusing on their limitations in FL learning, make unrealistic comparisons (e.g. to other learners), set unrealistic goals (e.g. completing a task in the same time as FSLs), over-generalise their inabilities (e.g. problems with O&M perceived as an obstacle to FL learning), and overuse 'should' statements. Above all, VILs with low self-esteem are not able to appreciate themselves together with their disability. One may also expect that VILs with low self-esteem will be inhibited, anxious, and will be afraid of taking risk. Therefore, in order to achieve success in FL learning they need a teacher who can help them nurture self-esteem. Self-esteem of VILs may be fostered through the following strategies:

1. holding high expectations for VILs but avoiding unreasonable demands (too easy and too difficult tasks do not enhance self-esteem);
2. making clear to VILs that mistakes are an indispensible element of FL learning;

3. promoting VILs' confidence by developing age-appropriate skills for academic success, independence, self-determination and autonomy;

4. developing peer-mediated and peer-support networks minimising competitive situations in which VILs might evaluate themselves unfavourably in comparison with other classmates (e.g. implementation of cooperative learning discussed in 3.4.2.3);

5. application of typical therapeutic activities suggested by Andrés (1999) such as
— *time circle*

(the students sit in a circle which creates the feeling of safety and belonging; their task is to finish the teacher's utterances e.g. I am good at ... or I feel uneasy when ...)
— *the mail box*

(the students send letters to others containing comments why they like the person; in this way cooperation is promoted)
— *special day*

(the teacher chooses one student who leaves the classroom while others brainstorm good opinions about him which are written down by the teacher on a Special Day Certificate; after the person comes back he is provided with a notice saying 'I am special' and the certificate),
— *the paper chain*

(pieces of paper are used to write comments about the students' deeds and achievements; the special paper chain is presented in a classroom so as all students may read it),
— *the car wash*

(the students show affection not only in verbal but also in physical terms; students sit in rows facing each other, between which the person needs to walk being touched, hugged by classmates expressing compliments to him; in this way the feeling of belonging to a group achieved by touch is built),
— *sparkle bags centre*

(the students make paper bags which are attached to Sparkle Centre Board; the pupils may put messages into certain boxes expressing their positive thought about a given person; in this activity reading aloud can be practised),
— *teaching based on literature*

(the students work on texts in which characters suffer and face challenges; in this way the students may identify with the story characters, which increases their security, identity, and belonging to the group).

Some schools introduce educational programmes for VILs to enhance self-esteem. Bowen (2010) in her research measured the effectiveness of such programmes. VI children whose self-esteem was low or very low were tested at the outset of the programme and after the implementation of the three strategic interventions (circle time, circle of friends, and individual mentoring). Though there was no conclusive evidence which of the three interventions is most effective, three out of four VILs were reported to have increased self-esteem levels.

2.4.3.3.2. Self-efficacy

Success in FL learning may also be attributed to high self-efficacy. According to Bandura (1994), the term refers to people's beliefs about their capabilities to complete tasks and reach goals within a specific domain. However, high self-efficacy in one domain does not guarantee high efficacy in another. The construct referring to a facet of self-concept has been investigated from several perspectives. Psychologists have focused on its developmental stages, its dynamics, its nature in various settings, and attribute it to people's success (e.g. Chularut and DeBacker, 2004; Bandura et al., 1996). Since self-efficacy is regarded as a determinant of self-esteem, neuroticism, and locus of control psychologists also examined interactions between these constructs. Judge et al. (2002) suggest that measures purporting to assess the aforementioned determinants and trait-generalised self-efficacy (which differs from Bandura's self-efficacy) may be markers of the same higher order concept. Four sources of information effecting self-efficacy were identified by Bandura (1997), namely

1. *Mastery experiences*
(refer to personal experiences with success or failure)
2. *Vicarious experiences*
(refer to observing how other people successfully perform in a threatening situation, imitating their skills and strategies)
3. *Verbal persuasion*
(refers to provision of verbal feedback which encourages a person to accomplish his tasks; a commonly used positive strategy is saying 'you can do it'; whereas negative feedback lowers efficacy expectations)
4. Physiological state
(refers to the feelings of anxiety, nervousness, rapid heart rate and other symptoms which occur when a person faces challenges that require competence to overcome; such physical or mental states reflect learner perceptions of their self-efficacy which in turn affect his achievements).

Self-efficacy strongly affects all areas of human endeavour, including FL learning. It was found to be a reliable predictor of behavioural effects explaining FL learners' success or failure (see for details Piechurska-Kuciel, 2013; Ghonsooly and Elahi, 2010; Coronado-Aliegro, 2008; or Anyadubalu, 2010). High self-efficacy positively affects language performance, which in turn enhances one's self-efficacy.

As Bandura (1997) postulates, self-efficacy is not a passive trait but a dynamic one, which interacts with the environment and the individual. There are no research findings which would allow generalisations about VI people's self-efficacy and thus would call for a separate self-efficacy theory for persons with this impairment. As I have repeatedly said throughout the book, there is a great diversity among VILs, which defeats the possibility of formulating any general theories for this group of learners. Similarly to reports on self-esteem, findings on self-efficacy are inconsis-

tent. Some researchers exploring self-efficacy in VI people indicate certain problems (e.g. Murugami, 2010; Irungu, 2008) which might be more typical of people with visual impairment. Yet, others (e.g. Pinquart and Pfeiffer, 2011) report on minor differences in self-efficacy in VI and FS populations.

Murugami (2010) investigating VILs' decision-making self-efficacy identified a number of factors which inhibit its development. Among the intrinsic factors there are VILs' perceptions of their relationships to the environment comprising of families, teachers, peers, and objects. All these environmental elements are expected to enhance VILs' skills. If mistrust in significant persons in the environment appears, a VIL is more likely to foster a belief he is not capable of achieving success in a given task. Irungu (2008: 54) in her research found that that mistrust developed among the majority of the VI high school learners who did not seek guidance and counselling from the teachers due to lack of privacy and confidentiality. Another factor identified by Murugami is poor and unguided academic achievement, which in her opinion can seriously hamper VILs' self-concept and decision-making self-efficiency. The author explains that when a VIL fails to achieve satisfactory academic performance, he may think that he does not meet societal expectations and consequently he loses heart before he establishes his self-concept and decision-making self-efficacy.

Among the external factors discussed by the researcher there is family background. Those in which disability is not fully accepted and negative comments are generated lead to negative self-image and low self-efficacy. There are families in which excessive overprotection is practiced, which is the expression of disguised rejection. Without giving the chance for a child to develop his independence or self-confidence he will not be able to develop positive self-concept and self-efficacy. Another factor which needs to be considered is school curriculum. Inflexible curriculum is a major barrier to appropriate learning experiences. In the settings where flexible curriculum is employed to cater for VILs' talents and abilities, particularly the ones who are gifted, learners are more likely to develop positive beliefs about their capabilities. Similarly inadequate resources (unprofessional teaching staff, teaching and learning materials) may affect VILs' beliefs who may blame themselves for poor academic performance.

Interesting observations on self-efficacy beliefs were made in a longitudinal study by Pinquart and Pfeiffer (2011) who compared 133 German VI adolescents with 446 FS adolescents. The researchers analysed associations of general self-efficacy beliefs with psychological adjustment, academic achievement, and attainment of developmental tasks. The findings indicate small between-group differences. Furthermore, higher self-efficacy beliefs correlated positively with psychological adjustment (life-satisfaction and emotional symptoms), academic achievement and greater progress in the attainment of developmental tasks. Yet, only for the FS adolescents did the researchers observed a discrepancy between desired and present attainment of developmental tasks. Additionally, they had higher levels of life-satisfaction than their VI peers and lower levels of emotional symptoms. Pinquart and Pfeiffer conclude that interventions aimed at improving VILs' psychological

well-being are needed. VI students need to experience a supportive environment which promotes goal attainment and development of self-management skills. In such conditions self-efficacy beliefs can be translated into accomplishment of goals and related positive feelings.

Self-efficacy of VILs may be strengthened by various means. Firstly, VILs need a role-model, a person with visual impairment, who can give them the aspiration to search for their motivation and self-efficacy. A successful VI FL learner who is a university or college graduate making use of his FL competence in his professional life may serve as a good model for VI pupils. VILs also need non-impaired role models (e.g. interpreters, language teachers) who would act as mentors in various domains in which VILs are capable of excelling. Secondly, self-efficacy may be increased by teachers providing encouragement and informative feedback e.g. by explaining the advantages and disadvantages of various strategies used by learners. Finally, VILs need to experience success, which is the best source of fostering self-efficacy. This may be achieved by providing to VILs challenging, yet attainable tasks.

2.4.3.3.3. Anxiety

The construct has been associated with feelings of uneasiness, frustration, self-doubt, apprehension, or worry (Scovel, 1978: 134, in Brown, 2007: 151). FL learning is a highly demanding task, which may raise anxiety in an FL learner. Behind anxiety lies the question: Will I be successful? The distinction between debilitative and facilitative anxiety (Scovel, 1978) or harmful and helpful anxiety (Oxford, 1999) allows treating the construct as a variable which may predict both success and failure in FL learning. Anxiety is closely linked with self-esteem and inhibition. Various teaching methodologies advocate the creation of conditions which would keep anxiety at the level facilitating the learning process. Anxiety has been investigated by SLA researchers in different age groups (e.g. Piechurska-Kuciel, 2008 focused on adolescent learners) and in different settings (e.g. Hurd, 2008 focused on online learning environment).

Various researchers have been investigating the sources of anxiety in VILs. Lieberman et al. (2002) established the main challenges faced by VILs in various institutions all over the world. Among them there were 1) the lack of competent teachers, 2) the lack of specializsed equipment, 3) the lack of adequate programming and timing. Moswela and Mukhopadhyay (2011), in turn, exploring the issue in the context of learners with disabilities, identified the following sources of anxiety: 1) the lack of necessary resources to facilitate learning, 2) the lack of policies, 3) the lack of support systems and mechanisms, 4) the lack of necessary skills and knowledge.

Researchers also describe the measures introduced by schools and teachers to reduce anxiety related to learning by VILs. Douglas (2011), for example, discusses how the British government created an environment conducive for VILs by the adoption of ICT. As a result, VILs can be more involved in learning without experiencing so much anxiety.

Wolffe et al. (2002) argue that negative anxiety in VILs may be put down to the lack of well-qualified teachers and the lack of flexible curriculum. They suggest that teachers working with VILs should undergo a special training course in communication.

There is also empirical evidence that VILs face various anxieties in the course of learning. Carter et al. (2005) compared test anxiety of VILs and FSLs to conclude that the former exhibit higher levels of test anxiety. Such findings should be used to make important decisions about VILs' educational programmes related to determining levels of curriculum mastery, reporting card grades, grade level promotions, honours, and graduation.

Researchers have also attempted to investigate the nature and manifestations of psychological dispositions of anxiety among VILs since it plays a pivotal role in the overall academic performance of learners. In one of the studies by Mbugua (2013) the VI high school students selected by stratified random sampling technique were interviewed by means of Brailled and Large Print Anxiety Questionnaires. The findings show that VILs experience anxiety at different levels. What is more, anxiety levels affected the students' psychological stability; they had problems with concentration and some even felt neglected and unappreciated. Their psychological disposition of anxiety was also manifested in anger, panic, fear, lack of determination and self-confidence. The researcher holds the view that individualised counselling is a major factor, which can reduce psychological dispositions of anxiety. Additionally, it may serve as an instrument to determine how stable a VIL is. The study also established that the drivers of stability are related to contextual factors; control of anger and anxiety clearly depends on these factors. The study also indicates that psychological dispositions of anxiety are mainly indiscriminate in terms of gender and age.

Since contextual factors are so important, there is a need to create a learning environment which caters for VILs' emotions and provides adequate support services. The research findings should be considered by education stakeholders, ministries of education, teachers, parents, and non-governmental organisations involved in education of VILs in Europe.

Dodds (1993a) also investigated the nature of anxiety in VILs. He argues that anxiety and depression are common in the VI population and they are the emotional consequences of vision loss. Yet, the researcher attempts to offer an alternative account of anxiety and depression to that offered by the vision loss model. In his view anxiety entails over-arousal which is perceived by psychologists as a part of the response to psychological stress. Depression, in turn, may be characterised by a low level of arousal. In a VI individual these two extreme psychological states occur.

Koenes and Karsmer (2000), in turn, compared the nature of depression in VI and FS adolescent learners. Their findings are worth mentioning since nowadays it is more common for language teachers to teach in inclusive settings. In the study there participated 22 congenitally blind adolescents and 29 FS adolescents ranging in age from 12 to 18 years. Depression level was measured by means of the Beck Depression Inventory. The study revealed that the incidence of depression among

the FB adolescents was significantly higher than in the FS group (t = 2.937, df = 50, p and lt;. 005). Mean score was 7.103 for the FS group and and 13.652 for the FB one. The researchers did not find a significant relationship between depression and demographic variables.

There is also empirical evidence that anxiety level is related to degree of visual impairment. In Karlsson's study (1998) 167 VI Icelanders aged 18–69 years and 100 aged 70–97 years were examined in terms of their psychological distress. In the survey the participants answered questions regarding such aspects as: 1) their feelings of happiness, 2) lot in life, 3) economic concerns, 4) difficulty in dealing with the deterioration of their vision, 5) symptoms of distress they experience. The findings show psychological distress and perceptions of unhappiness varied significantly with the degree of visual impairment. The persons with poorer vision were more likely to manifest indicators of psychological distress such as depressive feelings, anxiety, worry, intrusive thoughts, isolation, and loneliness.

Though there is no available literature on anxiety evoked in VILs while learning an FL the aforementioned findings allow the creating of a general profile of such a learner, i.e. 1) a person who may experience test anxiety at higher rates than his FS peers, 2) a person who may feel under pressure and reacts too emotionally to challenges related to FL learning (e.g. he may be irritable and unable to cope with FL learning), 3) a person who may have pessimistic moods, feel tired and exhibit aversion to FL learning activity. Therefore, in order to make FL learning successful, language teachers should make the learning atmosphere conducive for VILs by working out ways of lowering their anxiety level. As mentioned earlier adoption of ICT, support of professional teaching staff, flexible programmes and adequate resources can substantially reduce VILs' anxiety.

2.4.3.3.4. Empathy

Brown (2007: 153) defines empathy as the process of 'putting yourself into someone else's shoes, of reaching beyond the self to understand what another person is feeling'. Empathetic people have lowered affective filter. Schumann (1975) describes them as persons with flexible ego, lower inhibitions, less anxious, willing and able to identify with others. The construct of empathy is particularly relevant to FL learners since FL learning involves taking a new identity. Empathetic FL learners identify more easily with speakers of a target language and are more likely to accept their input as intake for language acquisition. High empathy and thin ego-boundaries are thought to foster interpersonal relationships, which are of paramount importance in FL communication. Successful FL learners get involved in interpersonal relationships, understanding their interlocutors' experiences, emotions and thoughts (Ehrman, 1999). Yet, the research results are mixed and do not show a definite connection between empathy and second language oral performance.

It is thought that the key sign of taking a new identity is learning to pronounce an FL in a more or less native way since this is when an FL learner really empathises

by temporarily losing his L1 identity and taking on that of a native speaker (Jedynak, 2009). The degree to which an FL learner is able to empathise depends on his ego boundaries flexibility. This is evidenced by the empirical data showing that thin ego boundary learners tend to outperform thick ego boundary individuals in pronunciation accuracy, though the differences are not statistically significant (e.g. Baran-Łucarz, 2012).

VILs are considered to have considerable potential for attaining native-like pronunciation (see section 2.3.1 on phonological development). However, a question arises whether they are able to fully exploit this potential. High affective filter, as defined by Krashen, with low motivation, low self-confidence, and high anxiety may hinder FL production. Low empathy level may also inhibit successful FL communication. Therefore, it seems justified to attempt to gain insight into the empathy of VI people.

It should be noticed that empathy is a multidimensional construct with both cognitive and emotional components (Davis, 1983). An empathetic FL learner is able to see the world as another person and to share and understand another person's feelings, needs or concerns. Researchers exploring empathy in VI people have approached empathy from these two perspectives.

Empathy emerges in a person as a consequence of his social development. Friendships, play and leisure develop in a child social understanding, social interactive skills, social independence, socially appropriate behaviour, and empathy skills. It is more difficult for empathy to be developed if there are any social or friendship related problems. Researchers provide data, which indicates that VILs struggle with such problems, particularly VI children and adolescents (Huurre, 2000; Kef et al., 2000; Gold et al., 2010; Pfeiffer and Pinquart, 2011). Yet, findings related to empathy in VILs are inconsistent. Griffin-Shirley and Nes (2005), mentioned earlier with reference to their research on self-esteem, did not find significant difference in the levels of empathy between 71 VILs and 88 FSLs.

There has also been research into the ways of improving the empathy and communication skills of VILs. Reports show that implementation of social skills training for VILs is effective. For example in Kim's study (2003) VILs' assertiveness skills improved, in Celeste's study (2006) frequency of social interaction increased, whereas in Peavey and Leff's study (2002) increase in social acceptance was observed.

In the factorial design study by Yildiz et al. (2013) the researchers investigated the effectiveness of a psycho-education programme implemented among 16 VI early adolescents. Control and experimental groups were compared at the stages of pre-test, post-test and follow-up test. The researchers employed the Empathy Tendency Scale for Children and Adolescents and the Communication Skills Evaluation Scale. Only the VI experimentals were exposed to interpersonal communication skills training. In the programme they learned the basic knowledge of interpersonal communication, comprehending the consequences of ineffective listening and active listening. They were also made aware of their own communication style, destructive and healthy communication styles, noticing and disputing the dysfunctional attitudes

preventing self-disclosure. Moreover, the VILs were also taught how to increase empathic skills to be able to understand that people may attribute different meanings to an event and thus produce different emotional responses. The experimentals were also trained how to use proper self-disclosure and more I-messages. Computational analysis of the results proved the effectiveness of this innovative programme.

FL classes, unlike other classes such as mathematics or science, offer many opportunities for implementing elements of psycho-education programmes such as the one mentioned above. The intercultural approach promoted in the European documents (see section 1.2.3 for details) demands from language teachers the cultivation of culturally empathic ability in FL learners. Thus, in an FL classroom all learners regardless of their impairments may be trained on how to eliminate prejudice and stereotypes and moderately use empathy in intercultural communication (without either overempathising or underempathising).

Since research reports indicate social and friendship related problems experienced by students with visual impairment, which in turn may hinder the emergence of empathy, language teachers should introduce some strategies to develop empathy skills in VILs. This may be achieved by assigning pair work or group work (e.g. students work over a dialogue or argumentative presentation), which requires from VILs the building of relationships with peers. Such classroom experience may contribute to firm friendships and social ties in out-of-class contexts (e.g. in a contact with a native speaker).

2.4.3.3.5. Motivation

Brown (2007: 160) notes that motivation is the catch-all term for explaining the success or failure of virtually any complex task. Such an approach assumes that each FL learner, who is properly motivated, will always achieve success. Indeed numerous studies and experiments tackling the problem indicate that motivation 'provides the primary impetus to initiate FL learning' and later is 'the driving force to sustain the long and often tedious learning process'. Moreover, all the other factors involved in FL learning are believed to presuppose motivation to some degree (e.g. Dörnyei, 1998: 117).

Yet, the concept of motivation is not as easy as it seems to be. It is more problematic due to its multidimensional nature. It is related to self-efficacy (see section 2.4.3.3.2 for details) which helps to predict an individual's motivation and performance (see Schunk's research, 1995). Dörnyei (1998) makes a point that motivation is an umbrella concept used by researchers to refer to cognition, affect, motivated behaviour, a personality trait, some kind of process, inner force or power, attitudinal complex, set of beliefs, stimulus appraisal, directional choice, mental energy, or abstraction. Various conceptualisations of the concept are reflected in numerous cross-disciplinary theories, which have been put forward to explain motivation (e.g. some of them claim that people are motivated by material rewards, desire to increase their power and prestige, or enriched environments). It seems that no single theory

adequately explains all human motivation. Despite disagreement between the researchers as to the nature of motivation, there is consensus among them as to its importance in language teaching. Dörnyei explicates in his article that neither the most remarkable abilities nor the best curricula and teaching can accomplish individuals' long-term goals if they are not motivated. Furthermore, as Gardner and Lambert (1972) notice, motivational factors can override the aptitude effect, which accounts for a considerable learner variability in FL learning.

Motivation has not been systematically explored by researchers in the field of visual impairment. One frequently quoted study refers to motivating Finnish VI and deaf-blind people to perform regular physical exercises. Surakka and Kivela (2008) implemented a 5–6 week physical training programme to examine the dynamic nature of motivation in their subjects. The programme developed for the target group aimed to reduce the most common physical problems of VI people, namely those of balance, posture, coordination, tense neck and shoulder muscles, and loss of spinal rotation and reciprocal arm swing. The researchers employed for the study 12 physically active individuals and 12 with sedentary lifestyles. In all the subjects but one improvement was observed in at least one of the indicators such as physical condition, mental state and balance.

There is a scarcity of research into VILs' motivation towards FL learning. One of the data sources comes from the EBU's document *Good Practice for Improving Language Learning for Visually Impaired Adults*. The report reveals some statistics on VI adults learning an FL. Since VI adults do not have FL imposed on them (e.g. by schools) their interest in continuous language learning may be a sign of their high motivation. Since there are no official and precise statistics on all VILs learning FLs generated by European countries, the report draws upon the data on adults with vision deficits learning an FL obtained through associations dedicated to visual impairment. For instance, according to the Pancyprian Organisation of the Blind, in Cyprus in 2009, there were 42 VI adults attending the specific language courses whereas 9 VI people expressed their interest in learning the Italian language, responding to a call from the organisation. In France, in turn, the Group of Blind and Partially Sighted Intellectuals recorded on average 15 individuals from all ages every year who were searching for a Braille adapted method of language teaching. In Slovakia, the majority of VI adults study an FL alone at home using Internet and adapted e-textbooks. Only a few VI people decided to learn an FL within mainstream language courses.

In the Czech Republic, the Czech Blind United turned to the Czech VI adults to ask them in a questionnaire about their needs for learning an FL. The number of adults who declared to participate in language courses was surprisingly higher than expected. Most Czech VI adults rarely attend language schools especially when they have to use Braille textbooks. They prefer to learn privately in one-to-one or in small groups or in special courses organised for VI people.

The EBU's report also analyses the personal and professional motivations of VI adults to learn FLs. No remarkable differences were found between VI people's motivations to start learning an FL and those of FS people. They all learn an FL within

the framework of the obligatory education system, and later either wish or need to update their language competence or to learn a new language. The following personal motivations were identified in VI adults:

— Widening the scope of radio stations which can be listened to and books which can be read, as well as websites which can be explored while surfing on the Internet, broadening the scope of accessible information, and being able to chat with other people and make new friends;
— Being able to help children with their homework. Nowadays, students have more compulsory language courses than in the past;
— Discovering or better understanding the culture of other countries;
— Willingness to strengthen linguistic skills or to refresh memory without any precise objective;
— Recreational learning;
— As a hobby or pastime;
— Socialising with other adult students;
— Socialising with foreigners;
— Accessing international media;
— Simply enjoying the sound of another language;
— Strengthening learners' capacity for international mobility: increased communication abilities when travelling abroad make people feel more independent;
— Being able to take part in various international events/camps.

With regard to professional motivations the EBU report outlines those related to:

— Serving customers in a number of jobs frequently performed by VI people (e.g. call centres or switch board operators, masseurs, physiotherapists, tourism professionals). In all these jobs there has been an increased need to speak foreign languages to serve customers efficiently. Language learning, particularly English, allows VI adults to retain such jobs;
— Increasing employment opportunities by improving job qualifications;
— Increasing chances for career advancement: VI adults can be asked to improve their language skills by their employers. Generally, they do it through in-house training or further education. Furthermore, language competence often constitutes a basic qualification for promotion in the workplace;
— International mobility: making travel for professional reasons easier and more efficient;
— International communication: enabling more fluent communication with colleagues, clients and suppliers from abroad, either on the phone or in written form;
— Attending seminars in other countries as part of their work requirements.

There are not many studies exploring the motivations of VILs learning an FL. In one study Jedynak (2010) reports on problems with motivating VILs. The author

notes that the motivation of an individual VI person is a relevant factor and that it is closely related to the VIL's emotional side, previous learning experience and goal setting. She also asserts that enhancing and sustaining motivation may be problematic for an FL teacher since many VILs frequently struggle with the feelings of learned helplessness and lack of self-worth. Jedynak also makes a point that students' attitude towards a course book has a great motivating power. She analysed the attitudes of FSLs and BLs towards their FL course books to find that the former were usually satisfied with book content (colourful illustrations), layout, and supplementary materials whereas the latter did not like their course books as they were big in size and very heavy. Undoubtedly, the fact that Braille course books are considered unattractive by BLs has an impact on their motivation towards FL learning.

Apart from language course books, Jedynak also discusses another factor which may hinder VILs' motivation, namely an insufficient amount of autonomy. Autonomous behaviours of FL learners trigger their motivation. Yet, there may be a problem with VILs, particularly with BLs, who unlike their fully sighted counterparts seem to be more dependent on their environment. The author holds the view that this dependence is frequently related to BLs' L1 learning experience and a strong bond with caretakers (Jedynak, 2008b). The issue of autonomy will be thoroughly discussed in subchapter 3.4.3.3.8.

Another factor hindering motivation and discussed exhaustively in Jedynak's article is incomprehensible input provided by teachers. The author reports the results of the interview conducted with two VI students at English Studies Departments. The VILs schooled in mainstream education noticed many drawbacks of the oral language input such as the abundance of non-verbal cues or body language.

Discussing FL motivation one also needs to stress its relationship with the social aspect of FL learning. In a mixed ability FL classroom the VIL may be perceived as alien since his or her limited use and perception of body language may become hurdles in the communication process. BLs' frozen postures and expressionless faces may discourage FS speakers from continuing their turn in a discourse. Consequently, the former feel neglected and deprived of valuable opportunities to negotiate meaning through interaction with their language teachers and peers. Jedynak regards the lack of comprehensible input and negative interaction experience as detrimental to VILs' FL motivation. Her observations are reflected in the following quotation:

> The VI learners who suffer from the lack of comprehensible input and interaction experience such feelings as marginalisation, isolation from peer community and lack of motivation to FL learning. These problems may ultimately influence the VI learner's decision about abandoning a language course elective. When the learner does not have such a possibility and he/she has to attend a compulsory language course, the feeling of frustration aggregates even more. Thus, there is a great role of FL teachers who should take responsibility for providing a more productive and positive learning environment. (Jedynak, 2010: 176)

Jedynak also elaborates on the issue of personal and professional motivations of VI people. The EBU's report discussed above focused only on identification of

various motivation types whereas Jedynak's intention was to find out whether VILs' motivations differed from those of FSLs.

The findings reveal that the VI learners do recognise the importance of FL learning and have personal learning goals, however they display much more pessimistic attitudes towards possible perspectives related to the command of languages than FS learners. This gloomy vision is partly justified if one considers the statistics on the VI people unemployment rate. According to the data presented by the EBU, the average unemployment rate of FB and PS persons of working age is over 75 percent. Despite excellent competence in FLs, VI graduates are less likely to be offered employment in comparison to FS graduates.

Last but not least, the impact of VILs' previous learning experience needs to be mentioned since it also projects on subsequent involvement in FL learning. All learners, regardless of impairment, filter their experience and adopt selective patterns of thinking in order to focus on positive aspects and ignore negative ones. Jedynak (2010) makes the point that depressed affect so frequent in VILs may hinder an appropriate interpretation of learning experience. As a consequence, VILs may concentrate on negative learning aspects.

In the light of the above-mentioned facts there is a need to work out effective strategies to enhance motivation in FL VILs. Szczęśniak (2008) discusses various ways of motivating these learners to FL learning. A motivating factor will be the use of adequate teaching methods and techniques which compensate non-verbal communication. All teaching methods may be introduced to VILs since effectiveness of teaching VILs does not depend so much on a selected method but techniques and adaptive teaching aids. FL teachers need to introduce techniques based on auditory, olfactory or tactile modes. They should also focus more on FL pronunciation and intonation to allow VILs to properly express their emotions in communication. For example, FL teachers should sensitise VILs to dynamic elements of communication whispering 'Silence, please!' or 'Bitte lesie!', or rising a pitch to express disapproval while saying 'No smoking here, please!' or 'Hier darf man nicht rauchen!'. Szczęśniak also discusses the motivating role of audio materials and realia. The recorded sounds of actions (e.g. opening a door) or real objects (e.g. clothes or vegetables) may be used both at the presentation and practice stage. The author also holds the view that the introduction of cultural aspects (e.g. elements of literature, history, arts, music, lifestyle etc.) motivates VILs to FL learning. Finally, she makes the point that problems with VILs' motivation appear predominantly in reading and writing since their mastery requires a great effort and patience. Nevertheless, these skills need to be practised (Szczęśniak, 2008: 280–283). Jedynak (2010: 177) also discusses the importance of practising four skills. She notes that there are two reasons for which it is a gross mistake to neglect reading and writing in FL. Firstly, the necessity of teaching four skills is emphasised in FL teaching methodology. Secondly, VILs should be treated in the same way as their sighted counterparts. Providing VILs with the same requirements as for FSLs makes the former more motivated to FL learning.

Jedynak (2010) also discusses various strategies which can be used to enhance VILs' motivation to learn an FL. She stresses the role of the teacher who should provide comprehensible input and meaningful interaction in language courses, create a cohesive classroom community in which all students, whether they are visually impaired or not, are encouraged to develop and learn. This can be achieved by:

— allowing VILs to identify aspects of learning in which they are able to engage and plan short-term, easily achievable goals;
— providing positive feedback by FL teachers which builds up self-esteem of unmotivated students;
— careful selection of tasks and materials to avoid unnecessary stress for VILs (e.g. gradually increasing the range of activities and demands allowing time for VILs to engage in learning);
— allocating sufficient time to allow VILs to complete tasks satisfactorily (particularly when VILs follow or interpret text, graphics or use vision aids);
— introducing ICT tools, especially for assessment (teachers can mark digitally saved or CD recorded essays);
— introducing IRC Newsgroups (the socialising room that invites anyone willing to chat regardless of disabilities), Talk or BBS services into the language curriculum.

Though all these strategies are worth considering, it seems that nothing better triggers FL motivation and builds up self-esteem than an encounter with a VI person who achieved success in FL learning.

Jedynak (2010) also gives some practical hints on motivating BLs to learn FL vocabulary. She notes that teaching vocabulary may be problematic as an FBL has fewer opportunities to experience incidental learning both in L1 and FL learning. Yet, teachers and parents can compensate for the lack of this input. For example, objects around the home or school can be labelled in Braille. An FB child familiar with L1 Braille names of objects will feel more motivated to learn their equivalents in FL Braille. Also, Braille stories are very motivating for BLs. The imaginative dimension of stories can be encouraged by using toys, dolls, puppets and tactile illustrations.

To recapitulate, VILs' motivation is influenced by the accessibility of learning materials or language courses. In the process of developing FL motivation there is a great role of FL teachers whose task is to provide comprehensible input to VI learners and encourage them to participate fully in the classroom community. It needs to be considered that the strategies aimed at enhancing VILs' motivation discussed above are not 'one size fits all' suggestions. Their choice depends on types of vision deficits and students' individual personalities and expectations.

2.4.3.3.6. Attribution and locus of control

All people, regardless of impairment, have a need to explain what happens around them in the world. They tend to attribute cause to various events, including these related to FL learning. FL learners do this differently, depending on their preferences around locus of control and generality. Various models which attempt to explain these preferences have been offered. The study of the models known as attribution theory started in the early 20th century and it was later developed by Harold Kelley and Bernard Weiner (Kassin, 2008). It should be noticed that attribution theory has strong implications for academic motivation. It incorporates self-efficacy theory as it stresses the importance of the learner's current self-perceptions and their influence on how he interprets success or failure of his efforts and hence his future tendency to perform the same behaviour. Also, it incorporates behaviour modification in the sense that it emphasises that the learner is strongly motivated by the pleasant outcome of being able to feel good about himself.

The foundation for attribution theory was laid down by Rotter's theory developed in the 1950s and the 1960s. Rotter holds the view that investigation of human personality is inseparably connected with exploration of an individual's interaction with the significant environment. Among different constructs specific for his theory, one of them, namely locus of control (LOC), seems to be particularly significant for research on individual differences in second language acquisition. According to Rotter, locus of control is a personality dimension which can be presented as a continuum from *external* to *internal* control over life events (Williams and Burden, 1997). In other words, we attribute life events either to our actions (internal control) or to some environmental forces such as God, luck or fate (external control).

It is believed that internalisers are better equipped to guide their individual development and assimilation with the environment. They tend to be more ambitious, assertive, active, and more academically gifted. They also exhibit a great deal of persistence and show strong tendencies to seek information and use it appropriately in problem-solving tasks. Yet, individuals with too much internal control have a tendency to blame themselves for all negative life events. People with more external LOC are considered to be less ambitious, passive, submissive, compliant, non-exploratory, inattentive, more dependent on others, and less academically gifted (Wang, 1983).

Internality/externality dimension is in the heart of attribution theory — a cognitive approach to motivation — developed by Weiner (1979). The theory explains how individuals process the causes of their life events. People's attributions determining their reasons for success and failure can not only be internal or external but also *stable* or *unstable*. If an individual believes cause is stable, then the outcome is likely to be the same if he performs the same behaviour on another occasion. If it is unstable, the outcome is likely to be different on another occasion. Attributions may also be *controllable* and *uncontrollable*. A controllable factor is one which an indi-

vidual believes he can alter if he wishes to do so. An uncontrollable factor, in turn, is one that he does not believe he can easily alter (Jarvis, 2005).

Motivation in FL learning is influenced by four factors related to attribution theory, namely *ability*, *task difficulty*, *effort*, and *luck*. With regard to ability it is perceived as a relatively internal and stable factor over which the FL learner does not have much direct control. Task difficulty, in turn, is considered to be an external and stable factor which is largely beyond the FL learner's control. As to effort, it is an internal and unstable factor over which the FL learner can exercise a great deal of control. Luck, in turn, is an external and unstable factor over which the FL learner exercises very little control. The main elements of attribution theory are displayed in the table below.

Table 2.2. The main elements of attribution theory (based on Jarvis, 2005: 125)

	Stable	Unstable
Internal locus Controllable Uncontrollable	Typical effort Ability	Atypical effort Mood
External locus Controllable Uncontrollable	Teacher bias Task difficulty	Atypical help Luck

As one can see in Table 2.2, internal LOC learners will be more likely to attribute FL learning results to their own actions. Results can be attributed to their efforts when they are controllable or to ability and mood when they are not controllable. External LOC learners, in turn, will be more likely to attribute FL success or failure to various contextual factors. For example, to external stable cases such as task difficulty if the results are uncontrollable or to teacher bias if the results are controllable. FL learning results can also be attributed by externalisers to unstable situations. For example, atypical help which is a controllable factor or luck which is uncontrollable. Jarvis (2005: 125) also provides some examples related to such attributions (see Table 2.3).

Table 2.3. The main elements of attribution theory — examples (Jarvis, 2005: 125)

	Ability	Effort	Level of difficulty	Luck
Success	I am clever	I tried hard	It was easy	I was lucky
Failure	I am not clever enough	I did not try enough	It was too hard	I was not lucky

It is assumed that when FL learners attribute their success or failure to their efforts and ability, they become highly motivated. Interestingly enough, attributions are adaptable; external attributions can be changed into internal ones or external LOC can be altered into internal. As one can see, the relationship between attributions and LOC is so close that they are frequently treated as the same concept.

Research into LOC is extensive. Some researchers have investigated LOC effect on anxiety. Biaggio (2004), for example, found that external LOC people experience state-anxiety in ability situations while internal LOC individuals experience such anxiety in luck situations. Also LOC effect on academic procrastination was explored. Carden, Bryant and Moss (2004) revealed that internalisers experience lower academic procrastination than externalisers. LOC was also found to influence General English achievement. Ghonsooly and Elahi (2010) established that Engineering and Basic Sciences university students were internal LOC students and scored better on General English tests. Humanities students, in turn, tended to be externalisers and performed worse on General English tests.

Extensive psychological research into LOC mainly concerned FB people and there is little data on the nature of LOC in VI people. A frequently quoted study is the one by Mackay and Roy (2002) conducted in Scotland. It concerned self-perception and LOC of 16 VI college students with different types of vision loss. The authors elicited responses from the subjects by means of the Twenty Statements Test (TST), a locus of control test, and open-ended questions. The findings show that the subjects had a generally positive view of self. Yet, negative TST responses were also observed. They mainly focused on disability but sometimes they were also associated with deteriorating vision loss and recency of onset. With regard to LOC the subjects' responses were highly external across the group.

Papadopoulos et al. (2013) investigated LOC and self-esteem in 108 VI (low vision and blind) and 55 FS adults in Macedonia. Some differences between the groups were observed only in self-esteem. The FS adults showed a higher score on the self-esteem scale than the individuals either with low vision or with blindness. Vision status and age at loss of sight were found to be significant predictors of self-esteem. With regard to LOC, the researchers observed no significant differences amongst the three groups of subjects.

The available studies provide inconsistent results; hence there is a need to continue research into LOC and visual impairment. So far, there has been no SLA research into LOC of VILs and its impact on FL achievements. Therefore, the study presented in the empirical part of the book attempts to bridge this gap. Insights from the study may shed some light on how students with vision deficit cope with FL failure.

2.4.3.3.7. Coping competence

Another affective predictor for FL learning success is coping competence. The psychological construct has not been widely discussed in SLA domain. Yet, it seems crucial particularly for those FL learners who develop symptoms of learned helplessness and depression.

Since coping competence reflects resilience to learned helplessness it seems justified having insights into the construct of learned helplessness. The theory of learned helplessness dates back to the 1960s. Seligman and Maier noticed that clas-

sically conditioned dogs, which got electrical shocks, did not attempt to escape the situation though they could easily avoid electrical shocks by hopping to the other side of a box. The discoveries about animals' behaviour were applied to humans. It was noticed that they experience helplessness when they feel powerless to change a situation (Overmier and Seligman, 1967; Overmier, 1968). This happens when people develop negative attributions to their internal, stable and global factors. Such an approach leads people to think that a situation is uncontrollable. Consequently, they either avoid the situation or stay passive, which may lead to clinical depression and related mental illnesses (McClure, 1985).

The original theory of learned helplessness has been reformulated since it did not take into account individual differences. Firstly, people vary in terms of their reactions to events, which can cause learned helplessness (Peterson et al., 1998). Secondly, learned helplessness sometimes may be specific only to one situation (Cole and Coyne, 1977) such as e.g. FL pronunciation learning or communicating in FL. Yet, it is possible for an individual to experience it across all life situations (Hiroto and Seligman, 1975).

The key to understanding why people respond differently to adverse situations has been proposed by various researchers. Abramson et al. (1978) claimed that just the expectation of uncontrollability is not sufficient to induce a depressed affect. In their view the uncontrollable event must lead to an undesirable outcome. Ollis (2010) gives an example of a person that is not depressed just because he did not win the lottery, but he is depressed if his family member got struck by lightning and died. Also, the attribution theory proposed by Weiner can account for people's different reactions to life events. Depending on an individual's attributional style, it can be predicted how he will evaluate a situation and if he is likely to experience learned helplessness and subsequent depression. The following observations on learned helplessness were made by researchers:

— Individuals who believe that failure is a result of personal shortcomings (i.e., who attribute failure internally) tend to display a lower level of self-esteem, a lower level of learned helplessness and depression than individuals who believe that the lack of success is due to external factors which influence performance (Abramson et al., 1978).
— Learned helplessness and depression are typical of pessimistic people who perceive negative situations as permanent ('nothing will change'), personal ('I am to blame for the situation'), and pervasive ('I am not able to do anything correctly') (Peterson et al., 1998).
— The generalisation of helplessness deficits depends upon the globality of the perceived cause, and that the chronicity or longevity of the deficits was dependent upon its stability (Abramson et al., 1978).
— Individuals who employ a learned helplessness attributional pattern develop persistent expectancies that they cannot succeed and they lose motivation to exert effort (Zimmerman, 1990).

— Individuals who experience learned helplessness are in a state of cognitive exhaustion produced by nonproductive problem solving. From an information-processing perspective giving up is an adaptive response because brains have finite energy resources (Sedek and Kofta, 1990).

The three dimensions (internal, stable, and global) of the reformulated helplessness theory are measured in three separate subscales in two questionnaires: the *Attributional Style Questionnaire* (ASQ) by Peterson et al. (1982) and the *Expanded Attributional Style Questionnaire* by Peterson and Villanova (1988). However, the available research shows that the three scales correlate poorly with general measures of depression (DeVellis and Blalock, 1992; Schroder and Ollis, 2010). Furthermore, they only measure each of the three dimensions (internal, stable, and global) of the depressogenic attributional style in isolation (Schroder and Ollis, 2010), whereas the theory claims that the three dimensions should be combined in the individual's explanatory style to indicate a tendency towards learned helplessness and depression. In 2004 Schroder developed the instrument called the *Coping Competence Questionnaire* (CCQ) which measures a general predisposition toward learned helplessness without isolating the three dimensions mentioned above (Schroder, 2004).

A large and productive body of research has explored coping competence as an indicator of resilience to learned helplessness. Research findings reveal that there are long-term individual differences in explanatory style and vulnerability to helplessness. People who have experienced trauma in their lives (e.g. sight loss, parent negligence) tend to develop pessimistic explanatory styles. It was also observed that explanatory styles are dependent on messages from peers, teachers, community members, and media (Buchannan and Seligman, 1995: 65).

A discussion on resilience to learned helplessness seems particularly relevant in the context of education. Available research findings suggest that there are great individual differences in persistence following failure on evaluative and learning tasks (Buchannan and Seligman, 1995: 66). So far, the concept of coping competence has not been used in the context of FL education. Nonetheless, the concept seems to be crucial to account for differences in the achievements of various FL learners, particularly those with vision loss or deficits.

As has been stressed throughout the chapter, VILs are prone to experience problems with self-esteem, lack of confidence and motivation. Evans (1983) also draws attention to FB people's inclination to experience depression and feelings of loneliness. In his study depression was diagnosed in 6% of the FB participants whereas feelings of loneliness in 20%. The incidence of the two conditions was unrelated to gender, marital or cognitive status, diagnostic category or type of onset (sudden or progressive sight loss).

All these factors contribute to pessimistic explanatory style and learned helplessness, which may affect VILs' academic success and the quality of social relationships. It needs to be noticed that VILs learning an FL need to cope with many more challenges than FSLs. The challenges call for distinct coping skills in the affective, social, and achievement domains.

To better understand the phenomenon of learned helplessness in VILs it is worth seeking insight into their achievement goals. A large and productive body of psychological research (e.g. Byrne et al., 2004) and SLA research (e.g. Covington and Roberts, 1994; Dörnyei, 1998) shows that resilience to learned helplessness is strongly correlated with achievement motivation. Researchers extensively exploring motivation identified two main goal orientations, namely *performance* or *ego* goals and *mastery* or *task* goals. The former refer to extrinsic reasons for FL learning (demonstration of abilities or competition with others). These goals reduce vulnerability to learned helplessness. Ego-involved FL learners perform the task to boost their own egos and confirm their own self-concept (e.g. to prove they are smart, funny etc.). Facing failure, such learners become very anxious and easily discouraged from FL learning because failure challenges their self-concept. The latter, in turn, focus on intrinsic reasons for FL learning, which protects against learned helplessness. Task-involved FL learners are interested in the task for its own qualities. Being intrinsically motivated they are less threatened by failure as their own ego is not dependent on the success of the task (cf. Maier and Seligman, 1976).

Recent research findings (e.g. Gardner and Dörnyei, 2002; Elliot, 2006) indicate that not all goals are directed towards approaching a desirable outcome such as demonstrating language competence. Such avoidance goals are typical of learners with poor academic self-concept, low self-esteem and vulnerability to learned helplessness. It seems that ego orientation and avoidance goals might be more typical of VILs than FSLs. Since the former are more prone to experience negative self-concept and low self-esteem, they are also more likely to develop helplessness following failure, which might be a strategic way to protect their self-worth. For example, some VILs may prefer to fail without trying than fail despite trying. In this way they avoid the implications that they lack ability. This is in line with *self-worth theory* postulated by Covington (1992) which states that in some circumstances students seem to gain a great deal by not trying.

Research into learned helplessness reveals that students use a variety of *coping strategies*. According to Lazarus (1999), such strategies represent behavioural and cognitive efforts to deal with stressful situations. They can be classified as either problem-focused (while coping with a difficult situation) or emotion-focused (while coping with its emotional and physiological outcomes). Researchers found strong correlations between the use of emotion-focused coping strategies and psychological distress in clinical (e.g. Ben-Zur et al., 2000; Ben-Zur et al., 2001) and non-clinical contexts (e.g. Penley et al., 2002). A high level of problem-focused strategies, in turn, does not strongly correlate with distress. The use of these strategies is related to better performance (e.g. Zeidner, 1995) and positive affect (e.g. Ben-Zur, 2002).

In 1984 Lazarus and Folkman developed a coping model known as the *theory of cognitive appraisal*. In the model stress is a two-way process; it involves the production of stressors by the environment, and the response of a person subjected to the stressors. While responding to a stressor cognitive appraisal occurs. This means that a person assesses:

— *the threatening tendency of the stress*, and

— *resources needed to minimise, tolerate or eliminate the stress produced by the stressor or the stressor itself.*

Two stages of appraisal were distinguished: primary and secondary which may come one after another or happen simultaneously. In the first stage a person is likely to ask questions 'What does this stressor mean to me?', and, 'What kind of impact may it have on my life?' Typical answers to these questions are: 'this is not important', 'this is good', 'this is stressful'. In the secondary appraisal stage, feelings related to dealing with the stressor or the stress are involved. An individual may produce statements which indicate positive appraisal such as 'I can do it if I do my best', 'I will try whether my chances of success are high or not', and 'If this way fails, I can always try another method'. He may also utter statements reflecting his negative appraisal such as 'I cannot do it; I know I will be a failure', 'I will not try because my chances are low' or 'I will not do it because no one believes I can' (cf. Lazarus, 1999: 65).

Based on the aforementioned coping model most psychological research is conducted. In one of them, Upton et al. (1998) investigated the coping mechanisms of VI adults. The researchers focused on the participants' coping styles and strategies. Upton et al. established the most frequent strategies for coping with vision loss, namely 1) positive reappraisal, 2) self-control, 3) distancing, and 4) problem solving. The researchers also found the correlates of functional difficulties, negative affect, a diminished sense of well-being and depressive symptoms, all of which contribute to learned helplessness. Among the correlates there were 1) coping by escape or avoidance, 2) self-blame, 3) the absence of planful problem solving, and 4) confrontational coping. In the light of the above-mentioned findings Ben-Zur and Debi (2005) suggest the greater use of problem-focused coping than emotion-focused coping since the former guarantees better adaptation to vision loss or deficit.

Interesting observations on the nature of coping mechanisms in VI people were also made by Ben-Zur and Debi (2005) who investigated the phenomenon in 90 adults (aged 55–80) who lost their sight. Apart from coping strategies, the researchers also assessed the participants' dispositional optimism, social comparisons, and well-being. The research results indicate that optimism and positive social comparisons play a crucial role in stimulating the motivation to cope adaptively with sight loss. Moreover, findings also show that enhancing optimism and social comparisons may facilitate the rehabilitation of FB persons. The correlations established between optimism and social comparisons are in accord with the self-regulation model (for details see Carver and Scheier, 2000). In line with the model, optimism is helpful as it leads to an assessment that the goal can be attained on condition that the positive information obtained from each type of comparison is chosen (Buunk et al., 1990).

The researchers suggest the use of different coping strategies including social comparisons. Such comparisons, unlike the effortful strategic process of coping, can sometimes be made automatically and sometimes without an actual reference point.

When an FB person develops the negative social comparison and assesses the situation as inferior to that of others or as likely to deteriorate to that of others who are in a worse situation, these beliefs may lead such a person to surrender to or disengage from the situation. Therefore, as the authors conclude, negative social comparisons create the basis for emotion-focused coping. Typical features of such coping are disengagement, denial, and ventilation. Positive social comparisons, in turn, result in active coping with the situation.

Coping strategies have also been the subject of investigation in the academic context. Biedroń (2003: 97), for example, discusses coping strategies used by FS students to avoid failure. She mentions such strategies as academic cheating or setting goals that are easily obtainable and do not involve much risk. Also, conversely, learners strive for unattainable goals in which only few are able to succeed, and failure does not necessarily imply low ability.

With regard to VI students it was observed that they implement **the coping strategy of passing** which enhances their self-esteem and allows avoiding failure. Schinazi (2007) describes passing as the phenomenon which occurs when a PS person pretends to be blind or sighted to cope with a situation. The author recorded passing while conducting research and working as a life-skills tutor at the Royal London Society for the Blind. One of the reported case studies concerns a teenage boy named Alex who enrolled as a registered FB student. Not only did he claim he was blind but also used a white cane and speech software in his computer, and was learning Braille. He participated in Schinazi's study and was screened to be a member of the FB group. Inspection of Alex's life revealed he was diagnosed with Leber's optic neuropathy and was still able to see. Before the diagnosis Alex used to be a very talented cartoonist; passing as a blind student was an excuse for him to give up almost completely on his passion and a way to avoid failure which he expected. In time Alex started working on strategies to use his residual vision.

As Evans (1983) notices, loss of sight requires acquisition of lifelong coping skills. Probably the most critical moment in a VI person's life is when he needs to use coping skills while experiencing the transition from education to the workforce. Schinazi (2007) points to various challenges which appear in this period (preconceptions, presuppositions, biases and prejudices) and claims that passing may be beneficial while facing them.

Undoubtedly there is a great role for significant others in developing a VIL's coping competence. Both FL teachers and parents may trigger a VIL's coping skills through cognitive and behavioural techniques which may alter a VIL's attitude not only to FL learning, but to life in general. The techniques are as follows:

— sustaining a VIL's motivation to learn an FL regardless of experiencing a failure or just a difficulty;
— explaining to a VIL that failures are an indispensible part of human life and FL learning always involves making mistakes;

— explaining to a VIL that failures should be treated as an additional source of information, i.e. failure-feedback is the result of FL learning which may be used in subsequent learning;
— explaining to a VIL that FL performance is not contingent but it is the result of a well planned strategy;
— encouraging optimism and making positive social comparisons.

So far, there has been no research on resilience to learned helplessness of VILs learning an FL. Yet, how VILs cope with challenges related to FL learning has important implications for developing appropriate FL teaching methodology. Exploration of coping mechanisms allows equipping VILs with effective strategies which will help them to deal with the difficulties which may arise not only in the education context but also beyond school settings.

2.4.3.3.8. Learner autonomy

Autonomy has been perceived as a long-term aim of education (Candy, 1988; Pennycook, 1997). Its importance has been noticed by SLA researchers (e.g. Scharle and Szabo, 2000; Benson, 2001; Pawlak, 2008b) who consider autonomy a key factor in successful FL learning. Since 1979 and Holec's *Autonomy and foreign language learning* the concept of learner autonomy has been central to the Council of Europe's thinking about FL teaching and learning.

There are multiple definitions of learner autonomy. The original definition of learner autonomy was developed by Holec. In his view it is the 'ability to take charge of one's own learning', which he understands as having 'the responsibility for all the decisions concerning all aspects of this learning'. He also made the point that this ability 'is not inborn but must be acquired either by natural means or (as most often happens) by formal learning, i.e. in a systematic, deliberate way' (Holec, 1981: 3). Dickinson (1987, 1992) concurs with Holec, yet he stresses that learner autonomy can be seen as an attitude towards learning. Cortes and Lujan (2005: 134), in turn, define autonomy as 'moving away from conventional and restrictive contexts and moving towards self-direction and self-regulation'.

Definitions of learner autonomy imply that an FL learner needs to accept full responsibility for the FL learning process, acknowledging that learning success depends primarily on him rather than on other people. Accepting responsibility for FL learning is related to the gradual development of metacognitive strategies, which are regarded as the most important strategies (e.g., Wenden and Rubin, 1987; Dickinson, 1992; Cotterall and Crabbe, 1999). They include such strategies as 1) thinking about the learning process, 2) planning for learning (e.g. setting a clear objective), 3) monitoring of comprehension or production while using strategies, and 4) evaluating learning outcomes. It should be noticed, however, that the affective dimension is equally important to the metacognitive dimension. Thus, an FL learner's commit-

ment to self-management, motivation, and proactive approach should also be considered as indispensible elements of learner responsibility.

The interest in learner autonomy has been a natural consequence of the changes in the methodology of language teaching. Communicative language teaching moved the emphasis from teachers to learners. As a result teacher-centered teaching was replaced with learner-centered teaching in which teachers should promote learner autonomy by giving learners more responsibility, teaching learning strategies, cultivating positive attitudes and guiding reflection.

Learner autonomy has attracted a surge of interest from SLA researchers. Limitations of the volume of the book do not permit the consideration of all learner autonomy correlates that have been under investigation. It seems worth mentioning that learner autonomy correlates considerably and positively with English proficiency (Dafei, 2007), motivation and the use of strategies (Rivera-Mills and Plonsky, 2007), students' attitudes and beliefs (Hammann, 2005).

The issue of learner autonomy in the context of VI students learning an FL has not been given due attention. Yet, the issue seems crucial to account for variability in VILs' motivation towards FL learning and their language achievements. Learner autonomy is a contentious concept. So far, there have been no research findings on the relationship between learner autonomy and self-skills or independence demonstrated by learners in other domains of their lives than FL learning. My personal stance is that such a positive correlation exists, which implies that a VIL who uses self-management and self-evaluation skills in everyday life and relies on himself independently performing living skills will tend to be more autonomous as an FL learner.

VILs' independence seems the most pertinent issue discussed extensively by practitioners working in the special education sector (e.g. Bishop, 2004) and researchers in the field of psychology (e.g. Dodds, 1993a, 1993b). Analysing available guides for teachers working with VI children it can be noticed that independence of VI persons is discussed from multiple perspectives:

— *the perspective of self-help skills*,
— *the perspective of O&M skills*,
— *the perspective of assistive technology use*.

It should be borne in mind that the primary goal of all education is independence and preparation for adult life. Therefore training in self-help skills, O&M skills and assistive technology use are considered of paramount importance in education of VILs.

Self-help skills (eating, grooming, dressing and toileting), which are primarily imitation skills, should be given considerable attention at the preschool level. They must be specifically taught to a VI child, particularly one with vision loss. A VI child unable to observe how others behave or care for their own needs may become dependent on his caretakers' help. Direct experience is also indispensable to encourage a VI child to attain independent mobility and exploration of reality. A VI child confined within a home without the possibility to walk long distances will not be able

to travel independently and will not understand the concept of distance. According to Anthony et al. (1993: 115) with the independence related to the mastery of O&M skills 'the doors open up to social and recreational activities, future employment, and the regular errands of independent daily life'.

Psychological reports (e.g. Tooze, 1981; the 1991 report by Ellis on mobility of VILs' in Exeter) draw attention to the important role of significant others in enhancing the first steps of independence. Yet, overprotection of caretakers can restrict a VI child's independence in a sense that it hinders a VI child's risk-taking activity and self-confidence. Additionally, it may lead to learned helplessness (for details see 3.4.3.3.7) and a VI child's conviction that his needs will always be met by other people so taking responsibility for meeting those needs is pointless. In recent years VI people's independence has been also fostered by assistive technology devices which enable VI persons to learn independently and become more involved in the activities in their homes, schools, and communities (for details see 3.4.3.1 on tailoring language education).

The mastery of skills needed for independent self-care provides the foundation for a VIL's autonomous behaviour in FL learning. The issue of autonomy in the context of a VIL has seldom been discussed in SLA literature. However, its importance in language learning and teaching has been stressed in the 2005 European Commission's report on special education (for details see 2.2.3).

Enjelvin (2009) tackles the issue of VILs' autonomy. She describes the experience of teachers teaching French to an FB student. The author emphasises the importance of creating a supportive, enabling, and inclusive teaching/learning environment in which independent learning may be fostered. In the study by Cerquera and Novoa (2009) autonomy is investigated in the example of VI students learning reading in English through self-access materials. The main aim of the study was to encourage VILs to learn independently by facilitating self-assessment and correction. As Sheerin (1989, in Cerquera and Novoa, 2009: 396) notices, the use of self-access materials does not imply absolute independence from teachers and classmates. Such materials are used to raise students' autonomy and foster learning outside school with the support and tutorship of an FL teacher. There are also special conditions to the design of appropriate self-access materials. First, they should help VILs realise they have the skills to perform some tasks for themselves. Secondly, self-access materials should be easy to understand, motivating, and include immediate feedback to facilitate assessment (Sturtridge, 1992, in Cerquera and Novoa, 2009: 396). Cerquera and Novoa's study proved that self-access materials generated some signs of independence, motivation and reflection among VILs, all of which are central to meaningful and autonomous learning.

In another study Jedynak (2008b) examined VILs' engagement in autonomous behaviour related to learning English as an FL. A group of 18 VILs participated in the survey which elicited their responses on various ways of developing autonomy. The findings show that 89% of the respondents use English websites and listen to English songs to learn an FL. Though there were no participants who had read a book

in English, all of them declared they would read Harry Potter series to improve their English if the books were available in Braille or large print. One VI student admitted he was writing e-mails in English to practise his language skills. Interviews with the students reveal that they wish they could experience more autonomous learning (e.g. engaging in project work and using new technologies), yet their teachers rarely encourage them to do so. The author concludes that there is an urgent need to promote the idea of learner autonomy among FL teachers and train them in various techniques enhancing autonomy development, particularly those related to new technologies.

There are various ways in which FL teachers may foster a VIL's autonomy:

— Providing a VIL with a particular classroom chore each day to develop his responsibility. The activity may involve bringing teaching aids from a teacher's box or collecting course-books from classmates.

— Helping a VI student only to teach him to do the task for himself, and not to do the task for a student.

— Offering information first before providing help to a VIL. A VIL should be allowed to explore and correct mistakes before an FL teacher gives him more prompts (Jedynak, 2008b).

— Providing a VIL with adequate and rich feedback (clear marking criteria, extensive lists of positive comments and task-specific action points) since this improves a VIL's confidence in working independently and may allow him to develop the reflective aspect of independent learning (Meyer et al., 2008).

— Keeping high academic standards. The issue of quality is crucial in teaching (Lewin-Jones and Hodgson, 2007). Teachers should hold the same high standards for blind students as they would for all of the students in the class (Hamilton et al., 2006). Diluted and low academic standards do not motivate a VIL to make any effort and learn independently.

— Providing a VIL with home assignments and projects bearing in mind that allocating additional time for completion is necessary. As Konur (2002: 131) aptly warns, without this adjustment 'it is inevitable that disabilities of disabled students would be measured, not their academic achievements'. A VIL takes at least twice as much time as an FS student to complete computer based assessment (Orsini-Jones et al., 2005).

Finally, it is worth mentioning the role of ELPBVI (see 2.3.6 for details) in developing the autonomy of VILs. The portfolio develops self-assessment skills of VILs and raises their awareness on non-visual learning methods. It also has a motivational impact in the sense that it allows them to reflect on the language learning progress.

2.5. Summary

Vision plays an important role in human development and learning. Congenital visual impairment is more likely to affect development and learning than adventitious impairment. Unlike an FS child, a VI child is not able to engage in incidental learning and needs to be taught intentionally. The lack of visual stimulation also affects a VI child's cognitive, motor, socio-emotional and language development. A VI child may have problems with cause-effect relationship and concept development. He may also experience problems with mobility and social interactions. A specific motor and emotional problem is manifested in a form of autistic-like movements called blindisms or stereotypies. Language development of a VI child can be characterised by echolalia and verbalisms also called 'parroting'. VI people use sensory compensation for learning, which is supported by neurological evidence. Recent studies reveal great individual differences among VI persons. Thus, individual differences approach rather than comparative approach is advocated in investigation of the VI population.

Insights from a VI child's first language acquisition allow the predicting of certain problems in FL learning. Superior auditory perception skills of VI people may correlate with their good FL listening skills and pronunciation. Yet, the sounds with highly visible articulatory movements may be problematic for VILs. While learning FL lexis a VIL may display undergeneralisation with the related lack of overgeneralisation, have problems with deictic and locational terms, and understanding certain concepts. He may also develop other prototypical representations than an FSL. In pragmatics, in turn, a VIL may have problems with getting the attention of a listener, expression of communicative intents, and sustaining conversation.

The foundation of good FL teaching practice rests on responding to the diverse language learning styles of VILs. This is reflected in holistic education and the individual-centered approach. Language programmes for VILs require enhanced multisensory input, adaptive support and the teaching of all skills including literacy skills. Current research on FL learning and visual impairment points to the role of unique learning strategies developed by VILs, cooperative learning, and instructional tactile materials. Well trained listening skills, good memory and concentration of VI people make them predisposed to FL learning. These cognitive characteristics considerably affect VILs' FL achievement. Nevertheless, there are also non-cognitive factors which correlate positively with VILs' FL achievement such as VILs' affective domain, tailoring language education and FL teacher training.

2.6. Commentary

FL success is a complex and multifaceted construct. It may be operationalised as 1) the final FL attainment measured by language tests, 2) a learner's individual conviction about his or her successful FL mastery, or 3) a social recognition of his or her FL competence (e.g. obtaining a job). A VI person is able to achieve FL success since with his or her well trained listening skills, good memory and concentration he or she has the prerequisites to do it. This is evidenced by the data on successful secondary school graduates who pass the final modern language exam. In the period 2009–2012 there were 1237 PS students and 123 FB students who were successful in this exam in Poland (Karpińska-Szaj, 2013: 169–170). Other evidence for VILs' FL success are the examples of VI persons working in positions where a high command of language is required (e.g. language teachers, call centre specialists, translators or simultaneous interpreters).

In the case of a VIL, FL success extends beyond the above-mentioned operational definitions. For a VIL FL learning constitutes a platform for enhanced education. Thus, FL success is not only about increasing communicative competence in language but also competence in other significant areas involving personal and social development. In other words, FL learning equips a VI person with the skills necessary for better integration with the FS community.

One also needs to realise that there are individual differences in the VI population and consequently not all VILs will benefit from FL learning to the same extent. Some VILs, particularly those with multiple disabilities, may gain modest achievements in language but considerable achievements in logical problem solving and mathematical skills (e.g. counting or addition) which they improved while learning the FL.

Chapter 2 extensively discussed the correlates of VILs' FL achievement, namely tailoring language education, training language teachers, and shifting attention from cognitive to affective aspects of FL teaching and learning. Yet, one needs to bear in mind that FL success is a combination of multiple interrelated factors pertaining not only to the three areas I have discussed but also those related to cognition, metacognition, memory or aptitude.

It also needs to be recognised that enhancing VILs' FL achievement through the ways I have offered in Chapter 2 may be hindered by a number of factors such as 1) lack of administrative and specialist support, 2) lack of funds, or 3) lack of an accepting environment. These problems may be encountered both in special schools and regular schools with inclusive education. However, in the case of mainstreaming VILs, the first two problems are probably more conspicuous. Schools typically contend with lack of funds for modification of instructional materials or to employ paraeducators (teacher assistants) whose contribution to a VIL's success is invaluable. Not only do paraeducators assist the FL teacher with classroom management

but they also provide instructional assistance with Braille and adaptive technologies and conduct parental involvement activities. Apart from school support a VIL also needs parental encouragement and acceptance for his or her FL learning goals. Without this even the most professional FL teachers, using the best modified instructional materials, will find it difficult to motivate a VIL to learn an FL.

PART TWO

EMPIRICAL PART

CHAPTER 3

Research: Selected affective factors and FL attainment of visually impaired learners

Keywords: psychotherapy-based teaching, Ecological-Affective FL Learning Model, Psychotherapy-based FL Teaching Model, affective education, humanistic education, positive psychology.

3.1. Introduction

The previous chapter has given insights into the three main areas pertaining to FL achievement of VILs, namely tailoring FL education, FL teacher training, and affectivity. This chapter gives more insight into the affective dimension of FL learning focusing on such aspects as 1) coping competence, 2) learner autonomy, and 3) LOC. It addresses achievement in FL learning by VILs through the lens of the three affective factors mentioned above. All of them are of paramount importance in learning an FL by VILs; they can explain individual variation in SLA and can also be used as predictors of success. In the study an attempt is made to establish whether the three affective factors have any impact on achievement in FL learning by three groups of learners, namely VILs (BLs+PSLs), BLs, and PSLs. The quantitative-qualitative research described in the chapter makes use of two research instruments: 1) a series of tests and questionnaires (language progress tests, Locus of Control Questionnaire, Coping Competence Questionnaire, and Autonomy Questionnaire) and 2) face-to-face interviews conducted with the VI research participants in the school for the blind and partially sighted in Wrocław, Poland.

The study described in the chapter suggests that affective factors as much as cognitive factors need to be considered during the development of IPs by FL teachers. The study has been carried out in the hope that it will contribute to a better synergy between FL teachers, VILs' families, and decision makers involved in language education, which may determine VILs' success in learning an FL.

3.2. Rationale for the study

Early psychometrists and SLA researchers have often been accused of giving too much prominence to cognitive factors, particularly intelligence, aptitude or field dependence and independence. For a long time the cognitive factors concerned with the mental processes involved in language acquisition were considered to be correlates of FL success.

Since the 1970s researchers have increasingly started to recognise the importance of affect in successful learning an FL, particularly motivation. But it is the last decade which has witnessed a real surge of SLA research into affect. Its scope, in comparison to the early research, is much broader. Prolific research still explores motivation and its role in FL learning (e.g. Dörnyei and Ushioda, 2011; Dörnyei, 2012; Dörnyei and Hadfield, 2013; Dörnyei et al., 2015), yet much research also centres around anxiety (e.g. Mihaljević Djigunović, 2004; Woodrow, 2006; Piechurska-Kuciel, 2008, 2012; Gałajda, 2013) and learner autonomy (e.g. Pawlak, 2007, 2008a, 2008b). Precious little research has been done on attributions and LOC (e.g. Biedroń, 2003; Michońska-Stadnik, 2003, 2012) and resilience to learned helplessness (e.g. Hsu, 2011). The role of affect has also been tackled from various perspectives: neurolinguistic (e.g. Schumann, 1994, 1997), sociolinguistic (e.g. McElhinny, 2010; Takahashi, 2012), psychological in either multilingual settings (e.g. Dewaele, 2010; Pavlenko, 2005, 2006) or educational contexts (Benesch, 2012; Piasecka, 2013).

Review of available research on VIL's affect is very limited. The majority of studies come from literature written from the psychological, medical, or rehabilitation perspectives. There has been a scarcity of research devoted to the role of affect in VILs' academic performance, particularly in the context of FL learning. Affective factors such as LOC, autonomy level or coping competence and the extent to which they may impinge on VILs' FL attainments has not received due attention in SLA investigations. Yet, the affect–FL attainment relationship seems worth exploring since VILs may considerably differ from FSLs in terms of affective factors, which was demonstrated in the comparative studies presented in Chapter 2. Therefore making any generalisations about FL VILs' affectivity on the basis of available research on FSLs is illegitimate.

Furthermore, there is a shortage of research into affect and visual impairment conducted with adolescent persons. Most psychological or SLA research focuses primarily on children and adults. However, adolescence, being a transition period between childhood and adulthood seems particularly interesting. It is the time when a VI young person seeks his or her identity and independence. Undoubtedly, emotions play a pivotal role in this process.

In addition, the available psychological or educational research being either quantitative or qualitative has not managed to provide a detailed profile of VILs. Quantitative studies tend to ignore individual differences, whereas qualitative stud-

ies frequently offer data from anecdotal observations or personal impressions with no quantitative information to support conclusions (e.g. Andersen et al., 1984, 1993). Moreover, as Pérez-Pereira and Conti-Ramsden (1999: 4) notice, most studies have been carried out from a comparative, cross-sectional perspective. Yet, mean comparisons of VILs and BLs hide individual differences and a cross-sectional approach provides general information reflecting only a group view. Finally, no attention has been paid to assessing and investigating the affect–FL attainment relationship in the Polish context.

These rationales became an incentive for me to devote research energy to the unravelling of the connections between adolescent VILs' FL attainments and the three affective factors — LOC, autonomy level and coping competence. My intention is not to rest content with simple descriptive statistics, such as correlation, but also to gain insight via individual interviews with VILs learning English in Poland, which may shed much light on various crucial parameters not directly investigated in the study. It seems that only a combination of quantitative-qualitative methodology may guarantee validity of the reached conclusions.

3.3. Methodological considerations

Tracing the connection between the affective factors and FL attainments is fraught with problematicity. Researchers mainly focus on searching for a linear cause-and-effect relationship between affect and academic achievements. Yet, this approach has been criticised by Pavlenko (2013: 7). She notes that the affective paradigm, which is a response to a cognitive paradigm, has one major weakness, namely it lacks thorough theoretical foundations. In the absence of any psycholinguistic theory which would explicate how affect influences FL attainments, making any judgements on the relationship is illegitimate. Furthermore, Pavlenko (2013: 8) quotes Dörnyei and Ushioda's argument (2009, 2011) claiming that 'the search for objective predictors and linear models is ultimately doomed to failure because anxiety, attitudes and motivation are dynamic and social phenomena'. For this reason the relationship between the affective factors and levels of achievement cannot be perceived as unidirectional but rather reciprocal. Another weakness of investigating the affect-attainment relationship is dissociation of the affective factors and social contexts of FL learning. Yet, individual affect cannot be understood outside of its social context.

Also Ellis (2008: 1953) is sceptic about the affective paradigm asserting that it can be *only hypothesised* that the learner's affective state can influence the rate of FL acquisition and the ultimate level of achievement.

Nevertheless, one needs to notice that the affective paradigm has potential, particularly, as Pavlenko suggests, if we transcend the boundaries of SLA. Thus, in

my research an attempt is made to integrate the SLA perspective with the psychological and social perspectives. For this purpose I employed as well as quantitative, a qualitative methodology, since the latter may provide insight into psychological and social parameters which impact on the affect–attainment relationship. Such a wide-ranging, fine-grained qualitative look at the entire context in which FL learning takes place is also advocated by Singleton (2013: 33).

It should be noticed that quantitative-qualitative methodology is particularly recommended for conducting research with individuals suffering from various types of impairments. Perceiving vision deficit as solely a physiological condition, which may be correlated in a study is a gross methodological mistake. All impairments entail a range of psychological and social processes, which sometimes can only be accessed through application of qualitative methodology tools such as, for instance, individual interviews. Such an approach is in line with social constructivism, which gives prominence to social context in learning.

It also needs to be noticed that the research with VI people has suffered from a lack of methodological rigour. As I have mentioned earlier, the majority of studies tend to be comparative and cross-sectional which do not allow the obtaining of an actual picture of the processes taking place in a VIL. If a researcher compares FS and VI individuals he should at least remember about the use of reliability measures which guarantee the objectivity and accuracy of the reported research results. Yet, there are some studies in which this procedure has not been applied (e.g. Brown et al., 1997; Dunlea, 1989).

Undoubtedly, longitudinal studies offer a more objective view. According to Pérez-Pereira and Conti-Ramsden (1999: 5), they allow us 'to observe changes across time, to document the course of development and to evaluate the impact of blindness at different stages of development'. Moreover, they provide access into the various routes of a VIL's learning. In this respect, longitudinal studies do not hide individual differences but highlight them. The literature reports on such longitudinal monitoring of linguistic development of the BL children (e.g. Fraiberg, 1977). Yet, it needs to be noticed that longitudinal studies are rarely used by researchers and those which have been conducted are very small in scale. This is mainly because such studies are time-consuming and labour intensive. Additionally, they generate high costs.

In the field of visual impairment the overwhelming majority of research reflects a qualitative methodology (e.g. Smith, 2008). The reliance on this methodology is related to the fact that the application of quantitative methodology among the low-prevalence population is more difficult (Kirchner, 2003).

Jedynak (2012b: 58–59) attempted to analyse available classroom research into visual impairment which are described in the *Journal of Visual Impairment and Blindness* during the last couple of years. She notices that the majority of research represents teacher action research and case studies which are very productive methods since they present information and offer creative solutions from those who are directly involved in teaching VILs. Such research was conducted by Zebehazy (2011: 39), who being a practitioner was able to recommend some practical solutions

to teachers of Braille students (e.g. creating a warm up sheet or a set of flashcards containing thirty or forty frequently occurring words in reading texts).

Yet, there is also classroom research which is carried out by inexperienced researchers, not directly involved in educational services and being novices in the field of visual impairment. Such research lacks clear identification of a problem, a well-designed research plan, and relies on inappropriate research actions.

Another methodological problem concerns the selection of subjects. Any researcher involved in the field of visual impairment knows that finding a representative population for a study is burdened with difficulties. Firstly, it is because the population of VI people, specifically BL people, is very small. Secondly, there are broad differences within the VI population which concern not only the degree of visual impairment or onset of blindness but also VI people's cognitive, social, and emotional development. Frequently, multiple impairments make it impossible to objectively evaluate the impact of a visual impairment. For the reasons mentioned above, random sampling of subjects is not advisable. Due to the heterogeneity of the VI subjects in various investigations, discrepant findings are produced. While planning research the variation factor needs to be considered and controlled as much as possible.

One may also observe a lack of rigour in the application of research instruments. The most common research instruments used to study people with visual impairment are tests, questionnaires, surveys, or various tasks and techniques. As Tobin (2008) notes in his *Assessing visually handicapped people: An introduction to test procedures*, it is not unusual for researchers to use instruments which were originally designed for non-impaired people. An example of this is the study by Brown et al. (1997) who applied two types of intelligence tests (WIPPSI and WICS) designed for the non-impaired population, to blind and FS children. On the basis of IQ scores the author assigned all the children in the study into two groups which he compared. Comparing the groups in this situation is illegitimate for two reasons. Firstly, the IQ tests required the ability of handling and processing visual information so they were inappropriate for FS children. Secondly, the application of such tests introduced a bias in the study design which does not allow the making of comparisons across the groups. Another example comes from Dunlea's study (1989) in which the BL children were not given a chance to demonstrate their real skills since the tasks were not well adapted to their abilities.

It seems that the best way to avoid the above-mentioned problems is by designing specific methodologies, tests, tasks, and techniques appropriate for the VI population. Yet, researchers also adopt research instruments designed for the non-impaired population to the needs of the VI population. For example, in my study presented in this part, I have adapted a standard LOC test to the needs of my VILs substituting the questions related to visual experience with ones describing the auditory experience. It also needs to be recognised that in some situations research instruments do not need any adaptation. This is the case when a researcher does not apply comparative, cross-sectional methodology or new norms for interpretation of test results are developed.

All the methodological pitfalls discussed above do not mean that the previously conducted research should be dismissed since its results are of great value for contemporary researchers. Pérez-Pereira and Conti-Ramsden (1999: 8) put it aptly using the following words:

> Our claim is that, at the present time, the study of blind children's psychological development should meet higher standards of methodological rigour in accordance with what is taking place in the study of non-impaired children's development.

3.4. Pre-empirical stage

Adequate preparation of research, regardless of a context, requires 'extensive discussion of a plan for dealing with issues before they present dilemmas' and 'arise in unanticipated ways in the field, using the advice and experience of previous scholars' (Marshall and Rossman, 2006: 72–73). While planning research into visual impairment the researcher needs to consider research costs. Tobin (2008: 20) discussing the specificity of the research in visual impairment makes the point that in view of the worldwide economic depression, research institutions have to prioritise their research activities. There is a multitude of demands and activities in many other fields. Therefore research in visual impairment which concerns a minority group of people has to be well justified with practical or 'applied' concerns. Research costs impinge on the selection of research methodology. As has been mentioned above, it is not very common for researchers to engage in quantitative studies relying on descriptive statistics. Such studies are costly as they may involve from 30 up to 1000 subjects. Thus, they are frequently conducted at a national level through the auspices of education departments which provide research funds (Jedynak, 2012b: 58–59). As has been demonstrated in Chapter 1, in the EU there is more and more collaborative research subsidised by charitable partners. Since in Poland finance is a dominant issue in planning quantitative research in visual impairment and I have not been supported by any research grants, I have managed to carry out my research in just one school for the blind and partially sighted.

Planning research both in special and regular schools requires a set of actions which must be in accord with the school regulations and the requirements of the Data Protection Act. Before I started research I needed to obtain ethical clearance from my affiliation that is University of Wrocław. A support letter from my university supervisor with a detailed description of my planned actions was submitted to the heads of the school where I planned to carry out my study. Once I had obtained the school authorities' consent I prepared the notification documents for dormitory teachers and leaflets encouraging VI students to participate in my research within extra-curricular evening English classes. After a screening procedure (to be described in detail in 4.5.5.4) all the selected subjects were requested to give their consent for par-

ticipation in the study. The study participants, who were under the age of 18 needed consent from their parents or guardians since according to Polish jurisdiction they were still subjected to age-based restrictions regarding matters such as legal control and legal responsibilities.

3.4.1. Research ethics

Preparing the research I needed to consult a number of people such as my colleagues working with VILs, my former BL students, and senior researchers experienced in the field of visual impairment, all of whom offered valuable advice on the ethical issues to be considered while planning research. Introducing ethical aspects into the research framework helps to protect the VI participants' rights. Additionally, it protects the researcher against the potential legal implications of neglecting to address such issues.

The ethical standards and principles are commonly used in various research projects. Yet, in the research into visual impairment, the ethical standards and principles, particularly those related to avoiding putting participants at risk, are prioritised. For these reasons, the research was under the constant review of a psychologist who would guard against any violation of the VI participants' human rights. I also sought permission from the school authorities and boarding school tutors to conduct the research.

In the research I employed the ethical principle of *voluntary participation.* The VILs were not coerced into participating in the research. They also had the right to withdraw from the research at any time convenient for them. I also required from the VI participants *informed consent*, which means that they and their parents had to give me their consent to participate in the research. They were fully aware of the nature of the research that is its purpose and procedures, and its likely impact on them. Though there were no specific risks involved in the research, the participants needed to be informed that they would spend their free time involved in the research. With regard to risk, I avoided situations in which the participants might be *at risk of harm* as a result of engaging in the study. Their physical security was guaranteed. The blind participants were supervised by me, both in the classroom and in the hall. Also psychological needs of the VI participants were considered. I spent additional time before and after the research sessions to talk to the VI participants about the issues they found important such as their plans for the future, health conditions, and the researcher's family. Such conversations built up their confidence in me as a researcher. Another ethical standard I employed in the research was related to *confidentiality* and *anonymity.* All the participants were assured that apart from me and other people directly involved in the study, such as a statistician and a psychologist whom I consulted, no other parties will have access to the information I obtained during conducting the research. All the participants were also guaranteed to remain

anonymous to the audience. Yet, they were not anonymous to me since I needed to measure their productions at multiple time points in order to compare them.

An important aspect of research ethics also concerns a researcher's competence. A decade ago I was little more than a novice in the field of visual impairment. To improve my professional competence I needed to cover a typhlomethodology course with extensive practical teaching in a school for the blind and partially sighted. I also attempted to improve my expertise, working as a teaching assistant to a blind teacher of English. Additionally, I took steps to enhance my competence conducting various research in the field of visual impairment and participating in conferences addressing specific needs of FL learners.

3.4.2. Demarcation of the research

At the planning stage a researcher should determine applicability of research. Initially I conceived the study to be comparative and I intended to employ both impaired and non-impaired learners. Yet, the literature discourages researchers from comparative approach pointing to its numerous disadvantages (for details see 3.2.2.1). Hence I focused only on students with visual impairments in a middle and secondary school.

Therefore my observations, findings, and conclusions are only limited to one disability, namely visual impairment, and they are not applicable to other categories of impairments such as hearing impairment or intellectual challenges.

3.4.3. Problem identification

Planning research in visual impairment requires problem identification in order to come up with an appropriate plan and the actions the researcher intends to take. Therefore before the *how* of my research activities are explained first I would like to discuss the *what* and the *why*.

In the section *Rationale for the study*, I have already mentioned that there is a scarcity of rigorous studies in SLA and visual impairment, which offer clear quantitative and qualitative data. The available studies, however insightful they are, focus mainly on challenges that VILs need to face while learning an FL. Yet, they remain silent on the psychological dispositions of VILs to be successful in learning foreign languages.

During my teaching practices in the school for the blind and partially sighted I noticed that many VILs struggle with feelings of depression and helplessness. The overwhelming majority of VILs had awareness of the importance of learning Eng-

lish. Nevertheless, many VILs did not believe that FL success was an attainable goal for them. They expressed their doubts about whether competence in English would help them to integrate with the FS community or to find a job. Many VILs seemed to be disappointed with life and were not motivated to learn an FL. They envisaged their future rather gloomy, that is living on disability allowances or doing manual work in sheltered workshops.

My encounters with language teachers also revealed the above-mentioned problems. They complained about VILs' lack of engagement, low motivation and poor academic achievements. As has been discussed in Chapter 2, VILs may have problems with specific domains such as science and mathematics, which require abstract thinking. However, with their excellent memory and supreme auditory abilities they are predisposed to be successful in FL learning. Despite the predispositions, language teachers reported on rather poor language achievements of their VI students. It seems that language abilities could not be triggered or were hindered by some psychological obstacles such as external LOC, low coping competence or lack of autonomy. For this reason exploring the relationship between these psychological factors and VILs' language attainments seemed worth considering in my scientific investigation.

It needs to be stressed that in the case of VILs, language teachers put too much emphasis on various ways of enhancing their learners' cognitive potential. At the same time they tend to neglect VILs' emotional potential. If language teachers realised the significance of affect in FL learning and implemented **psychotherapy-based FL teaching**, which I recommend in the part devoted to research implications, VILs would undisputedly benefit from such an approach and achieve better FL results. Therefore, my research intends to raise the awareness levels of teachers, school authorities and decision makers involved in visual impairment, of the necessity to implement special teaching programmes combining the elements of language and psychotherapy to improve VILs' FL attainments.

The research also intends to call for a synergy between language teachers and psychologists, both of whom usually work independently. This was the case in the special schools which I visited prior to conducting my research. All of them catered for the psychological needs of their VI pupils. Professional psychological guidance was offered if it was necessary, yet it was not provided on a continuous basis. What is more, teachers, including language teachers, could have access to students' psychological and health condition statements. Yet, the problem was that teachers were not aware of what they may do with the information on the psychological condition of their VI pupils. They were specialists in the subjects they taught but not experts in psychology. Even if they interpreted a psychological problem appropriately diagnosed by a psychologist (e.g. low self-esteem, external LOC, helplessness), they were not able to implement any remedies in a language classroom. Consequently, VILs struggling with emotional problems were not able to make any improvement in FL learning.

3.5. Empirical stage

3.5.1. Statement of the problem

The identified problem is illuminated in my research. As mentioned before, so far minimal research has been conducted to address the issue of affect in VI learners, particularly those involved in FL learning (for details see Chapter 2). Also various programmes offered to VILs by EU, national and local institutions do not address the issue of psychological preparedness for FL learning. They mainly support VILs learning an FL by providing them with FL courses and assistive technology training (see section 1.3 on the European Union initiatives). In Poland, for instance, in 2003 the PFRON institution embarked on support programmes called *Computer for Homer* and *Pegasus* with an aim of delivering quality education and training to VI people. The programmes equipped many VILs with special software and hardware, which could be used for FL learning. Yet, provision of assistive technology did not translate to VILs' higher motivation to learn an FL or better language achievements (Jedynak, 2010).

Considering the above arguments, I felt tempted to establish quantitative and qualitative research based data on psychological factors and their contribution to the FL learning process. Specifically, I attempted to explore the relationship between VILs' FL achievement and the three affective factors, namely coping competence, autonomy and locus of control. VILs, due to the limitations imposed by their impairment as well as education and family environment, may have difficulties in developing high coping competence, autonomous behaviour, and internal locus of control, all of which are prerequisites of successful FL learning (see 2.4.3.3 on affective factors). Hence, failure to address the need for special FL teaching for these learners may substantially perpetuate these difficulties and consequently contribute to poor language achievements. This, in turn, may result in VILs' lack of preparedness for functioning in the labour market in a multilingual and multicultural Europe in which competence in multiple languages is prioritised (see section 1.2 on legal and policy context). It may also result in VILs' lack of preparedness for social inclusion, which is a primary goal of special education (see section 2.4.1 on holistic education). In light of these facts, there is a need to incorporate appropriate strategies, such as developing psychotherapy-based FL teaching, which may considerably improve VILs' affective condition and allow VILs to unlock their potential while FL learning.

3.5.2. Research objectives

The main assumption of the research is that affective factors such as coping competence, autonomy, and LOC may play a role in the academic performance of FL learners with visual impairment. Hence, the primary objective of the research is to uncover quantitative and qualitative critical data which can provide information on the relationship between the three affective factors and FL achievements of VILs. The secondary research objective is to establish whether vision condition (impairment versus blindness) has any impact on FL achievements. Exploring the relationship should shed more light on the nature of the learning process in VILs. Understanding how VILs learn and what specific emotional problems they have would help the researcher to work out appropriate interventions to facilitate FL learning. Hence, the final objective of the research is developing a special programme for VILs aimed at increasing the effectiveness of FL learning and teaching.

3.5.3. Research questions and hypotheses

In the quantitative part of the research I have sought to answer the following main questions:

MQ1: What is the relationship between VILs'/BLs'/PSLs' *coping competence* and their *FL achievements*?

MQ2: What is the relationship between VILs'/BLs'/PSLs' *autonomy* and their *FL achievements*?

MQ3: What is the relationship between VILs'/BLs'/PSLs' *LOC* and their *FL achievements*?

Based on the MQ2 two specific research questions were formulated; each of them referring to one of the autonomy components, namely independence of learning and study habits.

Specific questions to MQ2:

SQ1: What is the relationship between VILs'/BLs'/PSLs' *independence of learning* and their *FL achievements*?

SQ2: What is the relationship between VILs'/BLs'/PSLs' *study habits* and their *FL achievements*?

Specific questions were also formed to MQ3; each of them reflecting one of the LOC dimensions, namely success and failure.

Specific questions to MQ3:
SQ1: What is the relationship between VILs'/BLs'/PSLs' *LOC for success* and their *FL achievements*?
SQ2: What is the relationship between VILs'/BLs'/PSLs' *LOC for failure* and their *FL achievements*?

While conducting a pilot interview a number of subthemes emerged which have been transformed into the research questions posed by the researcher in the qualitative research part. The three sets of questions have been developed; each referring to one of the investigated affective factors. The sets of questions have been used to provide more data on the first three main questions as well as specific questions formulated for the quantitative part of the research. Around these general questions specific questions for the interview were developed (for details see 4.5.5.3).

SET 1 General *questions on coping competence*
1. How do VILs cope with the challenges they face in everyday life and FL learning situations?
2. Do VILs' FL achievements depend on the coping ways they developed for these situations?

SET 2 General *questions on autonomy*
1. What independent learning actions do VILs take to learn an FL?
2. What are VILs' preferred FL study habits?
3. Do VILs' FL achievements depend on their independent learning actions?
4. Do VILs' FL achievements depend on their study habits?

SET 3 General *questions on LOC*
1. Do VILs perceive themselves as successful or failing in life and FL situations? Why?
2. Do VILs' FL achievements depend on whether they perceive themselves as successful or failing?

Based on the main and specific questions developed for the quantitative part of the research the following null and two-tailed hypotheses have been formulated:

Hypotheses to MQ1:
H0: There is *no significant relationship* between VILs'/BLs'/PSLs' *coping competence* and their *FL achievements*.
H1: There is *a significant relationship* between VILs'/BLs'/PSLs' *coping competence* and their *FL achievements*.

Hypotheses to MQ2:
H0: There is *no significant relationship* between VILs'/BLs'/PSLs' *autonomy* and their *FL achievements*.

H1: There is a *significant relationship* between VILs'/BLs'/PSLs' *autonomy* and their *FL achievements*.

Hypotheses to SQ1 related to MQ2:
H0: There is *no significant relationship* between VILs'/BLs'/PSLs' *independence of learning* and their *FL achievements.*
H1: There is a *significant relationship* between VILs'/BLs'/PSLs' *independence of learning* and their *FL achievements.*

Hypotheses to SQ2 related to MQ2:
H0: There is *no significant relationship* between VILs'/BLs'/PSLs' *study habits* and their *FL achievements.*
H1: There is *a significant relationship* between VILs'/BLs'/PSLs' *study habits* and their *FL achievements.*

Hypotheses to MQ3:
H0: There is *no significant relationship* between VILs'/BLs'/PSLs' *LOC* and their *FL achievements.*
H1: There is *a significant relationship* between VILs'/BLs'/PSLs' *LOC* and their *FL achievements?*

Hypotheses to SQ1 related to MQ3:
H0: There is *no significant relationship* between VILs'/BLs'/PSLs' *LOC for success and their FL achievements.*
H1: There is *a significant relationship* between VILs'/BLs'/PSLs' *LOC for success* and their *FL achievements.*

Hypotheses to SQ2 related to MQ3:
H0: There is *no significant relationship* between VILs'/BLs'/PSLs' *LOC for failure* and their *FL achievements.*
H1: There is *a significant relationship* between VILs'/BLs'/PSLs' *LOC for failure* and their *FL achievements.*

3.5.4. Conceptual framework

No conceptual framework exists which would encompass foreign language learning and visual impairment. This impelled the researcher to set up her own conceptual framework which could guide the study and also help those who feel attracted to explore the field of special education. The **Ecological-Affective FL Learning Model** is an interface between ecological psychology and learning theory. Being eclectic in nature, the Model draws upon the elements of Lewin's (1935) ecological theory, Tobin's (2008) inaccessibility theory, and Bandura's (1963) learning theory.

In line with ecological psychology the Ecological-Affective FL Learning Model perceives a VIL's behaviour as being dependent on environment (family, peers, teachers, and teaching aids). Environment's influence is indirectly observable through its effects on psychological variables. For instance, family overprotection or rejection would have an effect on a VIL's coping competence or autonomy.

Lewin's theory may be linked to Tobin's theory. It is embedded in the visual impairment context and stresses the importance of environment in learning. The theory posits that delays and barriers experienced by BLs have as their causation the lack, the inadequacy or the inaccessibility of information. This may give rise to emotional problems (e.g. low self-esteem, learned helplessness) which in turn projects on a VIL's learning.

Bandura's learning theory, in turn, though restricted to one psychological construct that is self-efficacy, also combines the element of self-regulatory learning, which seems to be crucial for learning. Self-regulation allows an individual to make choices concerning in which behaviours he will participate. A VI person from the example above, struggling with learned helplessness or lack of independence may self-regulate his negative emotions either by reinforcing them, which may give rise to his FL learning failure, or diminishing their effect, which may make him a successful FL learner.

The Ecological-Affective FL Learning Model invented for the purpose of the research is based on interaction between *environment*, *affect* and *FL learning achievements.* It provided the researcher the main guidance in the study, particularly at its qualitative data collection stage (interview stage) when VILs revealed much information on how the above-mentioned three elements are interrelated.

The conceptual framework in the research which embraced primarily the Ecological-Affective FL Learning Model was also composed of two contributing factors: 1) the researcher's personal experience as a teacher of English, and 2) challenges associated specifically with teaching an FL to students with visual impairment.

3.5.5. Research design

Designing the research the researcher embarked on establishing variables in the study and working out their operational definitions. Then research methodology was selected and justified. Finally, a detailed research procedure was laid down.

3.5.5.1. Operationalisation of variables

The three affective factors (coping competence, autonomy, LOC) and amount of vision loss are *independent variables* (IV) which are believed to have an influence on a *dependent variable* (DV) which is FL achievements. The variables were operationalised in the following way:

Coping competence — The construct refers to dispositional stress resistance factor based on helplessness and hopelessness theory. The higher the coping competence, the stronger the resilience to learned helplessness. The lower the coping competence, the greater the propensity towards learned helplessness. In the study the construct is operationalised as the number of points obtained by a VIL on the Coping Competence Questionnaire (CCQ) developed by Schroder and Ollis (2010). The researcher's assumption is that the CCQ score is related to the FL achievement test score.

Autonomy — The construct refers to the ability to take charge of one's FL learning through engaging in independent FL learning and applying study habits. In the study the construct is operationalised as the number of points a VIL obtained on the adapted Macaskill and Taylor's (2010) autonomous learning scale for 1) independent learning, and 2) study habits. The researcher's assumption is that the score of each of the scales is related to the FL achievement test score.

LOC — The construct refers to the extent to which VI individuals believe they can control events affecting them. In the study the construct is operationalised as the number of points a VIL obtained on each of the LOC scales (success and failure scale) developed by Krasowicz and Kurzyp-Wojnarska (1990). The lower the score on the scale, the more external LOC can be observed. The researcher's assumption is that the score of each of the LOC scales is related to the FL achievement test score.

Amount of vision loss — It refers to the vision condition confirmed by a disability statement. In the study it is operationalised as partial visual impairment or blindness (both congenital and adventitious). The researcher's assumption is that partial sightedness and blindness are related to the FL achievement test score.

FL achievements — The construct refers to FL learning and evaluation of a VIL's understanding of an English course taught by the researcher. In the study it is operationalised as a number of points a VIL obtained on a structured achievement test in English.

FL learning is a complex process in which multiple factors interact with each other. The researcher is aware of the *intervening variables* in the study (Int.V) which may indirectly influence a VIL's FL achievements, yet they cannot be controlled. These variables refer to the underlying cognitive processes. VILs who have supreme memory and use FL learning strategies are more likely to achieve higher language results. Also psychological processes related to a VIL's motivation and attitude towards FL learning may substantially impact FL learning.

The researcher also identified *extraneous variables* which are difficult to control, yet they may affect FL achievements. Among them there are *subject-related and situation-related factors*. The former refer to individual characteristics of the VI study participants such as health condition (not related to those aspects of health which were controlled by the researcher), social background, or mood. The latter, in turn, refer to the environment in which the study was conducted. What could

cause a problem here is the duration of the study and the noise generated by Braille machines, both of which might have influenced the concentration levels of the study participants and their attainments in the language achievement test.

To minimise the effect of extraneous variables on the research outcome the researcher attempted to control them. Among the *controlled variables* (CV) were multiple disabilities. VILs with multiple disabilities (e.g. particularly severe cognitive, emotional, behavioural, physical or other sensory impairments) were excluded from the research procedure as these disabilities might considerably affect students' performance. Also age needed to be controlled. Though the VI participants were not of the same age, all of them were adolescents. The researcher believes that this variable should be controlled due to specific adolescence-related problems, which may be manifested in the affective domain (e.g. problems with self-concept or self-esteem). Additionally, proficiency level in English was controlled to make the VILs' FL achievements comparable. All the participants represented A2 and A2+ proficiency level according to the Common European Framework of Reference. Since the research outcomes are time sensitive the researcher decided to control the time variable. It was achieved by administering all the tests to the research participants at the same time of a day that is after their regular classes at school. The variables discussed above are illustrated in the model:
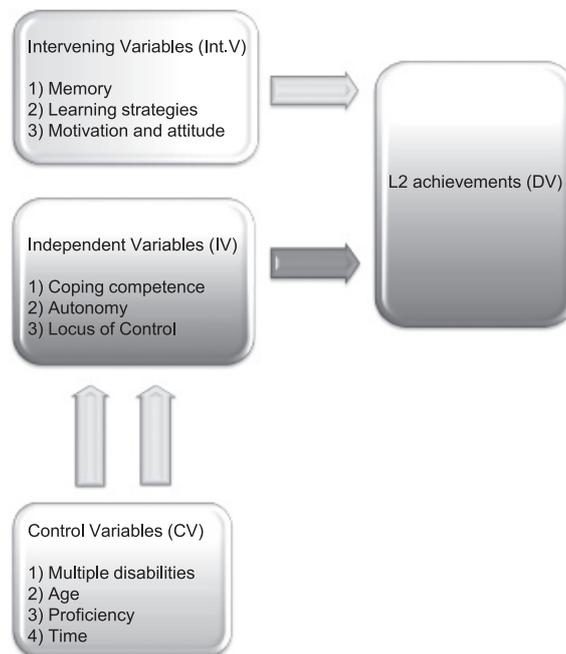
Figure 3.1. The model of variables in the study

3.5.5.2. Methodology

In order to explore the relationship between the three affective factors (coping competence, autonomy, LOC) and FL achievements, the researcher applied a mixed method approach comprising quantitative and qualitative research methods. Two decades ago the mixed method was rarely applied in research. Yet, in recent years it has attracted particular attention in behavioural and social research. Many authors address theoretical and methodological aspects pertaining to the mixed method (e.g. Morgan, 2007; Creswell et al., 2008; Greene, 2008; Feilzer, 2010; Wilczyńska and Michońska-Stadnik, 2010). In the field of applied linguistics the nature and prevalence of qualitative and quantitative methods have already been thoroughly discussed (e.g. Lazaraton, 2002, 2003, 2005; Benson, 2009). It needs to be pointed out that scarce research has addressed the integration of the two methods (see Dörnyei, 2007). According to Hashemi (2012), the mixed method approach integrating qualitative and quantitative methods in a single study reflects a new trend in applied linguistics. The approach helps the researcher to triangulate; that is to back up findings obtained from one method of data collection underpinned by one methodology with another different method underpinned by another methodology.

In my study the quantitative research method facilitated the collection of numerical questionnaire data, which was later analysed by statistical software SPSS, and the verification of the formulated hypotheses. The qualitative research method, in turn, facilitated not only the backing up of the quantitative questionnaire findings but also the researching in more depth of the relationship between the selected affective factors and FL attainments. This was achieved by interviewing some research participants selected from the questionnaire sample. A face to face interview technique helped to provide an insight into VILs' personal learning stories and to obtain open-ended, subjective, non-numerical data which was analysed by non-statistical methods.

3.5.5.3. Procedure and materials

The research procedure was twofold. In the first stage the research participants were requested to fill in the questionnaires whereas in the other stage they took part in a semi-structured interview. Though the interview was open, allowing new ideas to be brought up during the interview, the researcher prepared a framework of themes and questions to be explored.

With regard to the first stage, the questionnaires and the test were administered to all the research participants in the same setting (i.e. in a school dormitory) and at the same time of a day (i.e. after the regular classes were over at school). This phase of the research was completed within four days. Due to space limitation (only two small rooms and a hall were provided to the researcher), the subjects were divided into three groups regardless of their vision deficit or language competencies. All the

research participants were informed of the purpose of the research and gave their consent to participate in the study. Before the questionnaires and the test were administered, the subjects were instructed in Polish how to fill in the answer sheets. All the questionnaires and tests needed to be adapted to the needs of the students with visual impairment. They were developed in a Braille format for the BL Braille users and in an enlarged Arial print format for the PS students. Apart from the large print, all the materials had the items highlighted with a light yellow colour to make the text more readable. The questionnaires and the test were also printed on a special paper which does not create excess glare and makes it easier for PS people to read.

In the study the following standard questionnaires and tests were utilised:

CCQ — the Coping Competence Questionnaire — A Measure of Resilience to Helplessness and Depression (Schroder and Ollis, 2010) — Appendix 1

The questionnaire was translated by the researcher from English into Polish. It comprised 12 statements related to how a person deals with stressful situations. The research participants were supposed to read each of the statements and select the one answer that most closely reflects his or her own reactions. The following Likert scale response options were offered to the subjects:

1. VERY UNcharacteristic of me
2. RATHER UNcharacteristic of me
3. SOMEWHAT UNcharacteristic of me
4. VERY characteristic of me
5. RATHER characteristic of me
6. SOMEWHAT characteristic of me

The subjects were also informed that there are no right or wrong answers. There was no time limit for the questionnaire completion. The majority of the PS participants completed the questionnaire within 15 minutes. Yet, the Braille students needed twice as much time to finish it. Below an excerpt from the CCQ is displayed.

Question	UNcharacteristic of me			CHARACTERISTIC of me		
	very	rather	somewhat	very	rather	somewhat
1. I become easily discouraged by failures.	1	2	3	4	5	6

AS — the Learner Autonomy Scale by Macaskill and Taylor (2010) *— Appendix 2*

The scale was translated by the researcher from English into Polish. It consisted of 12 items which are scored on two subscales, namely *Independence of learning* and *Study habits*. Seven statements (1, 6, 7, 8, 10, 11, 12) referred to Factor 1 —

Independence of learning whereas five statements (2, 3, 4, 5, 9) referred to Factor 2 — Study habits. The subjects were supposed to choose one from the 5-point Likert scale options which describe them best. Similarly to the CCQ, the research participants had no time limit for the questionnaire completion. Below an excerpt from the autonomy scale is displayed.

Which of the following best describes you?
1. Not at all like me
2. Quite unlike me
3. Neither like or unlike me
4. Quite like me
5. Very like me
I enjoy finding information about new topics on my own   1   2   3   4   5

LOC — Locus of Control Questionnaire by *Krasowicz and Kurzyp-Wojnarska (1990) — Appendix 3*

The standard questionnaire accessed at Psychological Tests Repository from the Polish Association of Psychology can only be administered by certified psychologists. Hence, the supervision and expertise of a qualified psychologist was necessary to carry out the test professionally. The LOC questionnaire, designed only for adolescents aged 13–17, is made up of 46 open-ended items including questions and statements. 36 items are diagnostic whereas 10 items are distracters. The items are scored on two scales: 1) *Success Scale* related to positive events, and 2) *Failure Scale* related to negative events. Unlike the CCQ and the AS, the LOC questionnaire was in Polish and did not require any translation. However, it required some modifications in the items which in the pilot study seemed to be confusing for the research participants. The modifications made in the questionnaire concerned two distracting items (23, 28) which referred either to visual stimuli or to activities rarely performed by VILs. The modifications could not in any way impact the final outcomes of the LOC questionnaire; however leaving the items intact would result in the participants' confusion and disturbances in the research procedure. The amended distracting items are marked below with asterisks.

23. If you were to choose your favourite leisure would you choose
    a. playing in the amateur orchestra, playing bridge or footbal
    b. amateur photography, stamps collection, sailing

23. If you were to choose your favourite leisure would you choose
    a. listening to music or audio-books***
    b. doing physical exercises, jogging***

28. If you go through a dark tunnel or you stand on the top of the mountain
    a. generally you don't experience anxiety
    b. usually you experience some anxiety

28. When you hear a sudden sound or you are out of doors***
    a. generally you don't experience anxiety
    b. usually you experience some anxiety

The research participant's task was to choose one of the options assigned to each questionnaire item (a or b) which more closely reflects his or her viewpoint. Low scores obtained on the LOC questionnaire reflect external LOC whereas high scores reflect internal LOC. In the study the researcher used two versions of the questionnaire developed for girls and boys. The two versions only differed in the use of grammatical forms (feminine and masculine).

There were no time limits for filling in the questionnaire, yet its authors predict that allocation of a minimum 20 minutes is necessary. For the PSLs, this time was sufficient whereas the BLs needed from 45 to 60 minutes to read out all the Braille items and to Braille type their responses. One blind participant was not proficient in Braille hence he requested the researcher to read out the questionnaire items and mark one of the options for him. Below an exemplary diagnostic questionnaire item is displayed.

19. If you memorise well what the teacher says in a class, it is mainly because:
    a. the teacher explains it well
    b. you made some effort to memorise it

AT — Achievement Test in English — Appendix 4

The achievement test in English was a combination of various tests accessed from the Pearson Longman Tests Database. The test needed to be adjusted to the VI subjects' proficiency level (A2/A2+ according to the CEFR). The researcher consulted the VI participants' language teacher to make sure that the test will include grammar and lexical items covered in a language class. The multiple choice test comprised 25 items and the VI students had unlimited time to fill it in. The majority of the PS participants managed to complete the test within 40 minutes whereas the Braille users needed an additional 10 minutes. High achievement test scores indicate a mastery of the covered material and readiness for advanced instruction, whereas low achievement scores indicate the need for remediation. Below a sample of the achievement test item is presented.

8. You_____tell anyone. It's a secret.
    a. mustn't   b. don't have to   c. must

In the second research phase, the VI participants were requested to take part in an interview. The interview stage took place three weeks after the questionnaire stage. The researcher decided to use a semi-structured in-depth interview approach since it enabled the VI interviewees to speak relatively freely whilst at the same time allowing the researcher to manage each interview in such a way that certain issues related to affectivity and language learning were covered. The researcher decided to draw up the following set of questions, which seemed appropriate to what she intended to find out:

SET 1 — Resilience to helplessness experienced by the VI participants and its impact on FL learning
1. Have you ever felt helpless in life situations and/or while learning an FL?
2. If you have, what was the source of your helplessness?
3. How did it affect your FL achievements?
4. Do you have any strategies to stay resilient through challenges you face while learning an FL?
5. Do you think these strategies help you in FL learning? If yes, in what way?

SET 2 — Autonomous behaviours initiated by the VI participants and their impact on FL learning
1. Do you find yourself an independent person or/and an FL learner?
2. If you are, what independent actions do you take? Do you think they affect your FL achievements?
3. If you are not, what hinders your independence? Do you think your lack of independence affects your FL achievements?

SET 3 — The VILs' Locus of control and its impact on FL achievements
1. Do you think that success/failure in your life and/or FL learning depends entirely on you?
2. If you do, how does your belief affect your FL achievements?
3. If you do not, what or who does your success/failure depend on? Do you think this affects your FL achievements?

The pilot interview stage with two VI participants (one BL and one PS) revealed certain problems with the interview questions. Firstly, in SET 2 questions the researcher originally used the words 'autonomous' and 'autonomy' with which one subject was not familiar and the other found them very confusing. Consequently, the researcher substituted the problematic words with 'independent' and 'independence'. Secondly, the questions from SET 3 needed to be refined as the phrase 'to have control over life and/or FL learning' was not comprehended by one participant. Therefore, the final interview format had this phrase substituted with 'to depend entirely on you'.

The researcher decided not to record the interview session so as the participants could feel emotionally secure. Instead, a note-taking technique was used. The VI participants were encouraged to answer the questions as honestly as possible so as to avoid the researcher drawing false conclusions from the study. Yet, the application of the interview technique cannot guarantee that the interviewees will not feel inclined to try to give socially acceptable answers.

Since participation in the face to face interview was voluntary, only 21 VILs out of 28 subjects agreed to take part in this research stage. There were no specific time frames for conducting the interview. The majority of the participants needed 20 minutes to answer the interview questions.

3.5.5.4. Subject screening procedure

The subjects underwent a screening procedure prior to the study enrollment. The residential assistant was requested by the researcher to prepare a list with the names of the dormitory residents diagnosed with visual impairment but without a severe intellectual disability. As has been mentioned before, visual impairment is frequently accompanied by additional disabilities. They may include cognitive, emotional, behavioural, physical or other sensory impairments, all of which can range from mild to severe. Hence, the final representative sample did not reflect these multiple disabilities (see details in 3.5.5.5).

All the potential participants were called by their residential assistant to a boarding school hall where the researcher was waiting for them. Screening was conducted with a form listing the questions. The potential subjects were to raise their hands to indicate a positive answer to the questions. Those who responded negatively to the questions by not raising their hands were eliminated from further research procedures. In order to be eligible for the study the VIL dormitory residents needed to fulfill the following criteria: 1) be at least 13 and not older than 17 years old, 2) learn English as an FL, and 3) represent A2/A2+ proficiency level in English. The last criterion was estimated by the researcher on the basis of the interview with the VILs' English teachers.

Affirmative answers provided by 34 VILs to the three above-mentioned criteria required further screening. First, the VI potential participants were explained the purpose and the precise nature of the research. Then, the possible contraindication was clarified to them such as e.g. unwillingness to open up and talk to the researcher on personal issues. Two potential subjects decided to withdraw from the study after being informed that the research will involve a face to face interview and its findings will be published.

At the pre-research stage, the researcher excluded 2 prospective VI subjects. One of them had a too severe hearing problem to be able to participate in the re-

search, whereas the other one was not eligible for the research since he was older than he had declared.

3.5.5.5. Research participants

In the course of the screening, the researcher selected 30 prospective subjects. Yet, the target population consisted of 28 subjects. Two participants were dropped from the sample; they were unable to participate in all four tests because of the time pressure of school examinations and unexpected illness.

Prior to the proper research, an integrated body of knowledge about the VI participants was collected. All the subjects were adolescents between 14 and 17 years of age, with no serious cognitive or hearing impairments. Though they were of different ages they represented the same proficiency level in English (A2/A2+) and were learning from the same course books. In the final sample 15 were male and 13 were female. The majority of VI participants (19 pupils) lived in a boarding house adjoining the school for the visually impaired. Others lived with their parents and commuted to school. In the final sample all the participants attended classes in special education for VI pupils whereas two students also had a two-year episode of attending classes in regular education before they joined the school for the blind and partially sighted. The VI participants were middle and secondary school students studying either in a regular secondary school or vocational schools such as a secondary technical school of massage and a vocational school (chef and craftsman specialisations).

During the research it was found that most participants rarely practised English out of the classroom, which was mainly due to the lack of adapted language resources. Only subject 22 had a chance to practise her English in a naturalistic setting while being at her family's in Glasgow. Based on class tutors' reports, the participants were categorised according to the degree of their visual impairment: 21 students were PS whereas 7 students were BL (2 students in this group were congenitally blind and 5 were adventitiously blind).

Table 3.1 presents detailed information on the VI participants' characteristics accessed from teachers, medical reports or elicited from the VILs during the interview session (see Appendix 5 — Biodata Sheet). It includes such aspects as age, gender, eye condition, residual vision, sensory learning, social and behavioural aspects. The blind research participants are marked with a dark grey colour whereas the PB with a light grey colour.

Table 3.1. The characteristics of the subjects participating in the study

No.	Age	Sex	Eye condition	Vision	Sensory learning	Social and behaviour aspects
1.	14	F	anophthalmia: congenital absence of the eyes	no residual vision	proficient in Braille reading and writing, good at using sensory learning items	due to increased intracranial pressure and convulsions she is often absent from school, consequently, she has problems with making friends and spends much time on her own, visible stereotypies
2.	14	M	infantile glaucoma and damaged retina through excess pressure on the optic nerve and retinal tissue	no residual vision, light sensitivity	proficient in Braille reading and writing, good at using sensory learning items	good interactions with peers and teachers, very in-dependent, boasts about travelling on his own, visible stereotypies, psychosomatic complaints
3.	14	M	retinopathy of prematurity, nystagmus (involuntary movements of the eyes)	no residual vision	proficient in Braille reading and writing, good at using sensory learning items	bossy, sociable, outgoing, outspoken, argumentative, rebellious, overrides teachers' authority, manifests strong views particularly on the rights of VI students, admired by all VI boarding house residents
4.	14	M	disease of the vision nerve associated with an increased pressure inside the eye (angle closure glaucoma), myopia 'nearsightedness'	visual acuity is seriously reduced	he's about to lose his sight completely, reluctant to learn Braille claiming he is not blind yet, good at using sensory learning items	manages quite well with communicating his needs to tutors, very attached to one classmate, not seeking interactions with other classmates, hyperactivity deficiency, aggression
5.	14	F	cataracts caused by maternal rubella, aphakia (absence of the lens of the eye after cataract surgery), myopia 'nearsightedness'	visual acuity is seriously reduced	eager to learn Braille and good at using sen-sory learning items	good interactions with classmates, boarding house residents and teachers, very attached to her sister with whom she shares a room, sings in a school choir
6.	14	F	cataract caused by trauma, myopia 'nearsightedness'	visual acuity is seriously reduced	eager to learn Braille and good at using sen-sory learning items	manages quite well with communicating her needs to tutors, not seeking interactions with other classmates or boarding house residents

7.	14	M	albinism: congenital lack of pigmentation nystagmus, light sensitivity (photophobia), myopia 'nearsightedness'	lowered visual acuity	skilful in using sensory learning items	problems with making friends, spends much time in seclusion in his room, psychosomatic complaints, depression
8.	15	M	amblyopia: loss of vision in one eye, due to the braids suppression of one of the two images it receives (also called 'lazy eye')	visual acuity is seriously reduced	very good at using sensory learning items	very sociable, very good interactions with classmates, boarding house roommates and teachers, good at sports, admired by peers
9.	15	F	retinopathy of prematurity, nystagmus (horizontal and vertical)	visual acuity is seriously reduced	she's about to lose her sight completely, reluctant to learn Braille, good at using sensory learning items	problems with interactions, stubborn, very attached to her sister with whom she shares a room
10.	15	M	scarred retinas after toxoplasmosis	visual acuity is seriously reduced	skilful in using sensory learning items	avoids company of peers, prefers staying in seclusion, psychosomatic complaints
11.	15	M	retinopathy of prematurity, retinal detachment, nystagmus	visual acuity is seriously reduced	good at using sensory learning items	good interactions with classmates, boarding house roommates and teachers, sings in a choir
12.	15	F	cortical Visual Impairment, lack of vision in eyes that appear normal; the defect is in the cortical function (i.e., occipital lobe of the brain)	no residual vision	still problems with Braille reading and writing, good at using sensory learning items	rejected by peers who find her egocentric, lives in her own world, spends much time in a dormitory room watching soap operas
13.	15	F	retinopathy of prematurity, nystagmus (horizontal and vertical)	poor acuity and defective colour perception	good at using sensory learning items	lacks self-confidence, prefers company of audio books/ adults than peers, occasionally aggressive

No.	Age	Sex	Eye condition	Vision	Braille / sensory learning items	Affective / social description
14.	15	M	non-arteritic anterior ischaemic optic neuropathy	no residual vision	excellent in Braille reading and writing, very good at using sensory learning items	still has problems to accommodate in a conversation, visible stereotypies
15.	15	M	achromatopsia — congenital defect of or absence of cones in the retina	poor acuity and defective colour perception	skilful in using sensory learning items	self-centred conversation, visible stereotypies, likes the company of adults
16.	15	M	optic atrophy (poor functioning of the optic nerve), nystagmus (undulating)	visual acuity fluctuates for no identifiable reasons	skilful in using sensory learning items	when vision deteriorates aggression and self-destruction appear, good interactions with classmates and boarding house roommates, still does not trust some teachers
17.	15	M	retinopathy of prematurity, retinal detachment, nystagmus (horizontal)	visual acuity is seriously reduced	skilful in using sensory learning items	very good interactions with classmates, boarding house roommates and teachers, good at sports, admired by peers
18.	16	F	retinopathy of prematurity, retinal detachment	poor acuity and defective colour perception	skilful in using sensory learning items	self-centred conversation, visible stereotypies, likes the company of adults, not accepted by peers
19.	16	M	microphthalmos: abnormally small eyeballs, myopia 'nearsightedness'	visual acuity fluctuates for no identifiable reasons	good at using sensory learning items	when vision deteriorates aggression appears, good interactions with peers, visible stereotypies
20.	16	M	retinopathy of prematurity, retinal detachment, nystagmus	poor acuity and defective colour perception	skilful in using sensory learning items	reserved, self-centred conversation, likes the company of adults
21.	16	F	exotropia (one eye turns outward), myopia 'nearsightedness'	visual acuity is seriously reduced	very good at using sensory learning items	problems with making friends, psychosomatic complaints, visible stereotypies
22.	16	F	retinoblastoma (malignant intraocular tumor, the eyes enucleated surgically removed)	no residual vision, light sensitivity	proficient in Braille reading and writing, good at using sensory learning items	good interactions with peers and teachers, very independent, boasts about travelling on her own, sings in a choir, visible stereotypies

No.	Age	Sex	Diagnosis	Vision	Braille/sensory learning	Social interactions
23.	16	F	astigmatism, improper curvature of the cornea, non-arteritic anterior ischaemic optic neuropathy	no residual vision	proficient in Braille reading and writing, good at using sensory learning items	good interactions with peers and teachers, very sociable, visible stereotypies
24.	17	M	retinopathy of prematurity, hypertropia (one eye turns upward)	poor acuity and defective colour perception	skilful in using sensory learning items	avoids company of peers, prefers staying in seclusion, psychosomatic complaints
25.	17	F	aniridia — congenital lack of or incomplete formation of the iris, glaucoma, nystagmus, photophobia	lowered visual acuity	skilful in using sensory learning items	good interactions with peers, problems with communicating her needs to teachers, occasionally aggressive
26.	17	M	retinopathy of prematurity, retinal detachment, nystagmus	poor acuity and defective colour perception	good at using sensory learning items	lacks self-confidence, prefers company of audio books/ adults than peers
27.	17	F	dislocated lens associated with Marfan's syndrome, nystagmus (horizontal and vertical)	visual acuity is seriously reduced	skilful in using sensory learning items	very open, problems with interactions with classmates, boarding house residents and teachers, participates in a radio programme
28.	17	F	retinopathy of prematurity, retinal detachment	poor acuity and defective colour perception	skilful in using sensory learning items	problems with making friends, spends much time in seclusion in her room, psychosomatic complaints, depression

3.5.5.6. Setting

The research was conducted in the Lower Silesian Special Educational Centre No 13 for the Blind and Partially Sighted, also referred to in this book as the school for the visually impaired. It is located in Wrocław, the capital city of the Lower Silesia Region in the south-west part of Poland. The centre is the largest institution educating the VI in the region and it has been functioning since 1947.[74] In 2003 the centre moved to a modern and well-equipped complex of buildings initially housing only a primary school and since 2008 other types of schools, the Early Intervention Section and facilities such as the indoor swimming pool, gymnasium, the pitch, the athletic playing field, and the boarding house. The centre is adapted to the needs of VILs, including wheelchairs, well-equipped revalidation rooms, a special room to conduct the stimulation of sight, specialised teaching aids, specialised programmes, the Braille library acting as the multimedia centre for the local society etc. Currently, the centre provides education at the primary, middle, and secondary school level. Additionally, it offers vocational training in a secondary technical school of massage and a vocational school (chef and craftsman specialisations) and a post-secondary school of massage.

The two stages of the research were conducted in the boarding house where the researcher was given access to two spacious rooms housing a revalidation centre and a place where VILs build scale model planes. The former did not have any desks, therefore the researcher decided to carry out the interview stage in this place. The latter was equipped with desks and chairs, yet it did not resemble a typical classroom for VILs. It was full of visual and physical clutter (excessive furniture, materials for scale model planes). Since in this place the VILs were administered the questionnaires, the researcher needed to accommodate it to the research conditions. Firstly, the furniture was arranged in such a way as to provide clear and safe traffic paths for the VILs who had problems with O&M skills. Secondly, more arrangements were made to allow enough space on the desks for laying down the A2 format questionnaires and using specialised equipment such as electronic magnifiers or Braille typewriters.

3.5.6. Pilot study

The pilot work allowed the researcher to analyse both the conceptual and procedural content of the study. Consequently, a study protocol, including the data collection instruments and the treatment had to be refined.

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[74] In 1945 teachers who were repatriates from the Department of Blind Children in Lviv arrived in Wrocław and set up a school for the blind and partially sighted. They obtained the old building from the council of education and accommodated it for teaching VILs. The teaching aids came from a pre-war German school. Some of them are used in the centre even nowadays. The expansion of the centre completed in 2008 was co-financed by the European Union within the Integrated Operational Project for The Region of Lower Silesia (cf. http://www.oswdn.pl).

With regard to conceptual content of the questionnaire stage, a few modifications had to be made. The two distracting items (23, 28) in the LOC questionnaire were changed since they referred either to visual stimuli or to activities rarely performed by VILs, which cause confusion of the subjects participating in the pilot study (see 4.5.5.3 for details).

With regard to procedural content, the observations and the feedback provided by the subjects during the pilot session made the researcher realise that some changes in time limits for questionnaire completion needed to be introduced. Originally, each questionnaire session was supposed to be no longer than 45 minutes. Yet, the LOC questionnaire session lasted 90 minutes, twice the expected time. The autonomy questionnaire session, in turn, lasted only 15 minutes. For this reason, the researcher decided not to set any specific time limits for the completion of questionnaires.

Apart from conceptual and procedural problems, the VI subjects also had a problem with materials. During the piloting of the achievement test and the questionnaires, the researcher noticed that the PS participant's performance was considerably affected by her reading rate. The student seemed to lose her motivation to complete the test and questionnaires when she got stuck in the middle of a question unable to follow the text. Although the A2 format questionnaires had an enlarged print, the lack of contrast and the glossy paper made reading very difficult. Therefore, in the proper study contrast was highlighted by the use of a light yellow colour for the questions background. Additionally, a plain recycled paper instead of a glossy one was used. Also, a white bookmark to separate the text lines was applied.

With regard to the blind participant, a problem with reading also appeared. Despite the fact that the test and questionnaires were Braille typewrote by a professional blind teacher, some of them were administered improperly by the researcher, e.g. their order was wrong or they were distributed upside down. In the proper study all the Braille materials were enumerated with a pencil and their right upper corners were cut off so as the BLs could feel with their fingers how to place a page in order to be able to read properly (see Appendix 10).

With regard to the interview, some conceptual and procedural problems emerged. After the pilot interview, the VI participants were requested to share their feelings about the session. As mentioned before, problems with some terms such as 'autonomy' and 'autonomous' compelled the researcher to modify the interview questions and replace the confusing terms with 'independence' and 'independent'. Also, the interview session allowed the researcher to capture non-verbal cues from the VI participants which were indicating a discomfort with the physical and emotional distance between the researcher and the participants. The blind subject even suggested whether she could touch the researcher's face prior to the interview whereas the PS participant asked whether he could interview the researcher. In order to build up an emotional bond and trust, the researcher decided

that in the proper interview session some leading questions will first be asked such as: where would you like to sit during the interview? or Are there any questions you would like to ask to the researcher?

It should be pointed out that despite the refinement of the study protocol, there was no need to reconceptualise the research questions.

3.5.7. Data analysis, presentation and interpretation

The quantitative data collected from the questionnaires and the test was coded for SPSS (version 15.0) analysis. However, the qualitative data collected from the interviews was not quantified. Quantification was not applied for two reasons. Firstly, too few participants decided to take part in the interview session. Secondly, the researcher believes that such an inversion would sublimate the very qualities that make qualitative data distinctive (narrative layering and textual meaning). In order to provide the answers to the research questions the data will be presented in the following order:

1. the analysis and results of the quantitative study, i.e.
i. the CCQ
ii. the AS
iii. the LOC questionnaire
iv. the FL AT

2. the results of the correlational analysis for all the VI participants and for the PS and BL groups separately, i.e.

i. CCQ — FL AT correlation
ii. AS — FL AT correlation
iii. LOC — FL AT correlation

3. the results of the qualitative study

3.5.7.1. Coping Competence Questionnaire results

The questionnaire comprised 12 statements related to various stressful situations. The VI subjects were supposed to choose one answer from six options that most closely reflects their own reaction in stressful situations. Each answer was assigned a point from 1 to 6 (see 4.5.5.3 for details). In order to interpret the sum score of these items as an indicator of coping competence, all items had to be reversed (1 = 6; 2 = 5; 3 = 4; 4 = 3; 5 = 2; 6 = 1).

The CCQ database is presented in Appendix 6. The total CCQ score obtained by each VI participant is displayed in Figure 3.2.
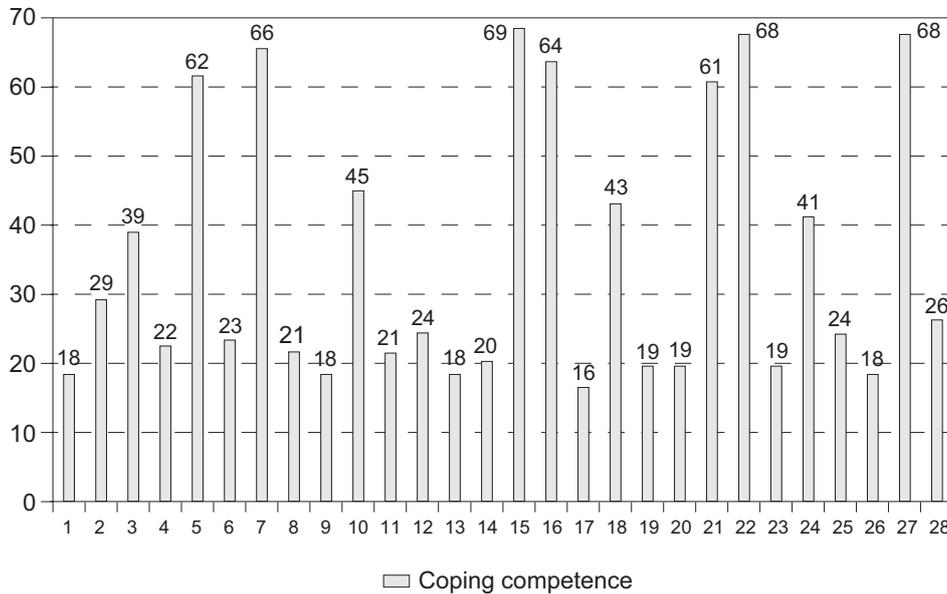
Figure 3.2. CCQ total for individual VI participants

High scores indicate resilience to learned helplessness (i.e. coping competence) and low scores indicate propensity towards learned helplessness in stressful situations. The scores ranged from 16 to 69.

Descriptive statistics for the whole group are presented below.

Table 3.2. Descriptive statistics — CCQ

	N	Mean	Median	Mode	Min	Max	SD	Skewness	Kurtosis
CCQ Sum	28	35.04	24.00	18 (4)	16.00	69.00	19.56	0.79	−1.09

3.5.7.2. Autonomy Scale results

In the AS the VI subjects had a five-point Likert scale (from 1 — very unlike me to 5 — very like me) with lower scores indicating higher levels of autonomous learning. In order to analyse the data obtained from the AS, first the researcher needed to assign all the AS items to two groups corresponding either to Factor 1 (Independence of learning) or to Factor 2 (Study habits). According to the key, the questions 1, 6, 7, 8, 10, 11, 12 were classified under Factor 1 whereas the questions 2, 3, 4, 5, 9 under Factor 2. During SPSS analysis the score for each VI participant was calculated. Two questions, namely 2 and 10, were reversely scored.

The AS database is presented in Appendix 7. Figure 3.3 presents the juxtaposition of the results obtained by the individual VI participants on the autonomy scale

and two subscales, i.e. the autonomy related to independent learning and the autonomy related to study habits.
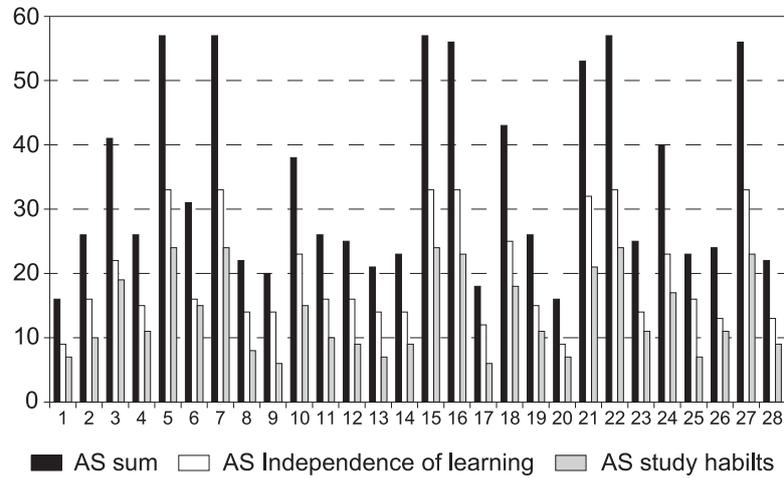
Figure 3.3. AS sum, AS independence, and AS study habits for individual VI participants

Higher scores on the general scale (AS) as well as on the two subscales (AS independence of learning and AS study habits) reflect the VILs' greater levels of autonomy, more independence, and more positive attitudes. In the sample the best results were obtained by the subjects 5, 7, 15 (57 points) and 16, 27 (56 points), all of whom are PS. The subjects 1 (BL) and 20 (PS) had the lowest score (16 points). Descriptive statistics for the whole group are displayed in Table 4.3.

Table 3.3. Descriptive statistics — AS

	N	Mean	Median	Mode	Min	Max	SD	Skewness	Kurtosis
AS sum	28	33.75	26.00	Multiple (4)	16	57	14.85	0.63	−1.24
AS independence	28	19.96	16.00	33 (6)	9.00	33.00	8.43	0.65	−1.15
AS study habits	28	13.79	11.00	Multiple (4)	6.00	24.00	6.57	0.50	−1.35

3.5.7.3. Locus of control questionnaire results

The LOC questionnaire consisted of 46 questions, out of which 36 were diagnostic questions. The VI participants were supposed to choose between a and b options (see 4.5.5.3 for details). Before computing the results, the researcher checked

whether the VI subjects marked the answers to all the questions. Three subjects (3, 6, 20) left four blank spaces in the questions 21, 24, 30, and 37, which was classified as no data. The LOC questionnaire database is presented in Appendix 8. The LOC questionnaire results reflect three scales: Success (S), Failure (F), and the overall scale Success + Failure (S + F). The obtained results were interpreted according to the key (see Appendix 3) in the following way:

Table 3.4. Stens and descriptive assessment for LOC raw scores

Scale S			Scale F	
Raw score	Stens	Descriptive assessment	Raw score	Stens
0–10	1–4	external LOC	0–10	1–4
11–13	5–6	undefined LOC	11–13	5–6
14–18	7–10	internal LOC	14–18	7–10

Scale S+F	
Raw score	Stens
0–22	1–4
23–28	5–6
29–36	7–10

Figure 3.4 presents the juxtaposition of the results obtained by the individual VI participants on the three LOC scales (Scale S reflects LOC success; Scale F reflects LOC failure; Scale S+F reflect overall LOC referred to as LOC sum).
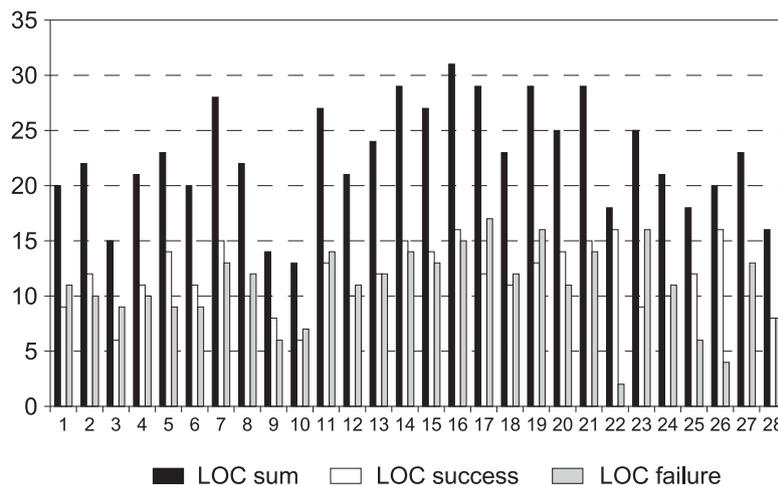
Figure 3.4. LOC scale and subscales results for individual VI participants

High scores on the questionnaire (LOC sum) reflect internal LOC i.e. the VI participants with the highest score strongly believe they can control events affecting them and whatever happens in their lives is the result of their own actions, abilities or effort. The highest scores were obtained by the PS subject 16 (31 points) whereas the lowest score by the PS subject (13 points). Low scores, in turn, reflecting external LOC will be typical of the VILs who believe that events happening in their lives, whether good or bad, are caused by uncontrollable factors such as the environment, other people, or a higher power. In the sample no visible trend can be noticed. 50% of the subjects (14 VILs) had external LOC, 18% (5 VILs) had internal LOC and 32% (9 VILs) had undefined LOC.

With regard to LOC success, there is also no visible trend. 36% of the subjects (10 VILs) had external LOC success, 32% (9 VILs) had internal LOC success and 32% (9 VILs) had undefined LOC success. The VI participants scoring high (internal LOC success) tend to attribute rewards and successes to their intelligence or hard work (e.g. the PB subject numbered 16 scoring 16 points). Their internal LOC allows them to manipulate their environment as they believe their actions are effective and help them to attain a desirable goal. Therefore, such VILs will be attracted to new situations and problem-solving tasks in which their internal abilities may be manifested. Being driven by a firm conviction that their actions are effective, they tend to engage in self-education. Such features enhance the VILs' self-worth, self-esteem and increase his self-acceptance. The VI participants who score low on LOC success (e.g. subject 10 scoring 6 points) tend to believe that positive events happening in their lives (e.g. a good grade on a language test) cannot be attributed to them but to chance, fate, or other people, e.g. teachers or parents. Having external attributions for success they avoid taking actions to change their lives.

With regard to LOC failure, no visible trend was noticed in the sample. 39% of the subjects (11 VILs) had external LOC failure, 25% (7 VILs) had internal LOC failure and 36% (10 VILs) had undefined LOC failure. The VI subjects who scored highly on the scale (e.g. subject 17 scoring 17 points) and have internal LOC failure tend to believe that they owe failure (e.g. a low grade on a language test) to the lack of abilities, insufficient work, or too little engagement on their part. The VI participants who scored low, in turn, hold the view that they do not take responsibility for failure. They attribute negative events to chance, too difficult tasks, or other people's characteristics (e.g. prejudice against disability, maliciousness).

It should be pointed out that LOC failure is particularly problematic. Despite the fact that the VI subjects were found to have external LOC failure, in various life situations they may behave as internal LOC failure people. Such individuals' declaration of external LOC in the questionnaire is a manifestation of their defence against failure and/or too high expectations which they cannot meet. Therefore, in such a group, VILs may have a positive self-concept and high self-esteem.

Nevertheless, the majority of the VI participants' behaviour in negative life situations reflects external LOC failure declared in the questionnaire. Such VILs will easily give up while facing unfavourable situations and lose motivation to take actions preventing failure. They also tend to experience high anxiety in most life situations because they perceive them as dependent on fate.

Descriptive statistics for the whole group are displayed in Table 3.5.

Table 3.5. Descriptive statistics — LOC questionnaire

	N	Mean	Median	Mode	Min	Max	SD	Skewness	Kurtosis
LOC sum	28	22.61	22.50	29 (4)	13.00	31.00	4.92	−0.17	−0.72
LOC success	28	11.71	12.00	Multiple (4)	6.00	16.00	2.90	−0.25	−0.69
LOC failure	28	10.89	11.00	11 (4)	2.00	17.00	3.67	−0.55	−0.07

3.5.7.4. Achievement test results

The AT comprised 25 grammar and lexical questions (see 4.5.5.3 for details). The VI subjects were assigned 1 point for providing correct answers and 0 points for incorrect answers. The test results database is available in Appendix 9. Figure 3.5 presents the juxtaposition of the results obtained by the individual VI participants on the test.
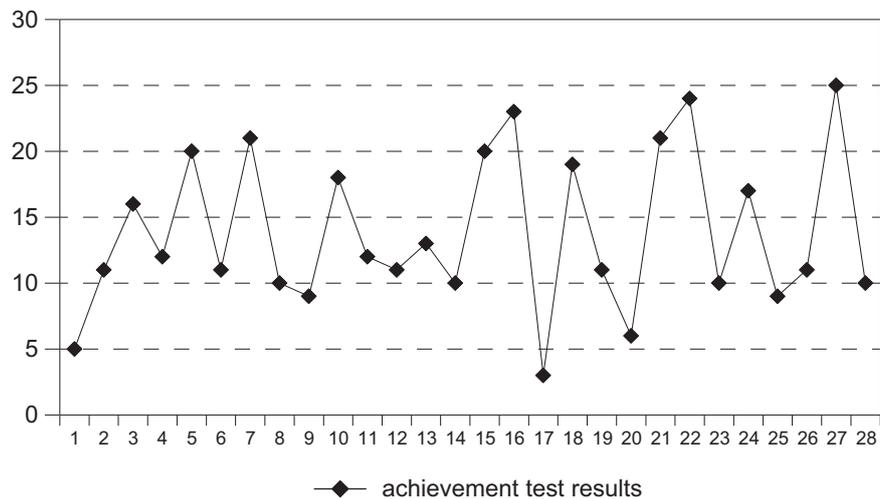
Figure 3.5. Achievement test results for individual VI participants

Descriptive statistics for the whole group are displayed in Table 3.6.

Table 3.6. Descriptive statistics — AT in English

	N	Mean	Median	Mode	Min	Max	SD	Skewness	Kurtosis
Achievement test in English	28	13.86	11.50	11 (5)	3.00	25.00	5.96	0.30	-0.86

3.5.7.5. CCQ–AT correlation results

After undertaking the preliminary and exploratory analyses described above, further analysis was conducted to evaluate the research hypotheses. Firstly, the CCQ–AT correlation was computed to estimate the relationship between the variables and to provide the answer to the first main research question (MQ1). Spearman's rank correlation (rho, r_s) was calculated for the whole sample and then for the BL and PS groups separately.[75] Spearman coefficients are presented in Table 3.7 below.

Table 3.7. Spearman's coefficient for CCQ–AT

CCQ–AT correlation	
VILs (PSLs + BLs)	$r_s = 0.84$ $p < 0.05$
PSLs	$r_s = 0.82$ $p < 0.05$
BLs	$r_s = 0.98$ $p < 0.05$

Table 3.7 indicates that there are statistically significant results that need to be discussed. The positive CCQ–AT correlation for the VI group ($r_s = 0.84$) implies that a higher/lower level of coping competence predicates a higher/lower level of achievements in English. This supports H1 for MQ1. Also, positive correlation exists in the PS and BL groups ($r_s = 0.84$ and $r_s = 0.98$ respectively).

For the purpose of increasing research rigour, the researcher attempted to gain in-depth understanding of what was and was not attained in the quantitative analysis. The qualitative interview data enhanced the understanding of the complexities of the VILs' learning process and interrelated coping competence.

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[75] Conducting regression analysis would give misleading results here as the research does not fulfil the conditions for such an analysis (the predictors need to be linearly independent, normal distribution, sample size, linear dependence between variables) (Field, 2005). Also, non-parametric equivalent of r-Pearson was used since the collected data did not fulfil the conditions for parametric test calculations (too small sample size, lack of normal distribution).

3.5.7.6. AS–AT correlation results

With regard to the AS–AT relationship, Spearman's rank correlation (rho, r_s) was computed first for AS sum–AT, then for AS independence of learning-AT, and finally for AS study habits–AT. The correlation results are presented in Table 3.8 below, first for the whole sample and then for the BL and PS groups separately.

Table 3.8. Spearman's coefficient for AS–AT

	AS sum–AT	AS independence of learning–AT	AS study habits–AT
VILs (PSLs + BLs)	$r_s = 0.92$ $p < 0.05$	$r_s = 0.9$ $p < 0.05$	$r_s = 0.89$ $p < 0.05$
PSLs	$r_s = 0.9$ $p < 0.05$	$r_s = 0.89$ $p < 0.05$	$r_s = 0.89$ $p < 0.05$
BLs	$r_s = 0.95$ $p < 0.05$	$r_s = 0.99$ $p < 0.05$	$r_s = 0.81$ $p < 0.05$

Table 3.8 reports a positive correlation in the VI group between AS sum–AT, AS independence of learning–AT, and AS study habits–AT ($r_s = 0.92$, $r_s = 0.9$, and $r_s = 0.89$ respectively). Collapsing the VI data into the PS and the BL shows that a positive correlation also exists in the two groups.

The results of correlational analysis imply that higher/lower level of general autonomy, autonomy related to independent learning, and autonomy related to study habits predicates a higher/lower level of achievements in English. This supports H1 for MQ2, H1 for SQ1 and H1 for SQ2 related to MQ2.

3.5.7.7. LOC–AT correlation results

Spearman's rank correlation (rho, r_s) was computed first for LOC sum–AT, then for LOC success–AT, and finally for LOC failure–AT. Spearman coefficients are presented in Table 3.9.

Table 3.9. Spearman's coefficient for LOC–AT

	LOC sum–AT	LOC success–AT	LOC failure–AT
VILs (PSLs + BLs)	$r_s = 0,16$ $p > 0,05$	$r_s = 0,32$ $p > 0,05$	$r_s = 0,05$ $p > 0,05$
PSLs	$r_s = 0.34$ $p > 0.05$	$r_s = 0.28$ $p > 0.05$	$r_s = 0.33$ $p > 0.05$
BLs	$r_s = -0.58$ $p > 0.05$	$r_s = 0.27$ $p > 0.05$	$r_s = -0.82$ $p < 0.05$

With regard to the VI group, no statistically significant correlations ($p > 0.05$) were observed between LOC sum–AT, LOC success–AT, and LOC failure–AT ($r_s = 0.16$, $r_s = 0.32$, $r_s = 0.05$ respectively). Such results indicate that there is no relationship between LOC and attainments in English, which supports H0 for MQ3, H0 for SQ1 and H0 for SQ2 related to MQ3.

Table 3.9 also gives a similar indication for the PS group in which no statistically significant correlation was established between LOC sum–AT, LOC success–AT, and LOC failure-AT ($r_s = 0.34$, $r_s = 0.28$, $r_s = 0.33$ respectively).

With regard to the BL group, no statistically significant correlation was found for LOC sum–AT and LOC success-AT ($r_s = -0.58$ and $r_s = 0.27$ respectively). Yet, statistically significant correlation exists for LOC failure-AT ($r_s = -0.82$, $p < 0.05$). The obtained results mean that the higher the LOC failure, the lower the attainments in English. In other words, the BLs tend to blame themselves for failure and not external factors, which results in their lower attainments in English. This partly supports H1 for SQ2 related to MQ3.

Despite the limited number of the BLs in the sample, the presented results may be treated as a description of a certain trend. It is worth noticing that the non-significant LOC sum–AT correlations have opposite directions in the PS and the BL groups ($r_s = 0.34$ and $r_s = -0.58$ respectively). This implies that in the BL participants the following trend may be observed: the lower the attainment in English they have, the greater the tendency they display to attribute the results of their behaviour to themselves (e.g. low abilities, limitations related to their blindness). In the PB group, in turn, the opposite trend may be noticed: the lower attainment in English they have, the greater tendency they display to attribute it to external factors (e.g. teachers' unfairness, discrimination of their disability, task difficulty).

3.5.7.8. Interview results

The responses collected through the interviews reflected the three themes (coping competence/resilience to helplessness, autonomy, locus of control) addressing the key questions under study. Since many respondents' answers overlapped each other, in this section only selected interview excerpts will be presented.

Coping competence/resilience to helplessness

Insights from the interviews revealed that all the VI participants felt helpless in life situations and almost all of them (75%) experienced the feeling of helplessness while learning an FL.

As the main source of helplessness they listed 1) limitations related to visual impairment (lack of opportunities for the future; a limited influence on school and parents' decisions); 2) fear of mistreatment; 3) lack of acceptance from the FS community (the feeling of being neglected by society); and 4) family problems they could not

overcome. With regard to FL learning, they identified such sources of helplessness as 1) lack of language competence and English Braille; 2) lack of supportive services for learners with visual impairment; 3) lack of adaptive language resources; and 4) making realistic and/or unrealistic comparisons to learners with minor vision deficits.

The interviews revealed that these negative feelings impacted their attainments in English. The VI subjects reported on low motivation to study English and their poor language tests results, attributing them to their life stagnation.

The quotations presented below represent the responses of the BL and the PS participants numbered 1 and 26 respectively, both of whom obtained not only low scores on CCQ (18 points) indicating propensity towards learned helplessness in stressful situations, but also low scores on attainment test in English (5 and 11 points respectively). It needs to be pointed out that the qualitative data included in the quotations is consistent with the quantitative data, which indicates the relationship between coping competence and attainments in English.

Before the interview the BL adolescent girl said she did not like school and regarded English as a 'fairly difficult task'. She complained about the language teacher who was not able to read Braille. This made her render all home assignments into a printed format, which she found a daunting task. At the beginning of the interview, the participant was reserved and appeared extremely introverted; yet in time she learned to trust the researcher and became more open. The researcher had the impression that the girl suffers from depression.

> Every day I face the situations which test my resilience to helplessness. I gave up when my parents divorced. My family fell apart because of my disability. Since then I give up all the time. Let's face the truth. Life does not make sense. I don't need English or anything. When I graduate, I will stay at home on a disability allowance, without any chances for work, trying to make ends meet. There's no future for such outcasts like me. The only thing I can do is move away, not to be a burden for my family and society. My escape from day-to-day life is watching Esmeralda. (subject 1, blind girl, age 14)

The quotation shows that the source of helplessness may be the wordless self-blame arising from the lack of acceptance of the child's disability and related family problems. The girl's helplessness is extremely damaging to an adolescent's functioning at school and at home. It manifests itself in a lack of meaning, of life and of language education, negative perceptions of the future, including those related to job perspectives. The strategies the girl developed are not effective since instead of making her act to cope successfully with the problem, they make her passive and inhibited. Moving away and watching the soap opera *Esmeralda* are typical avoidance strategies, which are even referred to by the respondent as an 'escape from day-to-day life'. It is worth pointing out that the girl has a very negative self-concept referring to herself as 'an outcast' and 'a burden'. This negative perception impacts her attainments in English. The teachers described her as an unmotivated and depressed student.

The response of the PS 15 year old respondent portrays even more effectively the impact of helplessness on learning English. From the very beginning of the interview it was apparent that the boy's verbal skills were below grade level. When the researcher posed the questions to him, he had problems putting his message across.

He seemed to feel helpless stuttering and trying to find the right words to answer the questions. Nevertheless, when he finally found the right words he answered them thoughtfully.

> I am helpless because we — people with vision deficit — are always mistreated. How can we learn English if we've been waiting two months for a course book in large print. There is a shortage of learning materials and my classmates read faster in English than I do, which makes me feel frustrated and even angry. I know I'm a failure in language learning and there is nothing I can do about it. If you are fully sighted you won't understand it. … My shyness, it's something I cannot overcome. Sometimes I feel like raising my hand in English and saying something but then I feel as if I was paralysed. I'm afraid peers will be making fun of me and my very poor English. (subject 8, PS boy, age 15)

The above selected quotation also shows that the PS student attributes his helplessness to external factors such as the unfair treatment of people with visual impairment and the negligence of his needs to access to an adapted course book in large print. It seems that his helplessness may be intensified when he makes comparisons to his classmates who are more proficient in reading or attempts to compete with them with no success. The quotation also points to the symptoms of helplessness which the boy experienced such as frustration, anger, stagnation, shyness and the feeling of being paralysed. All these negative feelings lead to lack of self-confidence and negative self-concept, which is manifested in the boy's negative self-assessment of his language competence. He is aware of his poor FL achievements, referring to himself as 'a failure in language learning' representing 'very poor English'.

Insights from the interviews also shed more light on how coping strategies contribute to better FL attainments. The first subject to be discussed is the BL 14 year old boy (the CCQ score 39 points and the AT score 16 points) who would probably go down in the history of the school as a stubborn and judgmental boy, struggling for the rights of the VI youth, and frequently overriding teachers' authority.

He conveyed his comfort level with vision loss. 'I've never seen and I don't regret it. It's better not to see than to see and lose your sight' stated the boy.

During the interview the boy displayed a sense of boundless energy and enthusiasm for his favourite school subject which is English. He displayed a very good verbal competence and an over-all manner that was very pleasant and age appropriate. Yet, his speech was rapid and full of shifts from one topic to another without the transitional phrases one expects to hear. The boy projected acceptance related to his disability and his place in the world.

> I used to feel helpless. Because of my vision loss I could not see my favourite characters from the mystery series. But this is the past. I can see them now with audio description. My parents showed me how it works. All the kids of my age in mainstream schools learn English, don't they? I'm not different from them. Of course it's more difficult to learn English when you're blind but still I can do it and I'm very good at it. … I'm not boasting. I'm just telling you the facts ….
>
> I think my parents taught me how not to feel sorry for myself and get a move on. I don't have time for complaining. I guess you've heard that I'm an activist fighting for our rights. The only thing I don't like about English is that a sighted teacher teaches me a foreign language. How does he know what it is like to be blind? I find language classes boring. The material is just too easy for me. But at least English is more practical and less abstract than maths and chemistry. When I travel abroad

with my parents I use English and not all this knowledge on fractions or acids. (subject 3, blind boy, age 14)

The above quotation represents the voice of a BL who despite experiencing the feeling of helplessness managed to develop effective coping strategies helping him to learn an FL. One such strategy is making comparisons to his counterparts in mainstream schools. Interestingly, these comparisons do not discourage him from learning English, but just the opposite, enhance his motivation to learn the language despite some obstacles in the way (e.g. boring lessons, the FL teacher being fully sighted). The boy is aware of the advantages related to learning an FL (using English while travelling abroad) and is able to evaluate the practicality of English use against the impracticality of other subjects. He is an enthusiastic activist, too engaged in anti-discrimination actions to find time for complaining. It seems that finding a life goal (i.e. striving to be like others) has a bearing on his learning goal (i.e. being able to travel abroad and use English like others). This probably helped him to overcome helplessness. In this process there was a vital role for significant others (parents) who built up the boy's self-confidence and self-esteem, for example offering him audio description services for watching movies. They also enhance his motivation to learn an FL, taking the boy abroad where he can practise the language. It is also worth acknowledging the fact that the boy's AT score shows he is moderately good at English, which was also confirmed by his teachers. Yet, he thinks of himself a very good learner of English.

The other subject worth discussing here is the BL, the girl aged 16 (the CCQ score 68 points and the AT score 24 points) schooled in mainstream education for two years. During the interview the girl was rocking back and forth as she spoke; yet she was much focused on the interview questions. Before the interview the participant expressed her enthusiasm about learning English. She indicated that a great advantage of English is that you can start it off from the beginning at any stage of your education, which is not possible with other academic subjects such as mathematics or science. The BL girl seemed to be self-confident and spoke very quickly. She also appeared extremely extroverted, outgoing and full of energy. The girl was described by teachers as musically gifted. Her story shows what a tremendous effort she made to overcome all the obstacles to catch up with her peers in a special school.

I felt helpless when I had to leave my old school and my friends. I was told I'm losing my sight so I'd better start learning Braille. I did not give my consent to anyone to be moved here. I was crying for a long time.

When I started learning an FL I felt helpless too. I was so scared because I lacked Braille skills. It took me two or three years after a regular school to catch up with my classmates. I learnt it every day and practised in a boarding house. But I said to myself: I will not give up! For my mom and dad. I kept on saying 'They would be proud of you'…

I was listening to English songs a lot. I sing some of them in the choir. I was learning grammar and vocabulary listening to Beyoncé's song. This helped me so much. Not just with learning English but also in finding myself. Her song lyrics enlightened me and now I know that I have so much in life. I can hardly believe it but I can write every English Braille equivalent for every character in the Polish

language. I've rocketed to the top of my class and my parents are proud of me. (subject 22, blind girl, age 16)

The quotation above indicates that the student attributes her helplessness to two factors. The first one is a traumatic experience related to the moment of losing sight and the necessity to change school. The other is related to the fear she will not cope with English lessons due to the lack of Braille skills. Despite the challenges she faced at school, she managed to develop effective coping strategies, which made her a successful FL learner. One of them was the metacognitive strategy concerned with managing negative emotions through clarifying the purpose of learning, i.e. learning to make her parents feel proud of her. To attain the learning goal, the student was ready to make a tremendous effort to make up for Braille skills. The student's instrumental motivation (i.e. learning to be appreciated by parents) enhanced her perseverance (*I will not give up!*) and directed her learning (learning grammar and vocabulary through listening to English songs). Interestingly, listening to English songs does not only serve the learning purpose but also the psychotherapeutic purpose. It can be deduced that the songs inspired the girl to perceive the world more positively and helped her to overcome helplessness she had experienced when she started her education in the special school. All in all, the student stayed resilient through the challenges she faced while learning English which is confirmed by her excellent school reports.

Autonomy/ independent learning/study habits

Insights from the interviews indicate that only 10 participants (36%) perceive themselves as autonomous FL learners. A comparison of their views with the quantitative AS data reveals that these were the students whose scores ranged from 23 to 57, i.e. the scores reflecting very high levels of autonomy.

The autonomous VI students utilised a number of strategies developing independent learning. Among the actions they listed were: 1) using language learning resources available on the Internet; 2) online chatting with English speaking friends; 3) listening to English and American programmes; and 4) watching English and American audio-described movies. They also indicated that they utilised various regular study habits such as 1) managing time to focus on language learning; 2) planning language learning; 3) revising material; and 4) organising learning.

The interview data also indicates that the 10 VILs owe their language achievements to the use of these strategies. This is in line with the quantitative data which shows that these subjects scored highly or very highly on the autonomy scale (score range from 23 to 57) and also scored highly or even very highly on the achievement test (score range from 18 to 25).

There were also 11 VI subjects who perceived themselves as not autonomous learners or were not able to specify whether they are autonomous. It should be pointed out that these participants scored very low or low on the autonomy scale (score range from 16 to 31) and very poorly or poorly on the achievement test (score range

from 3 to 16). Interestingly, the participants had awareness as to the factors which hinder their autonomy. Among them, they listed 1) lack of motivation to study an FL; 2) life stagnation and low self-esteem; 3) O&M problems.

An interesting case deserving investigation is the blind 16 year old girl (subject number 22) who has already been discussed. The participant is not only an example of a learner who developed effective strategies to stay resilient in negative situations while learning English but also a very autonomous language learner (AS score 57 and AT score 21). The participant took part in the first interview session a few days earlier so she seemed to be relaxed enough to talk about her independent learning experience. During the interview, the girl displayed a sense of poise and emotional maturity, which appeared to the researcher to be far beyond her age level. What is more, her answers were very thoughtfully pondered and well structured.

Before the interview, the girl said that learning English had come easily to her because of the auditory nature of the subject. She repeated again that she did not like mathematics and science, which she found so visual in comparison to language learning. During the interview, the girl expressed her enthusiasm about language learning. 'I love English classes. Our teacher has such a nice voice. He makes effort for us and uses interesting teaching techniques such as wicky sticks, puff paint and others', stated the girl.

In the past she learned German at private classes because, as she stated, 'In this language everything is spelled phonetically; what you hear is what you write'. She finds English more difficult than German but more practical for her since her relatives live in Great Britain. The girl had some exposure to the language in a natur-alistic setting when she visited her family in Glasgow. 'My cousin married an Eng-lishman; they conversed in English so I just picked it up', stated the girl. In her spare time, she enjoys experimenting with technology. 'I absolutely love my computer and I cannot imagine my life without the Internet', stated the girl.

From the beginning of the interview the girl's independence was striking for the researcher. She objected help while entering the room, selected the chair which fitted her best and monitored time continuously checking a talking vibrating watch. Being asked about her autonomous behaviour she said:

I think I'm much more independent than other residents living here. I don't have problems with orientation and mobility, which is a great advantage. If I want a text to be translated into English Braille I don't ask anyone for help, I just go to the library and use a Braille embosser on my own.

I started learning English on my own from American movies. I'm totally hooked on watching movies. A few years ago I didn't like them but now I have audio description movies. But there are not many of them. I asked my father to download them for me. With audio description I feel just like other people. I guess I benefit so much from these programmes. There are more such programmes in English than in Polish so whether I like it or not I learn English. … I learned so much American slang and nasty words too. My favourite audio-described programs are TV chat shows and romantic comedies.

I also spend much time on the Internet in chat rooms with people from all over the world, mostly sighted teenagers whom I don't meet here. I don't reveal I'm blind at the beginning so I have much fun when later I tell them the truth. Sometimes I use the ALT. It describes on the Internet all images for users like me, who cannot access visual elements. Since that time I browse more English websites and learn

the language in this way. I also learned from my blind pal about Quick Time that adds captioning to video clips. I wish I could use Facebook but it's inaccessible to the blind. (subject 22, BL, girl, age 16)

Being interrupted by the researcher asking her how she could account for the fact that she started learning English on her own, the girl said:

At the beginning our boarding house tutors organised some extra-curricular activities for us. Most of the time art and craft work. But it's not for me! I don't expect from anyone to organize my free time. I like the feeling that I'm in charge of my life. I'm a computer maniac so learning English through the Internet came naturally. (subject 22, blind girl, age 16)

Being asked how she utilises her autonomy strategies in a typical language classroom, the girl stated nonchalantly:

I just find my classroom, then I find my desk and chair, and finally I find my Braille machine and tape recorder.
If the teacher asks me What's the weather today? I say straightforward You'd better tell me. (subject 22, blind girl, age 16)

From the above quotations a picture of the blind adolescent emerges, namely the assertive person who accepted her blindness and found the motivation to learn English in spare time. Her motivation for learning English may be linked to the exposure to the language she experienced while being abroad and her passion for watching American movies ('I'm totally hooked on watching movies'). The girl reports on study habits she utilised while learning English, namely she organised learning by translating English texts into Braille. Her independent learning, in turn, seems to be a natural consequence of her motivation and rebellious adolescent nature i.e. she wants to be in charge of her life and does not like anyone to organise free time for her.

The time she spends learning the language through internet websites, watching audio-described movies or participating in Internet chat rooms compensates for her visual and social deprivation since in real life she did not have many opportunities to interact with sighted teenagers. Though she admits that she does not reveal her true identity while chatting with them, it seems that it is not related to her inability to accept blindness but rather to a desire to experience being treated as a sighted person.

Being asked about the relationship between her independent actions aimed at language learning and school achievements, the girl stated:

I've learned so much from the Internet. I know informal language, some funny idioms, slang and nasty words too, but they are not tested in a class or an exam. Yet, it seems to me that thanks to the Internet I have greater self-confidence than my classmates. I speak English quite fluently and I'm not afraid of making mistakes. (subject 22, blind girl, age 16)

The respondent's words highlight a very important point, namely that learner autonomy does not have to translate into test grades; it may be manifested in the student's self-confidence in language use.

Another participant worth discussing here is the PS 17 year old girl (subject 27; AS score 56 and AT score 25). Though she was not categorised as a BL student she could hardly see. In the pre-interview session, the girl said she liked reading

books, enjoyed singing and swimming. She was proud of participating in a radio programme.

The respondent found learning English a fairly easy task. 'In an English class everything is oral and there is a lot of memorisation which I liked. In maths and science there is too much visual conceptualisation', stated the girl. What appealed to her was the practicality of English. 'I know English is something I can apply in life unlike advanced math', said the girl. 'I don't want to work in a call centre or in a sheltered workshop as Nobody. I want to achieve something in life', she added. The respondent expressed her hope of studying special pedagogy or psychology and after graduation, working abroad in the field of visual impairment. Because of her plans she believed a command of English will be beneficial. The girl believed she had to start learning English independently in order to achieve her goal because in the past she could not rely on her language teachers. 'My language teachers were not always cognizant of the methods that work for the visually impaired. For example, they kept forgetting to describe illustrations for us', complained the girl.

During the interview the respondent was very open and shifted from one topic to another. She felt a need to tell the researcher about her health problems and family which has always supported her. The girl confessed she perceived herself to be at a significant advantage in terms of her language abilities, which is the reason for her rejection by her peers. 'I think they dislike me because they envy my grades and my self-confidence when I speak English', stated the girl. Yet, the researcher's conversations with boarding house tutors and teachers revealed that the girl did not know how to interact appropriately in social situations. She was supercilious and viewed herself as 'Little Miss Know-it-all', which made her relationships with classmates and teachers difficult. In language classes her classmates were intimidated by her since she blurted out the answer without being asked by a teacher. The girl seemed not to be aware of her inability to react in a socially appropriate manner. Despite the problems with social interactions, she experienced unparalleled success in the area of language learning. This can be partly attributed to her personality. 'I know I'm a strong-willed person. I'll do everything to achieve my goal', stated the girl. Yet, she also owes her success to autonomous actions she takes to be more proficient in English, which confirms the quotation presented below.

Yes, I think I've always been independent. It's because of my parents. They always had expectations about me and my grades at school and helped me to achieve my goals. When I was thirsty they always said that I may take a glass myself. When I wanted them to comb my hair they said I have two hands and can do it on my own. Of course, they first taught me how to perform all these daily activities and encouraged me to do them. When you are separated from your parents at the age of 7 and start living in a boarding house, you have no choice and have to be independent. …

Yes, I think I transferred my independence skills to language learning. If I want to read a book I have to prepare a large print copy. Nobody will do it for me. I think I learn a lot of English from online chat rooms for the visually impaired, mostly zonebbs, takingirc and blind planet. In a class I always ask the language teacher for clarification. When I'm back to my room I revise what I learned because I don't like cramming a day before a test. I always plan my learning starting from grammar, which is the most difficult for me. … I think my hard work affects my achievements. (subject 27, PS girl, age 17)

The above quotation points to the relationship between the development of independent living skills (e.g. selecting clothing, eating etc.) and autonomous actions aimed at learning an FL. It also shows the important role of parents in shaping the child's independence. The respondent's parents demonstrated their expectations with regard to routine daily activities and communicated positive messages to the girl about her abilities. Their perseverance led to the girl's independence not only in daily activities but also in language learning. The girl learns English by chatting online with blind and partially sighted teenagers. She also knows how to organise learning to make it effective; she prepares large print copies on her own and plans learning for a test by grading material according to task difficulty.

Being asked by the researcher how she could account for the fact that she started learning English on her own, the girl said:

> Life is what you make of it. And this is what I'm doing. I'm not sitting and complaining but acting. I want to study in the future and I need to know English. I think that if you do nothing you are just lazy. (subject 27, PS girl, age 17)

The above quotation indicates a strong interdependence between motivation to pursue personal goals and autonomous actions undertaken by the respondent to learn English. These actions were indisputably effective since the girl was one of the best students in English and scored highly on the achievement test administered during the research. Two teachers expressed admiration at the way in which the girl was able to organise learning, particularly by managing her time, balancing the normal rigours of secondary school life (doing homework, chorus rehearsals, extra-curricular art and craft classes) with scheduling language learning.

Insights from the interview sessions also revealed how a lack of independence may have a detrimental effect on functioning in life and school situations. The BL, the 15 year old boy (subject 14; AS score 23 and AT score 10) suffered not only from a lack of residual vision but also epilepsy. What is more, he was hard of hearing and was using a hearing aid. While the boy conveyed his comfort level with his visual disability, he was not ready to accept the fact that his hearing deteriorates. 'The only good thing about my hearing deterioration is that I will finally have a different statement of special needs and probably I will not have to attend English classes', stated the boy. The boy was not fond of language learning and did not see any practical application of language skills in his life. He had awareness of being an underachiever in English and blamed language teachers for his lack of motivation to study. The boy expressed his fascination with cars and car races.

During the interview, the respondent displayed stereotypies and problems with accommodation in a conversation. At the beginning he appeared to be calm, shy and introverted; he cheered up when he found out the researcher arrived by car. 'I can answer all your questions but first tell me about your car's engine capacity', the boy stated nonchalantly. In time the respondent opened up and started telling jokes about the blind, which was perceived by the researcher as a strategy to build his low self-esteem. With regard to learner autonomy the boy was not able to say much.

I don't know whether I'm independent or not. I used to do more things in the past. You see, I still have an excellent recollection of colours, the printed words, shapes, objects and even the lay-out of my house and school. I don't do anything about foreign language learning. What for? After graduation I will not work or study. I need individual classes because my hearing deteriorates and I can't hear the teacher properly when he is far away from my desk and speaks so quietly. This is why I'm the poorest student in my group. (subject 14, BL boy, age 15)

When the researcher asked him whether he was trying to listen to any audio recordings if he cannot hear the teacher properly the boy answered timidly 'I would do it but I did not know there are any'.

The interview excerpt illustrates the problem of many VI adolescents, particularly these with multiple disabilities, who are frequently demotivated to study an FL and discouraged from taking autonomous actions. The boy's answers reveal that he is not ready to be in charge of his learning and attributes his poor performance in English to external factors such as hearing deterioration and teachers inability to accommodate to his individual learning needs. The boy's teachers expressed their opinions about the boy's independent learning and study habits making a point that the student is not only disorganised but also lazy, which they perceived as a consequence of vision loss and typical adolescent behaviour. It needs to be observed, however, that it is much more difficult to organise learning for the BLL than for the PSL. The former is not able to highlight information in textbooks, utilise colour coding or use a number of other techniques which are traditionally employed by FSLs in maintaining ongoing organisational skills.

General locus of control/locus of control for success and failure

The qualitative data collected during the interviews is consistent with the quantitative data. The quantitative study results indicated that generally there are no significant correlations between LOC sum/LOC success/LOC failure and attainments in English (statistically significant correlation was only proved for LOC failure for the BLs) (see section 3.5.9 on research limitations which sheds more light on the nature of the phenomenon). The interviews also indicate that there is no systematic relationship between LOC types and attainments in English. Good grades in English and positive opinions of the language teachers about the VI students' attainments did not always correspond to the students' internaliser or externaliser profiles.

Nevertheless, attention should be drawn to the fact that the interview data confirm the trend observable in the quantitative analyses, namely the opposite direction of LOC sum–AT correlation in the PS and BL groups. The PSLs in the interviews were more likely to attribute their low attainments in English to external factors than the BLs who attributed them to internal factors.

The analysis of the interviews revealed that most interviewees, i.e. 16 VILs had external LOC (76%) whereas 5 VILs had internal LOC (14%). The respondents agreed on the point that their beliefs about success and failure attributions impact language attainments. 'I would do better in English if I believed more in my abilities and did not feel I'm not capable of achieving success in English only because I'm al-

most blind', reflected a PS 15 year old girl (subject 9; LOC sum score only 14 points; AT score only 9 points).

Among the internal attributions for success the respondents listed: 1) hard work (effort), 2) patience, 3) language aptitude which they called 'talent for languages' and 4) cheating on a test; whereas for failure they identified attribution related to 1) laziness (lack of effort), 2) lack of language aptitude, 3) vision impairment and other disabilities, and 4) lack of concentration on a test.

With regard to the external attributions for success they listed: 1) chance and luck, 2) parents and teachers' contribution, 3) easiness of a task/test whereas for failure they identified such factors as 1) teachers' unfairness or mistakes; 2) test or task difficulty, 3) lack of materials accommodation to the student's needs; 4) discrimination of their disability, and 5) bad luck.

An interesting case worth discussing here is a PS 15 year old boy (subject 16; LOC sum score 31 and AT score 23). Before the proper interview the participant shared his general experience with language learning. He stated that he made friends from England via online chat rooms and Skype, which made him motivated to study the language. The boy spends much time keeping updated on the activities of his favourite English football team. He watches football games on the English channels. 'I know all football statistics of my team. In the future I will give a running commentary of football games. You don't need to have good eyesight to be a sports announcer', the boy explained. The researcher's impression was that the boy was as passionate about sports as about English.

In the first interview session devoted to autonomy, the respondent listed a number of actions he took to be successful in English such as using online language learning resources, practising English in online communication with football fans from England, organising his learning by highlighting black printed vocabulary to study with a yellow colour marker. He believed he was independent in life which he confirmed with the photos from the horse riding camp.

During the interview sessions, the boy displayed emotional maturity and used sophisticated language, which appeared to the researcher to be far beyond his age level. Being posed the question of whether his successes and failures in life and language learning depend entirely on him, the boy said:

> If anything good happens in my life or I write an English test successfully I'm happy. It's a reward for my patience and hard work. I'm eager to be a sports announcer and I think this dream motivates me to study hard. And also competition with other classmates ….
>
> If I fail a language test it's usually because it was too difficult or the print was not large enough. Sometimes my teacher was not fair. I was improperly scored at ten points instead of eleven points. All in all, he is the best teacher ever. … I wish I could speak with an accent which he has. When he praises me I feel like studying more.
>
> I don't know whether my approach impacts positively my learning. I guess it does because I have satisfactory grades. Whether my failures happen in life or at school I try to handle them. I don't allow my failures to defeat me. I guess I learn from them. (subject 16, PS boy, age 15)

The respondent has an internal attribution for success. He believes he owes success to his working hard. He has a strong desire to become a good language learner

in order to achieve success in life. The boy evaluates his language teacher very positively; yet attributes his failures to the teacher's mistakes. The respondent also attributes his failures to task difficulty and a lack of test accommodation to his individual needs. It is apparent that the respondent developed an external attribution for failure.

The participant's high LOC sum score (31 points) indicate that despite his external attributions for failure, the boy is a typical internaliser. He has a good self-image of himself as a learner. During the interview, the respondent admitted that his competitive spirit gave him the impetus to surpass his classmates in achieving higher scores in English. He also tried to avoid the mistakes he made in the past. The boy, being a typical internaliser, is very sensitive to the teacher's feedback and wants to be perceived positively by him. This also makes him feel successful. His teachers, however, argued that the boy is not as successful as he thinks about himself and pointed to his problems with sustaining motivation. 'He's got great potential and motivation but easily gets discouraged when he faces a failure such as a bad grade'. and 'He fluctuates from being enthusiastic about learning something to negating the sense of learning it. I think it happens when he realises his vision deteriorates and aggression and self-destruction appear instead of enthusiasm'.

It needs to be pointed out that external attribution for failure appeared in all the interviewed PS participants. One of them (PS 17 year old girl; subject 26; LOC sum score 23; LOC success score 16 points; LOC failure score 4 points) expressed her viewpoint on failures that happened in her life in the following way:

> I don't believe bad things in your life depend on you. I did not choose my nearsightedness or epilepsy. I guess this is God who determines them. In my language learning I was hit so much by bad luck. I could not get my course book in large print in a timely manner and I think this is why at the beginning, I was extremely far behind my classmates. (subject 26, PS girl, age 17)

The story of the BL, 16 year old girl (subject 23; LOC sum score 25; LOC success score 9, LOC failure score 16 points; AT score 10 points) illustrates how internal attributions for failure (belief in lack of abilities) are detrimental to the girl's motivation to study English, which is in turn reflected in her poor grades in English.

> I know I'm a failure in English. I guess it's not so much because of my blindness but because of my lack of talent for languages. I have poor grades in English because I cannot concentrate on a test and I'm too shy to raise my hand when I know an answer. I know I'm very critical about myself. I easily give up and quit trying new things. I don't believe I can reach my desirable goals. (subject 23, BL, girl, age 16)

The girl's internal attribution for failure may be linked to her low self-esteem and negative self-concept. Adolescent learners are particularly vulnerable to emotional fluctuations and problems with self-acceptance; yet, in the case of this particular participant low self-worth and self-blame made her a sociably inadaptable person. 'She did not comb her hair or wore her clothes inside out. She just did not care about her appearance and did not realise she was a turn-off to peers', her boarding house tutor explained. Psychological intervention was necessary and in time it brought some minor changes in the girl's behaviour.

3.5.8. Conclusions

The study findings allowed the researcher to make the following deductions and provide the answers to the main (MQ) and specific (SQ) research questions:

— There is a positive relationship between coping competence and achievements in English (MQ1) in all the investigated groups (VILs, PSLs, BLs). It has been proved that higher coping competence enabled the VI participants to stay resilient to learned helplessness and perform better on the language achievement test than their counterparts with lesser coping skills. Moreover, these statistical results have been confirmed by the interview findings.
— There is a positive relationship between autonomy and achievements in English (MQ2) in all the investigated groups (VILs, PSLs, BLs). The VI participants with higher autonomy attained better results on the language achievement test than their counterparts with lesser autonomy. Also, a positive relationship was observed between two autonomy subscales, i.e. independence of learning, study habits and achievements in English (SQ1 and SQ2). The quantitative study results were confirmed by the findings from the qualitative study.
— It has been proved that there is no relationship between general LOC (MQ1), LOC success (SQ1 related to MQ3) and achievements in English in all the investigated groups (VILs, PSLs, BLs). Also, the interview findings confirmed the statistical results.

However, due to the multi-faceted nature of LOC failure, no unequivocal answer to SQ2 could be provided. On the one hand, no relationship between LOC failure and achievements in English was established in the VI and PS groups. On the other hand, in the BL group such dependence was observed. Some noteworthy trends were found: the BLs lower achievements in English were more attributed to internal LOC failure whereas in the PSLs to external LOC failure.

Interestingly, the interview data also revealed these regularities.

3.5.9. Research limitations

The researcher is aware of the limitations in the research design and methods of data analysis. The first limitation is related to the sample size. Due to economic and other logistical limitations, the researcher was not able to employ a greater number of VI participants. The research was originally planned to be conducted in the four centres for the blind and partially sighted scattered around Poland. Yet, after taking the preliminary steps the lack of funding body meant that the researcher had to withdraw from continuing such a costly scope of research. Another limitation related to the sample is the disproportion of the blind and partially sighted representatives in the sample, which had an impact on the statistical and inferential aspects of the research.

It should be noticed, however, that blindness is regarded by educators within the field of visual impairments as a disability of very low incidence, which makes it difficult to carry out research with this group of learners. Due to the reasons presented above, the research results presented herein should be considered with caution. Applying any overgeneralisations to a wider population of the VILs seems unjustified.

The fact that no correlation was observed between LOC types and attainments in English may be due to a small sample size but also the impact of extraneous variables such as each VI participant's health condition or test anxiety, which might have affected the results of the achievement test administered by the researcher. Moreover, the fact that only one achievement test was administered might also have influenced the statistical calculations. The likelihood of observing trends would be higher if more achievement tests had been administered.

Also some limitations related to the instruments use were noticed. In the pilot study the VILs did not have any difficulty in understanding the questionnaire's format and the written instructions such as 'indicate the right answer' or 'mark the answer with which you agree more'. The PSL used a magnifying glass and marked the answers correctly by circling them. The BLL, in turn, was not able to circle or underline the correct answer with the use of a standard manual Braille machine. Therefore, he was orally requested to Braille type the selected answer on the answer sheet, marking the Braille number of each question and the Braille letter for the correct answer (e.g. 1 b).

Nevertheless, in the current study, the BL respondents had problems with filling in the answer sheets despite the written instructions that appeared on the top of the questionnaires and the oral explanations provided by the researcher. Some BL participants typewrote the answers (e.g. a or b) but forgot to typewrite the number of questions whereas others expected the researcher to mark the answers in pen for them. The reason for misunderstanding the instructions was probably the fact that the BL students were not experienced in taking multiple choice tests.This problem has implications for research using multiple choice formats with groups that might misunderstand instructions. It is recommended that researchers practice such tests with BLs prior to the proper test administration.

Another shortcoming of the study related to the instruments was ambiguity of some items in the LOC questionnaire. The VILs' comments indicated that the two options provided in the questionnaire items (4, 9, 13, 18, 23, 28, 32, 36, 41) were felt to be ambiguous or inappropriate (e.g. the item 18 'Would you like to be a. an architect or b. an actor'). The VI participants did not know what answer to mark if none of the options appealed to them. This ambiguity did not have any impact on the final questionnaire outcomes as all the problematic items were not diagnostic but distracting. Nevertheless, it disorganised the questionnaire administration procedure as the VI participants turned to the researcher for clarification of the ambiguous items.

Finally, a point should be made with regard to the qualitative part of the research. The interview sessions might have been flawed with bias, particularly social acceptability bias. The researcher had the impression that some VI participants, who had in the past been the researcher's students, might have said what the researcher wanted to hear to gain her acceptance. They also seemed to hide the information which could re-

flect poorly on them. Though social acceptability bias is intrinsic to all human research design, it is recommended to control its effect in the further research.

3.5.10. Psychotherapy-based FL Teaching Model — researcher's proposal

The study has proved that affective factors such as coping competence, autonomy and attributions (at least those developed for failure by BLs) have an impact on FL attainments. Since these factors appear to play a role in predicting successful language learning, they should be highlighted in teaching an FL to VILs. For this reason the researcher developed an integrated psychological and methodological model of teaching — **Psychotherapy-based FL Teaching Model**. The Model is intended to guide language teachers on how to help learners with visual impairments to progress in their language learning.

The Model highlights three phases; the first two are preparatory phases prior to introducing psychotherapeutic, coping and autonomy enhancement strategies. The phases are as follows:

— The VIL's emotional condition evaluation,
— Individual strategies plan (ISP) development,
— Implementation of psychotherapeutic strategies, coping strategies and autonomy enhancement strategies

In Figure 3.6 the three-phase Model is presented.
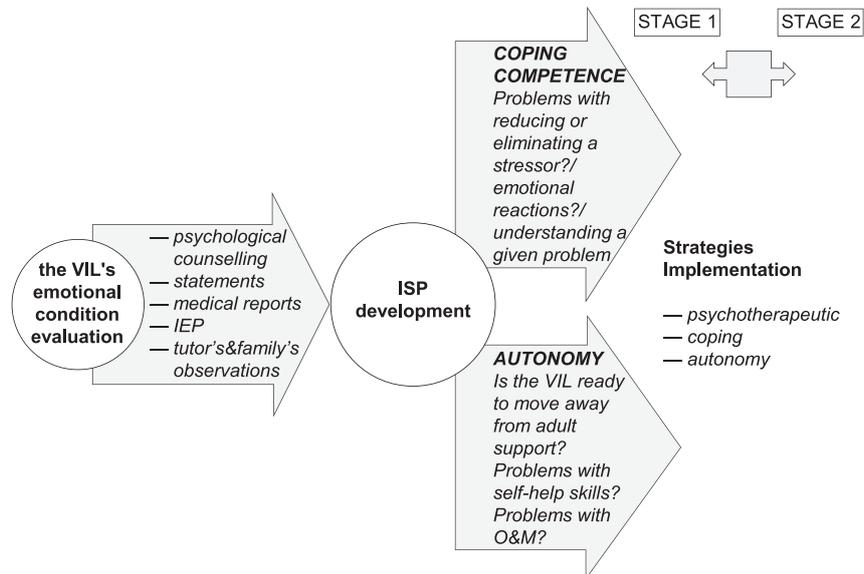
Figure 3.6. Jedynak's Three-phased Psychotherapy-based FL Teaching Model

With regard to the VIL's emotional condition evaluation (see the first phase), it needs to be stressed that psychological counselling is indispensible at this phase. Moreover, the FL teacher should get acquainted with the VIL's statements, medical reports and IEPs. Also, cooperation with the school counsellor, the tutor, and the VIL's family is advisable since all these parties may provide valuable information about the unique affective characteristics of the VIL. The VIL's affective profile enables the FL teacher to develop an ISP (see the second phase). While developing an ISP, the FL teacher should establish what strategies will be congruous with the specific emotional problems encountered by the individual VIL, e.g. emotion-focused strategies will be appropriate if the learner overreacts emotionally while facing a problem. The last phase consists of the ISP implementation.

It needs to be pointed out that the core of the Model is affect and its role in FL learning. Yet, the cognitive aspect of learning has not been omitted. Cognitive growth manifested in the improvement in FL achievements, constitutes a final product of psychotherapy-based FL teaching.

The main premise of the Model is that the VILs who experience problems in the affective domain and are underachievers in a language classroom, need the FL teacher's help to make the transition from Stage 1 to Stage 2. Stage 1 corresponds to negative emotional states related to 1) *the feeling of helplessness*, and 2) *the feeling of being dependent on others*. Stage 2, in turn, reflects desirable affective states such as 1) *resilience to helplessness* related to perseverance, optimism, hope, self-confidence and 2) *autonomy* related to independence and study habits. All these positive states are a product of the strategies treatment (the third phase in the Model) which combines the strategies commonly utilised by FL teachers (e.g. the ones related to increasing coping competence and learner's autonomy) and those applied by psychotherapists.

The psychotherapeutic approach, which bears resemblance to the humanistic approach, requires from the FL teacher the building of a specific relationship between him/herself and the VIL, which is based on mutual trust. It should be grounded in dialogue in which the VIL can talk openly with the teacher about his/her problems, not necessarily those related to FL learning. The prerequisite of such a bond is the provision of a supportive environment in which the FL teacher is objective, neutral, and nonjudgmental.

The psychotherapeutic FL teaching approach is not about the FL teacher telling the VIL what to do (e.g. 'Stop complaining and start doing English homework, it's your life so make the most of it'). It rather leads to problem identification and then fixing the problem by the VI. The psychotherapeutic strategies trigger the VIL's self-reflection (identifying a problem e.g. 'I feel an overwhelming, prolonged sense of helplessness and sadness') and self-assessment (establishing a reason, e.g. 'I'm too dependent on adults' help'). In effect they allow the VIL to work out his/her own solutions to problems rather than using the ready-made solutions imposed by others (e.g. 'I think it's high time I started using a Braille embosser on my own').

The approach requires a skilful, empathetic FL teacher who knows how to make the VIL explore the problem. A typical problem exploration strategy is based on devising questions which stress 1) the VIL's feelings, and 2) the VIL as the agent capable of making changes. It is worth noticing that the word 'problem' does not appear in the questions. The exemplary questions may be as follows:

— *How do you feel?*
— *What makes you feel like this?*
— *What would it take to make you feel better?*
— *If you could wave a magic wand what changes would you make happen?*

It should be stressed that the FL teacher who will be guided by the Model does not require psychological training to be able to implement the abovementioned psychotherapeutic strategies.

The FL teacher can also use a wide range of strategies which we do not commonly associate with psychotherapy, such as these aimed at increasing coping competence. Among them there are *problem-focused strategies (adaptive behavioural)*, *emotion focused strategies* and *appraisal-focused strategies (adaptive cognitive)* (Weiten and Lloyd, 2008: 62). The first type of strategies aims at reducing or eliminating a stressor. They should be used when the VI faces a stressful situation yet can exert a high degree of control over the situation. The second type of strategies is directed towards changing the VIL's emotional reaction. They should be used when the VIL experiences stress while learning an FL yet has a low degree of control over the situation. The last type of strategies aims at changing the VIL's cognitive assumptions about a given problem.

In practice the FL teacher should eliminate the VIL's maladaptive and non-coping strategies (e.g. anxious avoidance, safety behaviours, dissociation, escape including self-medication, sensitisation) and enhance adaptive, constructive coping strategies (e.g. anticipation, social support, humour or even using physical exercises and relaxation techniques in an English class). Above all the VILs need a positive role model — a person who despite his/her impairment copes successfully with life challenges. Such a model may be provided in an English class. A presentation of a dialogue in which the blind person demonstrates his/her O&M skills while travelling to a railway station, does shopping or buys a ticket may enhance the VIL's coping competence. Also essential is the FL teacher's positive and constructive feedback which enhances the VIL's self-confidence, hope and optimism. In section 2.4.3.3.7 one may find the examples of coping strategies, which may not just change the VIL's approach to FL learning but also to life in general.

The implementation of autonomy development strategies, in turn, may be burdened with a risk of failure if the VIL has problems with independence, specifically self-help and O&M skills. The VILs should be encouraged to move away from adult support and class-based activities towards autonomy and self-advocacy to be pre-

pared for life challenges beyond school. Therefore, the FL teacher should change his or her roles from being providers of information to managers of learning resources and facilitators of the learning process. In this way, the VIL learns how to solve his/her problems with the teacher acting as a guide and counsellor rather than instructor. In effect the learner starts being in charge of his/her own learning. In an FL classroom, the teacher can engage the VIL in all class activities, thus developing his/her independence (e.g. bringing teaching aids from the teacher's box or collecting coursebooks from classmates). Above all, the FL teacher should maintain expectations of high academic standards and make the VIL do each task for himself/herself instead of doing the task for the VIL. This translates into 1) assigning homework and project work, 2) enhancing self-assessment, reflection and learning about study habits through application of the ELPBVI, and 4) encouraging the VIL to use new assistive technologies. In section 2.4.3.3.8 one may read more on the strategies enhancing the VIL's autonomy.

Figure 3.7 illustrates the effects of the application of the three-phased Model from the VIL's perspective.
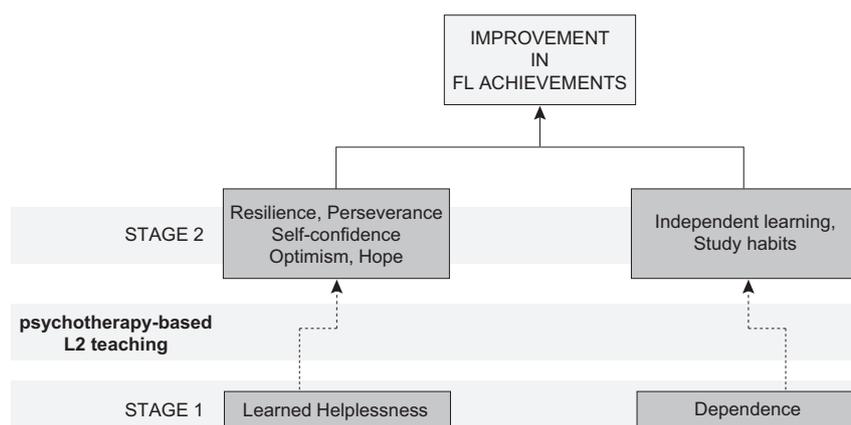
Figure 3.7. Effects of the Psychotherapy-based FL Teaching

It needs to be pointed out that the Psychotherapy-based FL Teaching Model is based on the author's research findings presented herein as well as her personal classroom observations. Scientific research is required to verify the effectiveness of the Model.

As one can notice, the Model lacks external/internal attributions. There are two reasons for it. First, the author's study has not proved their impact on FL achievements, apart from LOC failure in the BLs group. Secondly, it is arguable which of the two LOCs for failure, internal or external, is more desirable and hence should be targeted by FL teachers. On the one hand, the BLs with internal LOC failure can be underachievers in an FL, which makes them feel inhibited or even depressed. They might need specialist help to have their LOC modified. On the other hand, such

learners, feeling responsible for their failures, may strive harder to achieve success in an FL. As one can see, human attributions are multi-dimensional and frequently unpredictable.

3.5.11. Research implications

The researcher conceptualised this quantitative-qualitative study as a work which intended to be pedagogically-oriented. The presented findings bear implications primarily for FL teachers and decision makers involved in language education policy; yet, families may also find some practical guidelines on how to help their VI children to progress in FL learning.

3.5.11.1. Language teachers

As has been repeatedly stressed, too much emphasis is put by in-service FL teachers on various ways of enhancing the VIL's cognitive potential, particularly their rote learning abilities, while his or her affective potential is not duly appreciated. The research findings presented herein may raise awareness of FL teachers on the necessity to implement special teaching programmes combing the elements of language and psychotherapy to improve VILs' FL attainments. The psychotherapy-based FL teaching calls for implementation not only in a classroom setting but also in individual face to face teaching. In addition, FL teachers should involve parents in issues affecting the language success of their VI child such as their aspirations and expectations related to the child's independent living or coping skills.

It is also vital to sensitise pre-service FL teachers intending to work in the field of visual impairment on the role of affect in ultimate FL attainments of the VILs. This knowledge should be communicated by teacher trainers at university level or by teacher mentors at induction or early teacher career stage.

3.5.11.2. Decision makers

When it comes to planning effective instruction for VILs, traditional sources of insight and guidance can be enriched with the elements of psychotherapy-based FL teaching. In order to encourage FL teachers to test this type of teaching in practice and develop their own insights about the Model, promotion of affective education among FL teachers is necessary. Implementation of affective education would develop in VILs the personality traits, which give a solid foundation to FL learning.

The following decision makers may play a significant role in this process:

— *Ministries of Education or their representatives*
These institutions may initiate a project aimed at making a shift from cognitive education to affective education (the Finnish education system is a good practice example, for details see Commentary 3.8).
— *Policy makers*
They may develop language policies in the context of learners with visual impairment highlighting the importance of affective language teaching.
— *Educational advisers and inspectors*
They may promote affective language teaching among FL teachers pointing to its advantages.
— *Curriculum developers*
If affective language teaching is validated by policy makers, curriculum developers will have to consider the new policies and incorporate them into pre-existing curricula.
— *Professional bodies, networks or associations dealing with language teaching or training of multipliers.*
They may promote affective language teaching via professional publications and websites as well as conferences and workshops for FL teachers.

3.5.11.3. Family

The role of significant others in the VIL's life is indisputable. The interview findings presented in this chapter indicate that parents play a significant role in fostering autonomous behaviours of VILs, and enhancing their perseverance to learn an FL.

From the early years parents communicate information to their VI child that affects his or her affective state and consequently FL achievements. They may either trigger the child's autonomy and coping competence or hinder them. As has been highlighted in Chapter 2, overdependency and overprotection of parents can significantly decrease the VI child's independent living and coping skills. It may happen when parents cannot reconcile with the VI child's disability and/or convey attitudes that the child is incapable or inadequate. Parents may also impact the child's ability attributions generating appropriate feedback and encouraging or discouraging the child from making an effort while learning an FL.

Since some parents may not be aware of the extent to which they affect the VI child's FL achievements, FL teachers should collaborate with the student's family so as to share information concerning the VIL's emotional needs and advocate on how parents can help their VI child to attain success in FL learning. In this process there is a role for fathers, who need to be more involved in their VI child's education. As Hietsch (1986) found in her research, disabled children tended to perform better when their fathers as well as their mothers were involved in their education.

3.6. Further research

FL learning and teaching in the context of VILs is a grossly underresearched area. Hence, there is a myriad of untapped venues for future research. Researchers may feel tempted to continue the study presented in this chapter. Due to research limitations the study did not prove a statistically significant correlation between LOC and FL attainments. Therefore, it seems advisable to replicate the study with a larger sample consisting of more BLs. It is also recommended to continue research with other affective factors such as anxiety, motivation, or self-confidence to investigate their role in FL learning. It is also suggested that more practical research on affective factors should be carried out, for example on the effectiveness of the Psychotherapy-based FL Teaching Model.

The scarcity of research devoted to FL learning and teaching in the context of VILs is specifically visible when one browses the *Journal of Blindness and Visual Impairment*, which is the leading publication of blindness-specific research in the USA. It should be pointed out that many articles discuss issues related to the field of visual impairment (e.g. social interaction, adaptation of teaching styles, or effectiveness of specific adaptive technologies). Nevertheless, these issues have been explored in their own right and have not yet been explored in conjunction with the topic of FL learning or teaching.

3.7. Summary

The main objective of the research presented in this chapter was to investigate whether there is any dependence between affect and FL attainments of VILs. The research focused only on the three selected variables — coping competence, autonomy, and locus of control.

The construct of coping competence refers to the dispositional stress resistance factor based on the helplessness and hopelessness theory. It was operationalised as the number of points obtained by a VIL on the Coping Competence Questionnaire (CCQ) developed by Schroder and Ollis (2010). The construct of autonomy, in turn, refers to the ability to take charge of one's FL learning through engaging in independent FL learning and applying study habits. It was operationalised as the number of points a VIL obtained on the adapted Macaskill and Taylor's (2010) autonomous learning scale with two subscales for independent learning and study habits. The construct of locus of control refers to the extent to which VI individuals believe they can control events affecting them. It was operationalised as the number of points the VIL obtained on each of the LOC scales (success scale and failure

scale) developed by Krasowicz and Kurzyp-Wojnarska (1990). The construct of FL achievements refers to FL learning and evaluation of the VIL's understanding of an English course. It was operationalised as the number of points a VIL obtained on a structured achievement test in English. The test, questionnaire and scales used in the study were adapted to the VIL's needs (Braille format for BLs or large print and yellow highlighting for PSLs).

A mixed method approach comprising quantitative and qualitative research methods was applied in the study. A twofold research procedure was used: first the VI research participants were requested to fill in the questionnaires and the test, and then they took part in a semi-structured interview.

The subjects selected for the study underwent a screening procedure. Though 30 VILs were initially recruited to participate in the study, the target population consisted of 28 subjects, 21 PSLs and 7 BLs. Detailed data on the VILs was collected. It included such aspects as age, gender, eye condition, residual vision, sensory learning, social and behavioural aspects. The research was carried out in a boarding house adjoining the Lower Silesian Special Educational Centre No 13 for the Blind and Partially Sighted in Wrocław, in the south-west part of Poland.

The pilot study compelled the researcher to refine both the data collection instruments and the treatment. In the proper study the quantitative data was computationally analysed by means of SPSS (version 15.0) whereas the qualitative data collected from the interviews was not quantified. In order to provide answers to the research questions, Spearman's rank correlation (rho, r_s) was calculated for the BL and PS groups, first collectively and then separately.

The qualitative research findings indicate that there is a positive relationship between coping competence and FL achievements in all the investigated groups. A positive relationship was also observed between autonomy and FL attainments. With regard to the LOC impact on FL attainments, a statistically significant correlation was only observed for LOC failure in the BL group. The results of the statistical analysis have been confirmed by the interview findings. Due to research limitations related to a small sample size and inadequate questionnaire instructions, one should treat the research findings with caution and not generally apply them to all VILs or learners with other impairments.

Since it was proved that coping competence and autonomy are predictors of successful language learning, the researcher developed an integrated psychological and methodological model of teaching — the Psychotherapy-based FL Teaching Model. The Model intends to guide FL teachers on how to help VILs to progress in FL learning. The research findings stress the importance of affective education and call for actions from FL teachers, decision makers involved in language education policy and VILs' families.

3.8. Commentary

Spinelli (1989: 145) made a note that FL teachers 'can help students to compensate for the lack of visual support by capitalising on the use of oral skills and the use of discussion'. In light of the research findings presented herein one can also add that FL teachers can help VILs to make use of their learning potential by highlighting affective aspects of language learning. This is in line with **affective education** based on the premise that in order to learn traditional subjects, a learner must first develop his or her aspects of personality such as emotions, attitudes, and belief systems.

Affective education can be linked to such psychologists as Abraham Maslow, Carl Rogers, Arthur Combs or Earl Kelley who stressed in their works the importance of perception and personality in learning. They laid a considerable stress on self-concept, interpersonal relations, and the search for personal meaning in the curriculum. Moreover, they proposed that school should enhance personal growth by becoming more humane and less custodial. Their ideas gave rise to programmes and practices, which are generally labelled **humanistic education**.

Affective education also fits well with **positive psychology** having roots in humanistic psychology. In fact, positive psychologists found empirical support for the humanistic theories. This branch of psychology focuses on the individual's emotions and their role in his or her own well-being. One of the three founding pillars of positive psychology is positive experience, which is also stressed in affective teaching.[76] As a response to the learned helplessness theory, positive psychologists posited the learned optimism theory and good life theory. The latter posited by Seligman, a founder of positive psychology, seems particularly relevant to individuals with visual impairment. In line with the theory, an individual who experiences posttraumatic stress disorder (PTSD) following a traumatic event such as for example an unexpected loss of vision or a sudden vision deterioration is likely to experience an increase in well-being, higher than it was before the trauma occurred. This posttraumatic growth (PTG) leads to 'good life' in which the individual perceives life as more meaningful, develops better relationships, and becomes more optimistic and open (for details see Seligman's works, e.g. Seligman, 2011 or Seligman and Csikszentmihalyi, 2000). In view of this theory, affective language teaching may be successfully provided by FL teachers to help the VIL recognise that the trauma which occurred in their lives gives them an opportunity to use the tools at their disposal to make the most of life.

It should be noted that elements of affective education may also be found in SLA approaches, theories, hypotheses, and studies. Apart from the humanistic lan-

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[76] The other two pillars of positive psychology are positive relationships and positive institutions.

guage teaching approach, which has already been mentioned, affect also emerges as an important aspect of Krashen's affective filter hypothesis, Gardner's theories of motivation and positive attitudes, self-language learning theories or good language learner studies.

Affect has long attracted attention of SLA researchers. Research on the relationship between affect and FL learning proficiency and the resulting implications for FL teachers abounds in the literature. Yet, one may raise a question to what extent theoretical deliberations on affect translate into classroom practice. The author feels compelled to say that cognitive FL education still prevails over affective language education, both in special and regular schools. This situation may be put down to the fact that too much emphasis is placed on testing these days to prepare students for final or entrance language exams. FL teachers being held more and more accountable for the academic fortunes of their learners, spend too much time in a class being preoccupied with teaching strategies for passing these exams. Consequently, regular and excessive language tests distract FL teachers from their primary task, namely teaching a language. Teaching to tests instead of teaching for real-life communication is a problem inherent in many EU language education systems (for details see Jedynak, 2015b). FL teachers being overwhelmed with test administration and related paperwork can hardly find time to implement affective language teaching. Therefore, as has been stressed in the Research implications section, decision makers need to contribute to a shift from cognitive education to affective education. This has already been achieved in Finland, which is found to have the best education system in the world (the Economist; the Intelligence Unit for Pearson).[77] The Finnish education system has abandoned the evaluation-driven, centralised model which is widely used in the Western world. A shift from formal tests and examinations to assessment based on tutorial and class presentations or home assignments allows Finnish FL teachers to spend more time in each class on practising language communication and implementing affective education programmes. Such programmes aim at improving FL learners' affective traits, training them to cooperate with other people effectively, and helping them to develop a sense of how they learn languages best.

Integration of affective education into VILs' classrooms is undoubtedly more difficult than in regular classrooms since VILs are exceptionally heterogeneous in terms of their emotional needs. However, such integration can be attained if it is implemented at three levels and FL teachers are supported by their institutions. It should be noticed that the three levels of affective language education are interrelated and constitute the three inseparable pieces of a puzzle (see Figure 3.8).

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[77] The data comes from the report published by Pearson and written by The Economist Intelligence Unit. The report is a part of a wide-ranging programme of quantitative and qualitative analysis, entitled The Learning Curve. For more information see http://thelearningcurve.pearson.com/.
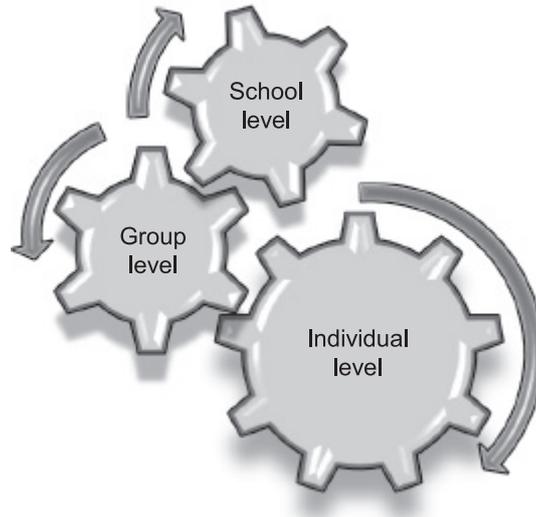
Figure 3.8. Three levels of affective language education

At the individual level FL teachers need to direct their focus on the individual development of VILs. This is what the Psychotherapy-based FL Teaching Model is basically about. A starting point for the FL teacher should be the understanding that 1) each person is unique and different from every other person and 2) VILs, despite their impairment, have the same emotions and needs as other people. VILs have feelings of self-worth and well-being; yet, sometimes they need teachers' help to enable them to experience and identify these feelings. VILs also experience such feelings as frustration, anger, guilt, confusion, embarrassment, boredom, or pride. They need teachers to make them aware that these feelings can also be identified in others and that these feelings are frequently reflected in the way people treat other people. FL teachers, unlike other subject teachers, have more opportunities to affect students' emotions since language classes allow communication and various types of interaction inextricably linked with expressing emotions. Role plays (e.g. in a restaurant or showing directions to a particular destination) and class discussions (e.g. for and against argumentative discussions) may be particularly helpful in affective FL teaching since they help VILs to:

a) acknowledge both positive and negative feelings in themselves and in other people,
b) understand that both types of feelings are legitimate,
c) share their feelings with others,
d) increase VILs' awareness of the various ways to respond to the feelings and behaviours of other people,
e) make choices in life,

f) enable VILs to feel comfortable asking for help from other people and understand when it is appropriate,
g) understand the difference between allowing people to help them when it is not needed,
h) understand the long-term results of being too dependent on other people,
i) understand the connection between being in control of one's life and taking responsibility for what happens in life.

It is also worth mentioning the role of positive feedback, which may help VILs feel they are valuable and contributing members of society.

At the group level, FL teachers need to focus on the interpersonal relationships between VILs, for example by assigning group work or projects which enhance VILs' autonomy, motivation and increase self-esteem. While working in groups VILs develop their sense of belongingness, which makes them more adapted to the school environment. They learn not only strategies for making positive relationships with other classmates but also how to respect other people's views. In this way social awkwardness and antagonistic behaviours are eliminated, which helps VILs to cope successfully with problems they encounter outside the classroom. At this level VILs develop their interpersonal intelligence skills which are vital for each person to function successfully in life.

Successful integration of affective education is not possible without the support of the class tutors, paraeducators, vision and Braille teachers, O&M trainers, year heads, guidance counsellors, school principals, home-school community liaison coordinators and other staff who should create the atmosphere of concern toward VILs. In the adolescence period when VILs face problems related to identity crisis or peer pressure, they will particularly need support and guidance from school. Once their emotional needs are met they are more likely to be successful in FL learning.

FINAL THOUGHTS

The European systems have been attempting to respond to pupil diversity through the provision of inclusive education and obligatory FL education; yet they face many challenges which have a bearing on the success of the attempts. One of the challenges is related to the transition from the integrative school to inclusive school system. It needs to be noted that the implementation of inclusive education is counter-productive in some European countries (e.g. in Germany or Poland) where most SEN learners are still schooled in special schools. In Spain, however, 95% of the visually impaired pupils are mainstreamed in ordinary schools (cf. Professor's Roqueta speech at the ICEVI conference).[78] It seems that equal education will remain just a slogan unless more effort is made towards more inclusive policies. Such policies need to be reflected in overall policies for curriculum and assessment, and in the strategies, which make clear the roles of teachers and other people involved in inclusion services. Since any educational improvements are dependent on the skills of teachers, there is a need to introduce special training for both pre- and in-service teachers. Apart from Spain, a good-practice example may be Hungary where after the comprehensive educational legislation reforms, inclusive education became reality.

The 2009 ICEVI conference in Dublin with the main theme *Living in a Changing Europe* addressed the issue of the challenges the specialists and organisations in the field of visual impairment face in the 21st century. Among them there is the phenomenon of digitalised development. The conference participants agreed on the point that education of the visually impaired needs to keep up with technological changes. Virtual learning environment should become a fundamental tool to support the pupils and their language teachers, support teachers and families. It is believed that the construction of a virtual classroom based on the Moodle platform will enable the students with visual impairment to enter into dialogue, participate actively and share on the learning process, and share their materials and experience with other learners.

The introduction of inclusive education, staff training and virtual classroom construction requires considerable funding. The depressed economic situation in Europe and cost-saving policies seem to have prevented expenditure on various initiatives related to education of the visually impaired. Yet, the gradually improving economic growth gives hope for change.

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[78] The conference of the International Council for Education of People with Visual Impairment took place in Dublin on July 5th–10th 2009.

Glossary of terms

Adaptation	The modification of instructional materials to the needs of students who have visual impairments. *See also* Auditory adaptations, Tactile adaptations, and Visual adaptations.
Adaptive technology	*See* Assistive technology.
Adventitious blindness	Loss or impairment of vision that occurs after birth, usually as a result of an accident or disease. *See also* Congenital visual impairment.
Affective communication	A social skill that enables individuals to communicate nonverbally, that is through actions, gestures, visual expression, and body language.
Assistive technology	Equipment used to help individuals compensate for the loss of vision or a visual impairment such as speech, Braille, and large-print devices that enable a person who is visually impaired to use a personal computer and software programmes.
Assistive technology assessment	A method of determining the most appropriate technological tool for current and future education tasks.
Auditory adaptations	Modifications of classroom materials into a format that can be heard.
Blindisms	*See* Mannerisms.
Body awareness	A conscious appreciation of the relationship of all body segments to each other and to objects. A mental picture of the physical parts of the person and their relationships to each other.
Braille	A tactile code of raised dot signs corresponding to letters. Each sign is a combination of dots within a six-dot cell. In Grade 1 Braille each alphabet letter is represented in embossed dots. Grade 2 Braille is a system of contractions and abbreviations representing combinations of letters and words with the aim of saving space and making Braille reading and writing quicker.
Braille literacy	A student's proficiency in using Braille to accomplish reading and writing tasks.
Braille printer	A computer printer that embosses Braille by using software to convert from print to Grade 2 Braille.
Braille writer	A machine used for embossing Braille.

Clearing	The process of checking to see if an area is free of objects. This can be done by sweeping a cane on the floor or ground, or by sweeping a hand on a surface, such as the seat of a chair.
Clues	Bits of temporary sensory information that can be used in orientation and mobility to tell where one is or the direction in which one wants to go. It can be sound, odour, temperature, tactile or visual stimulus.
Colour vision	The ability to discriminate different hues and saturations of colours.
Compensatory education	The knowledge and skills that make it possible for the student with a visual impairment to achieve educational objectives at a rate and level similar to that of his or her sighted classmates.
Concept development	The development of mental ideas of things, which is one of the building blocks for independence and an essential element in orientation and mobility training.
Congenital blindness	Loss or impairment of vision that is present at birth. *See also* Adventitious visual impairment.
Contrast sensitivity	The ability to detect differences in grayness and background.
Depth perception	The ability to perceive the relative distance of objects and their spatial relationship to each other.
Developmental delay	Refers to functioning at a level below expectancy for one's chronological age.
Directionality	The ability to physically move your body when given various positional terms: right, left, forward, backward.
Disability	A condition that exists when, in a particular setting, an individual cannot independently perform a specific set of functional activities.
Echolalia	Repetition of a phrase or word, that has been recently heard by the individual. Echolalia is also part of the symptomology of autism (Dunlea, 1989).
Echolocation	A technique used by the blind and visually impaired to avoid obstacles in their path. The best sounds used are tapping, hissing or snapping. Useful sounds are between 8,000 to 10,000 cycles per second (Dunlea, 1989).
Electronic magnification systems	Machines that produce enlarged images, including closed-circuit televisions, computer systems, and low vision enhancement devices.
Expended core curriculum	A curriculum that covers the unique, disability-specific skills, such as independent living skill and orientation and mobility skills, that students with visual impairments need to live independently and productively.

Experiential learning	An approach to teaching in which the environment is arranged to motivate children to explore, investigate, ponder, and question so they can construct knowledge for themselves.
Familiarisation	The process of learning the placement, arrangement and relationship of objects within an area.
Field of vision	The area that can be seen when looking straight ahead, measured in degrees from the fixation point (also known as Visual field).
Fixation	The process, condition or act of directing the eye toward the object of regard, causing, in a normal eye, the image of the object to be centred on the fovea.
Landmark	Any sensory information, such as a familiar object, sound, odour, temperature, or tactile clue, useful to an individual to assist him/her during independent travel.
Large print/type	Print that is larger than type commonly found in magazines, newspapers and books.
Legally blind	It indicates that a person has less than 20/200 vision in the better eye or a very limited field of vision.
Limit perception	The ability to distinguish between light and dark. It is suggested that this condition is similar to closing a sighted person's eyes and looking toward a bright light. LP allows a visually impaired person to find windows and distinguish if a light is on in an otherwise dark room (Dunlea, 1989).
Low vision	It refers to a significant visual impairment, but also having some usable vision. It applies to individuals with sight who are unable to read a text at a normal viewing distance, even with the help of contact lenses or glasses.
Low vision aids	Optical or nonoptical devices useful to persons with low vision.
Mannerisms	Stereotypical repetitive physical movements manifested with eye-poking, body-rocking etc.
Object perception	The ability to use sound and the absence of sound to locate and avoid objects in a travel pathway.
Occipital lobe	About 80% of messages from the eye go to the occipital lobe in the back of the brain where most of the seeing takes place and images are formed. The other 20% of messages go to the part that controls the eye muscles for eye movement, etc.
Orientation	The ability to use sensory information to know one's location in the environment and to know one's relationship to objects in the environment. Process by which a person who is blind or visually

impaired uses the remaining senses to establish his or her position and relationship to all other significant objects in the environment.

Partial vision Refers to those individuals who have some useful vision that allows them to function in society without major assistance. Most people with partial vision are able to read print with visual aids.

Residual vision Refers to the amount of light that is perceived by the eye and then interpreted by the brain (Dunlea, 1989).

Retinopathy Any noninflammatory disease of the retina including some that cause blindness.

Retinopathy of prematurity Previously known as retrolental fibroplasia (RLF). It is a disease of the eye affecting prematurely-born babies generally having (ROP) received intensive neonatal care, in which oxygen therapy is often used and advantageous.

Shadow perception The ability to distinguish when an object passes in front of their eyes. This allows the person with SP to tell when a large object is in their path (Dunlea, 1989).

Snell chart This chart was developed in 1862. It is still being used today in many different settings. The chart was developed to measure the normal eye sight and determine if there were any problems with acuity. It is based on a standard distance of 20 feet. Thus, a person with 20/20 visual acuity has normal eyesight. A person with 20/200 visual acuity can see at 20 feet that which someone with normal eyesight can see at 200 feet (Dunlea, 1989).

Tactile Modifications of classroom materials by the transcription of Adap-
Adaptation tation text, tests, handouts, and other written materials into Braille.

Tactile diagrams Tactile representations of pictures, graphs and maps.

Totally blind It refers to people who learn via Braille or other non-visual media.

Typhlopedagogy A branch of special education; it deals with all the issues when developing and teaching visually impaired children.

Verbalisms The use of words by blind children that have no meaning for them. Such examples are colour terms or situations that they have no first hand experience with (Landau and Gleitman, 1985).

Visual acuity It refers to how well a person is able to see from specified distances. A measurement of 20/20 denotes normal vision and objects seen from a distance of 20 feet can be seen with accuracy expected for that distance. If visual acuity is measured at 20/100, objects seen by the individual with typical vision at 100 feet must be viewed at 20 feet by the person with impaired vision.

Visual adaptations	Modifications of educational materials by enlargement, increased clarity and contrast, increased illumination, decreased glare, and decreased visual clutter so that a student with low vision is more successful in using his or her vision to complete a task.
Visual capacity	An individual's potential to develop visual efficiency.
Visual cortex	The area of the brain where visual information is received and interpreted for seeing.
Visual disability	A disability that causes a real or perceived disadvantage in performing specific tasks.
Visual efficiency	The degree to which specific visual tasks can be performed with ease, comfort, and minimum time, contingent on personal and environmental variables; the extent to which available vision is used effectively.
Visual environmental awareness	The extent to which children and adults with low vision are aware of objects in their environment.
Visual field	*See* Field of vision.
Visual functioning	The extent to which vision is used is called visual functioning. Visual functioning skills allow people with visual impairments to gather information from their experiences, which they use to interpret their immediate surroundings and to apply in other circumstances.
Visual impairment	Identified organic differences in the visual system which are so severe that even after a medical and conventional optical intervention, a person is unable to receive an appropriate education within the regular educational setting without special education services.
Visual memory	The retention of mental imagery of environments or objects in one's environment gained through original visual input.
Visual perception	It is the ability to gain meaning from stimuli received visually (Barraga and Erin, 1992). Students with visual impairments can have visual perception even if their visual acuity is low. Visual perception can be enhanced through training.
Visual stimulation	Presentation of visual objects and materials in a consistent and orderly sequence so as to permit and foster visual perceptual development.

Appendices

Appendix 1

The Coping Competence Questionnaire — A Measure of Resilience to Helplessness and Depression (Schroder and Ollis, 2013)

How do you usually deal with stressful situations? Read each of the following statements and choose the one answer that most closely reflects your own reactions. There are no 'right' or 'wrong' answers. Please use one of the following response options:

1. VERY UNcharacteristic of me
2. RATHER UNcharacteristic of me
3. SOMEWHAT UNcharacteristic of me
4. VERY characteristic of me
5. RATHER characteristic of me
6. SOMEWHAT characteristic of me

Question	UNcharacteristic of me			CHARACTERISTIC of me		
	very	rather	somewhat	very	rather	somewhat
1. I become easily discouraged by failures.	1	2	3	4	5	6
2. When my performance does not satisfy, I start to question my abilities.	1	2	3	4	5	6
3. I often feel unable to deal with problems.	1	2	3	4	5	6
4. Failures can shake my self-confidence for a long time.	1	2	3	4	5	6
5. When I am confronted with unusual demands, I feel helpless.	1	2	3	4	5	6
6. When I do not immediately succeed in a project, I quickly lose hope for a good outcome.	1	2	3	4	5	6
7. When I cannot solve a task, I blame my lack of abilities.	1	2	3	4	5	6
8. When I fail at something, I tend to give up.	1	2	3	4	5	6

9. When my work is criticised, I feel depressed.	1	2	3	4	5	6
10. I often feel overpowered by obstacles or troubles.	1	2	3	4	5	6
11. I lose faith in myself when I make mistakes.	1	2	3	4	5	6
12. I do not instantly succeed in a matter, I am at a loss.	1	2	3	4	5	6

Appendix 2

Autonomous Learning Scale (Macaskill and Taylor, 2010)

1. I enjoy finding information about new topics on my own.   1 2 3 4 5
2. I frequently find excuses for not getting down to work.   1 2 3 4 5
3. I am good at meeting deadlines.   1 2 3 4 5
4. My time management is good.   1 2 3 4 5
5. I am happy working on my own.   1 2 3 4 5
6. Even when tasks are difficult I try to stick with them.   1 2 3 4 5
7. I am open to new ways of doing familiar things.   1 2 3 4 5
8. I enjoy being set a challenge.   1 2 3 4 5
9. I plan my time for study effectively.   1 2 3 4 5
10. I tend to be motivated to work by assessment deadlines.   1 2 3 4 5
11. I take responsibility for my learning experiences.   1 2 3 4 5
12. I enjoy new learning experiences.   1 2 3 4 5

Autonomous Learning Scale with two subscales

Which of the following best describes you?

1	2	3	4	5
Not at all like me	Quite unlike me	Neither like nor unlike me	Quite like me	Very like me

Independence of learning
1. I enjoy finding information about new topics on my own   1 2 3 4 5
6. Even when tasks are difficult I try to stick with them.   1 2 3 4 5
7. I am open to new ways of doing familiar things.   1 2 3 4 5
8. I enjoy being set a challenge.   1 2 3 4 5
10. I tend to be motivated to work by assessment deadlines.   1 2 3 4 5
11. I take responsibility for my learning experiences.   1 2 3 4 5
12. I enjoy new learning experiences.   1 2 3 4 5

Study habits
2. I frequently find excuses for not getting down to work.   1 2 3 4 5
3. I am good at meeting deadlines.   1 2 3 4 5
4. My time management is good.   1 2 3 4 5

5. I am happy working on my own.   1 2 3 4 5
9. I plan my time for study effectively.   1 2 3 4 5

Appendix 3

Locus of Control Questionnaire with the key (Krasowicz and Kurzyp-Wojnarska, 1990)

Psychological Tests Repository from the Polish Association of Psychology

Mark the answer with which you agree more

1. Gdy napiszesz dobrze klasówkę, to dzieje się tak przeważnie dlatego, że:
   a) klasówka była łatwa
   b) przestudiowałeś materiał i byłeś do niej dobrze przygotowany
2. Jeżeli rodzice nie chcą ci dać tego, o co ich prosisz, to znaczy, że:
   a) prosisz ich o zbyt wiele
   b) oni nigdy nie dają ci tego, o co ich prosisz
3. Gdy się przeziębisz, to przeważnie uważasz, że:
   a) mogłeś temu zapobiec, cieplej się ubierając
   b) przeziębieniu nie można zapobiec
4. Czy wolisz towarzystwo:
   a) książek
   b) ludzi
5. Gdy masz kłopoty ze zrozumieniem jakiegoś problemu w szkole, to głównie dlatego, że:
   a) nauczyciel nie tłumaczył tego jasno
   b) nie uważałeś wystarczająco na lekcji
6. Gdy otrzymujesz drogi prezent od rodziców, o którym od dawna marzyłeś, to dlatego, że:
   a) rodzice mają dużo pieniędzy
   b) ty zachowywałeś się tak, że na niego zasłużyłeś
7. Gdy większość twoich kolegów wygrywa z tobą w bieganiu, to:
   a) musisz więcej trenować, by im dorównać
   b) nic na to nie poradzisz, bo oni są szybsi niż ty
8. Przypuśćmy, że pewnego dnia wszystko ci się udaje. Znaczy to, że:
   a) wyjątkowo się starasz tego dnia
   b) jest to właśnie twój szczęśliwy dzień
9. Czy wolałbyś słuchać:
   a) poważnego koncertu w towarzystwie muzyka
   b) muzyki młodzieżowej w towarzystwie wesołych przyjaciół
10. Gdy nauczyciel chwali cię za postępy w nauce, to przeważnie dlatego, że:
    a) nauczyciel po prostu cię lubi
    b) jesteś dobrym uczniem
11. Jeżeli twój kolega ma w pewnej sprawie odmienne zdanie niż ty, to czy:
    a) ty możesz wpłynąć na zmianę jego zdania
    b) niezależnie od twoich starań jego zdanie i tak się nie zmieni
12. Gdy zniszczy się jakiś twój ulubiony przedmiot, to znaczy, że:
    a) niezbyt szanowałeś swą własność
    b) kiedyś musiał się zniszczyć
13. Czy jeśli sobie coś postanowisz, to:
    a) starasz się tego dotrzymać za wszelką cenę
    b) łatwo rezygnujesz, gdy napotkasz trudności

14. Gdy zaczynasz mieć złe stopnie z jakiegoś przedmiotu, to świadczy to o tym, że:
   a) ostatnio masz pecha
   b) przestałeś wystarczająco przykładać się do nauki

15. Jeżeli rodzice pozwalają ci na samotną wycieczkę, to dlatego, że:
   a) w końcu musieli uznać, że jesteś już dorosły
   b) postępowałeś dotąd tak, że mogą ci ufać

16. Jeżeli któryś z twoich kolegów cię nie lubi, to dlatego, że:
   a) postępowałeś tak, że zraziłeś go do siebie
   b) jest on nieprzyjaźnie nastawiony do wszystkich

17. Przypuśćmy, że bardzo chcesz zdobyć nagranie zespołu, który bardzo ci się podoba. Wówczas:
   a) czekasz, aż nadarzy ci się okazja zdobycia nagrania
   b) szukasz wytrwale wśród znajomych kogoś, kto już je ma

18. Czy wolałbyś być:
   a) architektem
   b) aktorem

19. Kiedy zapamiętujesz dobrze to, co nauczyciel mówił na lekcji, to dzieje się tak głównie dlatego, że:
   a) nauczyciel wytłumaczył to bardzo dokładnie
   b) starałeś się bardzo, by to zapamiętać

20. Gdy rodzice krzyczą na ciebie, że zrobiłeś coś źle, to dlatego, że:
   a) rodzice są w złym nastroju
   b) zrobiłeś cos takiego, że mieli oni powód do rozzłoszczenia się na ciebie

21. Gdy często wygrywasz w jakieś grze, to dzieje się tak dlatego, że:
   a) bardzo dobrze grasz
   b) inni są słabszymi graczami

22. Jeśli ci się nie wiedzie w wielu sprawach, to znaczy, że:
   a) jesteś pechowcem i musisz się z tym pogodzić
   b) musisz zmienić sposób swego działania

23. Gdybyś miał wybierać sposób spędzania wolnego czasu, to czy wybrałbyś:
   a) słuchanie muzyki i audio-książek
   b) uprawianie ćwiczeń, jogging

24. Jeżeli napisałeś źle klasówkę, to głównie dlatego, że:
   a) nie przygotowałeś się do niej wystarczająco
   b) ta klasówka była zbyt trudna

25. Jeżeli rodzice zmieniają swoje zdanie w pewnej sprawie pod twoim wpływem, to dlatego, że:
   a) oni zwykle się zgadzają
   b) twoje argumenty były przekonujące

26. Gdy twoi rówieśnicy śmieją się z Ciebie, to znaczy, że:
   a) oni są po prostu złośliwi
   b) musisz zrobić coś, co zmieni ich opinie o tobie

27. Jeżeli czekają cię jakieś trudne zadania, to:
   a) przygotowujesz się do ich pokonania
   b) czekasz, bo to co ma być, będzie

28. Gdy usłyszysz nagle dźwięk lub jesteś w otwartej przestrzeni:
   a) na ogół nie odczuwasz żadnego zdenerwowania
   b) odczuwasz zwykle pewne zdenerwowanie

29. Czy myślisz, że po to by osiągnąć sukces w nauce:
   a) wystarczy się uczyć dużo i solidnie
   b) trzeba być szczęściarzem

30. Jeżeli rodzice nie pozwalają ci oglądać jakiegoś filmu w telewizji, to przeważnie dlatego, że:
   a) rodzice rzadko pozwalają ci oglądać telewizję
   b) nie zasłużyłeś sobie na oglądanie filmu

31. Przypuśćmy, że czasem spóźniasz się na ważne spotkanie. Myślisz przeważnie wtedy, że:
    a) wyruszyłeś na nie zbyt późno
    b) znowu nie miałeś szczęścia
32. Czy chciałbyś, żeby w gazetach poświęcano więcej miejsca:
    a) odkrywcom i wynalazcom
    b) czołowym sportowcom i rekordzistom
33. Jeżeli nauczyciel często cię gani, to dlatego, że:
    a) nie zachowujesz się tak jak trzeba
    b) nauczyciel cię nie lubi
34. Przypuśćmy, że twoi rodzice uważają cię za bardzo mądrego i zdolnego. Jest tak przede wszystkim dlatego, że:
    a) masz dobre wyniki w nauce i jesteś posłuszny
    b) oni bardzo ciebie kochają
35. Jeżeli ci się coś udaje lepiej niż innym, to dlatego, że:
    a) starasz się robić wszystko jak najlepiej
    b) jesteś szczęściarzem
36. Czy w rozmowie wolisz:
    a) wyczerpać do głębi jedno zagadnienie
    b) przeskakiwać z tematu na temat
37. Przypuśćmy, że odniosłeś sukces w przedmiocie, z którego do tej pory miałeś złe stopnie. Oznacza to, że:
    a) zdarzył się przypadek
    b) tym razem wyjątkowo dobrze byłeś przygotowany
38. Przypuśćmy, że twoi rodzice mówią, że jesteś niezbyt mądry. Dzieje się tak, ponieważ:
    a) nie zachowujesz się zbyt poprawnie i masz złe stopnie
    b) rodzice zawsze tak mówią, niezależnie od tego co robisz
39. Kiedy proponujesz komuś pójście do kina i on godzi się pójść z tobą, to robi to dlatego, że:
    a) akurat chciał obejrzeć ten film
    b) bardzo cię lubi
40. Jeżeli zgubiłeś coś cennego, to najprawdopodobniej dlatego, że:
    a) akurat wszystko sprzysięgło się przeciw tobie
    b) nie pilnowałeś tej rzeczy wystarczająco
41. Czy robisz wszystko:
    a) z reguły szybko (szybko jedząc, chodząc itp.)
    b) rozważnie, powoli, planowo
42. Gdybyś był złym uczniem, to aby się poprawić:
    a) musiałbyś starać się o dobre stopnie i lepiej sprawować
    b) nic nie pomoże staranie
43. Przypuśćmy, że twoi rodzice pozwolili ci zaprosić do domu różnych twoich znajomych i robić to, na co macie ochotę. Stało się tak, ponieważ:
    a) postępowałeś dotąd tak, że oni nie muszą się niczego obawiać
    b) większość rodziców na to pozwala
44. Czy to, że masz jakiś wrogów, wynika z tego, że:
    a) nie jesteś jednakowo miły dla wszystkich
    b) choćbyś był wyjątkowo miły, wrogowie i tak by się znaleźli
45. Czy to, jak spędzasz czas, zależy od tego:
    a) jak sobie to zaplanujesz
    b) od tego co się zdarzy
46. Czy:
    a) na ogół łatwo okazujesz innym swoje uczucia
    b) wolisz kryć się ze swoimi uczuciami

The key to Locus of Control Questionnaire

Scale S			Scale F
Question	Diagnostic answer		Question
1	b		2
6	b		3
8	a		5
10	b		7
11	a		12
15	b		14
17	b		16
19	b		20
21	a		22
25	b		24
27	a		26
29	a		30
34	a		31
35	a		33
37	b		38
39	b		40
43	a		42
45	a		44

Appendix 4

Achievement Test in English (Pearson Longman) with the key

Indicate the right answer.

1. Hey, you! _____ off!
   a Go   b Clear   c Put
2. I have to _____ my suitcase tonight.
   a change   b put   c pack
3. Which _____ is the train leaving from?
   a carriage   b platform   c ticket
4. We were running to the station when the train _____.
   a left   b is leaving   c leaves
5. I'm sorry but I don't _____ with you.
   a sure   b agree   c think
6. _____ probably study French at university.
   a I might   b I won't   c I will
7. They should _____ more careful.
   a be   b being   c to be

8. You _____ tell anyone. It's a secret.
   a mustn't   b don't have to   c must
9. John _____ get up because he's on holiday.
   a mustn't   b shouldn't   c doesn't have to
10. Would you _____ to see a film tonight?
   a like   b want   c rather
11. They _____ here three times.
   a 've been   b have   c are
12. I _____ a great film yesterday.
   a I've seen   b will see   c saw
13. I've _____ had a bath, so my hair's still wet.
   a just   b already   c yet
14. What channel is the film _____?
   a on   b at   c in
15. _____ do I get to the cinema by tube?
   a Where   b How   c What
16. I _____ write when I was five.
   a can   b can't   c couldn't
17. There's a _____ about animals on TV.
   a soap opera   b news   c documentary
18. This _____ is 400 years old.
   a soldier   b cathedral   c juggler
19. They're building a new _____ over the river.
   a museum   b bridge   c park
20. If it _____ tomorrow, I'll watch TV.
   a rain   b rains   c will rain
21. We travelled around London _____ tube.
   a by   b on   c with
22. We were driving when we _____ the old man.
   a were seeing   b saw   c see
23. I've _____ a new planet!
   a invented   b constructed   c discovered
24. Shoes _____ in shoe shops.
   a sell   b are sold   c sold
25. I was so _____ when I made that mistake.
   a proud   b embarrassed   c guilty

The key to achievement test in English

Scale S	
Question	Diagnostic answer
1	a
2	c
3	b
4	a
5	b
6	c
7	a

8	a
9	c
10	a
11	a
12	c
13	a
14	a
15	b
16	c
17	c
18	b
19	b
20	b
21	a
22	b
23	c
24	b
25	b

Appendix 5

Biodata Sheet

I. General information
   Name and surname ....
   Sex ....
   Age ....

II. Education
   Special school education ....
   Middle school   Vocational school (chef and craftsman)
   Secondary school   Secondary technical school of massage
   Regular school education (number of years) ....

III. Medical reports
   Eye condition ....
   Residual vision   YES   NO
   If FB Light perception   YES   NO

IV. Teachers' reports
   Sensory learning
   Proficiency in Braille ....
   Sensory learning items ....
   Social and behavioural problems ....

Appendix 6

Coping Competence Questionnaire results database

No.	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	CCQSum
1	1	1	2	1	2	3	2	1	1	1	2	1	18
2	2	2	2	2	3	2	3	3	3	3	2	2	29
3	3	4	3	3	3	4	3	3	3	3	3	4	39
4	2	2	2	1	2	1	2	2	2	2	2	2	22
5	6	5	6	5	5	5	5	5	5	5	5	5	62
6	2	2	2	2	2	1	2	2	3	1	2	2	23
7	6	6	5	5	5	5	6	5	5	6	6	6	66
8	1	2	3	2	2	2	2	2	2	1	1	1	21
9	1	2	1	1	2	1	1	2	2	2	2	1	18
10	4	4	4	4	3	4	4	4	4	3	4	3	45
11	2	1	1	1	2	3	2	1	2	2	2	2	21
12	2	3	2	2	2	2	1	2	2	2	2	2	24
13	2	3	2	1	1	1	2	1	1	1	1	2	18
14	2	2	2	2	2	2	3	1	1	1	1	1	20
15	5	5	6	6	6	6	5	6	6	6	6	6	69
16	6	5	6	5	5	5	5	5	5	5	6	6	64
17	1	1	1	1	1	2	2	1	2	1	1	2	16

18	43	3	3	4	3	5	3	4	3	3	4	4	4
19	19	1	1	1	1	2	1	2	2	2	2	2	2
20	19	1	2	1	2	1	1	2	2	2	2	2	1
21	61	5	6	5	5	5	5	5	5	5	5	5	5
22	68	5	6	6	6	5	6	6	5	6	5	6	6
23	19	2	2	2	2	2	1	1	1	1	2	1	2
24	41	4	4	3	3	3	4	4	3	3	4	3	3
25	24	2	2	2	2	1	1	2	3	2	2	3	2
26	18	2	2	2	1	1	2	1	1	1	2	1	2
27	68	6	6	6	5	6	5	6	6	6	6	5	5
28	26	2	2	2	3	2	2	2	3	2	3	2	1

Appendix 7

Autonomous Learning Scale results database

No.	Q1 factor 1	Q2 factor 1	Q3 factor 3	Q4 factor1	Q5 factor 1	Q6 factor1	Q7 factor1	Q8 factor2	Q9 factor2	Q10 factor2	Q11 factor2	Q12 factor2	AS sum	AS Ind	AS study
1	1	2	1	1	2	1	1	2	1	1	2	1	16	9	7
2	2	2	2	2	3	2	3	2	2	2	3	1	26	16	10
3	4	3	4	3	3	2	3	4	4	4	3	4	41	22	19
4	2	3	2	2	2	2	2	2	2	3	2	2	26	15	11
5	5	5	4	5	5	4	5	5	5	5	4	5	57	33	24
6	3	2	2	3	2	2	2	3	3	3	3	3	31	16	15
7	5	4	5	5	4	5	5	4	5	5	5	5	57	33	24
8	2	2	1	2	2	3	2	1	2	2	2	1	22	14	8
9	3	2	1	1	2	3	2	1	2	1	1	1	20	14	6
10	3	4	3	3	3	4	3	3	3	3	3	3	38	23	15
11	2	2	2	3	3	2	2	2	3	2	2	1	26	16	10
12	2	2	2	2	3	3	2	2	2	2	2	1	25	16	9
13	3	2	1	1	2	3	2	1	2	2	1	1	21	14	7
14	2	2	1	2	2	3	2	2	2	2	2	1	23	14	9
15	5	5	4	4	5	5	5	5	5	5	5	4	57	33	24
16	5	4	5	5	4	5	5	5	4	5	4	5	56	33	23

17	2	1	2	2	2	1	2	2	1	1	1	1	18	12	6
18	4	3	4	4	4	3	3	3	4	4	4	3	43	25	18
19	2	2	3	2	2	2	2	2	2	2	3	2	26	15	11
20	1	1	1	2	1	2	1	1	2	2	1	1	16	9	7
21	4	5	5	4	4	5	5	4	4	4	4	5	53	32	21
22	5	5	4	5	5	4	5	5	5	5	5	4	57	33	24
23	2	2	1	2	2	3	2	2	3	2	2	2	25	14	11
24	3	4	3	4	3	3	3	4	3	4	3	3	40	23	17
25	2	3	3	2	2	2	2	2	1	1	1	2	23	16	7
26	1	2	1	2	2	3	2	2	2	2	3	2	24	13	11
27	4	5	5	4	5	5	5	5	4	5	4	5	56	33	23
28	2	1	2	2	2	2	2	2	2	1	2	2	22	13	9

Appendix 8

Locus of Control Questionnaire results database

No.	Q1 success	Q2 failure	Q3 failure	Q5 failure	Q6 success	Q7 failure	Q8 success	Q10 success	Q11 success	Q12 failure	Q14 failure	Q15 success	Q16 failure	Q17 success
1	0	1	0	1	1	0	0	0	1	1	1	0	1	0
2	0	1	0	0	1	0	0	1	1	1	1	0	1	1
3	0	1	0	1	1	0	0	1	1	0	1	0	1	0
4	0	0	0	0	1	1	1	1	0	0	1	0	1	1
5	1	1	0	0	1	1	0	0	1	0	0	1	1	1
6	1	1	0	0	1	0	0	1	1	0	1	1	0	1
7	1	1	1	0	1	1	0	1	0	0	1	1	1	1
8	0	0	0	1	1	0	0	1	0	1	1	1	1	0
9	1	0	0	0	1	1	0	1	1	0	1	0	0	0
10	1	0	0	0	1	0	0	0	0	0	1	1	0	0
11	0	1	1	1	0	1	1	1	1	1	0	1	0	1
12	1	1	0	0	1	0	0	0	1	1	1	1	1	1
13	1	1	1	1	0	1	0	1	1	0	0	0	0	1
14	0	1	1	0	1	1	0	1	1	0	1	1	1	1
15	1	1	1	0	1	1	0	1	0	0	1	1	1	1
16	1	1	1	0	1	1	1	1	0	1	1	1	0	1
17	0	1	1	1	1	1	0	1	1	1	1	1	1	0
18	1	1	0	1	1	1	0	1	1	1	1	0	1	1
19	1	1	1	0	1	0	1	1	1	1	0	1	1	1
20	1	1	1	0	1	1	0	1	1	0	1	1	1	1
21	1	1	0	1	1	0	1	1	1	1	1	0	0	0
22	1	0	0	1	1	0	1	1	1	0	0	1	0	1
23	1	1	1	1	1	1	0	0	1	1	1	1	1	0

No.	Q15 success	Q16 failure	Q17 success	Q19 success	Q20 failure	Q21 success	Q22 failure	Q24 failure	Q25 success	Q26 failure	Q27 success	Q29 success	Q30 failure	Q31 failure
1	0	1	0	1	0	1	1	1	1	1	0	1	0	1
2	0	1	1	1	0	1	1	1	1	0	0	1	1	0
3	0	1	0	1	0	nd	0	1	1	0	0	0	1	1
4	0	1	1	1	0	1	1	1	0	1	1	1	0	0
5	1	1	1	0	0	1	1	0	1	0	1	1	1	1
6	1	0	1	0	0	1	1	1	1	1	0	1	nd	1
7	1	1	1	1	1	1	1	1	1	1	1	1	0	1
8	1	1	0	0	0	1	1	1	0	0	0	1	0	1
9	0	0	0	0	1	0	0	1	1	0	0	0	1	0
10	0	0	0	0	1	0	1	0	0	0	1	1	0	0
11	1	0	0	1	1	1	1	1	1	0	1	1	1	1
12	1	1	1	0	1	1	0	0	0	0	1	0	1	1
13	0	0	1	0	1	1	1	1	0	0	1	1	1	1
14	1	1	1	0	1	1	1	0	1	0	1	1	0	1
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	1	0	1	0	1	1	1	1	1	0	1	1	0	1
17	1	1	0	1	1	1	1	1	1	1	1	1	1	1
18	0	1	1	1	1	1	1	1	0	0	0	1	0	0
19	1	1	1	0	1	1	1	1	1	0	1	1	1	1
...														
24	0	1	0	1	1	0	0	0	1	1	1	0	1	0
25	0	1	0	0	1	0	0	1	1	1	1	0	1	1
26	1	0	0	1	1	0	1	1	1	0	0	1	0	1
27	0	0	0	1	1	0	0	1	0	1	1	1	1	0
28	1	0	0	0	1	1	0	1	1	0	1	0	0	0

(Table continued from previous page — rows 20–28)

No.													
20	1	1	1	0	1	0	0	nd	1	1	1	1	1
21	0	0	0	1	1	1	1	1	1	1	0	1	0
22	1	0	1	1	0	1	0	0	1	0	1	0	0
23	1	1	0	1	1	1	1	1	1	1	1	0	1
24	0	1	0	1	0	1	1	1	1	1	1	1	1
25	0	1	1	1	0	1	0	0	1	0	0	1	0
26	1	0	1	1	0	1	1	0	0	1	1	0	0
27	1	1	0	0	0	1	1	1	0	0	0	0	1
28	0	0	0	0	1	0	0	1	0	0	0	1	1

No.	Q31 failure	Q33 failure	Q34 success	Q35 success	Q37 success	Q38 failure	Q39 success	Q40 failure	Q42 failure	Q43 success	Q44 failure	Q45 success	Success/failure
1	1	1	1	0	1	0	1	0	1	0	0	0	9S /11P
2	0	1	0	1	1	0	1	1	1	1	0	0	12S/10P
3	1	1	1	0	nd	1	0	0	0	0	0	0	6S/9P
4	0	1	0	1	1	0	0	1	1	1	1	0	11S/10P
5	1	0	1	1	1	1	1	0	1	1	0	0	14S/9P
6	1	1	0	1	0	1	1	0	1	1	1	0	11S/9P
7	1	1	0	1	1	0	1	1	1	1	0	1	15S/13P
8	1	1	0	1	1	1	1	0	1	1	1	0	15S/12P
9	0	0	1	1	0	1	0	0	0	1	0	0	8S/6P
10	0	1	0	0	0	1	1	1	0	1	0	0	6S/7P
11	1	1	0	1	1	1	1	1	1	1	1	1	6S/14P
12	1	1	0	0	0	1	0	0	1	1	0	0	10S/11P
13	1	1	1	1	1	1	1	1	1	1	0	1	12S/12P
14	1	1	1	1	1	1	1	1	1	1	0	1	15S/14 P
15	1	1	0	1	0	0	1	0	1	1	1	1	14S/13P

No.	16S/15P	12S/17P	11S/12P	13S/16P	14S/11P	15S/14P	15S/2P	9S/16P	10S/11P	12S/6P	15S/4P	15S/13P	8S/8P
16	1	1	1	1	1	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1	0	0	0
18	0	1	0	1	0	1	1	1	1	0	0	0	0
19	1	1	0	0	1	1	1	0	1	0	1	1	1
20	1	1	1	1	1	1	1	1	1	1	0	0	0
21	0	1	1	1	1	1	1	1	1	1	1	1	1
22	0	0	0	0	0	1	0	0	1	0	0	0	0
23	0	0	0	1	0	0	1	1	1	0	0	1	0
24	1	1	1	1	1	0	1	0	1	1	0	0	0
25	0	1	0	0	1	0	0	0	1	1	0	0	0
26	0	0	0	0	1	1	0	0	1	0	0	0	0
27	1	1	0	1	1	1	1	1	1	1	1	1	0
28	1	0	1	1	0	1	0	1	0	1	1	0	0

No.	LOC sum	LOC s	LOC f	No.	LOC sum	LOC s	LOC f
1	20	9	11	14	29	15	14
2	22	12	10	15	27	14	13
3	15	6	9	16	31	16	15
4	21	11	10	17	29	12	17
5	23	14	9	18	23	11	12
6	20	11	9	19	29	13	16
7	28	15	13	20	25	14	11
8	22	10	12	21	29	15	14
9	14	8	6	22	18	16	2
10	13	6	7	23	25	9	16
11	27	13	14	24	21	10	11
12	21	10	11	25	18	12	6
13	24	12	12	26	20	16	4

Appendix 9

Achievement Test in English results database

No.	TEST I	TEST II	TEST III
1	5	8	7
2	11	11	13
3	16	17	11
4	12	11	10
5	20	21	24
6	11	12	9
7	21	23	24
8	10	11	12
9	9	6	10
10	18	19	17
11	12	12	14
12	11	12	11
13	13	11	13
14	10	9	11
15	20	21	20
16	23	21	22
17	3	6	8
18	19	17	21
19	11	12	11
20	6	4	8
21	21	23	22
22	24	21	23
23	10	11	11
24	17	18	17
25	9	11	12
26	11	10	9
27	25	23	21
28	10	9	13

Appendix 10

Example of the Braille LOC questionnaire sheet (the right upper corner is cut off)
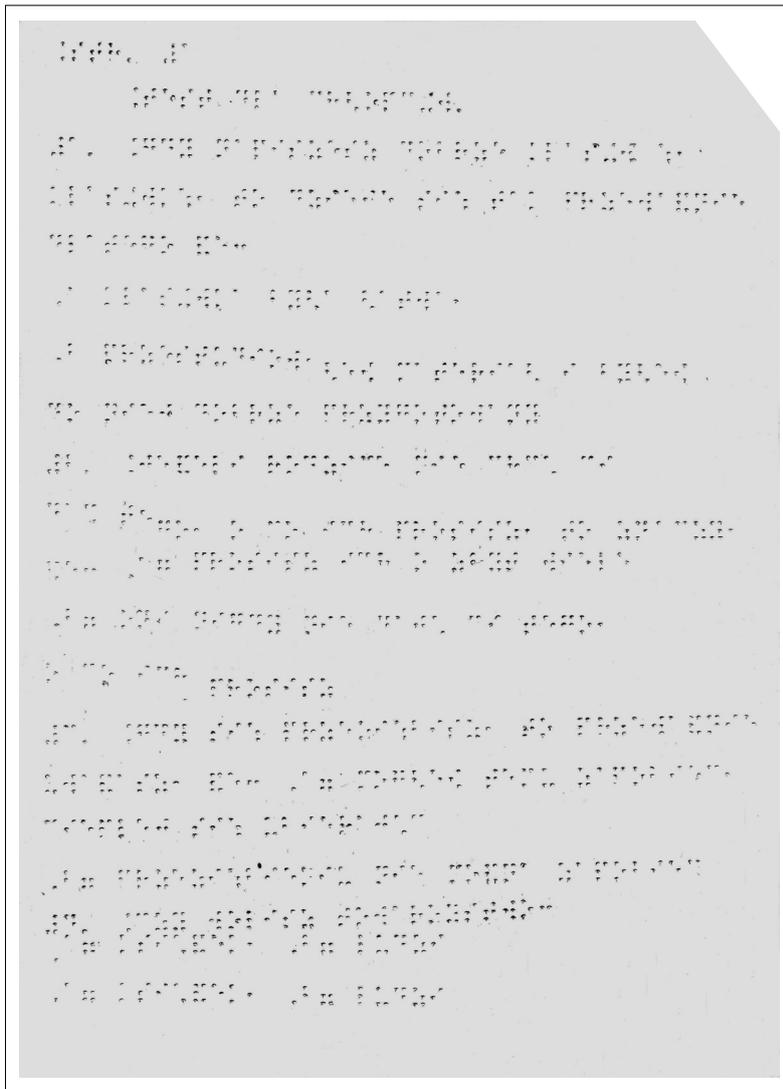
Abbreviation glossary

AILA	International Association of Applied Linguistics
BLs	Blind Learners
CA	Communicative Approach
CALL	Computer Assisted Language Learning
CEFR	Common European Framework of Reference
CLIL	Content and Language Integrated Learning
CMC	Computer Mediated Communication
CP	Critical Period
CSO	Central Statistical Office
EBU	European Blind Union
ECML	European Centre for Modern Languages
EES	European Employment Strategy
EHEA	European Higher Education Area
ELLIE	Early Language Learning in Europe
ELP	European Language Portfolio
ENVITER	European Network for Vision Impairment Training Education and Research
EQF	European Qualifications Framework
ERA	European Research Area
ERIC	Educational Resources Information Centre
ESF	European Social Fund
ESLC	European Survey on Language Competences
EU	European Union
EYC	Education, Youth and Culture
EYL	European Year of Languages
FIRD	Foundation Institute of Regional Development
FP	Framework Programme
ICD	International Classification of Diseases
ICEVI	International Council for Education of People with Visual Impairment
ICF	International Classification of Functioning and Health
ICT	Information and Communication Technology
IEP	Individual Educational Programmes

IQ   Intelligence Quotient

FL   Foreign Language

FLs   Foreign Languages

L3   Third Language

LLP   Lifelong Learning Programme

LLS   Language Learning Strategies

LOC   Locus of Control

NLP   No Light Perception

PAB   Polish Association of the Blind

PDA   Personal Digital Assistant

PIRLS Progress in International Reading Literacy Study

PISA   Programme for International Student Assessment

PS   Partially Sighted

PSLs   Partially Sighted Learners

QCA   Qualifications and Curriculum Authority

RNIB   Royal National Institute of Blind People

SEN   Special Education Needs

SENLs Special Education Needs Learners

SLA   Second Language Acquisition

TELL   Technology Enhanced Language Learning

TIMSS Trends in International Mathematics and Science Study

UNESCO United Nations Educational Scientific and Cultural Organisation

VI   Visually Impaired

VILs   Visually Impaired Learners

WHO   World Health Organisation

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Bibliothèque Hélène, http://www.serveur-helene.org/.

Blind People's Association in India, http://www.bpaindia.org/.
Central Statistical Office, http://www.stat.gov.pl/english/.
Council of Europe, www. coe.int.
European Blind Union, http://www.euroblind.org/.
European Centre for Modern Languages, www.ecml.at.
European Network for Vision Impairment Training Education and Research (ENVITER), www.enviter.eu.
Foundation Institute of Regional Development, http://firr.org.pl/index.php/.
International Council for Education of People with Visual Impairment, http://www.icevi.org/.
Language Policy Division, www.coe.int/lang.
Polish Association of the Blind, http://pzn.org.pl/.
World Blind Union, http://www.worldblindunion.org/English/Pages/default.aspx.
World Health Organisation, http://www.who.int/en/.

Education and services to visually impaired — useful links

American Council of the Blind, http://acb.org/node/927.
American Foundation for the Blind, http://www.afb.org/default.aspx.
Association for Adventitiously Blind, www.laski.edu.pl.
Center of Didactic Materials Adaptation, http://www.ncl.ac.uk/students/wellbeing/assets/documents/SuggestedTeachingStrategiestousewithBlindandPartiallySightedStudents.pdf.
Computer Centre for the Blind and Partially Sighted, www.cnin.ci.uw.edu.pl.
International Council for Education of People with Visual Impairment, http://www.icevi.org/.
Library of the Polish Association for the Blind, www. biblioteka-pzn.org.pl.
National Blind Children's Society, http://www.nbcs.org.uk/.
National Federation of the Blind, http://www.nfb.org/.
National Library Service for the Blind and Physically Handicapped, http://www.loc.gov/nls/.
Office for Persons with Disabilities in University of Warsaw, http://www.bon.uw.edu.pl/en/equal_linguas_en.html.
Polish Association for the Blind, www.pzn.org.

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