

June 2019



Learning difficulties in adulthood and Foreign Language acquisition: European shared experiences to support and develop the IRENE innovative approach

Original English Version: download at <http://irenelearning.eu>



Co-funded by the
Erasmus+ Programme
of the European Union

This Comparative Desk Research, coordinated by Cristina Casari, Enaip Piemonte, presents the results of an analysis on the topic of foreign language learning and learning difficulties in adults. The research team is composed of:

Christoph Grandits, die Berater, Austria

Thomas K. Hansen, VIFIN (Videncenter for Integration), Denmark

Anna Koronioti, Institute of Entrepreneurship Development, Greece

Kristin Brogan, Institute of Technology Tralee, Ireland

Valeria Zaffalon, Enaip Piemonte, Italy

Svetlana Rashkov, Coop. Vereniging U.A. Pressure Line, Netherlands

Fernando Benavente, Tradigenia SL, Spain

With the contribution of Germano Nervo, Enaip Piemonte, project manager

Table of Contents

Introduction	7
1. Foreign Language learning disorders in adulthood. The Austrian context	8
1. SLD adults and foreign language learning in Austria	8
1.1 State of art in Austria. Legal aspects	8
1.2 Organizations involved with SLD adults	9
1.3 The needs of SLD adults in FL learning and the needs of the trainers	11
2. Language E-teaching methodologies and tools in SLD adults' FL learning in Austria	13
2.1 General overview on ICT methodologies and tools addressed to adults with learning difficulties in FL learning in organizations such as Universities, Foreign Language schools, VET providers and other bodies	13
2.2 ICT methodologies and tools implementation in the classroom	15
2.3 Teachers and trainers' needs in FL learning	15
2.4 Examples of projects	17
References	20
2. Foreign Language learning disorders in adulthood. The Danish context	22
1.1 SLD adults and foreign language learning in Denmark	23
1.2 State of art in Denmark. General overview on learning difficulties/disorders in adult education researches	24
1.3 Organizations involved with SLD adults	25
1.4 The needs of SLD adults in FL learning and the needs of the trainers	
2. Language E-teaching methodologies and tools in SLD adults' FL learning in Denmark	26
2.1 General overview on ICT methodologies and tools addressed to adults with learning difficulties in FL learning in organizations such as Universities, Foreign Language schools, VET providers and other bodies	26
2.2 ICT methodologies and tools implementation in the classroom	27
2.3 Teachers and trainers' needs in FL learning	27
References	28
3. Foreign Language learning disorders in adulthood. The Greek context	29
Abstract	30
1. General overview	31
1.1 Learning difficulties/disorders	31
1.2 The Centres for Educational and Advisory Support	32
1.3 The needs of SLD adults in FL learning	32
1.4 The needs of the trainers in FL learning	33
2. Methodologies and tools	34
2.1 Language E-teaching methodologies and tools in SLD adults' FL learning	34
2.2 Computer assisted language learning	35
2.3 ICT methodologies and tools implementation in the classrooms	35
2.4 Teachers and trainers' needs in FL learning	36
3. Examples of projects of FL e-learning support for SLD adults	37
References	39

4.	<i>Foreign Language learning disorders in adulthood. The Irish context</i>	40
1.	SLD adults and foreign language learning in Ireland	41
1.1	Introduction	41
1.2	Relevant laws/guidelines regarding learning difficulties/disorders in Ireland at national/regional level	41
1.3	Summary on how any learning difficulties are diagnosed and measured in Ireland	44
1.4	Organizations involved with SLD adults	45
1.5	Available support that is given to individual students with learning difficulties/disorders	46
1.6	The needs of SLD adults in FL learning and the needs of the trainers	48
1.7	Research data about the needs of SLD adults in FL learning	49
1.8	Foreign language learning in underprivileged contexts	49
1.9	The needs of FL teachers and trainers regarding the support to SLD students	49
2	Language E-teaching methodologies and tools in SLD adults' FL learning in Ireland	51
2.1	General overview on ICT methodologies and tools addressed to adults with learning difficulties in FL learning in organizations such as Universities, Foreign Language schools, VET providers and other bodies	51
2.2	Using technologies in FL teaching to SLD adults in Ireland	52
2.3	E-learning methods and tools	53
2.4	Computer assisted language learning facilitating FL learning in SLD adults	53
2.5	ICT methodologies and tools implementation in the classrooms	54
2.6	Teachers and trainers' needs in FL learning	55
2.7	The needs of FL teachers and trainers in e-learning for SLD adults	56
	Selection of projects in the area of FL e-learning support for SLD adults	
	References	62
5.	<i>Foreign Language learning disorders in adulthood. The Italian context</i>	64
	Abstract	65
1.	Legal framework on learning disorders: from the description to the protection	66
2.	The Italian debate on learning difficulties in adulthood	71
3.	Adult learning difficulties/disorders in Italian language learning (FL/L2): main evidences	74
4.	Language E-teaching methodologies and tools in SLD adults' FL learning in Italy: a general overview	78
	Conclusion	80
	References	81
6.	<i>Foreign Language learning disorders in adulthood. The Dutch context</i>	83
	Abstract	84
1.	General overview	85
1.1	Legal framework on learning difficulties/disorders in adult education	85
1.2	National and regional programs and initiatives	85
1.3	Methods for diagnosing and measuring of learning difficulties	86
1.4	Organizations involved in education of SLD adults	88
1.5	Policy on teaching of SLD adults in Foreign Language Learning	89
2.	Methodologies and tools	90
2.1	The needs of SLD adults in FL learning and the needs of the trainers	90
2.2	Language E-learning methodologies and tools in SLD adults' FL learning	90
2.3	ICT methodologies and tools implementation in the classroom	92
2.4	Good practice examples in the area of FL e-learning support for SLD adults.	93

7.	<i>Foreign Language learning disorders in adulthood. The Spanish context</i>	95
1.	SLD adults and foreign language learning in Spain	96
1.1	Legislation and policy	96
1.2	Systems of support and specialist provision	97
1.3	Learners with special education needs	97
1.4	Teacher education for inclusive education	101
1.5	Diagnosing SLDs (dyslexia)	103
1.6	Organization and services involved with SLD adults	104
1.7	The needs of SLD adults in FL learning	106
2.	Language E-teaching methodologies and tools in SLD adults' FL learning in Spain	108
2.1	The needs of trainers in FL teaching to SLD adults	108
2.2	ICT methodologies and tools addressed to adults with difficulties in FL learning	109
2.3	Teachers and trainers' needs in FL e-learning for SLD adults	110
3.	Selection of projects in the area of FL e-learning support for SLD adults	112
	References	117
8.	<i>The results of the comparison among the partners' countries and language e-learning indications</i>	119
1.	The legal framework	119
2.	Diagnosing dyslexia in young and adults	120
3.	Characteristics of SLD adults	122
4.	Learning needs of SLD adults in FL learning	123
5.	Teachers and trainers' needs	125
6.	Language E-teaching methodologies and tools in SLD adults' FL learning	126
7.	Summary of selected projects in the area of FL E-learning for adults.	129
	Conclusion	130
	Key terms	131



Abstract

This document has been compiled by Enaip Piemonte, in the role of coordinating partner in the Erasmus+ project "IRENE – Increase the empowerment of adults and migrants with specific learning disorders". It is the result of a Comparative Desk Research on methodologies of teaching foreign languages in adults with Specific Learning Disorders (SLD) in seven countries: Austria, Denmark, Greece, Ireland, Italy, Netherlands and Spain.

The starting point has been an overview of the laws and guidelines on this topic in the partners' countries. The authors have examined the current literature about the needs of adults who experience learning difficulties in foreign language learning and have collected experiences in the application of E-learning methodologies to the target group.

The focus has been on the needs of foreign language teachers and trainers and a common basis has been established, leading to the development of an innovative approach to adults facing difficulties in learning foreign languages.



Introduction

The competence to communicate in a foreign language in the different activities of daily life is considered essential in modern society. The European Union promotes it as a mean to overcome barriers among the states and to build a common European cultural identity and as an instrument of social and economic integration of the citizens.

This Comparative Desk Research has been implemented in the context of the project “IRENE – Increase the empowerment of adults and migrants with specific learning disorders” which intends to support adults who experience learning difficulties and are therefore discouraged to learn a foreign language.

It is the result of an activity of mapping and comparison of methodologies of teaching Foreign Languages (FL) in adults with Specific Learning Disorders (SLD) in seven countries: Austria, Denmark, Greece, Ireland, Italy, Netherland and Spain.

SLD is a common definition of developmental disorders of skills needed at school regarding a specific reading disorder (dyslexia), a specific spelling disorder (dysgraphia), specific calculation difficulties (dyscalculia) or a mix of these disorders but the authors referred to all kind of learning difficulties encountered by adults learning a foreign language.

The IRENE project intends to fill the knowledge gaps through the production of three main outputs: a Comparative Desk Research of existing teaching methodologies and tools in the partner countries, a didactic approach and guidelines for teachers and trainers and an E-learning platform for foreign language learning. The e-learning tools developed will be tested in all partner countries and foreign language teachers will also be trained to improve their skills when working with people with learning difficulties.

The findings of the Desk Research are structured in two sections: the analysis of each project partner in its own country and the results of the comparison among the different countries.

Each partner has illustrated the state of art in its own country, taking into consideration the legal framework, the organizations involved with SLD adults and how adults’ language learning difficulties and disorders are diagnosed and measured. Particular attention has been given to the needs of SLD adults in foreign language learning as well as to the needs of the trainers.

The authors have examined how SLD adults’ needs are dealt with, from the point of view of applied didactic methodologies and learning materials. Existing foreign language E-teaching methodologies and tools have been mapped and a selection of good examples has been added.

At the end of the document a glossary provides the definitions of the terms used investigating the research subject and allows more clarity and a common understanding.

The Desk Research activities in the partners’ countries began in the kick-off meeting in Rotterdam at the end of October 2018 where a constructive collaboration started among the researchers. The partners met also in Larissa at the end of February 2019 to share their experiences and enable an initial comparison among their findings. This document is the basis for the partnership’s future work.

1. Foreign Language learning disorders in adulthood. The Austrian context¹.

Chapter 1. SLD adults and foreign language learning in the partner countries

1.1 State of art in Austria

Diagnosing SLDs

The most widely recognised form of SLD is dyslexia. According to ICD 10ⁱ, dyslexia is considered a specific developmental disorder of scholastic skills (F81) and could involve a specific reading (F81.0), specific spelling (F81.1) or mixed (F81.3) disorder. Being diagnosed with dyslexia is costly (starting from 100 euro upwards) and time-consuming, requiring a medical professional to conduct a multi-axial diagnosis consisting of ⁱⁱⁱ:

- Clinical psychiatric picture: whether the person suffers from a psychiatric disease;
- Development: an assessment of motor, language and learning abilities;
- Determining an IQ over 70 through a language-free IQ test;
- Bodily symptomatic: is there organic damage to the eyes, ears and brain;
- Psychosocial circumstances: family, educational environment, safety;
- Level of adaptation: the degree of difficulties caused by the condition.

A person suffering from dyslexia demonstrates a reading / writing ability well below the expected norm for his/her intelligence and educational level, which is not caused by a physical disability or a psychic disorder. The condition affects a person for life. Delayed diagnosing of dyslexia increases the risk of side-effects which might include, but are not limited to: physical pain, reduced self-esteem, depression, high-risk behaviour. The benefits of a diagnosis include a validation of intelligence and capacity to learn, as well as the possibility of receiving appropriate specialised assistance.

Legal aspects

Non-discrimination of persons with disabilities is guaranteed by Art. 7 (1)^{iv} of the Austrian Constitution (BW - G) and Art. 5 (1) of the Federal law for disabled equality (BGStG). Article 14 (5a) of the constitution guarantees non-discriminatory school access for all. Art 18 of the General law for citizen rights (StGG) guarantees the free access to employment, and that cannot be ensured without access to education.

Adult education is regulated by the provisions of the Law for promotion of adult education. Even though Austria tries to have a synchronised national policy regarding disabilities, many specific details are left to the states. An EU report noted an "absence of standardised legislation and implementation applicable both at federal and at Länder level". Furthermore, the states often lack the commitment to follow the central government's policies, with the latter unwilling or unable to overcome the situation ^{viii}.

¹ This paragraph has been written by Cristoph Grandits (die Berater)

Among specific learning disorders, the issue of dyslexia is recognised by Austria as a significant factor regarding school education, leading to the adoption in 2001 of a Regulation on progress evaluation^x. It is up to the states to decide on specific policies. All states have since then adopted guidelines and models for approaching dyslexia at school. These handle the issues of school organisation, teacher training, education materials, and progress evaluation.

As an example, in the state of Upper Austria, schools have to apply the following policies^x:

- Basic knowledge of the developmental disorder described in F81/ICD-10/WHO, including the effects of secondary symptoms, is to become a part of all school curriculums.
- Language teachers should receive additional knowledge, especially concerning evaluation of student progress.
- Suggestions for further education shall be expanded.
- Specialised learning materials must be created.
- A person possessing special education on dyslexia shall be available for consulting school, medical staff and parents.

The following provisions apply to testing of student progress:

- Testing of students with dyslexia should focus on oral examination.
- Students with dyslexia should be given up to 50 % more time for tests.
- Students with dyslexia should be presented with devices equipped with text processing and spelling software during written examinations.

1.2 Organizations involved with SLD adults

Literacy training for adults

Literacy/basic education for adults took its first steps with courses in Vienna in the late 80-ies. Those courses were directed both at speakers of German as a first language as well as at migrants with basic educational needs. Since then there have been extensive developments in the field.

Initiative Erwachsenenbildung² is a cooperation of the Federal Ministry for Education, Science and Research (BMBWF) and the nine Austrian provinces, ensuring the implementation of consistent quality guidelines and funding educational opportunities for adults. The initiative exists since 2012 and is currently in its third program period: 2018-2021. National funding and a co-financing by the European Social Fund (ESF) ensure that the courses are free for the end-users. There are literacy courses for non-native German speakers, such as migrants.

There is a Federal Institute for Adult Education (bifeb)³ under BMBWF, located in St. Wolfgang in Upper Austria. The institute offers professional education for adult trainers and possesses an extensive library containing books and articles on adult education.

Online-Bildungsberatung⁴ is a website offering online educational guidance. It is run by the BMBWF. BMBWF also maintains another specialised website for adult education: Erwachsenenbildung.at⁵. The website contains a news section, a database of courses available, another database of completed projects, and a magazine.

² <https://www.initiative-erwachsenenbildung.at/>

³ <https://www.bifeb.at/>

⁴ <https://www.bildungsberatung-online.at/index.php?id=2>

⁵ <https://erwachsenenbildung.at/>

Zentrale Beratungsstelle für Basisbildung und Alphabetisierung⁶ is a platform for adult learners containing resources on educational guidance and opportunities, including a phone line for guidance: ALFA-Telefon 0800 244 800. This platform, rather than the ones run by the ministry, offers the easiest way to find a course. The ones shown in green on their map are reading, writing and German courses, the inclusion of the language indicating their target is mostly migrants.

Knowledgebase Erwachsenenbildung⁷ contains extensive information about adult education in Austria, including a network connecting adult education research institutions.

The MIKA Network⁸ (Migration, competences and literacy) was developing programmes and materials for adult migrants with basic educational needs under BMBWF and ESF funding. Since 2018, the network no longer produces new content.

Netzwerk Sprachenrechte⁹ is a network of professionals united by the cause of offering language training to migrants as a right rather than demanding language competences as an administrative duty.

Initiative Kritische Erwachsenenbildung¹⁰ is a research initiative adapting a critical approach to adult education policy.

Dyslexia

According to the educational policy of Austria, schoolteachers should be familiar with SLDs and supported by school psychologists. There are many organisations focusing on dyslexia, though most of them primarily support children and teenagers.

There are nation-wide organisations:

- Erster Österreichischer Dachverband Legasthenie¹¹ claims to be the largest national-wide institution in Austria focusing on dyslexia. Among other activities, it offers certification courses for dyslexia trainers;
- Österreichischer Bundesverband Legasthenie¹², is an organisation uniting parents, teachers, psychologists, social workers and doctors. It focuses mostly on schoolchildren.

There are active state-level organisations in some, but not all states. Their objective is to offer information and support to victims of dyslexia and people around them. The primary focus of their activities are children and teenagers, not adults.

The organisations include:

- Kärntner Landesverband Legasthenie¹³ in Kärnten;
- Niederösterreichischer Landesverband Legasthenie¹⁴ in Lower Austria;
- Qualitätszirkel Legasthenie¹⁵ in Lower Austria;
- Wiener Landesverband Legasthenie¹⁶ in Vienna;

⁶ <https://www.alphabetisierung.at/>

⁷ <https://adulthoodeducation.at/>

⁸ <https://www.netzwerkmiika.at/>

⁹ <http://www.sprachenrechte.at/>

¹⁰ <http://kritische-eb.at/>

¹¹ <https://www.legasthenie.at/>

¹² <http://www.legasthenie.org>

¹³ <http://kll.legasthenie.com/>

¹⁴ <https://www.wll.at/legasthenietrainer-no/>

¹⁵ <http://qualitaetszirkel-legasthenie.at/>

¹⁶ <https://www.wll.at/>

There are private institutions offering paid counselling and training. Among all organisations, they are the most flexible and likely to adapt to the needs of adults with SLDs. However, unlike the comprehensive school system which seeks to discover students with difficulties, adults need to be proactive and approach those institutions themselves. It is up to them to procure the financial means needed to access:

- Lese-Rechtschreib-Institut is active in Styria and Vienna¹⁷ ;
- Institut für Legasthenie und Linkshänderberatung¹⁸ is based in Vienna;
- Germany-based Lehrinstitute für Orthographie und Sprachkompetenz¹⁹ is active in Kärnten, Lower Austria, Salzburg, Vienna;

The same considerations regarding proactivity and finance apply to seeking out the services of specialised psychologists and therapists:

- Though not a formal organisation, there is a website containing a register of Austrian psychologists trained to deal with dyslexia²⁰.
- Berufsverband akademischer Lese- Rechtschreib – TherapeutInnen²¹ is a professional organisation of therapists qualified to offer dyslexia treatment;

1.3 The needs of SLD adults in FL learning and the needs of the trainers

The topic of SLD in adults is not addressed equally in all aspects. Most existing norms and regulations, as well as materials, tend to focus on dyslexia, and more specifically on dyslexic students at school. Educators far from always possess good knowledge about SLDs. Even when they do, opportunities for support are limited.

Studies^{xi} have shown that psychosocial barriers to education often are experienced as more significant than the impairment itself. Dyslexics experience high levels of academic and social anxiety. Disrespectful social interactions are more difficult to overcome compared to academic failure. Harmful experiences from early education are prevalent among adults with dyslexia, and the feelings of failure and stigmatisation experienced at school often lead to a non-disclosure of dyslexia as an adult.

Adults with dyslexia may benefit from interventions focused on developing coping strategies rather than general literacy training. Other factors contributing to educational success are the validation of intelligence and capacity to learn as a result of a diagnosis, the solidarity from dyslexic peers and the existence of positive learning experiences. It is generally useful to consider the difference between the difficulties caused by dyslexia and those due to a lack of an appropriate opportunity to learn.

Guiding persons with learning disabilities to become more self-determined helps to break the cycle of dependence that often can be fostered by education, employment, home, and community environments.

¹⁷ <http://www.lrs-legasthenie.at/>

¹⁸ <https://www.ifll.at/legasthenie/erwachsene/>

¹⁹ <https://www.los.de/standorte/>

²⁰ <https://www.psychologen.at/fachgebiet/662/legasthenie-lese-rechtschreibschwaeche/wien>

²¹ <http://www.lrs-therapeuten.org/>

The state of Vorarlberg has issued guidelines for teaching dyslexic students English as a foreign language^{xii}. While the guidelines are addressed at school level, they are focused on the needs of the students, based on their condition, taken into consideration in the specific context of foreign language education. Those needs tend to remain the same regardless of age, since they are based on the specific cognitive style of dyslexics. A foreign language class comprising students with dyslexia should consider:

- Expectations. Dyslexia is a condition affecting one for life. Educational progress is inevitably slow and requires considerable effort. Neither students nor educators should expect rapid, easy results. However, given that efforts are systematic and the motivation sincere, improvement will follow.
- Pacing. Stress and fast pacing are leading to an increased number of errors. Every care must be taken that students have enough time to adapt to new material, and have a sufficient amount of practice. Repetition and drilling might be necessary to ensure fluency.
- Small steps. Bigger tasks should be divided into subtasks to make them more manageable. There should be a balance of old and new material. Regular revisions of already earned material must be conducted.
- Multisensorial learning. All available channels for processing information – visual, auditory, sensorial, colours, shapes, patterns, etc. must be combined to establish an effective combination suiting the needs of the students.
- Relaxation. In order to combat stress, activities directed towards the psychological wellbeing of students must be an integral part of every lesson.
- Separate learning from testing. To decrease tension and create the best conditions for learning, an environment must be created where errors are permitted.
- Fonts and structure of materials must be adapted to suit the needs of dyslexic learners.
- Switch to mother tongue for rules explanation. The goal is to ensure simplicity – the efforts of understanding a new rule, combined with unfamiliar vocabulary, might prove too much of a burden.
- Avoid similarities. Learning similar sounding words together increases the chances of confusion.
- The dangers of open learning. A lack of clear instructions can cause additional stress.

Chapter 2 - Language E-teaching methodologies and tools in SLD adults' FL learning in the partner countries

2.1. General overview on ICT methodologies and tools addressed to adults with learning difficulties in FL learning in organizations such as Universities, Foreign Language schools, VET providers and other bodies.

The employment of ICT methodologies within foreign language education forms the basis of a process known as Computer-assisted language learning (CALL). CALL should be learner-focused, have a meaningful purpose, provide a sufficient level of stimulation (cognitively and affectively), involve multiple modalities (to support various learning styles and strategies) and a high level of interaction (student-computer and teacher-student) . CALL aims to:

- deliver content electronically to the student
- use multi-modal and / or interactive activities
- improve learner motivation
- enhance learner independence
- give direct feedback to students
- free up teacher time^{xiv}.

Technology based learning theories often suggest that learning is an active process by which the learner builds new knowledge based on personal judgments and self-organised input . Nevertheless, in order for students to benefit from the technology, educators must have an understanding of assistive technology and how to embed it within quality instruction.

The following conceptual model of application of ICT to match dyslexic learners' needs has been proposed by Ian Smythe and others^{xvi}:

Literacy skill	Literacy component	Software
Receptive language	Reading single word	Text-to-speech
	Reading comprehension	Text-to-speech
	Listening comprehension	Digital or tape recorder
		Concept mapping
Productive language	Expressing ideas	Concept mapping
	Writing ideas	Speech-to-text
	Productive validation	Predictive software
		Spellcheckers
Life skills	Keyboard skills	Grammar checkers
		Typing tutors
Sensory preferences	Visual	Magnifiers
		Fonts and colours

Software functions^{xvii}

Magnifiers help the students read and access virtual content. There are many dyslexic-friendly fonts, such as OpenDyslexic²² and Dyslexie²³; as well as web browsers, for example open-Web free browser for iPhone²⁴.

Text-to-speech software can improve students' sight reading and decoding abilities. It can also improve the reading comprehension of individuals with specific deficits in phonological processing. Natural Reader²⁵, available in English and German, while costing 9€ per month, offers 20 free minutes of web use per day. Voice Dream²⁶ costs 13€ and is available on iPhone in English, German, Arabic and Turkish.

Speech-to-text allows the student to bypass the demands of typing or handwriting and focus on high-level composition skills (e.g., planning, generating content, and revising). There are many speech-to-text applications available, of varying quality and price. There is an inbuilt speech recognition in Windows 10, Google Docs Voice typing is also free. Professional applications are pricier, with Dragon Professional Individual v.15 costing 130€, and Briana personal assistant 122€. All of these applications work for German, Briana also offers speech recognition for Arabic and Turkish, but not Farsi.

Word prediction reduces the need for handwriting, and improves students' spelling accuracy and writing skills.

Spell and grammar checkers provide learning feedback.

Concept mapping/organizers may contribute to better writing in students with learning disabilities. MindMeister is a German mind mapping tool suitable for learners. It costs 5€/Month.

In general, despite the variety of software solutions available, the cost of most remains problematic, restricting the access for disadvantaged groups. While there are plenty of programs in German and even some in Arabic, Farsi and Pashto remain significantly underrepresented, forcing students to use software in a second language, which might create additional educational difficulties.

Gamification

Language use shares many of the same traits as playing a game. Language learners and game players alike navigate, process, and construct the world in which they find themselves immersed in through language^{xviii}. Yet individuals with pre-existing gaming experience tend to not prefer pure educational games. Environments which allow for the construction of meaning, such as interactive fiction in digital games, allow students to engage in a new experience, while simultaneously considering how new insights are applicable to what is already known, or how they may enhance and reinforce prior knowledge. Gamified social language learning mobile applications combine elements of gamification (obtaining points for completion of exercises, receiving badges, levelling up and gaining access to new tasks) in an effort to motivate learners to continually seek instruction and guidance from the digital environment.

Gamification with regards to adults FL learning is still in its infant stage. Most applications are targeted at children and there are few that take into account SLDs. This research failed to identify effective examples of gamified FL learning for SLD adults.

²² <https://www.opendyslexic.org/>

²³ <https://www.dyslexiefont.com/en/typeface/>

²⁴ <https://itunes.apple.com/us/app/openweb-dyslexia-friendly/id519348697?mt=8>

²⁵ <https://www.naturalreaders.com/webapp.html>

²⁶ <https://www.nuance.com/dragon/dragon-for-pc/home-edition.html>

2.2 ICT methodologies and tools implementation in the classrooms

Computer Assisted Learning is an integrative technology, which describes an educational environment where a computer program is used to assist the user in learning a particular subject. It refers to an overall integrative approach of instructional methods and is a part of the bigger teaching and learning picture. Computer Assisted Learning comes about after re-assessment of the current teaching methods. The teacher treats the computer as an aid to an overall learning strategy with other methods such as worksheets, lectures and text-books.

By employing ICT tools, students are able to learn when and how they want, as well as control the speed at which they are learning. Technology allows computers to capture, analyse, and present data on students' performances during the learning process. This allows students to receive immediate feedback on their learning progress. However, the use of software does not universally lead to a positive learning experience, many students use software in unexpected ways. In self-guided learning activities, some students skip whole sections in computer language programs, in order to advance more quickly through the lesson. Inexperienced and low ability students also often make poor decisions when choosing what to learn. In order to prevent the technology from being a distraction, students need to be taught how to use technology to support their learning.

A study carried out with dyslexic students in higher education on their use of Virtual Learning Environments (VLE) found that the students experienced a number of challenges associated with VLE use, including information overload, imperfect word processing tools, inadequate search functions, and having to relate to more than one system at a time.

2.3 Teachers and trainers' needs in FL learning

An in-depth study of different ways of teaching found out that decisions about teaching approaches are most effective when based on an informed eclecticism that draws on a range of theories of learning rather than an adherence to a single theoretical model. The teacher should use a wide range of teaching methods and approaches that draw on different ideas about learning, matched to a clearly articulated set of purposes. The teacher should consider his/her beliefs and assumptions about people with learning difficulties. Learning should be purposive, rather than outcome-focused, reflecting the emotional and psychological aspects of learning, and the acquisition of knowledge and skill as well as active participation. The teacher should explore with learners their reasons for wanting to learn and ensure that learning has meaning for learners through building on their own aspirations and interests, recognise each learner's unique experiences, motivations and aspirations as fundamental to the learning process.

In order to make sure that the teaching is as effective as possible, the teacher can benefit from identified good practices in the areas of accessibility, usability, readability, learnability and human interface.

Regarding accessibility, the teacher should ensure the content can be accessed by all the major assistive technologies. Where appropriate, he/she should check it with the software specifically used by the client group. The teacher should also work with the client group, and develop an evaluation system whereby the client group can provide constructive criticism.

In terms of usability, the teacher should keep the structure clear and clean, ensure navigation is easy, provide options on as many of the parameters as possible, and welcome user group feedback.

To ensure readability, the teacher should keep the average sentence length from 15 to 20 words, be concise, and use simple, but not patronizing, vocabulary. The active voice is preferable to the passive one, cross-references are best avoided. Bullet-points and illustrations can be used to help provide a clear meaning. New ideas are best introduced when others are consolidated. Feedback should always be obtained from the user group.

In terms of learnability, the teacher should use effective sequencing to maximise scaffolding. He/she should also pay attention to the principles of "rewards and punishments"; the role of collaborative learning; the ability to learn by active (and passive) discovery; the process of reinforcement through over-learning, self-checks, evaluation and assessment. The teacher should consider the individual's predisposition towards e-learning, the necessity for personalisation of tasks and activities, and the appropriate level of learning support. Certain activities that are helpful to some learners (e.g. learner centred activities) may be disempowering for others due to the nature of their difficulties.

Lastly, regarding human interface, it has long since been realised that students learn best when e-learning is mixed with more traditional approaches. This is particularly true for dyslexic students.

There are two ways that interaction can be guided in computer-assisted learning . The first is through the involvement of a human tutor. The tutor can give non-specific instructions (e.g. what can you do to achieve this?), specific instructions (do A first, then wait, then continue with B), or demonstrate how to perform certain actions. As sessions progress, tutors contribute significantly less, dropping the more didactic and controlling behaviours in their repertoire – a result of the increased independency of the learner. Tutoring can to an extent be performed through the software itself - either in the form of unintrusive tutoring (giving advice but not preventing actions) or intelligent software tutoring (providing feedback based on the tutoring agent's experience of the task and the learner's behaviour).

4. Selection of projects in the area of FL e-learning support for SLD adults

Category	Description
Personal assistant	Braina (Brain Artificial) is an intelligent personal assistant, human language interface, automation and voice recognition software for Windows PC.
Title	Braiana
Website	https://www.brainasoft.com/braina/
Author/Institution How is the website funded?	Brianasoft Commercial – 122 Euro per licence
Content	Speech-to-text Text-to-speech Dictionary Search engine Notetaking
Target audience	General public, but also adults with dyslexia
In which languages is it available?	English, German, Arabic, Turkish, Serbian
What does it offer in the area of foreign language learning support? <i>Listening</i> <i>Speaking</i> <i>Reading</i> <i>Writing</i> <i>Taking notes</i> <i>Vocabulary</i> <i>Grammar</i> <i>Pronunciation</i>	Text-to-speech, dictionary Speech-to-text Text-to-speech Speech-to-text Notetaking, text-to-speech Dictionary N/A Text-to-speech
Is it easy to use? How much time is necessary to be able to use the software? (if available)	Not tested due to cost.
Interface and Technical requirements <i>Time efficiency</i> <i>Saving work for future use</i> <i>Flexibility</i> <i>What kind of access/installation required?</i> <i>Compatibility</i> <i>Respect for privacy</i> <i>Internet access (rural areas)</i>	N/A Yes Yes Windows PC

Category	Description
Mind Mapping	MindMeister is an online mind-mapping tool allowing users to capture, develop and share ideas visually.
Title	Mind Meister
Website	https://www.mindmeister.com/
Author/Institution How is the website funded?	MeisterLabs Commercial – 5 Euro/ Month subscription
Content	Concept organising software
Target audience	Business; Education; SLD
In which languages is it available?	English, German
What does it offer in the area of foreign language learning support? <i>Listening</i> <i>Speaking</i> <i>Reading</i> <i>Writing</i> <i>Taking notes</i> <i>Vocabulary</i> <i>Grammar</i> <i>Pronunciation</i>	Mind mapping has its use facilitating both spelling and creative writing. Mind mapping software is a good way of visualising grammar rules.
Is it easy to use? How much time is necessary to be able to use the software? (if available)	Not tested.
Interface and Technical requirements <i>Time efficiency</i> <i>Saving work for future use</i> <i>Flexibility</i> <i>What kind of access/ installation required?</i> <i>Compatibility</i> <i>Respect for privacy</i> <i>Internet access (rural areas)</i>	

Category	Description
Learning assistant	Digital literacy suite.
Title	Kurzweil 3000
Website	https://www.kurzweiledu.com/k3000-firefly/features.html
Author/Institution How is the website	Kurzweil Education Commercial – 610 Euro/year per licence
Content	Text-to-speech, Book library, Dictionaries, Translation, Colour-coding, Concept mapping, Word prediction, Spellchecking, Speech-to-text
Target audience	Students, especially dyslexics
In which languages is it available?	English, German
What does it offer in the area of foreign language learning support? <i>Listening</i> <i>Speaking</i> <i>Reading</i> <i>Writing</i> <i>Taking notes</i> <i>Vocabulary</i> <i>Grammar</i> <i>Pronunciation</i>	The program offers extensive features assisting all aspects of learning.
Is it easy to use? How much time is wncessary to be able to use the software? (if available)	Review: https://www.techlearning.com/news/product-review-kurzweil-3000
Interface and Technical requirements <i>Time efficiency</i> <i>Saving work for future use</i> <i>Flexibility</i> <i>What kind of access/ installation required?</i> <i>Compatibility</i> <i>Respect for privacy</i> <i>Internet access (rural areas)</i>	

References

Chapter 1

Dyslexia in ICD 10: <https://icd.who.int/browse10/2016/en#/F81.0>

Costs for dyslexia testing at the Institut für Legasthenie und Linkshänderberatung:

<https://www.ifll.at/legasthenie/angebote-kosten/>

Bissinger, Angelika. Auswirkungen Diagnostischer Störfaktoren bei Legasthenie:

<https://www.legasthenie-und-dyskalkulie.com/lud5/assets/files/4-Auswirkungen.pdf>

Bundes-Verfassungsgesetz:

<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10000138>

Bundesgesetz über die Gleichstellung von Menschen mit Behinderungen:

<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20004228>

Staatsgrundgesetz vom 21. December 1867, über die allgemeinen Rechte der Staatsbürger für die im Reichsrathe vertretenen Königreiche und Länder:

<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10000006>

Bundesgesetz vom 21. März 1973 über die Förderung der Erwachsenenbildung und des Volksbüchereiwesens aus Bundesmitteln):

<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10009356>

European Country Report on Austria for the Study on Member States' Policies for Children with Disabilities, European parliament, 2014, p. 40:

[http://www.europarl.europa.eu/RegData/etudes/STUD/2014/519195/IPOL_STU\(2014\)519195_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2014/519195/IPOL_STU(2014)519195_EN.pdf)

Erlass für die Leistungsbeurteilung bei LRS bzw. Legasthenie, Rundschreiben Nr.: 32/2001 des BMBWF:

https://bildung.bmbwf.gv.at/ministerium/rs/2001_32.html

Anmerkungen zur Leistungsbeurteilung bei LRS bzw. Legasthenie aus sicht der OOELL Dezember 2012:

<http://www.ooell.at/home/index.php/links>

The Regulations for all states are available at:

Burgenland: not to be found

Kärnten: <http://www.legasthenieverband.com/docs/legasthenie.pdf>

Lower Austria:

http://www.schulpsychologie.at/fileadmin/upload/lernen_leistung/Legasthenie/lrs_erlass_deutsch.pdf

Salzburg:

http://www.lrs-therapeuten.org/fileadmin/LRS-Daten/Dokumente/Der_schulische_Umgang_mit_LRS.pdf

Stiermark: <https://www.lsr-stmk.gv.at/de/Documents/A3/Lese-Rechtschreibschwierigkeiten.pdf>

Tirol: https://lsr.tsn.at/sites/lrs.tsn.at/files/upload_schulpsychologie/RS200909.pdf

Upper Austria:

http://www.schulpsychologie.at/fileadmin/upload/lernen_leistung/Legasthenie/erlass_ooe_2004.pdf

Vienna:

http://www.schulpsychologie.at/fileadmin/upload/lernen_leistung/Legasthenie/erlass_II_ahs_2014.pdf

Vorarlberg: <http://www.schulpsychologie.at/legasthenie/Legasthenie-Erlass-Vbg-2008.pdf>

Elftrorp, Petra Emilia. A study of guidance counselling needs of adults with dyslexia within the Irish educational guidance service. University of Limerick, 2017:

https://ulir.ul.ie/bitstream/handle/10344/6498/Elftrorp_2017_study.pdf?sequence=6

Die LRS in der Fremdsprache English. Landesschulrat für Vorarlberg. Bregenz, 2010:

http://www.lsr-vbg.gv.at/wordpress/wp-content/uploads/2012/02/Legasthenie_in_Fremdsprache_English.pdf

Chapter 2

Computer Assisted (Language) Learning (CA(L)L) for the Inclusive Classroom. Cara Nicole Greene. Dublin University, p. 63: http://doras.dcu.ie/19119/1/Cara_Greene_PhD_Thesis.pdf

Cibid, p. 67.

Adult ESL student perceptions on computer assisted language learning.

Jillian Burrus, University of Nevada Las Vegas: <https://core.ac.uk/download/pdf/62875424.pdf>

A conceptual model of ICT needs of the dyslexic student. Ian Smythe, Paul Blenkhorn, Gareth Evans, Linda Siegel and EA Draffan. In: Provision and Use of Information Technology with Dyslexic Students in University in Europe. Edited by Ian Smythe. https://eprints.soton.ac.uk/264151/1/The_Book.pdf

Assistive Technology for Students with Learning Disabilities. Gabrielle Young, Jeffrey MacCormack: <https://www.ldatschool.ca/assistive-technology/>

Online Digital Game-Based Language Learning Environments: Opportunities for Second Language Development. Kyle William Scholz: <https://uwspace.uwaterloo.ca/handle/10012/10108>

Computer Assisted (Language) Learning (CA(L)L) for the Inclusive Classroom. p. 70.

Adult ESL student perceptions on computer assisted language learning. Jillian Burrus. University of Nevada Las Vegas. p.19

Assistive Technology for Students with Learning Disabilities. See above.

Computer Assisted (Language) Learning (CA(L)L) for the Inclusive Classroom. See above. <http://www.ooell.>

Being, Having and Doing: Theories of Learning and Adults with Learning Difficulties. Lesley Dee, Cristina Devecchi, Lani Florian, Steve Cochrane. Learning and Skills Development Agency:

<https://files.eric.ed.gov/fulltext/ED508507.pdf>

Dyslexia and E-learning – a guide to good practice. Ian Smythe and EA Draffan. In: Provision and Use of Information Technology with Dyslexic Students in University in Europe. Edited by Ian Smythe. See link above.

Effective strategies of tutors teaching adults with learning disabilities to use virtual environments. J Standen, D Brown, R Blake and T Proctor:

https://www.researchgate.net/publication/228947529_Effective_strategies_of_tutors_teaching_adults_with_learning_disabilities_to_use_virtual_environments

2. Foreign Language learning disorders in adulthood. The Danish context²⁷.

Summary

Chapter 1 – SLD adults and foreign language learning in Ireland

- 1.1 State of art in Denmark. General overview on learning difficulties/disorders in adult education researches
- 1.2 Organizations involved with SLD adults
- 1.3 The needs of SLD adults in FL learning and the needs of the trainers

Chapter 2 - Language E-teaching methodologies and tools in SLD adults' FL learning in Denmark

- 2.1 General overview on ICT methodologies and tools addressed to adults with learning difficulties in FL learning in organizations such as Universities, Foreign Language schools, VET providers and other bodies
- 2.2 ICT methodologies and tools implementation in the classroom
- 2.3 Teachers and trainers' needs in FL learning

References



²⁷ This paragraph has been written by Thomas K. Hansen (VIFIN)

Chapter 1 - SLD adults and foreign language learning in the partner countries

1.1 State of art in Denmark. General overview on learning difficulties/disorders in adult education researches

In Denmark there is a national law about special education/training for adults. It states that adults with physical or psychological disabilities have a right to special education (Ministry of Education). The physical handicaps might be:

- Hearing impairment
- Visual difficulties
- Speech difficulties
- Mobility difficulties

The psychological handicaps might be:

- Mental retardation
- Personality disorders
- Personal, psychiatric or mental difficulties.

The special needs of the citizen are mapped in an attempt to make the special education as relevant and useful as possible. The offer may contain both education as well as special educational assistance, including counseling of the citizen/participant as well as the next of kin in addition to providing digital means for compensation. The special education for adults is a planned, time-limited, progressive and targeted activity aimed at remedying or limiting the effects of a disability. For instance, the participant learns compensatory strategies and methods that allow him/her to participate as much as possible in community life on the same terms as people without disabilities.

The training/education, most often takes place at special schools for adults specialized in speech, hearing and sight. These are run by either municipal or regional institutions. The sessions can take place in the home or at work, both in groups and on an individual level. Usually an adult is given up to 80 hours of training, each session lasting 45 minutes.

The municipalities, or regions, are responsible for the content of the special education as well as the financial aspect. Municipalities are also responsible for making sure that the citizen gets an offer of special education. However, if a municipality is not able to offer special education due to lack of resources or expertise, they can get help from the free counselling service VISO²⁸. VISO is a national knowledge- and special counseling organization, whose objective is to share knowledge and offer counselling about special education for children and adults among other things.

According to the Danish neurological association²⁹ learning difficulties is a common expression/definition of developmental disorders of the following skills needed in school:

- a specific reading disorder (dyslexia)
- a specific spelling disorder (dysgraphia)
- specific calculation difficulties (dyskalkuli)
- a mix of these disorders: The chance of co-morbidity, where 2 or more disorders are present simultaneously, are very high.

²⁸ VISO socialstyrelsen.dk)

²⁹ <http://neuro.dk/wordpress/nbnv/indlaeringsvanskeligheder/>

It concerns disorders that deviate from normal learning patterns in the development of skills. The disorders are not a result of inadequate education, intellectual disability or any kind of brain injury or illness.

Children in Denmark have regular access to a health visitor or special nurse who is trained in child development and according to the Danish health guide these are important for discovering learning difficulties as early as possible³⁰. However, some of the learning difficulties may only come to light at a later age. If it is suspected that a child has learning difficulties the child is examined through specific psychological tests no matter the age.

If a child or adult, native speaker or foreign speaker, is suspected of being dyslexic, due for instance to slowed learning, a dyslexia test is administered. In the case of a learner of Danish as a second language, a so-called dynamic dyslexia test is employed, which works independent of language background.

According to NOTA³¹, which is a knowledge and resource center for dyslexia, more and more children are diagnosed with dyslexia. NOTA membership rises every year and in 2016 they had 3886 12-year-old members, which adds up to 5,8 % of all 12-year-olds in Denmark. This is consistent with numbers from the Danish association for dyslexia, who estimate that 6-8 percent of the Danish population suffers from dyslexia.

However, even though more and more children are diagnosed with dyslexia, there is a grey zone when it comes to children of migrants. Researcher Anne Gellert from Copenhagen University states that children from families with more languages than Danish are seldom diagnosed with dyslexia. She argues that this is because teachers/professionals assume that bad reading skills are naturally correlated with bad oral Danish language skills. Furthermore, she argues, there is an uncertainty in how to diagnose migrant children with dyslexia³².

1.2 Organizations involved with SLD adults

In Denmark we have the Dyslexia Association³³. Their objective is to represent people with dyslexia in the public and with authorities. The organization campaigns for a general recognition of dyslexia and spreading the knowledge of terms and opportunities for people with dyslexia. They have been around since 1943. They deal with dyslexia in both adults and children; however, they do not focus (specifically) on foreign language learning.

Also the University based Center for Reading Research has dealt specifically with dyslexia and adult immigrants in Denmark, designing a new methodology for testing dyslexia in adult foreigners called DOT (Dynamic Dyslexia Test).

The organization "Hjernesagen³⁵" (Brain Cause) focusses on matters of the brain and research in brain injuries. Every year 21.500 Danish people suffer from brain bleeds or blood clots, and every third person suffers damage to the linguistic areas of the brain that makes it difficult to communicate, also known as aphasia. However, they do not focus on foreign language learning.

The Association for ADHD (Attention Deficit Hyperactivity Disorder) works to improve conditions for people with ADHD and their relatives. They have 5.500 members in Denmark. Adults and children with ADHD often have difficulties concentrating and being hyperactive and impulsive. This often makes it difficult for them to sit still and learn in schools, universities, jobs etc.³⁶

³⁰ <https://sundhedsguiden.dk/da/temaer/alle-temaer/boernesygdomme/nervesystemet-og-psykiske-forstyrrelser/indlaeringsproblemer/>

³¹ <https://nota.dk/om-nota>

³² <https://www.folkeskolen.dk/56078/tosprogede-ordblinde-bliver-overset>

³³ <https://www.ordblindeforeningen.dk/>

³⁴ https://laes.hum.ku.dk/centerets_forskning/ordblinde_voksne_dsa/

³⁵ <https://www.hjernesagen.dk/>

³⁶ <https://adhd.dk/om-adhd/>

Gomentor.dk is a private Danish company that has coaches, counselors and psychologists who are specialized in different kinds of SLDs.

The National Board for Health and Welfare (Socialstyrelsen) has a webpage where they have compiled knowledge, resources and initiatives on a number of disabilities³⁷.

Empata is a private organization that offers a youth education training for young people who are not able to complete ordinary youth education. It does not aim at foreign language learning specifically³⁸.

In primary and secondary school it is the goal of the government to include as many children with special needs as possible into the ordinary classes. Therefore, these children are offered different kinds of help – a teaching assistant, compensating technologies, etc. However, not all children are able to be in an ordinary class, and these children are offered special education lessons in specific classes. (Ministry of Education)

In regards to young people with learning difficulties Denmark has a special program called STU (Specially adapted youth education). This is a 3-year youth education training for youngsters with special needs. All people under the age of 25 who cannot complete an ordinary youth education have the right to STU (Ministry of Education).

Furthermore, there is the vocational education (erhvervsuddannelse) for adults: EVU. This training is adapted to fit with individual experiences and education.

At the University it is possible to apply for SPS (Special Pedagogical Support), which is a support system to help students with special needs to get through their studies. The support often consists of extra time to complete an assignment, an exam or mentoring.

In Denmark it is possible to have a “flex job”. This is for people who are unable to work under normal conditions due to illness or disability. A flex job is an ordinary job in a private or public organization with reduced time or other special considerations, such as on-the-job mentoring, supervision, etc.

1.3 The needs of SLD adults in FL learning and the needs of the trainers

Compared to other SLDs, dyslexia is well-defined and documented. It is known that dyslexia from childhood, can impact a person’s ability to build a vocabulary, due to reduced reading capabilities, and acquire background knowledge, which in adulthood can lead to challenges in terms of educational choice and vocational possibilities.

In Denmark it is compulsory that teachers must attend a specific education in “teaching Danish as a foreign language,” which takes between 1 – 2 years, in order to become eligible to teach immigrants at a language center.

There is also an education for learning how to identify and teach adults with dyslexia, and in 2018 a similar education was established for children.

Further, speech therapists are often engaged in order to remedy various speech related difficulties. But, there is a prominent lack of people trained on both the aspect of dyslexia, learning difficulties in general, and the one of second language learning. Establishing this kind of expertise is also found to be a recommendation in various reports.

³⁷ <https://socialstyrelsen.dk/handicap>

³⁸ <https://www.empata.dk/om-empata.aspx>

Chapter 2 - Language E-teaching methodologies and tools in SLD adults' FL learning in Denmark

2.1 General overview on ICT methodologies and tools addressed to adults with learning difficulties in FL learning in organizations such as Universities, Foreign Language schools, VET providers and other bodies.

At University level, it is possible to get ICT support such as:

- IT-start package, with programs for dyslexics, which can be installed on one's own computer.
- Speech Recognition Program "Dictus" (for Danish) for speech to text ³⁹.
- Dictaphone for recording lectures
- Scanner, for transferring text to computer or tablet for text-to-speech capability, for instance via "access-for-all,"⁴⁰ CD-ord, IntoWords and VITAL.

In addition there is an increasingly wide-spread use of google, apple and Microsoft Text-to-speech and Speech-to-text applications.

The IT and Dyslexia report⁴¹ as well the website "my life as a dyslexic"⁴² lists a number of other applications that can be used, that have the same functionalities as the bulleted items. These include applications both for PC/Mac and for IOS/Android phones.

The most commonly used technologies at all levels of education are computers and tablets, to a rising degree telephones. This also holds true for special ed teaching. But, even though all schools have tablets available, laptop computers are still the dominant medium for use of compensatory tools.

An extensive research project⁴³ was conducted from 2013-2016 with two main points of interest; 1) a questionnaire targeted at reading consultants all over the country to determine the correlation between IT-tools and dyslexia; 2) an examination of the effect of IT-tools on dyslexic youngsters' (4-5th grade) speaking and writing abilities.

One main problem reported from the project was that, although the students had a lot of compensatory IT available to them, actual use was very limited or even non-existent, as the tools were found to be slow and difficult to use. Although the study showed that compensatory IT could be useful, it was also found that a "didactics-of-use" instruction is required, in order to ensure good, and not just random, use of the tools.

The idea and desire to incorporate in-class CALL methodologies in Denmark is prominent, as it allows for both self-study and blended and/or differentiated learning. Some benefits related to teaching of Danish as a second language were described and documented in the Danish Simulator Project back in 2012/13, where it was shown that a CALL application could be beneficial both in terms of time and money⁴⁴.

For learners of Danish (also as a second language), there are seemingly good, although not very well documented, results in terms of utilizing text-to-speech and word-suggestion applications. The lack of proper studies is lamented. The call here is to examine whether the technologies are beneficial for DSL students without SLDs, and also for DSL students with SLDs.

Obstacles for using the technology include; difficulties in understanding the synthetic voice.

³⁹ VISO socialstyrelsen.dk)

⁴⁰ <http://neuro.dk/wordpress/nbv/indlaeringsvanskeligheder/>

⁴¹ https://materialeplatform.emu.dk/materialer/public_downloadfile.do?mat=12380531&id=12380528

⁴² <https://etlivsomordblind.dk/>

⁴³ http://edu.au.dk/fileadmin/edu/Udgivelser/Rapporter/Projekt_It_og_ordblindhed_slutrapport.pdf

⁴⁴ <https://www.alelo.com/case-study/the-danish-simulator/>

2.2 ICT methodologies and tools implementation in the classrooms

A general requirement or call for support from the FL teacher is for one, or more teachers, to be available as a contact person, and to give instructions and provide guidance in the use of the tools. In general, the evaluations state that in order to be able to exploit the IT-support tools, teachers in all different classes need to plan their teaching so that the learners receive support, but also that they have easy access to electronic versions of the materials.

There does not seem to be "one" structured approach on how assistive technology is used. Technology is provided if necessary along with some instruction, but the actual use seems to be left very much to the individual learner.

The recommendations that have been encountered in relation to autonomous learning are completely similar to in-class recommendations, with regard to instructional capabilities.

In terms of used materials and assistive technologies, these fall in the same category as previously mentioned. In terms of feedback strategies, these seem lacking in terms of a standard, and again left very much to the individual.

There does not seem to be many reports of the effectiveness of IT in these situations. The most prominent one seems to be the reference to the Danish Simulator project, also noted in foot note 17. However, an ongoing Phd project at Roskilde Universitets Center⁴⁵, by Jesper Balslev, examining the effectiveness of IT in education in general, states that: any evidence for IT effectiveness since 1985 has disappeared, but the expectation in terms of IT's potential keeps growing and growing. The PhD will not conclude until 2019.

There are concrete studies within the field of dyslexia on how much IT helps. These relate mainly to reading and writing tasks, looking at how many learners were able to spell specific words correctly with, and without, IT assistance. The results from these studies indicate the IT is very helpful in this regard.⁴⁶

New research from Ulla Konnerup⁴⁷ shows that virtual communities strengthen the quality of life of aphasics. A group of people with acquired brain damage and aphasia rehabilitated their language through computer avatars - in a virtual community with a speech therapist. The experiment showed that rehabilitation in virtual communities can extend language rehabilitation to include identity and quality of life.

2.3 Teachers and trainers' needs in FL learning

One general recommendation⁴⁸ is the training and education of teachers to provide specialist knowledge about identification and training of dyslexic people with Danish as a second language. It is found to be difficult to use existing materials for identification of dyslexia in foreign learners, as it is difficult to assess whether the problem is dyslexia or simply a language learning problem. The DOT test does seem to provide a solution to that.

⁴⁵ <https://www.folkeskolen.dk/601660/phd-studerende-ingen-evidens-for-at-it-i-undervisningen-virker>

⁴⁶ Example http://holgerjuul.com/videnom_11_Holger-Juul.pdf

⁴⁷ http://vbn.aau.dk/en/persons/pp_bcd7ae36-0ae0-412e-b24f-aa327f8f1673/publications.html

⁴⁸ <https://uvm.dk/-/media/filer/uvm/udd/voksne/pdf09/090518-rapport-tosprogede-ordblinde.pdf>

References

<https://www.ordblindeforeningen.dk/it-hjaelpemidler.asp>

<https://www.hjernesagen.dk/aktuelt/virtuelle-faellesskaber-styrker-livskvaliteten-hos-afasiramte>

<https://www.emu.dk/modul/fremmedsprog-faglig-inspiration-til-erhvervsuddannelserne>

<https://legeakademiet.dk/tema/sprog-leg/fremmedsprog.html>

<https://www.emu.dk/modul/organisationer-med-viden-om-ordblindhed>

<https://www.kc-hil.dk/viden-og-udvikling-mega/kurser/teknologi>

<https://www.digitalplatform.dk/tag/specialundervisning/>

<https://www.emu.dk/modul/it-til-elever-med-s%C3%A6rlige-undervisningsbehov>

<https://www.csv.dk/Table/CSV-Kommunikation/Undervisning-%E2%80%93-taleområdet/>

https://www.ordblindeforeningen.dk/projekt_livslang_laering__voksne_og_dysleksi.asp

http://lydbehandling.dk/indlaeringsproblemer/?gclid=Cj0KCQiAgMPgBRDDARIsAOh3uyIpcI11AZQycif-WRsTewL-yDPnVu02AfKoGHqNPbPetc6zl9vnydLAaAmhCEALw_wcB

<https://flygtning.dk/media/1329582/Traumatiserede-flygtninge-i-sprogundervisningen-God-praksis.pdf>

<http://frontrunners.dk/wp-content/uploads/2018/12/Frontrunners-Curriculum20181125.pdf>

3. Foreign Language learning disorders in adulthood. The Greek context ⁴⁹.

Summary

Abstract

1. General overview

- 1.1 Learning difficulties/disorders in Greece
- 1.2 The Centres for Educational and Advisory Support
- 1.3 The needs of SLD adults in FL learning
- 1.4 The needs of the trainers in FL learning

2. Methodologies and tools

- 2.1 Language E-teaching methodologies and tools in SLD adults' FL learning
- 2.2 Computer assisted language learning
- 2.3 ICT methodologies and tools implementation in the classrooms
- 2.4 Teachers and trainers' needs in FL learning

3. Examples of projects of FL e-learning support for SLD adults

References



⁴⁹ This paragraph has been written by Anna Koronioti (IED)

Abstract

This document constitutes a compilation of the findings of the desk research about learning disorders in foreign language learning in Greece.

The research, which in some cases was divided in both field and desk, was carried out by the Institute of Entrepreneurship Development, a Greek NGO based in the city of Larissa. It focused primarily on the learning difficulties in the general educational context and how these are approached during both childhood and adulthood. The results yielded paint a holistic picture regarding this component of the learning process and shed light on the shortcomings of the response settings when it comes to learning disorders.

However, it became clear that the Greek legal and educational system has come a long way these past few decades and strives to achieve a more complete and inclusive educational system, where everyone will have the opportunity to learn and be taught with equity. It is certain that this will only continue to develop and ameliorate during the next years in line with the set European standards.

⁵⁰ Find our more here <https://ied.eu/>

Chapter 1. General overview

1.1 Learning difficulties/disorders in Greece

According to Greek legislation⁵¹, the State is obliged to provide special education alongside mainstream. In this sense, special education must cover the needs of all learners regardless of age and educational needs. This is considered necessary for all people who exhibit a learning difficulty or a more severe disability, in order to ensure equity and same opportunities in education, and by extension, professional and social life. Admittedly, these provisions are addressed mostly to younger learners and their schools, however it is stressed that they extend also to adult life should the need arise.

Concerning the learning disorders and their diagnosis, the Centers for Educational and Advisory Support constitute decentralized, regional structures of the Greek Ministry of Education, Research and Religious Affairs and are the institutions in charge of identifying and assessing special educational needs. Generally, the process of identification and diagnosing of a learning difficulty in an individual, under 22 years of age, follows a specific pattern: a multidisciplinary team of scientists, comprising of a special education teacher, a social worker, a psychologist, a pedopsychiatrist (or a pedoneurologist) and a speech therapist, meet with the student's parents/caregivers and then, if it is deemed necessary, with the student himself/herself⁵². After this meeting, the team exchanges opinions and conclusions and draft a collective assessment essay. After this essay has been finalized and signed, the centers and the school cooperate in providing to the students with SDL the necessary infrastructures, services and support in order for them to have the same opportunities and starting points in education as their peers.

However, one major issue related to learning difficulties/disorders is diagnoses which are not based to scientific data and assessments, and therefore are false. Greece holds an unfortunate record in Europe, possibly even world-wide, as learning difficulties seem to manifest with a frequency of 30%, while in the rest of Europe they do not exceed 7%. According to experts, the public centers that are in charge of these diagnoses and assessment are significantly understaffed, a variable that can extend the waiting period up to six months. So, the parents and educators are forced to turn to the private sector, in order to have a diagnosis as soon as possible.

Nevertheless, it seems that their concern is not always valid. According to Dimitris Anagnostopoulos, Associate Professor of Child and Adolescent Psychiatry in the Faculty of Medicine of the University of Athens, these past few years, there is the tendency to place a child in the spectrum of learning difficulties, ADHD (Attention Deficit Hyperactivity Disorder) or autism, when they do not meet the norms of their classroom; for example, if they communicate a bit differently, talk later than expected or deviate from the anticipated academic performance, their parents automatically assume that something must be wrong and seek professional help. So, it is noted that in many of these cases there is not really any learning or behavioral difficulties present, however the parents feel they have to act quickly in case there is. However, when it comes to public schools, only a diagnosis from the appointed public bodies is officially recognized.⁵³

⁵¹ Karagiannis I. (2018), Οι μαθησιακές δυσκολίες στη Δευτεροβάθμια Εκπαίδευση. Ο ρόλος της Συμβουλευτικής. Μεταπτυχιακή εργασία. Παιδαγωγικό τμήμα της Ανώτατης Σχολής Παιδαγωγικής και Τεχνολογικής Εκπαίδευσης. <http://syep.masters.aspete.gr/images/MDE-Karagiannis-I.pdf>

⁵² Papavasileiou C. (2018), Ο υποστηρικτικός ρόλος των ΚΕ.Δ.Δ.Υ. στο ελληνικό εκπαιδευτικό σύστημα: απόψεις του προσωπικού των ΚΕ.Δ.Δ.Υ. και μάχιμων ειδικών παιδαγωγών. Μεταπτυχιακή εργασία. Τμήμα Εκπαιδευτικής και Κοινωνικής Πολιτικής του Πανεπιστημίου Μακεδονίας. <https://dspace.lib.uom.gr/bitstream/2159/22092/4/PapavasileiouChrysiMsc2018.pdf>

⁵³ Vergou D. (2018). «Βιομηχανία... διαγνώσεων παιδιών με «μαθησιακές δυσκολίες». Η εφημερίδα των συντακτών. https://www.efsyn.gr/ellada/ygeia/147243_biomihania-diagnoseon-paidion-me-mathisiakes-dyskolie

1.2 The Centres for Educational and Advisory Support⁵⁴

For Greece, the year 2000 was a turning point for special education in general. Up until then, the efforts realized for students with special learning difficulties were focused on their integration and inclusion in mainstream schools. But the law of 2000 brings about profound change; the focus shifts from the cause and effect of special needs, be it a learning or more severe difficulty hindering their academic inclusion, to the actual educational needs these people have and how they can be addressed.

Additionally, the law of 2000 paves the way for the establishment of the Diagnosis, Assessment and Support Centers (DASC). These centers were tasked with providing to special needs students diagnosis, assessment and support, but also raising awareness not only within the school setting but also outside of it. These Centers were replaced by the "Centers of Differential Diagnosis, Identification and Support for special educational needs (CDDIS) in 2008 and they sought not only integration to mainstream schools for these students, but also participation to social and professional life. The latest reform came in 2018, when CDDIS were renamed "Centers for Educational and Advisory Support". They assumed the role and responsibilities of CDDIS and additionally they organized and supported the provision of primary and secondary education in order for every student, regardless of their educational needs, to have access to it.

These centers provide their services to individuals of no more than 22 years of age, so the diagnosis and assessment can be done until this age. If a learning difficulty is not diagnosed until then, it seems that the adult must seek professional help in the private sector, that includes, among others, prognosis and diagnosis of the learning difficulty, intervention through speech and/or occupational therapy, psycho-social counseling etc.

Also, they offer support to schools in order for all the students to have equal opportunities and access to education. This support includes primary education as well as secondary. The latter is comprised of General and Vocational high schools and the students are free to opt for either. Vocational high schools are usually the ones attended by adults and there are also Evening Vocational high schools for those who work in the mornings and wish to resume with their education.

The tasks carried out by these centers include; identification of education and psycho-social needs, assessments, design of interventions when necessary, career counseling and also awareness in the school community and beyond.

1.3 The needs of SLD adults in FL learning

It is known that learning difficulties that are diagnosed during childhood can be treated in a more efficient and effective way. Of course, this depends not only on the level of severity but also on the individual in question. Nevertheless, SLD that remain undiagnosed pose additional difficulties to the person exhibiting it, as they may have never "learned" how to cope with it and successfully integrate it in their life. Moreover, it may be the case that, because of the lack of diagnosis, the person develops additional health problems later in their life.

Concerning foreign languages, adult learners are usually challenged by the following; difficulty with spelling, memorization, and possibly reading (though it is common for them to come up with strategies and ways, so they can cope). Additionally, they may exhibit difficulties in regards with concentration and producing written word. SLD in adults are usually accompanied with certain types of mental issues related to emotional or professional aspects.

⁵⁴ Papavasileiou C. (2018)

Therefore, an adult with SLD needs to learn in an environment that obscures these difficulties and nurtures all their strong suits. Just to name a few, adults with dyslexia tend to be very eloquent, have vivid imagination, find creative solutions by perceiving the whole picture of a problem and also it is not uncommon that their mathematical skills exceed the standard⁵⁵.

To our knowledge, research on the topic has been conducted mainly in regards with younger ages, and unfortunately not so extensively with adults.

1.4 The needs of the trainers in FL learning

These past few years, there is a growing tendency for Greek teachers to seek specialization in special education in the form of post-graduate degrees or seminars. The reason behind this may be associated with the recent raised awareness for SLD in both children and adults. In line with the legislation of the that era, ten years ago students with special needs were merely integrated in mainstream schools, but later special provisions were foreseen in order for them to have the same starting point as everyone else in education. Therefore, it is anticipated that during the next years, more research on SLD in adults will be conducted, driven by the rising need in the school settings to better understand and address the educational requirements of these adults.

Therefore, teachers must have not only the theoretical knowledge, for example how to detect, approach and identify a SLD in an adult and how to tailor the educational process accordingly, but also the necessary resources, both human and material, to provide the best possible education environment within which all students will be encouraged to participate, learn and grow as individuals; and while the theoretical knowledge lies with the level of specialization each educator wishes to attain - all schools attended by students with SLDs must make sure that their staff in adequately and appropriately trained- material resources should be available in every educational unit.

⁵⁵ Unknown author, «Η δυσλεξία στους ενήλικες και τα πιο συνήθη συμπτώματα». Διεπιστημονική & Ερευνητική Ψυχοκοινωνική Υποστήριξη Παιδιών και Ενηλίκων. http://www.dikepsy.gr/index.php?view=view_articles&option=news&item=1526977684&lang=el

Chapter 2. Methodologies and tools

2.1 Language E-teaching methodologies and tools in SLD adults' FL learning⁵⁶

In Greece, the use of ICT in the classroom is a relatively new concept in mainstream schools, let alone special education schools. Apart from the infrastructures that may be lacking ICT tools and support, it is not uncommon that the teachers and educators do not know how to approach ICT-supported teaching; it is one thing to use a computer for personal reason, and another to use it as an educational tool that brings added value to the teaching and learning process.

In any case, ICT is slowly gaining ground in the Greek classroom of public institutions, as its benefits for the students with SLD seem to be extensive. Some applications of ICT include speech-to-text software, recording software, both hard and digital copies of the material etc. Generally speaking when we consider ICT in education, we are referring to simple and everyday applications of ICT that can be easily understood by someone with a working knowledge of computers. Naturally, there are both software and hardware specially designed for SLD, however the stress is given primarily to functions available in every computer and not so much to those that must be installed, taught and potentially bought.

According to our research, even though tools like these are currently being used in classrooms, it is important to note that it is less likely to find them in the classrooms of public education, which is considerably underfunded, and more likely in private education. In private schools and afternoon private tutoring classes, there is a variety of ICT tools, from interactive boards to personalized tablets for each student. Therefore, a main obstacle today that hinders the integration of ICT in classes is, from the one hand, the absence of funds and on the other hand the lack of specialized staff. As mentioned above, recently there has been a focus on special education by teachers of both primary and secondary schools, who seek the required knowledge and tools to address SLDs in children and adults.

Unquestionably, by using ICT in the classroom, everyone is benefitted. Teachers are in a position to "reach" every single student in their class, regardless of their difficulties, something that ultimately helps them in their teaching process. As a result, the material delivered will be understood by more students, if not all of them, and effectively the level of the class will be raised. It is also important to mention, that for teachers is a major satisfaction and joy attaining the educational needs of a student with SLD; it requires more effort on their part, but at the same time it is extremely rewarding and, in most cases, proves that students with an SLD can grow and flourish provided they have access to the appropriate educational environment that covers their needs.

⁵⁶ Due to lack of research in the topic, for Chapter 2, in combination with our references from Chapter 1, we also sought the opinion, experience and advice of FL teachers.

2.2 Computer assisted language learning

As mentioned above, assisted language learning facilitates the process in various ways because these tools basically deliver written and spoken word in a format that the student with SLD can process. Naturally, as each SLD may be different and in a different level in each student, the more diverse assisted learning is, the more students it will support. This is why it includes “assistants” that augment and maximize the capacity of these skills in need of support. For example, an adult with ADHD (Attention-deficit/hyperactivity disorder) who has trouble centering when reading a text can be helped by a software that reads out, underlines the line that is being read and minimizes distractions; for a student with dyslexia who is not comfortable with writing can use a dictation assistant to transform speech-to-text and vice versa if their level of dyslexia hinders also their written comprehension.

Some disadvantages could include: 1) IT knowledge necessary in order to operate such tools, 2) lack of interpersonal contact, 3) tools might not be “working” with the specific student, in other words in might not be the suitable tool for the specific case, 4) the student may be discouraged because of the realization that they need support in areas that their peers don’t (feelings of pride), 5) no possibility to access such tools.

2.3 ICT methodologies and tools implementation in the classrooms⁵⁷

ICT tools are used a) to cover the educational needs of all students and b) to make the lesson more interactive and participative. In the FL classroom, they are used in order to deliver the main components of the lesson, e.g. projector, interactive board or PowerPoint presentations, and also exercises for vocabulary and grammar consolidation. These exercises can be either individual or cooperative, depending on what it is more useful for the specific class. However, in case this is not already provided by the school, the teacher must conduct their own research and find suitable material. So, the needs of a FL teacher include not only ICT means and support but also, manuals on how to best use these tools and sources with diverse material that can be adapted to the needs of the class.

ICT tools can also be used for autonomous online learning; repositories with all the material available on line, Moodle-like platforms that help students interact with both the material and each other, catch up with current assignments and organize their studying. In many European countries, this is already a reality for public schools, however in Greece we seem to lag behind; usually ICT tools and support are very limited and can not be found in every public school. Naturally, this is not the case for private education where schools are usually adequately equipped.

Generally, adults seek to learn a foreign language for a specific reason. For example, some decide to move abroad, so they need to acquire a level that will permit them to communicate; some aspire to learn topic-specific FL that relates to their job; some others want to ameliorate their speaking or listening skills. So, the material provided is significantly based on these factors. As in level A2 the focus is on basic comprehension and production of written and spoken language, the material provided is primarily designed along these lines and aims to develop strong foundations of basic grammar and syntax rules. Therefore, the material can be written or audiovisual, it can be drawn from everyday life and experience, and therefore be more relatable – this is not possible with younger learners who don’t have as many experiences yet.

According to testimonials, the feedback is mostly given verbally, but naturally is also based on the milestones set by the CEFRL. For example, for level A2, the learner is a basic user of the language and, having learnt the fundamental components in A1, will proceed to work on basic comprehension and production. So, on the one hand feedback is provided in regards to academic performance and on the other hand, and equally important, personal effort and advancement. Adults, alike children, find more meaning in verbal reinforcement and praise and it is something that in many cases can give them a push to keep trying.

⁵⁷ Nakou M., Chotzar O. (2018), Η χρήση Νέων Τεχνολογιών στη βελτίωση της αναγνωστικής διαδικασίας παιδιών με δυσλεξία. Μεταπτυχιακή εργασία. Τμήμα Λογοθεραπείας, Σχολή Επαγγελματιών Υγείας και Πρόνοιας, ΤΕΙ Ηπείρου. http://apothetirio.teiep.gr/xmlui/bitstream/handle/123456789/9144/Nakou%2C%20M.E.%20_%20Chotzar%2C%20O.%20_SLT_%202018.pdf?sequence=1

Similarly, adult learners are not reluctant to voice their opinion about methodology and applications used. Especially, for e-learning applications on FL learning, in most cases they let their educators know whether these tools work for them or not. Again, unlike children whose mind are like sponges and are more receptive towards new and innovative ways of learning, adults, even though they enjoy non-traditional ways of learning also, they may be discouraged if the means, tools and methodologies present difficulties for them, as well.

2.4 Teachers and trainers' needs in FL learning

According to the professionals we asked, the needs and requirements relating to e-learning and SLD adults, are in most cases common, and include, but are not limited to, the following;

- Ample material that supports e-learning and e-teaching (i.e. audiovisual, interactive etc)
- Material that is tailored to the needs of the learners with learning difficulties
- In-class software and hardware that supports e-learning
- Technical support
- State funds allocated to the creation of a more "digital classroom"
- Seminars and trainings on how to include more e-learning in their classroom, especially when it comes to SLD adults
- State-mandated training of teachers that are already posted in public schools and still use traditional and obsolete ways of teaching
- Provisions for the most basic manifestations of learning difficulties available in every school

3. Examples of projects of FL e-learning support for SLD adults

Category	Description
Title	"Special English"
Website	http://www.specialenglish.gr/
Author/Institution How is the website funded?	Private Institution
Content	Complete e-learning programme of special education that includes specialized exercises and techniques
Target audience	Learners of English with SLD
In which languages is it available?	Greek
What does it offer in the area of foreign language learning support? <i>Listening</i> <i>Speaking</i> <i>Reading</i> <i>Writing</i> <i>Taking notes</i> <i>Vocabulary</i> <i>Grammar</i> <i>Pronunciation</i>	It covers all areas, with special attention on production and comprehension of oral English.
Is it easy to use? How much time is necessary to be able to use the software? (if available)	Because this is a paid service, this information is not available.
Interface and Technical requirements <i>Time efficiency</i> <i>Saving work for future use</i> <i>Flexibility</i> <i>What kind of access/ installation required?</i> <i>Compatibility</i> <i>Respect for privacy</i> <i>Internet access (rural areas) (if available)</i>	According to the website, the learners only need internet connection, a programme for online video calls (eg Skype) and a web camera. Also, there is flexibility regarding when the courses can start – it doesn't have to be at the beginning of the academic year – because this specific programme does not follow the course of traditional language learning and focuses on the needs and interests of each student.

Category	Description
Title	"English for Success"
Website	http://www.qenglish.gr/qd/ti-einai-to-english-for-success-32339.htm?lang=el&path=526106758
Author/Institution How is the website funded?	Private
Content	It is an e-learning platform for EFL learners that covers levels CEFR Pre-A1 to B2.3, with audiovisual material based on real-life experiences.
Target audience	Students of primary and secondary education and adults.
In which languages is it available?	English
What does it offer in the area of foreign language learning support? <i>Listening</i> <i>Speaking</i> <i>Reading</i> <i>Writing</i> <i>Taking notes</i> <i>Vocabulary</i> <i>Grammar</i> <i>Pronunciation</i>	According to the website, it offers material and knowledge covering all areas, with special focus on oral production and comprehension with their online practice tools "Speak2me" and "The Studio".
Is it easy to use? How much time is necessary to be able to use the software? (if available)	Because this is a paid service, this information is not available. However, it is mentioned that the material covers more than 1200 hours. .
Interface and Technical requirements <i>Time efficiency</i> <i>Saving work for future use</i> <i>Flexibility</i> <i>What kind of access/installation required?</i> <i>Compatibility</i> <i>Respect for privacy</i> <i>Internet access (rural areas) (if available)</i>	According to the website, the technical requirements are internet connection and a laptop/tablet. Also, as it seems, the learner is free to organize and plan the course of the lessons depending on their needs and free time and also there is regular feedback regarding their progress.

References

Karagiannis I. (2018), Οι μαθησιακές δυσκολίες στη Δευτεροβάθμια Εκπαίδευση. Ο ρόλος της Συμβουλευτικής. Μεταπτυχιακή εργασία. Παιδαγωγικό τμήμα της Ανώτατης Σχολής Παιδαγωγικής και Τεχνολογικής Εκπαίδευσης. <http://syep.masters.aspete.gr/images/MDE-Karagiannis-I.pdf>

Nakou M., Chotzar O. (2018), Η χρήση Νέων Τεχνολογιών στη βελτίωση της αναγνωστικής διαδικασίας παιδιών με δυσλεξία. Μεταπτυχιακή εργασία. Τμήμα Λογοθεραπείας, Σχολή Επαγγελματών Υγείας και Πρόνοιας, ΤΕΙ Ηπείρου. http://apothetirio.teiep.gr/xmlui/bitstream/handle/123456789/9144/Nakou%2C%20M.E.%20_%20Chotzar%2C%20O.%20_SLT_%202018.pdf?sequence=1

Official Government Gazette 5614/2018, «Κανονισμός Λειτουργίας Κέντρων Εκπαιδευτικής και Συμβουλευτικής Υποστήριξης (ΚΕΣΥ), Καθηκοντα και Αρμοδιότητες Προσωπικού <https://edu.klimaka.gr/sxoleia/eidikh-agwgh/3111-kanonismos-leitourgias-kesy>

Papavasileiou C. (2018), Ο υποστηρικτικός ρόλος των ΚΕ.Δ.Δ.Υ. στο ελληνικό εκπαιδευτικό σύστημα: απόψεις του προσωπικού των ΚΕ.Δ.Δ.Υ. και μάχιμων ειδικών παιδαγωγών. Μεταπτυχιακή εργασία. Τμήμα Εκπαιδευτικής και Κοινωνικής Πολιτικής του Πανεπιστημίου Μακεδονίας. <https://dspace.lib.uom.gr/bitstream/2159/22092/4/PapavasileiouChrysiMsc2018.pdf>

Vergou D. (2018). «Βιομηχανία... διαγνώσεων παιδιών με «μαθησιακές δυσκολίες». Η εφημερίδα των συντακτών. https://www.efsyn.gr/ellada/ygeia/147243_biomihania-diagnoseon-paidion-me-mathisiakes-dyskolies

Unknown author, «Η δυσλεξία στους ενήλικες και τα πιο συνήθη συμπτώματα». Διεπιστημονική & Ερευνητική Ψυχοκοινωνική Υποστήριξη Παιδιών και Ενηλίκων. http://www.dikepsy.gr/index.php?view=view_articles&option=news&item=1526977684&lang=el

Unknown author (2016), «Μαθησιακές δυσκολίες: Πως γίνεται η διάγνωση - Η λίστα με τα ΚΕΔΔΥ». https://www.alfavita.gr/ekpaideysi/191793_mathisiakes-dyskolies-pos-ginetai-i-diagnosi-i-lista-me-ta-keddy.

Unknown author (2018), «Μαθησιακές δυσκολίες, διάγνωση και αντιμετώπιση: «Εργαλεία» για μία πιο εύκολη ζωή». <https://www.protothema.gr/paidi/article/803306/mathisiakes-duskolies-diagnosi-kai-adimetopisi-ergaleia-gia-mia-pio-eukoli-zoi/>

4. Foreign Language learning disorders in adulthood. The Irish context⁵⁸.

Summary

Chapter 1 - SLD adults and foreign language learning in Ireland

- 1.1 Introduction
- 1.2 Relevant laws/guidelines regarding learning difficulties/disorders in Ireland at national/regional level
- 1.3 Summary on how any learning difficulties are diagnosed and measured in Ireland
- 1.4 Organizations involved with SLD adults
- 1.5 Available support that is given to individual students with learning difficulties/disorders
- 1.6 The needs of SLD adults in FL learning and the needs of the trainers
- 1.7 Research data about the needs of SLD adults in FL learning
- 1.8 Foreign language learning in underprivileged contexts
- 1.9 The needs of FL teachers and trainers regarding the support to SLD students

Chapter 2 - Language E-teaching methodologies and tools in SLD adults' FL learning in Ireland

- 2.1 General overview on ICT methodologies and tools addressed to adults with learning difficulties in FL learning in organizations such as Universities, Foreign Language schools, VET providers and other bodies
- 2.2 Using technologies in FL teaching to SLD adults in Ireland
- 2.3 E-learning methods and tools
- 2.4 Computer assisted language learning facilitating FL learning in SLD adults
- 2.5 ICT methodologies and tools implementation in the classrooms
- 2.6 Teachers and trainers' needs in FL learning
- 2.7 The needs of FL teachers and trainers in e-learning for SLD adults

Selection of projects in the area of FL e-learning support for SLD adults

References



⁵⁸ This paragraph has been written by Kristin Brogan (Institute of Technology Tralee)

Chapter 1. SLD adults and foreign language learning in Ireland

1.1 Introduction

There are many education and training service providers in Ireland offering services and supports for people with specific learning disorders. These include, but are not limited to, further education, vocational training, higher education, rehabilitative training and adult day services. Within each of these, a range of education/training services and special supports is relevant to people with disabilities. These services are provided by various bodies such as the higher education institutions, Educational and Training Boards (ETBs)⁵⁹ or the Health Service Executive (HSE)⁶⁰.

The Adult Education Guidance Initiative delivered by ETBs⁶¹, provides nationwide guidance for learners before, during and after they participate in adult literacy and community education programmes and including also the Vocational Training Opportunity Scheme (VTOS)⁶² and the Back to Education Initiative (BTEI)⁶³. The target group for this initiative includes people with disabilities.

The HSE occupational guidance service aims to provide one-to-one advice, support and guidance to enable individuals with a disability aged 16 to 65 to make an informed choice about their rehabilitative training and occupational options. It is accessible through local HSE disability services. AHEAD, the Association for Higher Education Access and Disability⁶⁴ is an independent non-profit organisation working to promote full access to and participation in further and higher education for students with disabilities and to enhance their employment prospects on graduation.

The Citizens' Information Board⁶⁵ is the statutory body which supports the provision of information, advice and advocacy on a broad range of public and social services. It provides the Citizens' Information website and supports the network of Citizens' Information Centres and the Citizens' Information phone service. This website includes information on entitlements for people with disabilities.

Research in Barriers to Further Education and Training (Mooney and O'Rourke, 2017) supports that growing up in socioeconomic disadvantage is associated with poorer educational outcomes, including lower levels of attainment (Feinstein 2003; Melhuish et al. 2012) and a lower likelihood of school completion (Dale, 2010; Wodtke, Harding and Elwert 2011). Low literacy levels are also associated with poor life outcomes including school non-completion, low paid employment, unemployment, and lower likelihood of engaging in FET (Eivers, Shiel & Shortt, 2004)⁶⁶.

1.2 Relevant laws/guidelines regarding learning difficulties/disorders in Ireland at national/regional level

In Ireland people with disabilities can face several challenges in accessing education and training services which appropriately meet their needs. Disability has many levels of severity and forms including physical, sensory (visual or hearing), intellectual or mental health impairment. Access issues therefore vary and need to be clarified and considered on an individual basis.

⁵⁹ <https://www.etbi.ie/>

⁶⁰ <https://www.hse.ie/eng/>

⁶¹ <https://www.ncge.ie/ncge/adult-educational-guidance-initiative>

⁶² <http://cork.etb.ie/further-education-and-training/adult-education/vocational-training-opportunities-scheme-vtos/>

⁶³ <https://www.education.ie/en/Schools-Colleges/Services/Further-Education-and-Training/Back-to-Education-Initiative-BTEI/>

⁶⁴ <https://www.ahead.ie/>

⁶⁵ <http://www.citizensinformationboard.ie/en/>

⁶⁶ <http://www.solas.ie/SolasPdfLibrary/Barriers%20to%20FET%20Final%20June%202017.pdf>

There are several laws in Ireland protecting people with disabilities. Ireland signed the United Nations Convention on the Rights of Persons with Disabilities. Section 24.5 requires States to: Ensure that persons with disabilities are able to access general tertiary education, vocational training, adult education and lifelong learning without discrimination and on an equal basis with others⁶⁷.

Ireland's equality and human rights legislation places a clear obligation on service providers to make their services accessible to people with disabilities, including to people with intellectual disabilities. The Disability Act 2005⁶⁸ requires organisations providing services and information to the public to do all that is reasonable to accommodate the needs of people with disabilities. The Education for Persons with Special Educational Needs (EPSEN) Act (2004)⁶⁹ legislates for people with disabilities to have the right to be educated with their peers. In addition, The Equal Status Act (2000-2011)⁷⁰ puts into law that reasonable accommodations are to be made to enable people with disabilities to participate in education/training. The legislation does not, however, serve to remove other barriers encountered. These include attitudinal or structural barriers such as negative peer experiences, low expectations of teachers, and a lack of disability-specific accommodations (Green, 2007; Hughes, 2010; Walk, 2015). These barriers compound the fact that children with disabilities are likely to be less engaged with school and have lower educational attainment (Watson, Banks & Lyons, 2015). Consequently, students with disabilities are more likely to leave school early (Dale, 2010) and proportionately fewer people with intellectual disabilities attend secondary level and third level education as compared to the general population (Walk, 2015)¹¹. Irish research has found that people with disabilities are more likely to rely on social welfare payments for at least part of their income, and be at risk of deprivation or poverty compared to those without a disability (Watson et al., 2015). The Employment Equality Acts 1998-2015⁷¹ and the Equal Status Acts 2000-2015 prohibit discrimination on any of 9 grounds including disability. Employers and educational establishments cannot discriminate on the basis of disability or of an attribute or behaviour that is linked to disability⁷².

Section 42 of the Irish Human Rights and Equality Commission Act 2014 places a positive duty on public sector bodies to have regard to the need to eliminate discrimination, promote equality, and protect human rights, in their daily work⁷³.

Under the Equal Status Acts, both public and private sector service providers must do all that is reasonable to accommodate the needs of a person with a disability. In general, this means providing special assistance or facilities in circumstances where it would otherwise be impossible or unduly difficult for a person with the disability to avail of the service. The provider must consider and provide special assistance where this is necessary, practical and appropriate. The Equality Authority⁷⁴ has published guides to the Equal Status Acts and to the requirement of reasonable accommodations. In addition, AHEAD has published guidelines on accommodations for people with disabilities. The National Disability Authority (NDA)⁷⁵ also provides expert advice on disability policy and practice, and promotes universal design in Ireland. All public bodies are specifically required to have at least one officer acting in the capacity of access officer. This person is responsible, where appropriate, for providing or arranging for and co-ordinating assistance and guidance to those with disabilities in accessing the services provided by that body. Public body responsibilities also include ensuring information is accessible⁷⁶.

⁶⁷ <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/article-24-education.html>

⁶⁸ <https://www.ahead.ie/disabilityact>

⁶⁹ <http://www.irishstatutebook.ie/eli/2004/act/30/enacted/en/html>

⁷⁰ <https://www.ahead.ie/equalstatusacts>

⁷¹ <https://www.ihrec.ie/guides-and-tools/human-rights-and-equality-for-employers/what-does-the-law-say/eea-summary/>

⁷² https://www.inclusionireland.ie/sites/default/files/documents/information_pack-final.pdf

⁷³ <https://www.ihrec.ie/app/uploads/2016/09/Public-Sector-Equality-and-Human-Rights-Duty-Leaflet.pdf>

⁷⁴ <https://www.ihrec.ie/>

⁷⁵ <http://nda.ie/>

⁷⁶ <https://www.ihrec.ie/guides-and-tools/human-rights-and-equality-in-the-provision-of-good-and-services/what-does-the-law-say/exceptions/>

Under the National Plan for Equity of Access to Higher Education⁷⁷ the government wants more people, including those with disabilities, to be able to access higher education. The aim of the National Plan for Equity of Access to Higher Education is to increase equality of access to and participation in higher education by under-represented groups in the sector. For example targets have been set to increase the number of students with sensory, physical and multiple disabilities. The National Office for Equity of Access to Higher Education, known as the National Access Office 17, works with publicly funded higher education institutions in the development and implementation of plans to achieve these national targets.⁷⁸

From as early as the 1920s studies have been undertaken to try and determine why otherwise bright children struggle in the learning of languages. If these students who struggle were to be tested they may be given a diagnosis of having a learning disability, typically dyslexia which affects learning in one or more areas, language usually being one of the areas to suffer. Dyslexia is most commonly believed to be the result of a disruption in phonological processing that affects one's ability to manipulate and remember sound and letter sequences. It does not affect one's reasoning ability and individuals have normal listening comprehension skills. Dyslexia often goes unnoticed in particular with very diligent students.

The first published study making a connection between foreign language difficulties and learning disabilities appeared in 1971 in a chapter by Kenneth Dinklage titled "Emotional Problems of the Student." Dinklage, a clinical psychologist at Harvard University Health Services, documented his observation that students dropped out of their degree programs because they were unable to satisfy Harvard's foreign language requirement. Dinklage described three groups of students who were otherwise bright, gifted, and highly motivated, but who remained unsuccessful in the foreign language classroom. He reported that these students were not helped by merely improving study habits or by adjusting to postsecondary academic demands. The observations that Dinklage made then still hold true today. Papers by Sparks et al., (1989), Sparks and Ganschow (1991), and Ganschow et al., (1998) support Dinklage's account of deficit profiles and underscore that students who have great difficulties learning a foreign language exhibit processing weaknesses in phonology, syntax, and/or semantics in their native languages. Many college students have learned to compensate for deficits in their native languages by taking more time to read, study, etc., but when confronted with the linguistic demands of learning a new language, these deficits resurface, and the compensatory strategies that were once successful are inadequate in the context of acquiring a foreign language (Sparks & Ganschow, 1991).

In 1964, Pimsleur and his colleagues were the first to question why some students performed well in other classes but did not perform well in FL class. They proposed that it was not a lack of motivation or intelligence, but rather they had problems with an "auditory ability," defined as the ability to deal with sounds and sound-symbol learning (Schwartz, 1997). In 1971 Linkage's studies proposed that students' problems in FL classes were not due to lack of motivation, effort or anxiety, but rather a learning disability similar to dyslexia. He proposed that students' learning disabilities had to be addressed through specific educational measures in the classroom (Schwartz, 1997).

Cummins (1979) studied problems of English language acquisition. After studying bilingual education classes, he concluded that a student's competence in a second language depended on his or her level of first language ability. Following his lead into the 1980s, psychologists Ganschow and Sparks further proposed that students' FL learning difficulties were not a result of learning disabilities, but instead were directly related to problems with learning in their native language (Ganschow, Sparks & Javorsky, 1998).

⁷⁷ <http://hea.ie/assets/uploads/2017/06/National-Plan-for-Equity-of-Access-to-Higher-Education-2015-2019.pdf>

⁷⁸ <https://hea.ie/policy/national-access-plan/>

In the 1980s, researchers began to develop theories around the idea that all students, not just those diagnosed as LD, learn in a multitude of different ways, which require teachers to use a variety of different instructional methods. Dunn and Dunn were the first to design a multi-sensory approach to education. They identified a comprehensive battery of elements that effect learning, and identified auditory, visual, and kinaesthetic modalities as the most important sensory channels for education (Guild and Garger, 1985). Soon after, Gardner (1983, 1993) labelled seven different areas of the brain, which correlated to distinct intelligences: linguistic, logical-mathematical, spatial, musical, body-kinaesthetic, interpersonal, and intrapersonal. (He later added naturalistic intelligence.) His ideas were ground-breaking because they said that people processed information in different ways, and that students could learn better if teachers taught to their intelligences. In recent years, some researchers have proposed the existence of an explicit "foreign language learning disability," which prohibits some students from being able to be successful in language classes. However, Sparks (2006) refutes the existence of a separate foreign language learning disability. His research has shown that all types of learners can be successful in language classes, given the right stimuli and assessments⁷⁹.

An Irish Times article report how the Department of Education is reviewing the granting of exemptions from studying Irish amid evidence that thousands of students who secure them are sitting exams in foreign languages. The latest official figures show 3,851 students were granted an exemption to sit the Leaving Cert Irish exam in 2016 on the grounds of a disability. Almost 60 per cent of these (2,227 students) went on to study a European language such as French, German or Spanish. Students or their parents are required to submit a psychologist's report in order to secure an exemption on the grounds of disability⁸⁰.

1.3 Summary on how any learning difficulties are diagnosed and measured in Ireland

Learning difficulties are neurological differences in the way the human brain processes, stores and communicates information. Some estimates suggest that over 10% of the world's population is affected by a learning disability such as dyslexia, dyspraxia and/or attention deficit disorder (ADHD). Learning difficulties may range from mild to severe and up to 9% of the population in Ireland is thought to have some form of difficulty in learning (NILN). The most commonly seen difficulties are Dyspraxia, Dyscalculia, Asperger's Syndrome and Attention Deficit Hyperactive Disorder (ADHD). Mild General Learning Difficulties (MGLD) are reflected in a slow rate of maturation, reduced learning capacity and inadequate social adjustment. MGLD may also manifest itself in delayed conceptual development, difficulties in expressing ideas and feelings in words, a limited ability to abstract and generalise content learnt, limited attention-span and poor retention ability, slow speech and language development, difficulty adapting to change and an underdeveloped sense of spatial awareness (NCCA 2007). Students may experience difficulty with reading, writing and comprehension and have poor understanding of mathematical concepts (Doherty et al 2011; NCSE 2014; Reason & Boote 1994). A student with MGLD is likely to struggle with the content, process and presentation of his/her work (Ware et al 2011; Westwood 2015).

An Educational Psychology Assessment is done by an educational psychologist and is a way to get a definitive assessment of dyslexia or dyscalculia. The dyslexia assessment includes testing of cognitive abilities as well as literacy skills. For a dyscalculia assessment various numeracy skills and cognitive ability are tested. The educational psychologist also needs to get relevant background information from parents, individuals, schools, colleges or any other relevant sources. Conclusions are made based on a combination of the history reported and the performance on the tests.

The assessment session varies in length, but on average you can expect to be with the educational psychologist for between 2½ to 3 hours. A detailed written report is supplied a few weeks after the assessment, which contains relevant history, test results, conclusions and most importantly recommendations for addressing any areas of difficulty which emerged.

⁷⁹ <https://pdfs.semanticscholar.org/74b3/47c14da22f2e171ca84ed824b9659b6570a3.pdf>

⁸⁰ <https://www.irishtimes.com/news/education/thousands-exempt-from-irish-sitting-other-language-exams-1.3529550>

There are generally 3 ways to get an assessment in Ireland – in school with NEPS, with the Dyslexia Association of Ireland or with an independent private educational psychologist.

School-going children may be tested free by the National Educational Psychological Service (NEPS) but are only allowed a limited number of assessments each year, so in practice, only students with very severe difficulties are likely to be seen through the school service.

There are also many independent private educational psychologists, throughout the country. A list of registered psychologists can be obtained from the Psychological Society of Ireland's website at www.psihq.ie.

Many screening assessments are commercially available, and easy to administer and score. Curriculum-based measurement (CBM) can also be used to screen students. Excellent free resources for CBM are available online at Intervention Central. In addition to screenings, students offer a source of information about their learning strengths and struggles — if we take the time to ask. The learning questionnaires at the end of this chapter show one example of how to ask students to self-report⁸¹.

Dyslexia, ADHD, ADD, dyspraxia, dysgraphia and processing difficulties including slow processing and visual processing disorders are some of the most common learning difficulties seen in adults. While most educators and professionals dealing with learning difficulties will easily recognise the signs, the signs often go undiagnosed. Some of the signs are underdeveloped writing skills, avoidance of activities that involve reading and writing, poor spelling, coping strategies, low self-esteem and lack of confidence in certain areas. In a technological era many of these signs may be seen as a sign of the times and not representative of an underlying issue.

Dyslexia is also a barrier to language learning. Because dyslexia occurs at the individual word level, language learning, and in particular, gaining fluency and accuracy in the written language is often very challenging. While this does not mean it is impossible for someone with dyslexia to learn a foreign language, it does mean that specific support will be needed.

1.4 Organizations involved with SLD adults

Patricia Newhall states that the development of fluent language skills is rooted in complex cognitive processes that include attention, auditory and visual perception and processing, memory, and executive function. Students who have difficulty in any of these areas may also have difficulty acquiring the facility with language that school requires. Language disorders are often associated with dyslexia and often a first port of call for parents with children experiencing language difficulties or adults with language learning difficulties will be organisations dealing with dyslexia. Other organisations offering guidelines and support include NALA, the National Council for Curriculum and Assessment (NCCA)⁸² and Special Education Support Services (SESS)⁸³.

Language-based learning disability (LBLD) refers to a spectrum of difficulties related to the understanding and use of spoken and written language. LBLD is a common cause of students' academic struggles because weak language skills impede comprehension and communication, which are the basis for most school activity.

Like all learning disabilities, LBLD results from a combination of neurobiological differences (variations in the way an individual's brain functions) and environmental factors (e.g., the learning setting, the type of instruction). The key to supporting students with LBLD is knowing how to adjust curriculum and instruction to ensure they develop proficient language and literacy skills. Most individuals with LBLD need instruction that is specialized, explicit, structured, and multisensory, as well as ongoing, guided practice aimed at remediating their specific areas of weakness.

⁸¹ <http://www.dyslexia.ie/information/general-information-about-dyslexia/definitions/>

⁸² <https://www.ncca.ie/en>

⁸³ <https://www.sess.ie/resources>

LBLD can manifest as a wide variety of language difficulties with different levels of severity. One student may have difficulty sounding out words for reading or spelling, but no difficulty with oral expression or listening comprehension. Another may struggle with all three. The spectrum of LBLD ranges from students who experience minor interferences that may be addressed in class to students who need specialized, individualized attention throughout the school day in order to develop fluent language skills⁸⁴.

Disputing this, in an article in the *Journal of Learning Disabilities*, Richard Sparks, who is credited with identifying this disability, argues the notion that a foreign language learning disability truly exists. For many years, Sparks writes, researchers have attempted to explain why some students have problems learning a foreign language and have considered many possible causes such as language aptitude and native language skills or affective variables such as anxiety, motivation and personality⁸⁵.

While parents and advocates for students classified as having learning disabilities (LD) often automatically assume that the students will have difficulty learning a foreign language, Sparks and colleagues could not find evidence to support this. The diagnosis of an FLDD is problematic for similar reasons, Sparks says. Proponents of FLDD have suggested several approaches to diagnosis, none of which are suitable argues Sparks:

- Discrepancy between scores on standardized measures of intelligence and achievement
- failing foreign language courses
- lower grades in foreign language courses
- discrepancy between intelligence tests and foreign language aptitude tests (e.g. the Modern Language Aptitude Test [MLAT])⁸⁶

It is important to note that not all learning difficulties are necessarily associated with a learning disorder. Sometimes there are other sources of problems exogenous in nature such as instructor or curriculum-related problems: inexperienced instructors; native speakers with no prior pedagogical training or experience; large classes, overloaded curriculum with unrealistic goals; and classes that are too fast paced for some individuals⁸⁷.

1.5 Available support that is given to individual students with learning difficulties/disorders

There are a whole range of supports available to students with disabilities in third level and these are very much decided based on the needs of the individual student. These include assistive technology (such as Read & Write Gold⁸⁸, a program to assist students with spelling, grammar and project planning as well as providing a basic text to speech function and Livescribe Smartpen which allows users to write key points and simultaneously record lectures which can then be downloaded to a computer), use of audio-tape to record lectures and tutorials, alternative format textbooks, copies of lecturer's notes and/or overheads, notetaker or reader, time extension on assignments and or examination papers, study skills and learning support.

Not all colleges provide all the facilities listed above. However, individual colleges are striving towards best practices for students with disabilities. Students must, however, check with the Disability/ Access Officer and/or the Examination Office what facilities are provided and negotiate for appropriate supports⁸⁹.

⁸⁴ <http://www.colorincolorado.org/article/language-based-learning-disability-what-know>

⁸⁵ <https://sites.psu.edu/siowfa16/2016/12/02/foreign-language-learning-disability-a-real-thing/>

⁸⁶ <http://l1tf.net/aptitude-tests/language-aptitude-tests/modern-language-aptitude-test-2/>

⁸⁷ <https://www.ernweb.com/educational-research-articles/is-there-a-disability-for-learning-foreign-languages/>

⁸⁸ <https://www.edtech.ie/product/readwriteeducation-texthelp/>

⁸⁹ <http://www.dyslexia.ie/information/computers-and-technology/writing-support/>

Culturally, the inclusion of students with disabilities in higher education has been evolving over the past 30 years. In the late 1980s and early 1990s, two key actions were influential in getting the process started. Trinity College Dublin (TCD) and University College Dublin (UCD) set up AHEAD in 1988 as an agency to promote the inclusion of students with disabilities in higher education and in 1994, seeing the need for equity for students with disabilities, the Minister for Education set up the Fund for Students with Disabilities in Higher Education. This fund worked in two ways. Firstly, it removed the perceived financial burden on institutions to provide reasonable accommodations to students with disabilities such as readers, scribes, assistive technology, additional study supports, and extra time in exams. Secondly, it facilitated the development of disability/access support services across the sector, which in turn provided this cohort of students with reasonable accommodations/supports, without which they could not meet their course demands. Of equal significance is the evolution of innovative inclusive practices in higher education; the development of knowledge about how students with certain types of disabilities learn differently; the acquisition of skills to support a diversity of learners; and the use of assistive technology enhanced learning.

The numbers of students with disabilities in higher education is increasing year-on-year and now stands at over 11,000 representing 5.2% (AHEAD 2016) of the student population. The cohort of students with disabilities consists of individuals with visible and invisible disabilities, and the objective is to ensure that they have the same opportunities as any other student to maximize their success. The development of disability support services together with advances in technology have made a positive impact on the ability of students. These national standards ensure that students can rely on a similar level of service provision, irrespective of which college they attend. So far the inclusion of students with disabilities has been built on a model of add-on supports provided to students through the Fund for Students with Disabilities. Twenty-three years on from the introduction of the Fund (1994) it is clear that this model is no longer sustainable and needs an overhaul. There has since been a steady annual increase in the numbers of students with disabilities in higher education, a rise in the cost of adding-on individualised, specialised supports and, furthermore, a general shift in thinking regarding the concept of inclusion of students in college life. In the past, students with disabilities who were provided with specialised supports were expected to assimilate into the general practice of institutions.

However, the UN Convention on the Rights of Persons with Disabilities⁹⁰ advocates a human rights model of inclusion and argues that persons with disabilities deserve the same treatment as anyone else. There has also been a shift in National Policy and the HEA emphasises the need to implement a more mainstream approach to inclusion to “enhance the quality of the learning experience and progression outcomes of all students”. Providing a fully inclusive learning environment for all students is complex and creating a culture of engagement and inclusion of all students requires a shift in thinking and a change of behaviour at an institutional level. In this ever-changing higher education environment, Universal Design for Learning (UDL) provides an effective framework to improve the learning experience of all students within a mainstream teaching environment. With inclusive curriculum design that is based on an understanding of the variability of student needs, together with a more flexible approach to teaching and assessment, the majority of student needs can be addressed within mainstream learning environments. The move to create inclusive learning environments is a challenge, but it is already happening to some degree within institutions and is promoted by the National Forum for the Enhancement of Teaching & Learning. It is also aligned with the framework of HEA performance compacts 2014-16, which directs higher education institutions towards their objective of achieving equal access for under-represented groups and increasing student participation. Taking a Universal Design for Learning (UDL) approach to inclusion across the whole institution, its systems and processes, will provide an effective model for managing a diversity of students across this sector. The UDL model requires the involvement of all staff, meaning it is everyone’s job to build a culture that respects difference and empowers all students to achieve. National Plan for Equity of Access to Higher Education 2015-2019⁹¹.

⁹⁰ <http://nda.ie/Disability-overview/Legislation/UN-Convention-on-the-Rights-of-Persons-with-Disabilities.html>

⁹¹ <https://www.irishtimes.com/news/education/thousands-exempt-from-irish-sitting-other-language-exams-1.3529550>

1.6 The needs of SLD adults in FL learning and the needs of the trainers

For adults, having an undiagnosed learning disability can affect career choice, limit job advancement and lead to a number of psychological and emotional issues, including depression and feelings of low self-worth. This is particularly true when the person interprets his or her past educational failures as personal faults and experiences feelings of embarrassment and shame because of a perceived intellectual deficiency. To add to this the percentage of undiagnosed and unreported cases is said to be extremely high. The tragedy is that with the right diagnosis, coping strategies and accommodations can be put in place to help every individual with a learning disability achieve their full potential.

Some estimates suggest that 1 in 6 adults struggles with reading. It's also estimated that a high percentage of teenagers who leave school early have learning disabilities, and that up to a quarter of all inmates in our prison systems are functionally illiterate because of an undiagnosed learning disability. To complicate the situation further, social stigmas about learning disabilities falsely equate conditions like dyslexia and attention deficit disorder with low intelligence. This can make it harder for an adult to accept a diagnosis and seek out treatment⁹².

There is also evidence which shows the stark differences in the sectors of study and employment between people with a disability and those without. Information published by the CSO using census data, (2017) showed that educational attainment amongst disabled persons was much lower than that of the general population at all levels. Amongst those aged 15 to 50 (inclusive), 13.7% had completed no higher than primary level education, compared with 4.2% of the general population; 37.0% had completed third level education compared with 53.4% of all those aged 15-50. There were 176,445 persons with a disability in the labour force, giving a labour force participation rate of 30.2% compared with 61.4% for the population overall.

Of those with a disability aged 15 and over in April 2016 (584,045 people), just 22.3% (130,067) were at work, compared with 53.4% of the overall population in that age group. Overall in April 2016, 6.5% of those at work had a disability.

The unemployment rate amongst persons with a disability was 26.3%, more than double the 12.9% rate for the population as a whole. What this data shows is that people with disabilities are still being seriously discriminated against in all aspects of Irish life and prevented from even getting a basic education, gaining qualifications, getting jobs, having families and leading fulfilling lives in many cases. Research by the Association for Higher Education Access Disability shows that school-leavers with disabilities are four times less likely to progress to higher education. This correlates with the CSO figures, which indicate that disabled people are three times more likely to leave school before they are 15 and that disabled adults are twice as likely to be unemployed as nondisabled adults.

It is difficult for adults with disability to return to higher education because of limited pathways to courses. More importantly, higher education has no system of supports for people with disability who wish to go to education part-time, often because of the effect of their condition. So, for example, if you are deaf and need an interpreter, you will have little chance of taking up a Springboard course, as it is seen as too costly⁹³.

⁹² (<https://www.readandspell.com/learning-disabilities-in-adults>)

⁹³ <https://www.irishtimes.com/news/education/thousands-exempt-from-irish-sitting-other-language-exams-1.3529550>

1.7 Research data about the needs of SLD adults in FL learning

Over the last two decades, several studies have documented the reading and spelling difficulties that persist in college students who have dyslexia and a small group of researchers has specifically addressed the issue of foreign language learning in students who have learning disabilities (Ganschow & Sparks, 1986, 1991). In addition to dyslexia, a smaller group of learning disabled students in foreign language classes experiences more pervasive language deficits than are observed in students with dyslexia. These students have greater difficulty with all aspects of learning a foreign language because of existing difficulties in their own native languages (Nation, Adams, Bowyer-Crane, & Snowling, 1999). A move away from the more traditional forms of teaching to a more inclusive approach including visual, kinaesthetic and audio have proven to be beneficial to learners, in particular to learners with learning difficulties⁹⁴.

1.8 Foreign language learning in underprivileged contexts (cultural disadvantage/difficult environmental conditions/migration)

In the article "The Relationship between Socio-Economic Status, General Language Learning Outcome, and Beliefs about Language Learning" (2016), the authors found that there were patterned relationships between the students' socioeconomic characteristics and their learning outcomes in English. Students who had higher levels of social and economic status were more likely to obtain higher scores on the proficiency test as well as higher grades in English. According to Babikkoi and Binti-Abdul-Razak (2014), socioeconomic status of learners is a fundamental factor that may contribute to English language learning outcomes. This is particularly because they are encouraged to learn. This is often not similar to situation in the low socioeconomic status, where students are not motivated to study⁹⁵.

1.9 The needs of FL teachers and trainers regarding the support to SLD students

According to Ann Heelan, writer with the Irish Times, challenges for subject teachers include: identifying students who may be at risk; meeting the needs of all students in the classroom including those who are high achievers, middle ground and those with special education needs; completing the curriculum requirements; being inclusive in the classroom; engaging with parents; and creating a positive learning environment⁹⁶.

Challenges for learning support teachers are similar to those cited above. They must achieve a positive attitude within the school; avoid negative stigma and prejudices against students with special needs; assist students with special needs to develop positive self-esteem; provide two-way communication on the progress and development of the student with the subject teachers; work effectively and collaborate with other professionals (i.e. speech therapists, NEPS psychologists, etc.); and facilitate communication with parents on a regular basis.

All teachers involved with students with special needs must adapt a holistic approach to assisting the development of the student. They must take into consideration the environmental, educational, cognitive, social, emotional, economic, health, functional and vocational impacts on the lives of the students⁹⁷.

The National Council for Curriculum and Assessment (NCCA) has drafted guidelines to assist teachers to help students with general learning difficulties. These guidelines were drawn from best current practices in Ireland and internationally. They also reflect the Education for Persons with Special Education Needs Act 2004⁹⁸.

⁹⁴ <https://outreach.colorado.edu/pdf/Language-And-Learning/DiFino-Lombardino-2004.pdf>

⁹⁵ <https://files.eric.ed.gov/fulltext/EJ1090138.pdf>

⁹⁶ <https://www.irishtimes.com/news/education/big-increase-in-third-level-students-reporting-mental-health-issues-1.3385598>

⁹⁷ <http://nda.ie/Publications/Education/Education-Publications-/Student-Journeys-/7-The-Challenge-for-Teachers/>

⁹⁸ https://www.ncca.ie/en/resources/sen_introduction

The Education for Persons with Special Education Needs Act 2004 marks a major milestone in providing for students with special education needs to acquire an appropriate education. The Act places strong emphasis on inclusion in the classroom and in the school. The Act requires each student to be assessed and to have an independent education plan (IEP), and that this plan be enforced. The relevant Health Board, the National Council for Special Education or the parent of the child can request an assessment⁹⁹.

In the Framework for Consultation on FOREIGN Languages in Education Strategy for Ireland (2014), Ann Brudell argues that it is crucial that teachers of MFL are involved in all curriculum development and are not relegated to the powerless course committees of the NCCA as is currently the case. Language teachers are at the forefront in maintaining and developing the presence of languages in Ireland and their expertise and experience should be formally sought and valued. It is important to ensure that the assessment procedures put in place are a real and vibrant assessment of the type of learning that we want to take place and do not limit and stultify so much of the student's classroom experience of languages as is currently the case. New curricula should not be a mere reworking of what was last reviewed in 1995 but something that reflects the world we now live in and the language demands that will be made of our students. The Language Associations, as the representative voices of these teachers, should be involved in all developments and negotiations. Within the DES there should be a clear understanding of who is responsible for what. Too often in recent years it would appear that the NCCA, the SES, the Language Inspectorate and the DES genuinely do not know what the other bodies are doing. Requests from the Language Associations for clarification and advice have been met with a lack of knowledge as to what is happening. Clearer lines of command and communication must be established, maintained and communicated to teachers and to their Language Associations¹⁰⁰.

⁹⁹ <https://www.asti.ie/operation-of-schools/legislation/education-for-persons-with-special-educational-needs-act/>

¹⁰⁰ <https://www.education.ie/en/Schools-Colleges/Information/Curriculum-and-Syllabus/Foreign-Languages-Strategy/Primary/Foreign-Languages-Deirbhile-NicCraith-INTO.pdf>

Chapter 2. Language E-teaching methodologies and tools in SLD adults' FL learning in Ireland

2.1 General overview on ICT methodologies and tools addressed to adults with learning difficulties in FL learning in organizations such as Universities, Foreign Language schools, VET providers and other bodies.

"Information and Communication Technology (ICT) can contribute to universal access to education, equity in education, the delivery of quality learning and teaching, teachers' professional development and more efficient education management, governance and administration¹⁰¹".

The first White Paper on Education (2000), outlines the revolutionary transformation in the telecommunications and information service industries, the exponential growth in communications capacity in both developing and industrialised nations, and the advance of the Internet, which is now the principal infrastructure for global electronic communications with hundreds of millions of users worldwide. The growth of the ICTs inevitably means that increasing numbers of adults will look to access education and training opportunities through ICT. Educational institutions in Ireland, while to the forefront in teaching about ICT, have been slow in utilising ICT in their teaching, particularly in the development of out of classroom teaching. While this has general implications for the education sector in the context of global competition, it also reduces the range and choice of possibilities which adult learners in Ireland can avail of in their learning pursuits. Advances in the development and applications of new technologies pose both a challenge and an opportunity for adult learners. As a challenge, literacy in the new technologies is an increasingly essential requirement for participation in daily life. An ever-increasing number of everyday functions are being undertaken electronically together with an ever-increasing range of opportunities which require computer literacy. As an opportunity for adult learners, ICT provides a whole new mechanism for overcoming distance; for accessing information from one's home or workplace; for pursuing accredited learning programmes as more and more institutions adapt their programmes for electronic delivery and for interaction with other learners in a virtual classroom environment. ICTs can improve the quality of the educational experience by providing rich, exciting and motivating environments for learning.

Most educational researchers refer to the high motivation evidenced in students using ICTs for learning. Others refer to the opportunities which ICTs present including Learning for Life creativity, imagination and self-expression. The use of computers can accelerate positive trends such as increased emphasis on information handling and problem-solving and a reduced emphasis on memorising facts makes it a more equal forum for learning. Thirdly, there are social benefits. It is clearly important that all people, regardless of social or economic background, should have equal access to new technologies. The Government's Action Plan on Implementing the Information Society in Ireland (1999) sets out a strategy to promote eBusiness, e-Organisations and eGovernment, to foster affordable and inclusive ICT infrastructure and services, and to encourage participation by those who are currently excluded¹⁰².

There is no more doubt that the use of ICT has positive effects on foreign language teaching/learning and a large literature is available on the topic. However, its impact is highly dependent on the way it is used, the teachers' motivation and knowledge of the software involved. Indeed, technological equipment and connectivity without human implication is not sufficient to improve teaching and learning and has long been considered one of the drawbacks of ICT. To be efficient ICT requires the actual engagement of a teacher and a well-defined pedagogical teaching schedule.

¹⁰¹ <http://www.unesco.org/new/en/newdelhi/areas-of-action/special-themes/icts-in-education/>

¹⁰² https://www.education.ie/en/Publications/Policy-Reports/fe_aduled_wp.pdf

There are many obvious advantages to using ICT when teaching foreign languages:

The possibility to adapt the teaching materials to suit the learner's needs

- Up to date and sometimes authentic materials on the web
- Instant feedback is made possible
- Possibility to combine text, images, audio and video clips
- Lectures become more interesting and effectively engage and motivate the learner

NCTE (National Centre for Technology in Education)¹⁰³ and NCCA (National Council for Curriculum and Assessment) provide a wide range of information on the use of ICT in the area of special educational needs. The evaluation attempted to gain an insight into the extent and quality of use of ICT in this area. The recently published NCCA document Guidelines for Teachers of Students with General Learning Disabilities (2007) contains advice on the ways in which ICT can facilitate and increase access to learning and communication for pupils with general learning difficulties. In the document Approaches to Teaching and Learning (2007) ICT is proven to have a positive effect for learners with SLN. Computers have enormous potential to reduce or eliminate some of the learning difficulties associated with disability (INTO, 2000). ICT particularly enhances the learning of pupils with special educational needs by providing them with the opportunity to work at their own pace and facilitates a very high standard of presentation and accuracy of work done in creative or functional writing and projects. Interactive white boards cater more effectively for visually impaired students and other students with special needs than other means of presentation. They also facilitate over learning for pupils with general learning difficulties because each chart generated for teaching can be saved for frequent and easy retrieval. ICT in this way can also assist the integration of children with special educational needs in mainstream classrooms.

Many educational computer programs are highly motivational for children with special educational needs. Many teachers working in special education report that working with such programs motivates their pupils to greater effort and can provide them, in a non-threatening way, with the extra practice they require in order to master basic skills (INTO, 2000). The computer's motivational appeal has been attributed to the fact that pupils find it non-judgmental and non-threatening (DES, 1997). The computer has endless patience and is emotionally neutral which, for poor readers, can be a major attraction. The use of sophisticated graphics, characteristics of computer games and being active in their own learning also contributes to learner motivation¹⁰⁴.

2.2 Using technologies in FL teaching to SLD adults in Ireland

In order to support the learning of foreign languages, Ireland has developed and published a foreign languages strategy for the first time in its history. Languages Connect: Ireland's Strategy for Foreign Languages in Education 2017-2026¹⁰⁵, published by the Department of Education and Skills, is the outcome of extensive consultation with relevant stakeholders including language lecturers and teachers, university researchers, industry representatives and the wider public. Innovations in language teaching and learning can support this process both inside and outside of the classroom. For example, new technologies supporting the development of language learning platforms have enjoyed success in promoting and supporting language learning. In Ireland, most popular are the language learning apps including Rosetta Stone, Duolingo and Pimsleur. However, many advocates of learning languages say that immersion in the foreign culture is one of the best ways to learn the language¹⁰⁶.

¹⁰³ <https://www.sess.ie/links/special-education/-/disability-sites-ireland/ncte-national-centre-technology-education>

¹⁰⁴ https://www.into.ie/ROI/NewsEvents/Conferences/EducationConsultativeConference/EducationConsultativeConference2017/EdConf2017_Background.pdf

¹⁰⁵ <https://www.education.ie/en/Schools-Colleges/Information/Curriculum-and-Syllabus/Foreign-Languages-Strategy/Foreign-Languages-Strategy.html>

¹⁰⁶ <https://www.rte.ie/eile/brainstorm/2018/0827/987826-ireland-foreign-languages-schools-universities-business/>

2.3 E-learning methods and tools

ICT can be a valuable tool to support pupils with special needs including those with dyslexia. Pupils with learning difficulties can benefit from the visual and auditory nature of ICT. It can be used to develop skills and reinforce learning in a meaningful and non-threatening manner. ICT can also be used as a personal support tool to empower pupils to achieve greater independence and allow for greater participation in a mainstream environment. However, it is important that ICT is not seen as a panacea. It is one of many teaching tools and should be used when it can support pupils in a meaningful and purposeful way.

There are many types of technology (educational software and hardware) available for pupils with learning difficulties. Due to the abundance of such technology, it is often difficult to decide what to use with these pupils. Whether selecting software or hardware, there are certain issues that need to be taken into consideration. The SETT model developed by Joy Zabala focuses on four critical areas: Pupil, Environment, Tasks and Tools.

ICT can also be used directly by teachers to enhance teaching and support learning. ICT can provide teachers with a powerful tool to reinforce and supplement learning in a meaningful and non-threatening environment, provided that adequate planning is done to integrate ICT use in the classroom. In addition, ICT can also be used as a timesaving, professional productivity tool to assist in the many administrative tasks required of teachers. Below you will find some of the key ways in which ICT can be used to support teachers to individualise teaching and learning materials; to create their own material to meet needs of pupils; to motivate and engage pupils to learn; as a source of professional development and support; to provide additional support to pupils in mainstream classroom and; to facilitate programme planning and complete administrative tasks (e.g., developing individual learning programmes, assessing pupils, weekly planning, recording and storing of data)¹⁰⁸.

2.4 Computer assisted language learning facilitating FL learning in SLD adults

The most commonly used teaching technologies used in Ireland Golonka (2014) summarizes evidence for the effectiveness of technology use in foreign language (FL) learning and teaching. She finds strong support that computer-assisted pronunciation training made a measurable impact in FL learning, in particular, automatic speech recognition (ASR). These studies demonstrated that ASR can facilitate the improvement of pronunciation and can provide feedback effectively. Additional studies provided strong support for the use of chat in FL learning. These studies showed that, with chat, both the amount of learners' language production and its complexity significantly increased. The literature revealed moderate support for claims that technology enhanced learners' output and interaction, affect and motivation, feedback, and metalinguistic knowledge¹⁰⁹.

Language consultant Joe Dale (2014) argues that there is great value in incorporating new technologies as an integral part of the process and to foster the four c's: communication, creativity, collaboration and critical thinking. ICT lets learners easily draw on authentic resources that promote inter-cultural understanding and interact with virtual peers in real non-fabricated contexts.

Publishing students' multimedia outcomes on a blog or wiki gives them a real audience for their work, facilitates peer assessment through commenting and encourages them to raise their standards as a result. Virtual learning environments also offer students distance learning opportunities wherever and whenever they want.

Technology lends itself very well to personalised and independent learning where students can work at their own pace, complete interactive exercises rigorously in class or at home and receive immediate feedback. Gaining points for their efforts and being able to compare their scores with their classmates is motivating for them too and adds an element of engaging gamification to their learning.

¹⁰⁸ (<https://www.readandspell.com/learning-disabilities-in-adults>)

¹⁰⁹ <https://www.irishtimes.com/news/education/thousands-exempt-from-irish-sitting-other-language-exams-1.3529550>

For any MFL teacher learning vocabulary is essential and Quizlet¹¹⁰ is an effective way of memorising and embedding words, phrases and making sound spelling links. Students and teachers can search for existing lists and easily create their own. Socrative¹¹¹ is another free cross-platform tool which allows for classroom voting, instant feedback and formative assessment.

Rehearsing, recording and editing spoken work digitally allows pupils to improve their pronunciation, boost their confidence, extend their speaking and listen back as many times as they like. Video is another powerful vehicle in and out of the languages classroom. Making videos draws upon multiple intelligences, promotes creativity and fosters collaboration¹¹².

Research by O' Hara (2006) show two critical factors that have long been identified as reasons for resistance to adopting ICT enhanced learning modes, cost and time (Murphy, Walker and Webb 2001; Grabe and Grabe 1998). Cost is an obvious issue, particularly for part time adult CPD participants who in an Irish context are already making significant financial sacrifices in order to take part in skills development programmes such as the one under discussion. The second issue raised, the time investment needed to engage in online learning, is another interesting one. Certainly prior to the widespread advent of broadband infrastructure dial up enabled CMC communication could be painfully slow and frustrating. However recent years have seen a significant upgrading of the general ICT infrastructure in Irish educational institutions at all levels. While there is undoubtedly still some way to go, most 314 Chapter Twelve The ICT Enabled Self-Evaluating Professional schools and FE centres in Ireland have seen a real improvement in their communications capabilities in recent years (Shiel and O 'Flaherty 2006)¹¹³.

2.5 ICT methodologies and tools implementation in the classrooms

ICT classes will vary depending on expertise level of both the learners and the teacher and also on the difficulty of the topic. In general the teaching methodology will be interactive and will demand some level of oral communication, in particular in the case of learning a foreign language. Activities tend to be varied allowing for intensive practice in all language skills with an emphasis on speaking and listening. Material used in class will be drawn from a variety of sources, including the textbook, CDs, DVDs, websites, etc.

ICT tools can be used via visual, sensory or auditory methods. Technology and a stable connection to the internet are generally necessary for teaching with ICT. To learn autonomously students are often encouraged to work with partners or in groups to encourage cooperation and assist learning (please see section on autonomous learning below). Depending on the level of the student and the topic being learned, different levels of support and language advice will be required from the teacher.

Changes such as greater use of multimedia and ICT in the classroom, have in recent years, brought a lot of added benefit to classes and in particular, to the teaching of individuals with special learning needs as it allows for a variation in the teaching methods to suit the particular learner.

¹¹⁰ <https://quizlet.com/>

¹¹¹ <https://socrative.com/>

¹¹² <https://www.theguardian.com/teacher-network/2014/may/13/modern-foreign-languages-technology-tools-students-fluent>

¹¹³ <https://files.eric.ed.gov/fulltext/EJ1096028.pdf>

Autonomous learning can be seen as an effective form of teaching which defines and enhances a student's potential and particularly his/ her creativity. To be autonomous, learners need to be able to have some choice in what, where, when and how to study. At the same time, they should feel responsible for their own learning and for the learning of those with whom they interact. Learner autonomy involves learners being aware of their own ways of learning, so as to utilize their strengths and work on their weaknesses. Intrinsic and social motivation plays a central role in learner's autonomy. The teacher becomes a partner in such learning process. A form of democratization takes place with students taking on more rights and responsibilities for their own learning. However, autonomous learning does not only mean that learners work alone. In fact, they learn even more if they collaborate with their peers. Furthermore, autonomous learning tries to make learners responsible for their learning achievements and consequently, for their own assessment of their work. Moreover, autonomous learning requires students to think independently. Admittedly, creative teachers tend to promote thinking skills with their students while teaching the content¹¹⁴.

Students at this level have a basic command of the language needed in a range of familiar situations, e.g. can understand and pass on simple messages. The classes at this level can help students to learn the basics in English. There is a focus on learning the most important grammar and vocabulary, and students are generally provided with relevant speaking, listening, reading, and writing skills in a variety of basic topics. Feedback is generally given by the students.

So how exactly can one measure the effectiveness of e-learning courses? Deciding whether e-learning is effective or not, whether it be in learning a foreign language or something completely different, can be done by assessing the impact of a certain training course on the learners. No matter how expensive or good a course is, it wouldn't be deemed effective unless it helps the learners and trainers achieve their goals. For example, learning outcomes should be aligned with the learning objectives; e-learning programs should not just impart knowledge but help employees improve their decision-making skills, react accordingly when a similar real-life situation materializes, and more. Effectiveness is also measured based on the learning perceived by learners, their acquired skills and their competency. These three elements can be measured by comparing them with the previous learning, skills and competency. If there is an increase in these three elements, the e-learning program is said to be effective¹¹⁵.

2.6 Teachers and trainers' needs in FL learning

There is a number of supports open to teachers looking for help incorporating technology into their teaching. The Professional Development Service for Teachers (pdst.ie) is a Department of Education and Skills initiative which provides high-quality professional development and support that for teachers across the primary and post primary curriculum, including in ICT. The development service also manages Scoilnet.ie, an education website containing a database of 15,000+ online resources, including websites, quizzes, lesson plans, notes, video/audio, games and other multimedia, which teachers can use to enhance their classes. Bridge21 (bridge21.ie) is an education programme based in Trinity College Dublin which offers a new model of learning that can be adapted for use in Irish secondary schools. Designed to support an innovative 21st-century learning environment within schools, it has developed a learning model for second-level education that is team-based, technology-mediated, project-based and cross-curricular. At third level, DIT's Learning, Teaching and Technology Centre (dit.ie/lttc/) offers a range of postgraduate course, master's, diploma and accredited courses for continuing professional development, including such topics as trends in e-learning technology¹¹⁶.

¹¹⁴ <https://www.into.ie/ROI/Publications/ApproachesTeachingandLearning.pdf>

¹¹⁵ <https://blog.commlabindia.com/elearning-design/course-tracking-to-improve-elearning-effectiveness>

¹¹⁶ <https://www.irishtimes.com/special-reports/innovation-in-the-classroom/teaching-through-technology-21st-century-appliance-of-science-1.2864302>

2.7 The needs of FL teachers and trainers in e-learning for SLD adults

In order to enable the most learners possible to learn as much as they can, we need to give them... the opportunity to learn in their preferred styles, rather than always outside of them, which can happen in the interests of keeping classrooms paced to the majority or to a standard curriculum. This in no way excludes good teachers and well-constructed syllabi; in fact, they are even more important than ever for the majority of learners. It is expert teachers with flexible but clear syllabi who can most systematically provide for the individual differences among their students (Ehrman, Leaver, & Oxford, 2003, p.324¹¹⁷).

Students' self-esteem can be affected, particularly when they enter post-primary provision, which may result in unacceptable behaviour as a way of avoiding failure (Westwood 2015; Winebrenner 2014). Insofar as Intelligence Quotient (IQ) may be used as an indicator of MGLD, such students' cognitive functioning's range from IQ 50 to 70 on standardised IQ tests (NCCA 2007; Winebrenner 2014). Remember that each student with a MGLD has different strengths, learning style, personality and varied interests and the same need for affirmation and success (NCSE 2014)¹¹⁸.

¹¹⁷ <http://ler.letras.up.pt/uploads/ficheiros/8232.pdf>

¹¹⁸ <https://www.sess.ie/categories/general-learning-disabilities/mild-general-learning-disabilities>

Category	Description
Title	Duolingo
Website	www.duolingo.com
Author/Institution How is the website funded?	Private
Content	Duolingo is available as both a web app and mobile app, and it works well whether you're a total beginner or have some experience with a language. If you've studied the language before, you can take a placement test in Duolingo so that you don't have to start at square one.
Target audience	Everyone
In which languages is it available?	<p>26 languages are currently available: Chinese, Czech, Danish, Dutch, Esperanto, French, German, Greek, Hebrew, Hungarian, Irish, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Romanian, Russian, Spanish, Swedish, Swahili, Turkish, Ukrainian, Vietnamese, and Welsh.</p> <p>There are some language-learning courses in beta, and four more that are "hatching," which means they are in development and not quite open for use: Arabic, Hawaiian, Hindi, and Indonesian. In other words, these languages will be available in the future.</p>
What does it offer in the area of foreign language learning support? <i>Listening</i> <i>Speaking</i> <i>Reading</i> <i>Writing</i> <i>Vocabulary</i> <i>Vocabulary</i> <i>Pronunciation</i>	<p>There is very limited information on the site with regards to support specifically available to learners with special needs. However, on the Duolingo blog there are several users who are successfully using this app with the children who have special learning needs including dyslexia.</p>
Is it easy to use? How much time is necessary to be able to use the software? (if available)	Duolingo has a wonderful interface that's easy to use. It also presents bite-size learning, making it a great tool for studying in short sessions. You can set a goal for your daily learning schedule, and some gamification aspects encourage you to hit that goal consistently. If you're motivated by leader boards, points, and in-app rewards, Duolingo will keep you enticed.

Interface and Technical requirements

Time efficiency

Flexibility

Saving work for future use

*What kind of access/
installation required?*

Compatibility

Respect for privacy

*Internet access (rural areas)
(if available)*

Duolingo dictates the order in which you need to complete the different modules, with new modules becoming active only once you've completed the previous one. This is also the case with individual lessons within each module. You need to complete lesson 1 to be able to progress to lesson 2, and so on

Duolingo is compatible with Web, Android, iOS and Windows. While Duolingo maintain that privacy is respected user information is collected and used.

Category	Description
Title	Rosetta
Website	www.rosetta.com
Author/Institution How is the website funded?	Private
Content	Rosetta Stone is a professional-grade service for language learning, but they offer a free app meant specifically to help travellers learn basic words and phrases.
Target audience	Everyone
In which languages is it available?	Arabic, Chinese, Dari, Dutch, English, Filipino, French, German, Greek, Hebrew, Hindi, Indonesian, Irish, Italian, Japanese, Korean, Latin, Pashto, Persian, Polish, Portuguese, Russian, Spanish, Swahili, Swedish, Turkish, Urdu, Vietnamese.
What does it offer in the area of foreign language learning support? <i>Listening</i> <i>Speaking</i> <i>Reading</i> <i>Writing</i> <i>Taking notes</i> <i>Vocabulary</i> <i>Grammar</i> <i>Pronunciation</i>	<p>In a Rosetta Stone Language Learning exercise, the student pairs sound or text to one of several images. The number of images per screen varies.</p> <p>For example, the software shows the student four photographs. A native speaker makes a statement that describes one of the photographs, and the statement is printed on the screen; the student chooses the photograph that the speaker described. In another variation, the student completes a textual description of a photograph.</p> <p>In writing exercises, the software provides an on-screen keyboard for the user to type characters that are not in the Latin alphabet. Grammar lessons cover grammatical tense and grammatical mood. In grammar lessons, the program firstly shows the learner several examples of a grammatical concept, and in some levels the word or words the learner should focus on are highlighted. Then the learner is given a sentence with several options for a word or phrase, and the student chooses the correct option.</p> <p>If the student has a microphone, the software can attempt to evaluate word pronunciation. Each lesson concludes with a review of the content in that lesson, and each unit concludes with a milestone, which is a simulated conversation that includes the content of the unit.</p>
Is it easy to use? How much time is necessary to be able to use the software?	Rosetta Stone has an excellent and stable system, and the experience of using it is smooth as glass.

Interface and Technical requirements

Time efficiency

Saving work for future use

Flexibility via a web conferencing setup.

What kind of access/

installation required?

Compatibility

Respect for privacy

Internet access (rural areas)
(if available)

Rosetta Stone keeps track of your progress, scores you as you complete exercises, and repeats important ideas at the right intervals to help you keep them fresh in your mind. It incorporates reading, writing, speaking, and listening equally, and it has optional e-tutoring sessions in which you can take a class with a real

The downloaded file for installation (free for learners) is in form of tar archive with .tgz extension.

The Rosetta Stone v2.0.x is backward compatible with some of the later language packs for Version 1; specifically languages courses with a version number of 3.0 or 4.0.x.[2]

The Rosetta Stone v2.1 through v2.2.x are only compatible with v6.x language courses. These versions of the language packs and software engine are neither backward compatible nor forward compatible.[2] Language discs developed for The Rosetta Stone v2.0.x are incompatible with these later revisions of the software. In v2.1.4.1A of The Rosetta Stone, the program began using copy protection software called SafeDisc.

While Rosetta maintain that privacy is respected user information is collected and used.

Category	Description
Title	Memrise
Website	www.memrise.com
Author/Institution How is the website funded?	Private
Content	Memrise uses audio, images, and memory techniques to help you associate words with one another for easier recall, as well as regular tests to ensure you're remembering the concepts.
Target audience	Everyone
In which languages is it available?	English, French, Spanish, Dutch, Portuguese, Norwegian, Danish, Japanese, Korean, Icelandic, Slovenian, Arabic, Turkish, German, Swedish, Polish, Italian, Chinese, Russian, Mongolian
What does it offer in the area of foreign language learning support? <i>Listening</i> <i>Speaking</i> <i>Reading</i> <i>Writing</i> <i>Taking notes</i> <i>Vocabulary</i> <i>Grammar</i> <i>Pronunciation</i>	<p>Something unique about Memrise is how it teaches you new words and phrases. Words are put into sentences with similar sounding words from your native language to help build the the connection for remembering them. You'll also sometimes see multiple images that you can scroll through that overlay the foreign text with a recognizable image for added association.</p> <p>Another method Memrise uses is to teach you a different language is by mixing up the translations. This way you learn a few new words at once, and then you keep learning them over and over again in a different order to ensure you know them before moving you through to the next round.</p>
Is it easy to use? How much time is necessary to be able to use the software? (if available)	Memrise is easy to work with, supports offline courses, and lets you learn a massive number of languages. You can start of simple or skip all the way through to more advanced lessons.
Interface and Technical requirements <i>Time efficiency</i> <i>Saving work for future use</i> <i>Flexibility</i> <i>What kind of access/ installation required?</i> <i>Compatibility</i> <i>Respect for privacy</i> <i>Internet access (rural areas) (if available)</i>	Supports offline learning. Compatible with iOS, Android, Web. While Memrise maintain that privacy is respected user information is collected and used.

References

- <https://www.ahead.ie/userfiles/files/shop/free/Position%20Paper%20Online.pdf>
- <http://hea.ie/assets/uploads/2017/06/National-Plan-for-Equity-of-Access-to-Higher-Education-2015-2019.pdf>
- <https://www.asti.ie/operation-of-schools/legislation/education-for-persons-with-special-educational-needs-act/>
- <https://blog.commlabindia.com/elearning-design/course-tracking-to-improve-elearning-effectiveness>
- <http://www.colorincolorado.org/article/language-based-learning-disability-what-know>
- <https://www.cso.ie/en/csolatestnews/pressreleases/2017pressreleases/presstatementcensus2016resultsprofile9-healthdisabilityandcarers/>
- <http://www.dyslexia.ie/information/computers-and-technology/writing-support/>
- <http://www.dyslexia.ie/information/general-information-about-dyslexia/definitions/>
- https://www.education.ie/en/Publications/Policy-Reports/fe_aduled_wp.pdf
- <https://www.education.ie/en/Schools-Colleges/Information/Curriculum-and-Syllabus/Foreign-Languages-Strategy/Primary/Foreign-Languages-Deirbhile-NicCraith-INTO.pdf>
- <https://www.ernweb.com/educational-research-articles/is-there-a-disability-for-learning-foreign-languages/>
- <https://files.eric.ed.gov/fulltext/EJ1090138.pdf>
- <https://files.eric.ed.gov/fulltext/EJ1096028.pdf>
- <https://www.theguardian.com/teacher-network/2014/may/13/modern-foreign-languages-technology-tools-students-fluent>
- <https://www.ihrec.ie/guides-and-tools/human-rights-and-equality-in-the-provision-of-good-and-services/what-does-the-law-say/exceptions/>
- <https://www.ihrec.ie/app/uploads/2016/09/Public-Sector-Equality-and-Human-Rights-Duty-Leaflet.pdf>
- https://www.inclusionireland.ie/sites/default/files/documents/information_pack-final.pdf
- https://www.into.ie/ROI/NewsEvents/Conferences/EducationConsultativeConference/EducationConsultativeConference2017/EdConf2017_Background.pdf
- <https://www.into.ie/ROI/Publications/ApproachesTeachingandLearning.pdf>
- <https://www.irishtimes.com/news/education/big-increase-in-third-level-students-reporting-mental-health-issues-1.3385598>
- <https://www.irishtimes.com/news/education/thousands-exempt-from-irish-sitting-other-language-exams-1.3529550>

<https://www.irishtimes.com/special-reports/innovation-in-the-classroom/teaching-through-technology-21st-century-appliance-of-science-1.2864302>

<http://ler.letras.up.pt/uploads/ficheiros/8232.pdf>

https://www.ncca.ie/en/resources/sen_introduction

<http://nda.ie/Publications/Education/Education-Publications-/Student-Journeys-/7-The-Challenge-for-Teachers>

<https://outreach.colorado.edu/pdf/Language-And-Learning/DiFino-Lombardino-2004.pdf>

<https://pdfs.semanticscholar.org/74b3/47c14da22f2e171ca84ed824b9659b6570a3.pdf>

<http://www.psihq.ie>

<https://www.readandspell.com/learning-disabilities-in-adults>

https://www.researchgate.net/publication/259973011_Technologies_for_foreign_language_learning_A_review_of_technology_types_and_their_effectiveness

<https://www.rte.ie/eile/brainstorm/2018/0827/987826-ireland-foreign-languages-schools-universities-business/>

<https://www.sess.ie/dyslexia-ICT>

<https://www.sess.ie/categories/general-learning-disabilities/mild-general-learning-disabilities>

<http://www.solas.ie/SolasPdfLibrary/Barriers%20to%20FET%20Final%20June%202017.pdf>

<https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/article-24-education.html>

<http://www.unesco.org/new/en/newdelhi/areas-of-action/special-themes/icts-in-education/>

5. Foreign Language learning disorders in adulthood. The Italian context¹¹⁹.

Summary

Abstract

1. Legal framework on learning disorders: from the description to the protection
2. The Italian debate on learning difficulties in adulthood
3. Adult Learning difficulties/disorders in Italian language learning (FL/L2): main evidences.
4. Language E-teaching methodologies and tools in SLD adults' FL learning in Italy:
A general overview

Conclusion

References



¹¹⁹This paragraph has been written by Valeria Zaffalon (EnAIP Piemonte)

Abstract

The paper introduces the topic of learning disorders¹²⁰ and more in general of learning difficulties in adulthood related to Italian language learning as a foreign language (FL) or a second language (L2).

In the paper, we present the legal and theoretical framework and demonstrate how norms and measures on the topic of learning disorders refer mainly to the school environment (from compulsory school to university) and no specific attention is paid in workplaces and in lifelong learning courses (Ch.1). According to this situation, the research is mainly focused on youngsters and young adults' learning difficulties, although interest in adulthood is growing (Ch.2).

In the specific field of foreign language learning, in Italy, theory and methods suffer a sort of dependence on the Anglo-Saxon practices both for the spread of English as FL and for its specific difficulty among students with learning disorders. Nevertheless, as a result of the increase of migrants, in recent years further studies have been developed to focus on "specific features" of Italian language (Ch.3).

Specific aspects must be taken into consideration in order to develop a "special language teaching": (1) analyzing and understanding individual linguistic and cognitive ability and difficulties; (2) analyzing all aspects of linguistic elaboration (in opposition to focusing on phonological and orthographic aspects); (3) comparing characteristics of mother tongue with language FL/L2

Some indications on language teaching in Italian language learning in comparison with mother tongue are in the paper herewith explained: explicit way of teaching; practical use of communication skills and privileging extralinguistic elements; reinforce the capacity to discriminate sounds and enriching the vocabulary. Moreover, a strong attention to socio-cultural background and to build a positive learning environment (suitable for adults) allow to develop an approach ACCESSIBILITY oriented.

Some e-learning and on-line resources (Ch. 4) can support adults with learning disorders in Italian language who learn on the web. Most of this are addressed to youngsters and adults who learn Italian as a mother tongue. Fewer resources are dedicated to Italian language learning as a second language (migrants) but no specific attention is paid to learning disorders/difficulties and the same situation is found in resources dedicated to Italian language learning as FL.

¹²⁰ According to the Italian terminology, with the term of "learning disorders" we mean: Specific developmental disorders of scholastic skills; Specific reading disorder; Specific spelling disorders; Mixed disorder of scholastic skills). With the term of "learning difficulties" we mean difficulties connected with special educational needs (BES in Italian terminology) due to (even temporary) socio-economical, linguistic, cultural disadvantages.

Chapter 1.

Legal framework on learning disorders: from the description to the protection

Law 170 of 2010 recognizes the characteristics of dyslexia, dysorthography, dysgraphia and dyscalculia connecting them to specific learning difficulties (DSA) "that arise with adequate cognitive abilities, without neurologic pathologies and sensorial deficit, but that can represent a significant limit for some activities linked to daily life" (Art. 1). It defines dyslexia "a specific difficulty that arise through a difficulty to learn and read"; dysgraphia "a specific difficulty to write that shows a difficulty to graphically represent words"; dysorthography "a specific writing difficulty that shows through the difficulty to codify linguistic processes"; dyscalculia "a specific disorder that shows through problems with counting and elaborating numbers". The word "comorbidity" means the presence of additional specific disorders.

The law also establishes the right to study through the introduction of "dispensatory measures and compensatory tools during the different phases of education and university studies".

The following year, the implementation decree and the guidelines were published, containing the operational instructions to put into practice the measures envisaged by the Law 170. More specifically, the guidelines highlight the need to design tailor-made¹²¹ and personalised¹²² didactic interventions, implement and use compensative tools¹²³ and apply the dispensatory measures¹²⁴.

The Ministerial Directive of 12th December 2012 completes the normative framework introducing the term BES "Bisogni Educativi Speciali" (Special Educational Needs)¹²⁵ and widening the application field of inclusive and differentiated didactic to all those individuals that, though not certified, have specific didactic needs – also temporary – due to "physical, psychological, social, physiological or biological specific conditions". The Directive (DM) recognises, in other words, the presence of learning difficulties not only linked to pathologies of the individual but also to subjective factors and to the social and familiar context. Based on the recognition of an existing learning disadvantage area not directly attributed to disability or SLD, the Directive invites schools to become active so that an inclusive didactic is ensured for the personal needs of each learner.

¹²¹ The tailor-made didactic is defined as a set of tailor-made support activities addressed to student in order to develop specific abilities or skills (Guidelines, 2011).

¹²² The personalised didactic is based on the "uniqueness" of educational deeds and is implemented through a set of methodologies to promote positive educational results: the use of educational mediator tools (conceptual maps, schemes), the attention to different learning styles, the use of differentiated activity (Guidelines, 2011).

¹²³ The law defines "compensative tools": didactic and technological tools that support the performance in the ability involved (for example: speech synthesis, recorders, word processors with orthographic checker, other technological tools ...).

¹²⁴ Dispensative measures are: interventions that allow to the student to avoid some activities or to have different rules to develop that activities (much time for the evaluation tests; no request to read aloud,...).

¹²⁵ Special educational needs (BES) are stated in: disability; neurodevelopmental disorders (DSA) and socio-economic-linguistic disadvantage. The label of "Neurodevelopmental disorders" includes also: "language disorders, non-verbal skills disorders, motor coordination disorder, including - for the common origin in the developmental age - also those of attention and hyperactivity (DM 12 dic. 2012).

Further analysis 1: Normative context

- 2009 – Guidelines for school integration of learners with disabilities – 4/08/2009
- 2010 – Legge 170 “Nuove norme in materia di disturbi specifici dell’apprendimento in ambito scolastico”. The Law recognises the specific characteristics of the particular needs of children/youngsters with specific learning disorders (SLD). SLDs are stated in: dyslexia, dyscalculia, dysgraphia and dysorthography. The Law affirms the right to use compensatory tools and benefit from dispensatory measures.
- 2011 – Consensus conference, Istituto superiore di sanità - Disturbi specifici dell’apprendimento – multidisciplinary panel of experts with the aim to suggest recommendations on the topics of evaluation of the diagnostic modes, on the epidemiologic framework, on the organisational models and the service provision.
- 2011 – DM 5669/11
The Decree identifies the training approaches of teachers and school directors, the educational and didactic support measures useful to sustain the correct teaching/learning process starting from nursery, as well as the verification and evaluation forms to guarantee the right to study of pupils and students with diagnosis of Specific Learning Disorder (referred to as SLD), of schools of any level of the national education system including universities. The decree identifies, to support inclusive didactic, compensatory and dispensatory measures.
- 2012 – Direttiva ministeriale (27/12/2012) – The ministerial Directive introduces and defines the Special Educational Needs (learners with disabilities, learners with SLD; learners with socio-economic, linguistic and cultural disadvantages) and extends to these categories of pupils and students the benefits of Law 170/10 referring to dispensatory and compensatory measures. It also introduces the topic of territorial organisation for school inclusion.
- 2012 - Accordo Stato Regioni – establishes the criteria of certification for SLDs, in order to be able to access the measures envisaged by Law 170.

Regional laws - Piedmont

- 2014 - DGR n. 16-7072 - "New norms on the topic of specific learning disorders in the school environment"; implementation of the agreement State/Regions of 25th July 2012; approval of the agreement protocol with the Regional Education Office. Execution of D.G.R. n. 25-6992 of 30.12.2013, Action 14.4.6 stating "Territorial assistance to minors". The D.G.R. implements the agreement State/Regions and identifies connecting modes between the education environment and the health-diagnostic system in the implementation of the right to study and the use of dispensatory and compensatory measures. The document introduces and defines EES "Esigenze Educative Speciali" which includes: Specific developmental disorder of speech and language; Specific developmental disorder of motor function; Hyperkinetic syndromes).
- 2014 – DD 496/2014 – Indications for diagnostic diagnosis and certification of Specific Learning Disorders (DSA) in the Piedmont Region in application of DGR.
- 2016 – DD 595/2016 - New guidelines for inclusion of students with special educational needs in school and training courses to obtain a professional qualification (underage students).
- 2017 – DD 427/2017 and following circular "Details on the procedures for the request for renewal of diagnosis and certification of Specific Learning Disorders (DSA)"
- 2017 – DD 988/2017 - Nuovi modelli per gli allievi con Bisogni Educativi Speciali contenente le indicazioni sulla modulistica da utilizzare per la predisposizione dei Piani Formativi Individualizzati e del Percorso Didattico Personalizzato.
New models for students with Special Educational Needs containing the indications on the forms to be used for Tailor Made Training Plans and the Personalized Learning Path

Based on the current normative, the diagnosis of a definite learning difficulty takes place within specialistic treatments and through a service offered by public and private qualified experts. The diagnostic certification¹²⁶, being a legal document that permits to access the benefits described in the norm, can, on the other hand, only be issued by the National Health Services and, in particular, by the child neuropsychiatric services.

As for the Special Education Needs, the identification is carried out by teachers and school operators through the pedagogical observation of the learner. Thanks to the information collected on the cognitive, emotional-behavioural and relational aspects of the learner, the Board of Teachers draws up the Personalised Education Plan and defines the didactic/education interventions and, at the same time, identifies the most suitable strategies and methodologies for full participation of the students in the learning context.

Besides a mature normative framework on the topic of school inclusion and right to study, addressed to students with learning difficulties up to the university level, on the topic of promotion of inclusion of adults with learning difficulties in the work place, in lifelong learning or in other environments, little has been done so far¹²⁷.

In the first decade of years 2000, the European Commission, through the promotion of the Diversity Charters, has intended to encourage employers to introduce a human resource management that enhances diversities and differences that characterise organisations, underlining how the promotion of a diversity management can produce beneficial effects not only in terms of improvement of the working environment but also in terms of productivity. On the basis of the EU recommendations and of some successful experiences carried out in France and Germany, also Italy has launched – from an initiative of Fondazione Sodalitas supported by the former Ministry of Labour and Equal Opportunities – the Charter for Equal Opportunities and equality in the work place (2009), a declaration of intent, that can spontaneously be undersigned by companies wishing to promote and spread inclusive HR policies that can enhance diversities and the potential talents within the organisation. Despite the strong cultural and political incentive of the last ten years, diversity management in Italy is still the prerogative of a few medium and big-size companies, in some cases multinational and it consists mainly in the promotion of gender equal opportunities (gender management) and in the inclusion of vulnerable individuals with disabilities (disability management), in several cases in compliance with the specific norms (see Law 68).

Along with a socio-economic and cultural context characterised by a lack of knowledge on the topic of learning disorders in adulthood (lack of normative reference, legislative proposals or measures aimed at enhancing full labour inclusion and promotion of lifelong learning paths)¹²⁸, there exists a substantial lack of specialised services in the diagnosis of learning disorders in adulthood; the only example being represented by the Department of Neurology of the Arcispedale Santa Maria Nuova in Reggio Emilia.

¹²⁶ The Italian Dyslexia Association stresses the need to distinguish between the diagnostic path and the diagnostic certification path (For more information: <https://www.aiditalia.org/it/news-ed-eventi/news/aid-su-iter-certificazione-diagnosi>).

¹²⁷ In 2017 a first draft law had been drafted with the aim of reviewing the Law 170, extending the protections provided for by law also in the work place with the aim of creating a dyslexia friendly environment. The bill has lapsed for closure of the legislature.

¹²⁸ See the Dyslexia Foundation project finalized to promote a label “dyslexia friendly” among enterprises.

After becoming 18, age limit to access the children Neuropsychiatric services, university students and adults, not yet diagnosed, meet major difficulties in identifying public and private services that can carry out a diagnosis in a competent and effective way.

To fill this gap, the Piedmont Region (through DGR n. 16-7072 of 2014) prescribes the constitution, within the Local Health Services, of a Specific Learning Difficulty Group (GDSAp). This group has the task to evaluate the SLD diagnosis in adulthood drawn up by public and private operators (specialised in adulthood) and consequently to provide a certification. This is a procedure that can be used to renew certifications to enrol for university and/or to access entry test for university courses. Finally, the Circular Letter of the Regional School Office (Piedmont), in relation to SLD in adulthood, following the DGR n. 16-7072 and DD 496 of 2014, clarifies that "in order to carry out specific interventions to access active labour policies and enhance continuity with the interventions carried out in school and vocational training" the SLD certifications provided in childhood can be considered valid.

Chapter 2. The Italian debate on learning difficulties in adulthood

Literature on the topic of learning disorders in adulthood is influenced by the development of the wide debate on the topic of disability.

In the international scientific community, the topic of learning disorders is dealt from two perspectives – or interpretative paradigms (Ghidoni 2011) – which generate two specific study currents. On one hand the “medical” current, that is hegemon and includes dyslexia (and in general any type of difference or disability) in the bio-medical register of the disease and qualifies it as pathology in relation to a “neurotypical aspect” that represents the norm. Studies and researches, thus, focus on the analysis and diagnosis of the single problem or “disease” from an individualistic perspective, and they are oriented to speculate solutions and strategies to fill the lacks and deficiencies. In the bio-medical paradigm the discussion focuses on the shortage and on the pre-eminence of the relation “norm-shortage-need”¹²⁹. On the other hand, the paradigm of neuro-diversity, totally disagreeing with the bio-medical paradigm, considers dyslexia and specific learning difficulties expressions of definite neurological configurations and differences (Armstrong T. 2010, Cooper R. 2017). This paradigm, due to the interpretivist and constructive approach, moves the focus from the disease of the individual to the social context in which the SLD arises.

Also in the Italian context, these two positions are confronted: on one side the cognitivist and bio-medical approaches, which focus on the specialistic dimensions, both diagnostic and clinical-rehabilitative, on the other side, bio-psycho-social approaches and researches more oriented to problematise the concept of “inclusion”¹³⁰ and highlight the “disabling” conditions of the school and organisation contexts, that is the ways and forms through which a specific context (educational, organisational, social) can generate inclusion or, on the contrary, exclusion on the basis of an expected shared definition of “norm” and “normality”.

Within this debate and with a significant delay compared to the Anglo-Saxon context, a new form of literature is developing, dealing in particular with the topic of learning disorders in adulthood. A wide research current has developed starting from the need to identify the specific characteristics and the spread of the phenomenon. In Italy, it is estimated that a percentage varying from 3 to 5% of the Italian population presents a form of learning disorder and 2 dyslexics out of 3 are not identified during compulsory schooling (Norina 2011). Thus, we have to face a situation that requires diagnosis tools and modalities which can reply to a knowledge need, not only of researchers but also of over-18 adults, not previously diagnosed, who can no longer be certified by the child neuropsychiatry. These are adults who choose to have the disorder diagnosed on the basis of personal awareness or because they need to attend or conclude a learning path (entry test at university, school-leaving certificate, state exams, etc.), or to fulfil required procedures (Disability Procedures or differentiated diagnosis with psychiatric, neurologic, sensorial pathologies).

¹³⁰ Medeghini R. et al. (2016) define: “Approach to inclusion addresses to all differences without these being described with disease/lack criteria; its aim is to overcome discriminations and social, educational, institutional exclusion; it requires a cultural and social change in order to allow active citizenship and to promote freedom of choice and expression. It requires organizations and social contexts able to face the everyone’s differences, eliminating disabling social, cultural, economic and institutional barriers. It requires to overcome the egemony of a medical and normative terminology and to support voice and advocacy of disabled people”.

The creation of diagnosis and evaluation tools of the phenomenon addressed to adult individuals has involved the efforts of several researchers (see Ghidoni and Angelini) and in particular the Department of Neurology of the Arcispedale Santa Maria Nuova in Reggio Emilia¹³¹ that takes credit for developing a neuro-psychologic evaluation methodology that can diagnose dyslexia in adult individuals with the use of measurement tools adapted to the age and sensitive to the evolutive character of SLDs. On the quality and effectiveness of the tools, as Ghidoni and Angelini reminds, from the diagnostic point of view, against shared tools and criteria (Consensus conferences) in the scientific community for the evaluation of reading (word reading tests, not words and text; evaluation of time, quickness and mistakes), in the evaluation of writing there are few tools and a lack of standard tests on the adult for the evaluation of dysgraphia. A similar situation exists for the evaluation of calculation abilities.

Other qualitative-oriented researches have underlined life stories of SLD adults, their personal backgrounds (Lampugnari 2017), the risk factors or, on the contrary, protective from the family context, that can encourage a specific individual path when facing the learning difficulty (Ruggerini 2013; Frassinetti 2012), the experience of the personal background against the diagnosis (Mc Nulty 2003). The diagnosis can, in fact, take multiple meanings in the lives of adults: it can represent a trauma or, on the other hand, be useful to the adult individual, since it becomes a moment of personal awareness and empowerment, a subjective opportunity to review their background in more realistic and calm terms, giving a name and a meaning to a discomfort, that has been felt but not identified so far. The passage to adulthood of individuals with dyslexia can lead to complex psychological backgrounds with implications for the daily life and for all those activities that imply the use of reading and writing. In several cases, dyslexic adults, especially those not diagnosed during their school career, have activated processes of psychological adaptation, strategic choices, cognitive styles that have compensated the learning difficulties¹³².

In other cases, dyslexic adults have not been able, though several attempts, to compensate¹³³ and have maintained functional problems in the work place and in their personal life with consequences in terms of self-esteem and sense of insecurity. The psychological suffering of dyslexia and of other SLDs in adulthood arise in the form of low self-esteem and of anxiety, for instance in their academic performances. In other case, the suffering is the result of past experiences, especially during compulsory schooling.

Cardano and Cioffi (2016) deal the complex process of reconstruction of the condition of SLD adults from a sociological point of view. Dyslexia is an invisible condition that can often be mistaken for unwillingness, indifference, inability and stupidity. After interviewing some adults with a diagnosis obtained outside the school and training paths, the authors were able to prove how important is the awareness of being dyslexic and take control of their experience. If we take back some significant evidences emerged from the studies at a national, but most of all international level, support tools and modalities to SLD adults appear to be a combination of means that require to be adapted and thought starting from the identified learning styles (Ghidoni 2011) and cannot exclude didactic attention and care (explicit, intensive, systematic teaching finalised to phonologic awareness and codification strategies).

Didactic can benefit from the potentiality of the use of new technologies and the web (Mc Carthy and Swierenga 2009). The studies agree on affirming that some characteristics that can facilitate accessibility of dyslexic users can have positive effects on all users in general. In particular, the structure and presentation of the information: synthetic presentation along with graphic elements, animated presentations, the possibility to choose the font type and the backcloth colour, colouring of the text, underscored texts, highlighting, but also vocal synthesis. On the other hand, a too complex text, an inadequate choice of font, colours and graphic can lead to accessibility problems.

¹³¹ <http://www.asmn.re.it/dislessia-e-disturbi-dellapprendimento-nelladulto>

¹³² Compensation of dyslexia in adolescent and adult age has been defined as a subjective strategy depending on the personal characteristics and environmental conditions (Brambati et. al. 2006). It allows a better functioning in different tasks and also a better self-image (Mc Nulty 2003).

¹³³ For an analysis of compensation strategies: Genovese E., Ghidoni E., Guaraldi G. (2011), *Dislessia e giovani adulti. Strumenti compensativi e strategie di successo*, Ed. Erikson, Trento.

Finally, we report that in literature a limited number of researches still exists, aimed at exploring the experience of adults with learning disorders within the working environments¹³⁴ or inside lifelong learning paths. However, some pilot experiences aimed at promoting a culture of diversity management exist. Among these, the “Progress For Work” Project promoted by Fondazione Dislessia (2016) identified a very low knowledge of the phenomenon of dyslexia and specific learning disorders from companies with a consequent wrong interpretation of the disorders: sometimes they are considered as disabilities that impede or preclude professional success, other times they are considered as a learning deficiency. Against a substantial difficulty in identifying the needs of adults with learning disorders, the project focuses on the need to intervene both with a support to the individuals in the working contexts and with an effective and correct spread of the knowledge on the topic.

¹³⁴ See Lami L. research on the topic of adult dyslexia at workplace.

Chapter 3. Adult Learning difficulties / disorders in Italian language learning (FL/L2): Main Evidences.

Almost all of the results on the topic of Italian language learning (FL and L2) are the outcome of various empirical researches and practices developed mainly within the school context. Infact, the legislation has introduced the "legal" need for schools (from primary school to university) to develop thinking and strategies on how to adapt the teaching to students with DSA and with special educational needs.

Moreover - since the study of Italian as a foreign language is not so widespread – till now the topic of learning disorders or learning difficulties in learning a foreign language has always suffered from a certain dependence on the Anglosaxon practices and on specific studies related to the learning of English as FL. Recently, even as a result of the increase in the number of foreign migrants who need to learn Italian, further studies and specific practices related to the teaching of Italian as FL or L2 are growing and increasing starting from a critical literature and practice review referring to the English language learning. In detail, these researches analyze the specific features of the Italian language and are mainly oriented towards providing methodological suggestions and practical teaching tools. The Italian, in fact, stands out for having an ALPHABETICAL orthographic system, i.e. to every sign (grafema) or group of signs corresponds a sound (phoneme) and a simple syllabic structure. It has a TRANSPARENT orthography because the phonetic codes of the word are represented by the unequivocal and direct graphemes (Italian is an almost pure phonemic system in which 33 graphemes represent the 25 phonemes and the conversion of the grapheme into phoneme is fixed). This feature affects the ease of reading and the speed of access to the lexicon: the transparency of the Italian language therefore makes it different from the English language (which is an opaque orthography system), which vice versa is particularly difficult for learners with DSA.

Celentin and Daloiso (2017) tackle this aspect from the point of view of diagnostic evaluation. In particular, they explore the specific features of Italian language teaching to dyslexic students and the differences between Italian as FL and L2. Regarding the first aspect, despite the widely shared principle according to which the difficulties found in L1 move to L2, the two authors point out how the expression of that difficulties may vary depending on the specific features of mother language in comparison with the second language (Celentin , Daloiso 2017). Regarding the second aspect, they highlight how in teaching Italian as L2 the school and family environment deeply affect the learning outcomes. The bilingualism, instead, does not constitute, according to the authors, a further disadvantage while it could instead represent an advantage in order to overcome difficulties.

Bianchi and Favilla (2018) explore reading difficulties starting from all aspects of linguistic elaboration in opposition to approaches that focus exclusively on phonological and orthographic aspects. In particular, by adopting the dual route model, the authors analyze the different types of dyslexia as the consequence of difficulties in one or more components of the reading systems and at the same time they highlight the opportunity to distinguish learners on the base of their linguistic and cognitive abilities.

Cappa C., Collerone M.L., Fernando J., Giulivi S. (2012) - within the DYSLANG project - summarized the main difficulties encountered by adults in learning a foreign language¹³⁵.

¹³⁵ See: Cappa C., Collerone M.L., Fernando J., Giulivi S. (2012) <http://www.dislessiairete.org/dyslang/dyslang-moduli-e-materiale.html>

The following scheme summarizes the results of their research and the suggested approach to cope with these difficulties.

Linguistic area	Difficulties	Suggested intervention
Phonetics and phonology	<p>Difficulty in perception, discrimination and production of sounds. Phonological difficulties encountered in the mother tongue usually move into the study of a foreign language.</p> <p>Although this is one of the main difficulties, the transparency of the language makes the Italian language less arduous than the English language.</p>	<p>Develop/reinforce the capacity to discriminate and produce sounds of a foreign language (FL/L2)</p>
Vocabulary	<p>Difficult acquisition of an adequate and motivating vocabulary repertoire due to phonologic memory deficit and difficulties in word retrieval.</p> <p>For persons with learning disorders this leads to a highlighted gap between the wealth of the passive vocabulary and that of the active vocabulary. The difficulty is extended when language of origin and LS are not related.</p>	<p>To adopt approaches that complete the implicitly way of teaching with the explicitly way (privileging the second one).</p> <p>Enriching the vocabulary repertoire allows the student to understand how a language runs. The bilingualism can facilitate the acquisition of a vocabulary repertoire.</p>
Morphology and morphosyntactic language	<p>Language Mechanisms are often learned in L1 implicitly and automatism are acquired at the unconscious level. Therefore, the difficulties encountered in L1 by dyslexic students move into FL/L2.</p>	<p>The teacher have to acquire basic knowledge regarding the main morphological differences between the languages involved, in order to be able to foresee possible difficulties or viceversa strengths.</p>
Syntax	<p>Possible difficulty with the retrieval and use of syntactic rules due to a "working memory" deficit.</p>	<p>The teacher have to acquire basic knowledge regarding the main syntactic differences between the languages involved.</p> <p>The reflection about syntax would be more effective if based on the practical use of the structure to be learnt.</p>
Pragmatics	<p>No specific difficulties in this area.</p>	<p>Emphasizing communication and the practical uses of language. The extra-linguistic elements (gestures, movements, non verbal language,...) must be taught and enhanced together with the linguistic aspects.</p>
Orthography	<p>Orthography represents one of the main difficulties. L'ortografia rappresenta una delle maggiori aree di difficoltà. Difficulties encountered in the mother tongue usually move into the study of a foreign language (FL/L2).</p>	<p>To adopt approaches that complete the implicitly way of teaching with the explicitly way (privileging the second one).</p>

Learning a foreign language is a fairly complex process for a dyslexic student, especially regarding the writing. In Italian language learning as LS or L2, this could be compensated through the priority development of oral communication skills. It must be paid attention that a wide use of written methods in teaching along with a lack of specific teaching methods, may negatively affect language learning.

Daloiso (2012) highlight the need to introduce a “special gloctodidactics” as to take care of special needs in the classroom. In practice, this means that the teacher must focus on «gloctodidactics accessibility», a set of theory and methodological choices finalised to guarantee equal opportunity in language learning (from a phisical, cognitive, linguistic and methodological aspects) for students with special needs adopting tools, documents, strategies which maximize accessibility (Daloiso 2012).

The «gloctodidactics accessibility» paradigm is trasferable to L2 context (Basso, Daloiso 2013) starting from the analysis of elements which may influence the process of learning (socio-cultural environment in the country of origin; socio-cultural environment in actual country; individual characteristics). Basso e Daloiso (2013), applying the Total Physical Response developed by Asher¹³⁶, demonstrate that each methodology needs to focus on what the student is able to do with the language, on his/her ability and his/her language learning style. The implementation of the TPR method with students with learning disorders seems to be very effective because the use of movement connected with a linguistic input can facilitate the learning.

Moreover, in the Italian language teaching (L2) to adults with special needs the teacher must pay attention both to special needs of learning disorders/difficulties and to specific needs in L2 teaching, along with the awareness of possible difficulties due to the impact of the events they can have suffered and/or experienced during the migration path or in their actual or previous country (Minuz F., Borri A. e Rocca L. 2016). Finally, in the context of L2 it is necessary to adopt a cross-cultural communication (Celentin, Daloiso 2017) to find methods and tools which can support learning in a multilinguistic and multicultural environment.

In conclusion, to support an adult with learning disorders/difficulties in a foreign language learning it is necessary to adopt an approach: structured and sequential; multy-sensory (didactical strategies based on movement, outdoor activity, emotional engagement); empowerment oriented (reinforce capacity and ability rather than errors or failures).

Present and share training objective allows to prepare the setting, the framework in which the student will develop the work. From a practical aspect, the teacher can reinforce skills through the use of images, conceptual and cognitive maps, graphs, schemes, bills also in digital form. Regarding this aspect, the use of digital and web resources can be a valid support (speech synthesis programs, e-books, recorder, word processing programs with orthographic checker, programs for processing tables, formulas and concept maps, LIMs, audiobooks, digital dictionaries).

From a relational aspect, a motivating and engaging teaching is necessary, based on oral communication and on development of practical communicative skills. The use of cooperative learning, roleplaying and storytelling are usually suggested for a good success in a foreign language learning and this can also fit with adults.

Regarding the setting, a learning environment that allows student to be included, supported and stimulated, encouraged and non-discriminated is necessary. This reduces the emotional and cognitive effects he/she suffers.

¹³⁶ The Total physical Response is one of the teaching methods used in foreign language learning. In Italy there are some experiences in using it in Italian language (L2). Its principle is to use movement as a starting point to activate a learning process.

Last but not least, it is important to mention that regarding our target group we should remember the specific features regarding learning in adulthood (Begozzi 2011). The adult who learns needs targeted programs that take into account his socio-professional history, the previous experiences, the personal characteristics, his biography and his learning story. Adults must be considered in their complexity: problems, needs, motivations, contexts. They require a learning setting characterized by a positive climate, clear objectives and methodologies and based on the motivation to change and on the experience as a way of reflexive learning. In other words, adults who learn try to solve problems encountered in everyday life and/or in professional life and the learning process goes through a reflexive and contextualized thinking on the experience in a non-linear and pre-defined way, within the socio-relational environment.

Chapter 4. Language E-teaching methodologies and tools in SLD adults' FL learning in Italy: a general overview

Most of the digital resources available (software, APPs, other online resources) are addressed to students and can be used either autonomously or with a tutoring of a teacher.

Most of them are developed with the aim of supporting students with learning disorders in learning Italian as mother tongue: didactical software or specific programs (word processing; speech synthesis; audio-recordings) usable on different devices (PC, smartphones, IWB) individually or in a collective way. The Italian Dyslexia Association has counted and collected the main compensative software in use¹³⁷ splitting it into read-writing tools, study tools; math and general tools.

Some of them can also be used by adult learners.

A social network was also created "Traib": the first thematic social network dedicated to the dyslexia world with the aim of connecting and creating a community for sharing information and study.

The overview of digital resources related to Italian language learning as L2 is diversified. On web there are many links to sites but in many cases some are not active or no longer updated. Nevertheless, there are some interesting experiences (on which, however, the number of visit is not known) especially deriving from some Italian University for foreign students:

- CLIO (on line Italian course lev. A2, B1, B2, C1 addressed to foreign students with at least a diploma) and FAST (on line course on specific professional topics) – provided by the University for foreign students in Siena¹³⁸.
- CORSO DI LINGUA ITALIANA A2¹³⁹ Italian course provided by the University for foreign students in Perugia.

The university Consortium ICoN provides on line paid Italian courses¹⁴⁰: you can find an entrance level test, digital documents and didactical tutoring.

The patrimony of the Rai multimedia archive (the national public broadcasting company) stands behind the promotion of three online courses:

- GRANDE PORTALE DELLA LINGUA ITALIANA¹⁴¹ tools and multimedia resources to support Italian language result of a RAI project in cooperation with Ministry of Interior affairs and Ministry of education starting from 2010.
- RAI EDUCATIONAL¹⁴² - Italian language course provided by Rai Educational (the thematic channel) composed by 40 on line lessons
- CANTIERI D'ITALIA¹⁴³: Entry level Italian language course with the aim of developing key competencies of citizenship.

¹³⁷ <https://www.aiditalia.org/it/pagina-dei-software>

¹³⁸ https://centrofast.unistrasi.it/1/232/CLIO_-_Corsi_di_lingua_italiana_online.htm

¹³⁹ <http://corsi.unistrapg.it/corsoA2/>

¹⁴⁰ <http://www.icon-lingua.it/>

¹⁴¹ <http://www.italiano.rai.it/livello/livello-a2/488/default.aspx>

¹⁴² <http://www.educational.rai.it/ioparloitaliano/main.htm>

¹⁴³ <http://www.raiscuola.rai.it/programmi/cantieri-ditalia/48/1/default.aspx>

Among association and institutions involved in migration and integration issues:

- PARLIAMOCI CHIARO¹⁴⁴ provided by Fondazione ISMU is an eLearning platform developed through a project in 2009.
- PRESENTE – ITALIA PER STRANIERI¹⁴⁵ - a new APP (Android environment) provided by the Adult Education Center (CPIA) in Bologna and funded by a FAMI project (2018). It is translated into 5 languages (Italian, English, French, Arab, Urdu) and its aim is to share some information about Italy for migrants just arrived. The APP is divided into 3 sections: a didactical section containing practical exercises in Italian language; an information section containing some information regarding civil life in Italy; an easy handbook of words and sentences on body and health.

In addition to these, various experiences of paid online courses provided by private companies and language schools are available upon registration and after purchasing the course.

Let's not forget on line dictionary and some other thematic resources like:

- An Italian video-course provided by ONEWORLD¹⁴⁶
- LANG8¹⁴⁷ - a site to support the writing competence.
- QUIZLET – a site containing games, tests, interactive activities.

Although a careful analysis of the architecture and content of these websites is not possible, all the digital resources addressed to migrants or in general to foreign students who want to learn Italian (FL/L2) don't pay attention to accessibility and are not dyslexia friendly.

At the same time, the digital resources for learners with learning disorders don't fit with the language learning (FL and L2).foreign language. We refer to the chapter of the Irish partner to have a general overview about the existing resources.

¹⁴⁴ <http://parliamocichiaro.ismu.org/>

¹⁴⁵ <https://play.google.com/store/apps/details?id=presente.edizionilinea.it>

¹⁴⁶ http://www.oneworlditaliano.com/italiano/video_corso_di_italiano.htm

¹⁴⁷ <http://lang-8.com/>

Conclusion

In conclusion, our research has demonstrated a lack of norms, measures and resources addressed to adults with learning difficulties/disorders who want to learn/improve Italian as a foreign or a second language. Despite this, lessons from literature and recent experiences show that a specific approach can be adopted which take into consideration two main aspects: the adulthood perspective when you put in place a learning project and the learning methodologies and tools accessibility to support foreign language learning.

According to the aims of IRENE project, this means, the need to:

- Develop a structured and sequential learning project explaining to adults aims and objectives at the beginning
- Create an “empowerment-oriented” and positive learning environment adopting cooperative learning strategies
- Privilege practical communicative skills and develop individual resources and attitudes
- Use visual tools and technologies
- Propose multi-sensory activities

Regarding organizations involved in facing the learning difficulties, schools and universities deal with learning disorders and support students with measures and tools (regardless of specific curricula or matter) but no specific practices have been developed in the field of Italian language learning as FL or as L2. The VET system does not cope with the problem and even if it is possible that the professional and practical approach adopted in adult education could be more inclusive than the traditional “scholastic” approach, there is a lack of thinking, methodologies and tools to deal with the problem.

Due to this lack, no specific research and projects have been developed to analyze the needs of trainers and teachers. However, we can suppose that specific professional characteristics and attitudes are required:

- Capacity to analyse specific learning difficulties from an individual point of view
- Ability to use different learning methodologies in order to support and valorise individual resources in language learning
- Digital competences in using “language teaching technologies” and in tutoring
- Capacity to create a positive and inclusive setting
- Knowledge of adult learning pedagogical approaches
- Ability to adopt a multidisciplinary approach (among teachers)

Moreover, if we focus on VET organisations and lifelong learning courses addressed to adults, the absence of a structured way to support adults with specific learning needs could demonstrate the need to train the trainers in order to create awareness on the topic and to improve specific methodological considerations.

References

- Aa. Vv (2011), *Dislessia nei giovani adulti. Strumenti compensativi e strategie di successo*, Erikson edizioni, Trento.
- Aa. Vv. (2016), *Dislessia e lavoro. Da disagio a opportunità in Lavoro welfare per un nuovo riformismo*, n. 25 anno 3.
- Aa.Vv. (2015), *Giovani adulti con DSA, Diagnosi, aspetti psicologici e prospettive di sviluppo*, Erikson edizioni, Trento.
- Armstrong T. (2012), *First, Discover their Strengths*, in *Educational Leadership*, www.ASCD.org
- Basso E., Daloso M. (2013), *L'insegnamento dell'italiano L2 ad allievi migranti con bisogni speciali*, in *EL.LE.*, vol.2, n.2.
- Begotti P. (2011), *Imparare da adulti, insegnare ad adulti le lingue*, http://www.provincia.bz.it/cultura/download/Articolo_Begotti.pdf
- Bianchi V., Favilla M.E. (2018), *Dislessia e apprendimento di lingue seconde: problemi da considerare per la costruzione di un sillabo per l'insegnamento dell'italiano L2 ad apprendenti dislessici*, <https://iris.unimore.it/retrieve/handle/11380/1155018/184685/012Bianchi-Favilla.pdf>
- Cardano M., Cioffi M. (2016), *Una differenza senza nome. Narrazioni autobiografiche di dislessici adulti*, in *Rassegna Italiana di Sociologia*, n.2/2016.
- Celentin P., Daloso M. (2017), *La valutazione diagnostica della dislessia in contesto di L2. Problemi e riflessioni alla luce della ricerca clinico-linguistica ed interculturale*, in *EL.LE*, vol. 6, Num. 03,
- Commissione Europea (2012), *Gestire la Diversità sul posto di lavoro a cura di DG Giustizia*, Commissione Europea.
- Commissione Europea (2018), *Raccomandazione del Consiglio sulla promozione di valori comuni, di un'istruzione inclusiva e della dimensione europea dell'insegnamento*, COM (2018) 23.
- Condizioni teoriche e spazio epistemologico
- Condizioni teoriche e spazio epistemologico
- Cooper R. (2017), *Neurodiversity and dyslexia; challenging the social construction of specific learning difficulties*, <https://outsidersoftware.co.uk/wp-content/uploads/2017/03/Neurodiversity-and-Dyslexia-Challenging-the-social-construction-of-specific-learning-differences.pdf>
- Daloso M. (2012), *Verso la glottodidattica speciale. Condizioni teoriche e spazio epistemologico* in *EL.LE*, vol. 1, n. 3.
- Di Tore S., Fulgione M., Sibilio M. (2014), *Dislessia e Videogames: Il Potenziale Didattico dei Videogiochi in "Mediterranean Journal of Social Sciences"*, vol.5, n. 23.
- Frassinetti, F., Bolzani, D., & Angelini, D. (2012), *Dislessia negli adulti: una rassegna delle conoscenze*, Erikson, Trento.
- Fulgeri G.M., Ghidoni E., Morlini I., Stella G. (2014) *La percezione della dislessia: Un'analisi e una nuova prospettiva d'indagine degli stati emotivi dei soggetti con dislessia*, in *Dislessia, Orientamenti della ricerca*, Vol. 11, n. 1 (pp. 45-73), Ed. Erikson, Trento.

Genovese E., Ghidoni E., Guaraldi G. (2011), *Dislessia e giovani adulti. Strumenti compensativi e strategie di successo*, Ed. Erickson, Trento

Lampugnani (2017) *Vissuti e rappresentazioni del DSA*, in *Atti del Convegno Nazionale del Gruppo di lavoro SIPED - Teoria e Metodi della Ricerca Empirica in Educazione*, Dipartimento di scienze per la qualità della vita, Alma Mater Studiorum, Univ. Bologna

Mc Nulty (2003), *Dyslexia and the Life Course*, in *Journal of Learning Disabilities*, Jul/Aug n. 36, 4.

McCarthy J.E., Swierenga S.J. (2009), *What we know about dyslexia and Web accessibility: a research review*, https://www.researchgate.net/publication/220606753_What_we_know_about_dyslexia_and_Web_accessibility_A_research_review

Medeghini R. et al. (2016), *Inclusione sociale e disabilità. Linee guida per l'autovalutazione della capacità inclusiva dei servizi*, Erickson, Trento.

Minuz F., Borri A. e Rocca L. (2016), *Progettare percorsi di L2 per adulti stranieri - Dall'alfabetizzazione all'A1*, I Quaderni della ricerca n. 28, Loecher Editore.

Verso la 'Glottodidattica speciale'

Verso la 'Glottodidattica speciale'

Ruggerini, C. Manzotti, S. Grifo, G., & Veglia, F. (2013), *Narrazione e disabilità intellettiva. Valorizzare esperienze individuali nei percorsi educativi e di cura*, Erickson, Trento.

6. Foreign Language learning disorders in adulthood. The Dutch context¹⁴⁸.

Summary

Abstract

1. General overview

- 1.1 Legal framework on learning difficulties/disorders in adult education
- 1.2 National and regional programs and initiatives
- 1.3 Methods for diagnosing and measuring of learning difficulties
- 1.4 Organizations involved in education of SLD adults
- 1.5 Policy on teaching of SLD adults in Foreign Language Learning

2. Methodologies and tools

- 2.1 The needs of SLD adults in FL learning and the needs of the trainers
- 2.2 Language E-learning methodologies and tools in SLD adults' FL learning
- 2.3 ICT methodologies and tools implementation in the classroom
- 2.4 Good practice example in the area of FL e-learning support for SLD adults



¹⁴⁸ This paragraph has been written by Svetla Rashkov (Pressure Line)

Abstract

This document has been compiled by Pressure Line, Visual and Creative Communications, in the role of a Dutch partner in the Erasmus+ project 'IRENE, Increase the empowerment of adults and migrants with specific learning disorders' during the comparative desk research and case studies on the needs of adults with learning difficulties and on the existing teaching methodologies in the partner countries of the project.

This research has been carried out in a period when lots of changes in the field of combatting low literacy and enhancing language and digital skills of people with learning difficulties are taking place in the Netherlands. Recently the ministers of OCW (Ministry of Education, Culture and Science), and VWS (Ministry of Health Care, Welfare and Sport) and the state secretaries of SZW (Ministry of Social Affairs and Employability) and BZK (Ministry of the Interior and Kingdom Relations) have come with a statement via Kamerbrief (a letter to the parliament) announcing that 'they feel the urgency to invest firmly in a more skilled Netherlands, standing for a society in which everyone can participate: practically and theoretically trained, young and old, with and without migration background. Language, math and digital skills are indispensable for this.' The urgency to invest in a more skilled Netherlands is widely shared. The ministries work together with municipalities, employers, libraries, representatives of the target group and numerous social organizations. In the letter to the parliament the measures that are proposed to be taken for a more skilled Netherlands and the necessary financing for achieving this goal are further described.

Chapter 1. General Overview

1.1 Legal framework on learning difficulties/disorders in adult education¹⁴⁹

In the Netherlands, approximately 1.3 million adults have difficulty with writing and reading in Dutch. The Welten Institute¹⁵⁰ has recently started a 2-year study that should contribute to reducing the number of people with language and math skills below basic level. The research is part of the action program 'Tel mee met taal'. For this research, the Welten Institute actively cooperates with (former) low-literate people and teachers so that the knowledge, interventions and course material developed fit their needs and diversity.

It is known that the majority of the low literate people are native Dutch speakers (Buisman & Houtkoop, 2014). Although there are many low-literate Dutch speakers, their participation in formal and non-formal language courses (such as reading and writing courses) is limited. The percentage of Dutch-speaking participants in courses in the education departments of regional training centers (ROCs) has been much lower for years than the percentage of foreign participants learning Dutch (Steehouder & Baay, 2016). Municipalities also indicate that they can reach more non-Dutch-speaking participants with language education (Language as a Resource, 2016). There are no national data available on how to reach low-literate Dutch-speaking people and attract them to participate in non-formal language courses. From conversations with volunteer organizations and municipalities, the picture emerges that Dutch-speaking low-literate people are difficult to reach.

Municipalities in the Netherlands play a key role in reaching and activating low-literate people. Since 2015, decentralization has been taking place in the social domain, the work and income domain and the domain of education. These developments create new opportunities and new resources become available for integrated and coherent policy in the approach to low literacy. However, the connection between the municipal social domain and education desired by the central government is not yet sufficiently established (Regioplan, 2017). Neighborhood teams and social helpdesks focus their assistance, services and support primarily on solving the social, financial and personal problems of citizens. Work processes and goals are not aimed at recognizing low literacy and identifying learning questions or learning wishes of citizens and passing on to learning opportunities. The worlds of the municipality and low literate people are very different. Low-literate people are often vulnerable, depending on schemes with little trust in the government, while the services provided by the municipality are often compartmentalized and professionals are shy.

1.2 National and regional programs and initiatives

As mentioned above after the decentralization in 2015 many national and regional programs and initiatives have been started in the Netherlands that support adults with learning difficulties/disorders to learn the language and improve their social inclusion and employability. Hereunder an overview of three recent national initiatives:

Taalakkoord¹⁵¹

In 2015 under the initiative of the Ministry of Social Affairs and Employability 'The Language Agreement' (Taalakkoord) has been initiated. The aim of this agreement was to give a significant boost to language learning at the workplace by signing collaboration agreements between language providers and companies. According to the statistics more than 700 000 employees in the Netherlands have difficulties with reading and writing. It concerns both highly educated as well as low educated people and both people with a migration background as well as natives.

¹⁴⁹ Aanpak laaggeletterdheid binnen het sociaal domein, Annemarie Groot & Paul Steehouder, m.m.v. Maartje van de Beek, Wouter Heijne en Gonneke Bennes, CINOP, 2018, www.cinop.nl/wp-content/uploads/2019/02/aanpak-laaggeletterdheid-binnen-het-sociaal-domein.pdf

¹⁵⁰ Open Universiteit, Heerlen, www.ou.nl/web/open-universiteit/-/onderzoek-de-laaggeletterden-centraal

¹⁵¹ <https://www.taalakkoord.nl>

The share of employees with language problems vary per organization and function, but in almost all branches there are employees having trouble with the Dutch language. Employers join forces within the Taalakkoord to improve the language skills of their employees. There are special subsidy regulations for employers that stimulate investment in language at the work place. With this subsidy, the ministries of OCW (Education, Culture and Science), SZW (Social Affairs and Employability) and VWS (Health Care, Welfare and Sport) want to encourage employers to invest in the language skills of their employees. Investing in employees is investing in their own companies. With the Taalakkoord subsidies, employers can be reimbursed up to 67% of the costs of the language trajectory for their employees.

Tel mee met taal¹⁵²

Tel mee met taal (Social inclusion by learning the language) is a program for activities aimed at preventing and reducing low literacy. With Tel mee met taal the Dutch government wants to give an extra impulse to people with learning difficulties to tackle these problems. An important goal of the program is to ensure that all the partners involved at local and regional level structurally work together. Better cooperation enables children and adults with language deficits to be tracked down more quickly and to be better guided towards effective support that fits their needs. This way, people who have difficulties with language, arithmetic and digital skills will have better opportunities to develop themselves and fully participate in society. Schools, libraries, employers, partnerships, institutions for youth health care, or preschool facilities can apply for a subsidy for tackling low literacy.

Klasse!¹⁵³

The program for finding, approaching and recruiting low-literate Dutch speaking people. Klasse! Method is based on the idea that people can only be reached if you address them in a way that suits them. Profile characteristics and recruitment strategy are mapped for each target group. The profile characteristics are age, family situation, work, living environment, activities and the people who influence this target group. The urges for learning something are also taken into account. In addition, the locations of the target group, the learning wishes and possible guides are described. Klasse! is developed by Zet een punt (Marian Janssen-De Goede). It is a methodology for a recruitment campaign of Dutch speaking low literate people. Klasse! is endorsed by CINOP (an Expertise center for learning, training and development). CINOP and Zet een Punt work together intensively and join forces to further spread and develop Klasse! and to reach more Dutch-speaking low-literate people.

1.3 Methods for diagnosing and measuring of learning difficulties¹⁵⁴

In the Netherlands there are various methods for diagnosing and measuring of learning difficulties, specially dyslexia, at an early age. Schools, both primary and secondary, are responsible for signalling (possible) dyslexia. In addition, it is their job to provide guidance and possible referring to a specialized treatment. The school keeps a student's file in which all suspicions of dyslexia and learning problems are notified. When serious learning problems are identified the child's parents can be referred to special care where the child will receive further diagnosis and treatment. These care tasks are provided by qualified youth psychologists, health psychologists and/or special educators.

Dyslexia is now being signalled more and more quickly. Schools can also offer more, and better guidance and dyslexia can be handled well through schools and health care. Because there is more and more openness about dyslexia among children, dyslexia is increasingly being diagnosed also in adults. Some parents / adults realize that they also have problems with reading and learning when their child shows the same symptoms. Dyslexia is therefore a congenital and hereditary disorder.

¹⁵² Tel mee met taal, www.telmeemettaal.nl

¹⁵³ Klasse!, www.ikwildatleren.nl/

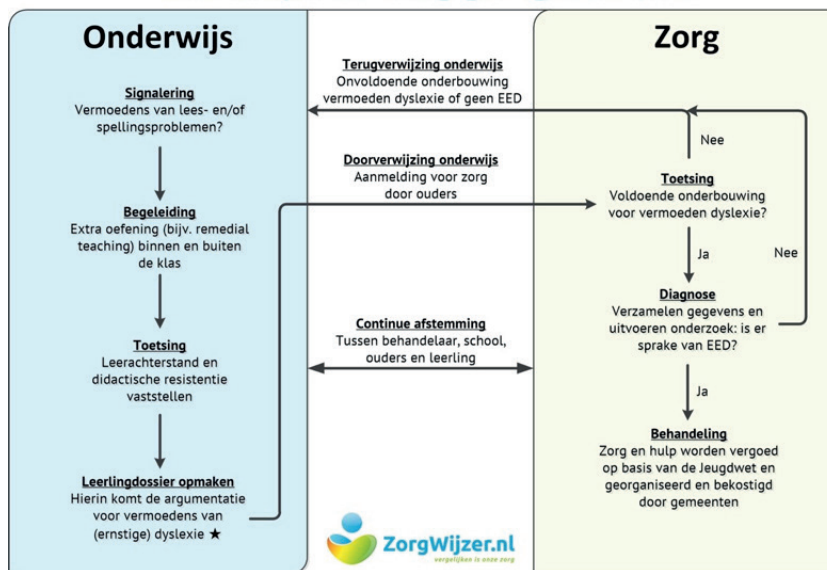
¹⁵⁴ HCO, www.hco.nl/lerend-kind/dyslexie

If adults suspect that they may have dyslexia, they may choose to do a dyslexia study. This is not mandatory, but it may be useful to have a dyslexia statement because with a dyslexia statement the person can be given more time when s/he takes an exam in education or course. A dyslexia study is not cheap. In addition, the studies are not considered very pleasant and the outcome is for some people only confirmation of a suspicion that they already had. Dyslexia care is not reimbursed by health insurance. Employers could possibly reimburse costs, but they are not obliged to do so either. In addition to the practical problems caused by dyslexia, however, there are often behavioral and/or psychological problems, such as anxiety, stress, concentration problems or depression.

Since 1 January 2015, the municipalities in the Netherlands have the duty of care for all forms of youth assistance. Under certain conditions, a municipality gives permission for the diagnosis and treatment of dyslexia and reimburse the costs for this. In accordance with the guidelines set by the Dutch Quality Institute for Dyslexia (NKD) the costs for treatment can be reimbursed too.

In the scheme beneath, the organization and the route from education to health care and the intervention between the two sectors is outlined. It becomes clear that the signaling and identifying of the symptoms happens within the educational path. Additional exercises take place during and outside the lessons and the student is tested to confirm whether or not learning disabilities are tracked. If this is the case a file is set up and the student is referred to health care specialist for further check and treatment.

Hoe is dyslexiezorg georganiseerd?



1.4 Organizations involved in education of SLD adults

There are several organizations in the Netherlands that are committed to help people with learning difficulties. These organizations focus especially on children who have dyslexia. In addition, there are many institutions that deal with scientific research of dyslexia. Here below is a list of some important and well-known Dutch organizations.

Dyslexia Netherlands Foundation¹⁵⁵

The Dutch Dyslexia Foundation (SDN) is responsible for transferring scientific knowledge about dyslexia to professionals in the field of education and healthcare. The Dutch Dyslexia Foundation (SDN) was founded in 1983 by Prof. dr. Dr. J.J. Dumont. The aim of the foundation is to promote the transfer of knowledge from science to practice, in particular the promotion of diagnostics and treatment of dyslexia in a scientifically responsible manner.

Lexima¹⁵⁶

Lexima is a socially oriented company that is committed to help everyone having problems with reading or writing to be successful, at school, at work or in their free time. Lexima is the largest supplier of ICT tools for dyslexia and technological solutions to prevent reading problems. The effectiveness of their products has been scientifically proven. Lexima Academy is an accredited training institution.

National Dyslexia Conference¹⁵⁷

The National Dyslexia Conference is a part of Lexima. It organizes yearly conferences at various locations in the Netherlands. The goal is to raise awareness and distribute information about dyslexia and low literacy for professionals, educators and stakeholders dealing with people with reading problems, low literacy and dyslexia. During the conferences professionals from the field meet each other to share experiences. Various lectures are given on educational practices, healthcare and science.

Foundation Dyslexia Fund¹⁵⁸

The Foundation Dyslexia Fund (SDF) was founded in 1985 with the main aim to promote and support scientific research in the field of dyslexia. The foundation offers subsidies to other innovative scientific projects with a view to treating and dealing with dyslexia.

Dutch Quality Institute Dyslexia (NKD)¹⁵⁹

The aim of the Netherlands Quality Institute for Dyslexia is to monitor and promote the quality of diagnosis and treatment of severe single dyslexia (EED) including the interfaces such as mild dyslexia, reading and spelling problems and severe multiple dyslexia. The NKD tries to achieve this goal by monitoring, developing of new policies and strategies, research and publishing of the results for professionals working in the field of dyslexia.

¹⁵⁵ Stichting Dyslexie Nederland, www.stichtingdyslexienederland.nl

¹⁵⁶ Lexima, www.lexima.nl

¹⁵⁷ Nationale Dyslexie Conferentie, www.nationaleddyslexieconferentie.nl

¹⁵⁸ Stichting Dyslexie Fonds, <https://dyslexie.nl>

¹⁵⁹ Nederlands Kwaliteitsinstituut Dyslexie, www.nkd.nl

1.5 Policy on teaching of SLD adults in foreign language learning

There are many language institutes for adults in the Netherlands that provide training in learning of foreign languages. Below is an overview of some institutes and their policy on teaching of SLD adults.

Language Institute Regina Coeli¹⁶⁰

One of the first language institutes in the Netherlands is the Language Institute Regina Coeli. This institute was founded by the Sisters Canonesses of Saint Augustine in Vught. In 1597 they already started teaching girls. The real language institute was only founded in 1963 and was mainly focused on teaching religious and development workers in a foreign language. But because of the good quality, the institute was soon discovered by ambassadors, politicians, entrepreneurs, famous Dutchmen etc. and became quite famous. At the Regina Coeli Institute you receive personal guidance and a personal language program. There are different ways to follow the training so there are special language weekends, team training, intensive individual language trainings, company training and online language training by self-study. The focus is laid entirely on the student. What makes the Regina Coeli institute unique is that students find themselves at a special location where they can study in peace and quietness. The institute offers various facilities for a good and relaxing training. For SLD adults an 'intensive individual language training' package is recommended that offers extra guidance and provides support where necessary.

Una Paloma Blanca¹⁶¹

Una Paloma Blanca is an organization that offers language education at various locations in the Netherlands. The lessons are taught by experienced (native) teachers and are given in a quick, effective and interactive way. It is possible to follow the lessons individually, in duo form or in a group depending on the individual's study plan.

Currently there are students with learning difficulties attending language classes at Una Paloma Blanca and the institute has gained experience with teaching SLD adults. By conducting an intake interview, the level of the student is identified, and a special guidance program is set up. People with severe dyslexia are offered additional private lessons so that they can receive enough guidance and time.

NTI (Dutch Language Institute)¹⁶²

NTI is one of the largest home study institutes in the Netherlands where you can also attend a language course. Learning happens at home and at your own pace. Contact with teachers goes by mail or via skype. For some programs, a lesson with other classmates can be held once a month. Learning a language by SLD adults is especially adequate at NTI because the course can be adapted to their own speed and time

¹⁶⁰ Taleninstituut Regina Coeli, <https://www.reginacoeli.nl>

¹⁶¹ Una Paloma Blanca, <https://www.unapalomablanca.com>

¹⁶² NTI, <https://www.nti.nl>

Chapter 2. Methodologies and tools

2.1 The needs of SLD adults in FL learning and the needs of the trainers

Our research showed that there were no official researches performed in the Netherlands on the needs of SLD adults in foreign language learning and the needs of the trainers. Most of the researches in this field are focused on children with learning disorders. Out of interviews with educators from the field we can conclude that the needs of SLD adults are as follows:

- Need to explore talents and competences; often these stay hidden because of fear for failure
- Need to learn how to read faster
- Need to learn how to write without making mistakes
- Need to learn how to express their ideas and present themselves
- Need to learn how to manage work and time well
- Need to prove themselves because often they have a great perseverance

Unfortunately, there are also no official data available on the needs of foreign language teachers and trainers in e-learning for SLD adults. Out of informal interviews with educators from the field a conclusion can be drawn that there is a great need for adequate e-learning materials for SLD adults. The materials that are available are mostly developed for children and cannot be always adapted to adults. Most difficulties educators face when teaching migrants who are illiterate and have learning disabilities. There are almost no E-learning materials available for this target group.

Trainers need to:

- gain insight into what exactly the problem of SLD adults is;
- learn how different dyslexic people process information;
- learn how to reduce performance drive, perfectionism or uncertainty of the person;
- learn how to make SLD adults become more confident and efficient in their work.

2.2 Language E-learning methodologies and tools in SLD adults' FL learning

There are various methods developed for foreign language learning that go deeper into learning difficulties and how this can be applied in the practice. Below a selection of the methods:

Werk & Dyslexia¹⁶³

Werk & Dyslexia is a project developed by Dynamika where SLD adults can go for help, advice and support. Training is also provided for companies that want to support their employees with learning difficulties to improve their language skills. In addition, lectures, podcasts and workshops are given.

There are various trainings, individual coaching and workshops offered in which the person:

- gains insight into what exactly his problem is
- learns how different dyslexic people process information
- learns to reduce performance drive, perfectionism or uncertainty
- learns to read at least 2 times faster
- learns to write a good report
- learns to give a good presentation or to express his/her ideas
- learns to manage work and time well

The trainings are organised in groups or individually and help SLD employees to improve their language skills and become more confident and efficient in their work.

¹⁶³ Dynamika, <https://www.werkendyslexie.nl>

Lexima¹⁶⁴

Lexima has developed a step-by-step plan that describes how employers or companies can deal with dyslexic employees and how they can help them. The steps explain how the dyslexic employees can be trained through e-learning software and training.

Learning difficulties provide a lot of stress in work situations. Uncertainty, avoidance behavior, stress and burn-out are often the result. It appears that employees with severe dyslexia have difficulty to perform at a proper level and even have difficulties finding or keeping a job. That brings a lot of suffering with it.

How can dyslexic workers be supported?

The use of dyslexia software has a positive influence on the functioning of dyslexics at work. Dyslexia software supports employees in reading and writing texts in different languages. The software can also be used for texts on the internet and mail programs.

With Kurzweil 3000 support, dyslexic workers can read smoothly and write flawless, structured texts through the combination of reading software, advanced spell checking and writing tools (including mind mapping).

Dyslexics benefit from gaining autonomy over their work in the form of extra time, flexible working hours and working from home. This autonomy provides greater focus, productivity and motivation. Dyslexia does not become a limitation when the social environment is structured in such a way that the employee can compensate for the problems.

What are the benefits of dyslexics for the company?

- Dyslexics often have a great perseverance and an urge to prove themselves.

What are the benefits of using tools?

- The talent and competences of the employee are better utilized
- The employee functions better and is more productive
- Less chance of absenteeism due to dyslexia stress or burnout

By a step-by-step plan employers are assisted to deal with SLD employees and according to their needs to help them tackle their problems using ICT tools and attend trainings.

Stimulation Program Dyslexia¹⁶⁵

The website [masterplandyslexie.nl](https://www.masterplandyslexie.nl) contains various files and protocols on how to deal with dyslexia with schools, allowances, aids, legislation and regulations and it contains information for teachers and students. The platform is though in a transition period and the information is at the time of this research not up to date.

¹⁶⁴ Lexima, <https://www.lexima.nl/advies/stappenplan-dyslexie-op-de-werkvloer>

¹⁶⁵ Masterplan Dyslexie, <http://masterplandyslexie.nl/nl/pages/dossiers.html>

2.3 ICT methodologies and tools implementation in the classroom



Our research showed that there were various methods using technologies in foreign language learning when teaching SLD adults, but they again are not structured and defined specifically as tools for adult education. The situation with adult education in the Netherlands is decentralized and in a process of changes. Municipalities have the responsibility to provide language teaching to their inhabitants by contracting various language providers. Recent initiatives as Taalakkoord and Tel mee met taal (mentioned in the beginning of our research) also play a certain role in this process. The only document that is available on this subject - a guide for teachers who teach Dutch to low-literate adults with Dyslexia¹⁶⁶ contains useful advice and handy tips for educators together with description of best practices and experiences but cannot be considered adequate because it was published in 2012. Times have changed since then and there are many ongoing developments in ICT methodologies.

Our research showed that most attention by the existing institutions and programs is paid to children with dyslexia and learning difficulties. Many of the adult educators make use of these programs and ICT methodologies, that is why we will focus on these programs and will describe below. The products are available via the website of Lexima:

- 'Build! - With Construction!, chooses a preventive approach to effectively reduce problems with reading backlogs, low literacy and dyslexia. Build! is the unique computer-based intervention program that can be used to prevent reading problems in high-risk pupils. The child learns, the tutor steers and the computer shows the way. Parents, grandparents, older students or volunteers can act as tutors.
- Flash! Tutor Reading Tutor Reading, is a method-independent and computer-controlled Flash program that effectively automates the reading process at word level. Flash! Tutor reading is designed in such a way that pupils, together with a fellow pupil as a tutor, (or with another non-professional tutor) can practice completely independently. In this way, suitable reading instruction is provided and the teacher is relieved.
- BLOON, is a method-independent program for practicing spelling. Use can be made of existing word lists, but teachers / supervisors can also make their own lists. This allows the substance treated in the classroom to be practiced directly with BLOON.
- Kurzweil - Kurzweil is the best compensating software for reading and writing problems such as dyslexia. Kurzweil removes obstacles that are experienced in reading, writing and understanding texts. This allows students to work faster and perform at their own level. Kurzweil grows along from the primary school until the completion of the study.
- WoDy is smart software that helps students to prevent spelling mistakes and to read and understand easier in four languages (NL, EN, D, FR). WoDy starts together with regular programs and is always available. Texts (Word, text-PDF, Internet, e-mail, etc.) can be read with marking. The built-in Dale dictionaries, symbols, illustrations and sample sentences help students with text comprehension and word choice. When writing students get support from a smart word predictor that takes into account student's preferences and pitfalls. WoDy even corrects verbs and their conjugations, homophones and compositions.
- BrowseAloud - BrowseAloud Plus reads websites aloud. Thanks to BrowseAloud Plus, hundreds of thousands of people who have difficulty reading can listen to websites. This useful reading tool offers visual and auditory support to dyslexics, visually impaired, low-literate and non-native speakers. BrowseAloud Plus can of course also be used if you prefer to listen to the information rather than reading it.

¹⁶⁶ Dyslexie bij laaggeletterde volwassenen. Een handreiking voor docenten NT1, CINOP, www.basisvaardigheden.nl/informatie/volwassenen-onderwijs/item/dyslexie-bij-laaggeletterde-volwassenen- een-handreiking-voor-docenten-nt1

2.4 Good practice example in the area of FL e-learning support for SLD adults

Category	Description
Title	Alinea
Website	https://www.lexima.nl/dyslexiesoftware/alinea
Author/Institution How is the website funded?	The Alinea program is part of Lexima. To use Alinea you have to buy the package/ app.
Content	<p>Texts (Word, text-PDF, Internet, e-mail, etc.) are read aloud while the text is highlighted with a two-colored mark. Alinea reads every letter, word or sentence during writing. In the word prediction window, every word can also be read, including the explanation of the dictionaries and the sentences given as an example. Alinea supports four languages: Dutch, English, French and German and automatically recognizes the correct language in documents.</p> <p>Do you only have a paper version of your text? With the Alinea app you take a picture of a text and it will read it to you. The Alinea app accurately recognizes the letters and makes the text readable while the formatting of the text is preserved. You can then edit, rotate and crop the document. Unnecessary text you can wipe away and you only listen to the text you need. The photo is saved as a PDF and can also be read or edited with the software on a PC. This function plus the smart word prediction, the dictionaries and the spelling and verb control make the user as self-reliant as possible. Alinea saves time.</p> <p>Writing aid Alinea predicts, corrects and prevents new errors, it is a predictor. You type the beginning of a word and the word predictor predicts which word you mean. Do you write the word with a single or double vowel? Alinea gives you the correct spelling. You click on the predicted word and Alinea already suggests the following. Alinea remembers which words are often used together with other words. This way the sentence is built up faultlessly. Alinea also considers a wrongly chosen letter at the beginning of a word.</p>  <p>Alinea also predicts and corrects verbs and their conjugations, homophones and compositions. You can add, import and export new words. Alinea is a self-study tool, the user searches for the corresponding spelling rule under the i-button.</p> 

Target audience	Children, students and adults
In which languages is it available?	Dutch, German, French and English
What does it offer in the area of foreign language learning support? <i>Listening</i> <i>Speaking</i> <i>Reading</i> <i>Writing</i> <i>Taking notes</i> <i>Vocabulary</i> <i>Grammar</i> <i>Pronunciation</i>	<p>Alinea has a semi-automatic area editor that you can follow, and you can adjust the language recognition. This can be used when learning words in foreign languages. All skills can be practiced: listening, writing, reading, speaking, vocabulary, grammar, and pronunciation</p>
Is it easy to use? How much time is necessary to be able to use the software? (if available)	<p>It is possible to follow a training for Alinea. There is an instructional movie on YouTube about Alinea, which explain what Alinea is and what you can do with it. So, it is easy enough to find out for yourself.</p>
Interface and Technical requirements <i>Time efficiency</i> <i>Saving work for future use</i> <i>Flexibility</i> <i>What kind of access/ installation required?</i> <i>Compatibility</i> <i>Respect for privacy</i> <i>Internet access (rural areas) (if available)</i>	<p>Alinea can be used as an application on your phone or as software for your computer and can be used both online and offline</p> <p>Alinea can be purchased in the app store and via the website https://www.lexima.nl</p>

7. Foreign Language learning disorders in adulthood. The Spanish context¹⁶⁶.

Summary

1. SLD adults and foreign language learning in Spain

- 1.1 Legislation and policy
- 1.2 Systems of support and specialist provision
- 1.3 Learners with special education needs
- 1.4 Teacher education for inclusive education
- 1.5 Diagnosing SLDs (dyslexia)
- 1.6 Organization and services involved with SLD adults
- 1.7 The needs of SLD adults in FL learning

2. Language E-teaching methodologies and tools in SLD adults' FL learning in Spain

- 2.1 The needs of trainers in FL teaching to SLD adults
- 2.2 ICT methodologies and tools addressed to adults with difficulties in FL learning
- 2.3 Teachers and trainers' needs in FL e-learning for SLD adults

Selection of projects in the area of FL e-learning support for SLD adults

References



¹⁶⁶ This paragraph has been written by Fernando Benavente (Tradigenia)

Chapter 1. SLD adults and foreign language learning in the partner countries

1.1 Legislation and policy

The legislative framework governing and guiding the Spanish education system comprises the Spanish Constitution (1978), the Organic Act on the Right to Education (LODE, 1978), the Organic Act on Education (LOE, 2006) and the Act on the Improvement of the Quality of Education 8/2013 of 9 December (LOMCE, 2013) which develops the principles and rights established in it. LOMCE modifies LOE in order to adapt it to the new context.

The Spanish Constitution recognises the right to education as one of the essential rights that public powers must guarantee to every citizen.

The LOMCE offers (at national level) the legal framework to provide and assure the right to education. The autonomous communities will be able to regulate the adaptation of this Act to their territories.

The Spanish education system, set up in accordance with the values of the Constitution and based on respect for the rights and liberties recognised therein, is inspired by the following principles:

(a) Quality education for all learners, regardless of their condition and circumstances.

(b) Equity that guarantees equal opportunities for full personal development through education, inclusion, rights and equality of opportunities that helps to overcome any kind of discrimination and universal access to education that acts as a compensating factor for personal, cultural, economic and social inequalities, with special emphasis on those derived from disabilities.

(c) The transmission and application of values that favour personal liberty, responsibility, democratic citizenship, solidarity, tolerance, equality, respect and justice and that also help to overcome any type of discrimination (Act on the Improvement of the Quality of Education 8/2013 of 9 December. Preliminary Title, Chapter I. Principles and Aims of Education. Article 1. Principles).

Provisions for learners with special educational needs are governed by principles of normalisation and inclusion and ensure non-discrimination and real equality in access to the education system and continued attendance, allowing flexibility in the different stages of their education when necessary. The schooling of these learners in special schools or units, which may be extended to the age of 21, will only take place when their needs cannot be met by the special needs provisions available in mainstream schools.

Royal Decree 696/1995, of 28 April (updated with Royal Decree 1/2013, of 29 November, chapter IV), arranges the education of pupils with special educational needs and establishes the conditions for educational provision for this population. These pupils are educated in mainstream schools and with mainstream curricula; only when it is objectively established that the needs of these pupils cannot be properly met in a mainstream school, is it proposed that they be educated in special schools.

1.2 Systems of support and specialist provision

The education system will arrange the necessary resources for pupils with temporary or permanent special educational needs (SEN) to achieve the objectives established within the general programme for all pupils. The public administrations give pupils the necessary support from the beginning of their schooling or as soon as they are diagnosed as having special educational needs. School teaching is adapted to these pupils' needs. The schools develop the curriculum through didactic plans, which have to take into account the pupils' needs and characteristics. They also develop an educational project, where the objectives and the educational priorities are established, along with the implementation procedures. In order to prepare this project, they consider the school characteristics, its environment and the pupils' educational needs.

The Act on the Improvement of the Quality of Education (LOMCE, 2013) considers five types of specific educational support needs:

- Learners with special educational needs, associated physical, intellectual or sensory disability, or serious behavioural disorder
- High-ability learners
- Late entries into the Spanish education system
- Specific learning difficulties
- Attention deficit hyperactivity disorder (ADHD)

1.3 Learners with special educational needs

Learners with special educational needs refers to those who require certain support and specific educational attention due to disability or serious behavioural disorders, either for a period or throughout all their schooling.

These pupils require specialised support in accordance with non-discrimination and educational normalisation principles, with the purpose of achieving their inclusion. These pupils are schooled in accordance with their characteristics, either integrating them in mainstream groups, in specialised classrooms within mainstream schools, or in special schools, depending on the form determined by the professional teams, taking into account their parents' and teachers' opinions. The curriculum foresees many possibilities to adjust to these differences so that learners may overcome any difficulties encountered. However, throughout their school career and, perhaps to a greater extent, during stages in which studies become progressively more complex, there will be certain learners who, for very different reasons, find it more difficult to reach the objectives and contents laid down for everyone in the common curriculum. These learners will consequently need another type of more specific adjustments.

Among the ordinary measures (offered to all pupils) contemplated by the education system for attending to diversity, the following must be mentioned: successive levels of curricular formulation, involving the progressive adaptation of the official curriculum and optional areas and subjects, which constitutes a resource for learners to enhance and develop their personal preferences; the organisation of reinforcement and support activities in educational establishments, a very generalised measure of attention to diversity which is usually aimed at the instrumental areas (mathematics and language); and specific grouping. Once ordinary measures of attention to diversity have been applied and have proved to be insufficient to respond to the educational needs of an individual pupil, the education system considers a series of extraordinary measures. These include repeating a cycle or school year, significant curricular adaptations, support measures for pupils with special educational needs, curricular diversification and, as a last resort, Basic Vocational Training programmes.

Curricular adaptations are made for one specific pupil. When the learner has special educational needs that, in view of their permanent nature, source or type, require modification of central features of the curriculum followed by the majority of the learners of that age, significant curricular adaptations may be carried out. The application of these extraordinary measures involves the change of contents, objectives and assessment criteria of the mainstream curriculum. The necessary point of departure for such measures is a previous psycho-pedagogical assessment (performed by the specialised guidance services) and an on-going follow-up that allows the learner access to the standardised curriculum whenever possible.

Learners with special educational needs can attend both special education and mainstream schools. Schooling should preferably be provided in mainstream schools, adapting such programmes to each learner's capacities.

Hence, in mainstream infant education, primary education and secondary education, these pupils are enrolled as part of the mainstream pupil body. These schools should adapt the physical and material conditions to the needs of the pupils enrolled there, have the necessary resources available (special teachers, qualified professionals, etc.) and must likewise take the pedagogical, organisational and operational measures for accommodating pupils with special educational needs within their programmes. Furthermore, all the autonomous communities consider the possibility of appointing preferred centres for the enrolment of pupils with specific special educational needs, who may require a particular type of environment or a professional specialisation difficult to find in many places. In this way, suitable educational attention may be guaranteed for such pupils.

The schooling of pupils with special educational needs in non-compulsory education stages, if the requirements are met, will be one form of inclusion with the necessary curricular adaptations or the total or partial exemption of subjects. The establishments providing such education must have the necessary physical and material adaptations in order to guarantee the principle of equal opportunities.

Appropriate school building facilities

All educational establishments must meet the hygienic, acoustic, habitability and security conditions stipulated in the current legislation. The places devoted to instruction must have ventilation and natural lighting. They will also have the necessary architectural conditions to facilitate access, movement and communication, in accordance with the legislation regarding the promotion of accessibility and elimination of barriers.

Special adaptations to the curriculum

Schooling at the various levels and stages of the system for pupils with SEN linked to personal disabilities will begin and end at the ages set down by the education regulations, with the exceptions listed below. The necessary adaptations or modifications within the established curriculum are carried out so that pupils with special educational needs may achieve the objectives and contents generally laid down. These adaptations may take two different forms: curriculum access adaptations (modifications or predictions related to spatial resources, introduction of new materials and use of additional communication systems) and curricular adaptations, such as modifications in objectives, contents, methodology, activities and assessment criteria and procedures, which are carried out within the classroom planning. Curricular adaptations may, in turn, be grouped into two large areas: significant and non-significant adaptations. The former do not affect basic teaching, whereas the latter involve eliminating certain basic teaching included in the official curriculum (objectives, contents and assessment criteria). Some of the latter adaptations require additional human and material resources to carry out adaptations which entail changes in the organisation of educational establishments and methodology, substitution or introduction of new areas or subjects, contents and objectives. Furthermore, the possibility of changing the duration of compulsory schooling for highly-gifted pupils in primary education and compulsory secondary education, under exceptional circumstances, is also present.

The link-up and co-ordination between mainstream schools integrating pupils with special educational needs and in specific special education establishments is one of the principles guiding school inclusion. The aim is for special educational establishments to progressively become open educational resource centres for the professionals working in the local mainstream establishments.

Additional support provided by specialist teachers

The decision to enrol pupils in a mainstream or special educational establishment, as well as the guidelines on the most suitable educational treatment to offer (types of schooling, curricular adaptations, etc.) is made subsequent to a diagnosis and is the responsibility of the services established by each autonomous community to respond to the educational and psycho-pedagogical counselling demands of schools, pupils and teachers.

Most autonomous communities have regulated and organised these services through sector educational and psycho-pedagogical interdisciplinary guidance teams and through the guidance departments of secondary schools.

Apart from the guidance teams working for the educational establishments of a district or area (zone or sector teams), specialised specific teams and early intervention teams have been set up in some autonomous communities. Regardless of the education authority to which they report, guidance teams have among their duties the detection, assessment and diagnosis of special educational needs as well as counselling, collaborating and participating in the educational process of pupils with special educational needs.

In most autonomous communities, guidance teams are still part of an external support network for schools. It is common for members of the teams to be part of the school staff (through the teachers' council, the guidance department – when it exists –, the pedagogical co-ordination commission, etc.).

In almost all autonomous communities, guidance departments have been set up in secondary education establishments and, in some communities, in infant and primary education schools. The result has been a closer bond between specialised support services and schools, which has improved the response to special educational needs.

For pupils with serious developmental disorders who cannot attend school, pupils who are hospitalised, or pupils who must be absent from school for prolonged or repeated periods of time for medical reasons, the Ministry and the autonomous communities have formulated and implemented various organisational alternatives.

These include:

- the provision of education support units, during the school year, for communities with enough pupils of compulsory school age
- mobile teachers who go to pupils' homes, so that they may receive their educational schooling at home
- the setting up of school units in hospitals which

Special teaching methods and materials

There are more specific guidelines according to the pupil's type of special educational needs.

Therefore, in the case of those with sensory alterations (visual, auditory), priority must be placed on: strategies aimed at fostering and promoting alternative means; strategies which enable learners to relate, in an explicit way, learning experiences; spatial organisation; learners grouping, in order to make the most of their visual and auditory possibilities; and teacher-pupil and pupil-pupil interaction.

The reading-writing teaching methods for pupils with visual disabilities should be mentioned. Those pupils who cannot have access to the ink reading-writing method will have to use Braille. In this case, tactile sensory stimulation and space-time orientation will have to be fostered.

Pupils with auditory disabilities have to learn to communicate by alternative means: sign language, bimodal system, etc., which have their own methodological guidelines. The Spanish legislation gives parents and learners the possibility to choose between sign language and oral language (with or without support).

Pupils with motor problems have to be assisted in the specific needs of mobility and the manipulation of objects, favouring mobility in the classroom and access to didactic resources, as well as prioritising oral and visual explanations to help them understand messages.

For pupils with serious developmental disorders, it is necessary to turn to specific methodologies aimed at developing oral communication or alternative systems. Imitation learning, modelling and mediation (physical, oral aids, etc.) techniques, incidental methodology, and reinforcement are some of the most specific guidelines.

Furthermore, space must be arranged according to their needs and adapted to the instruments, equipment and technical aids required by these pupils, allowing for the possibility of creating different layouts and functional arrangements in order to promote interaction and communication with adults and among themselves.

Reduced class sizes

The number of pupils integrated in mainstream classrooms depends on the homogeneity and severity of their disability or dysfunction, their psychological problems and the required educational support. If they require continuous pedagogical reinforcement and specific treatments, the maximum number of pupils per classroom is two. In mainstream classrooms, where pupils are enrolled under an inclusive framework, the maximum number of pupils per classroom is 25, subject to obtaining the authorisation of the education administration. When calculating the number of pupils in a classroom, each pupil with special needs counts as two pupils.

In special education classrooms, whether in specific special education or mainstream establishments, the number of pupils will be reduced.

Special schools are intended for pupils who cannot be included in mainstream schools but who follow compulsory teaching. When there are no special education centres in the area, these pupils receive their schooling in special education units within mainstream centres. Pupils are enrolled in separate special education units or schools only when there is sound reason to believe that their needs cannot be suitably met in a mainstream school. There are also specific special education establishments that enrol pupils with special educational needs associated with a very specific type of disability.

Special schools offer two education levels:

- Compulsory Basic Education (from 6 to 16 years old)
- Transition into Adulthood Programmes (from 16 to 19 years old, where learners can attend school up until 21 years of age).

Also, some schools provide the second cycle of pre-primary education (from 3 to 6 years old).

Teachers engaging in basic education in specific special schools are generally teachers specialised in special education and/or hearing and speech. In complementary vocational training or programmes for transition to adult life, pupils receive instruction from technical teachers of vocational training, who teach technical-practical courses, as well as from the aforementioned basic education teachers.

Moreover, the autonomous communities provide special schools with additional support and guidance staff members. The number and specialisation of these professionals vary according to the autonomous community in question. The professional–pupil ratio varies depending on the number of pupils and the kind of curricular adaptations they may need.

1.4 Teacher education for inclusive education

Initial teacher education underwent profound changes as a result of the gradual adaptation of the university system to the European Higher Education Area (EHEA). All degrees are now adapted to the EHEA.

The academic qualifications required to teach are uniform throughout the entire nation, although they do vary according to the various levels of the education system. In public-sector institutions, teaching staff in higher education, as well as those in lower levels, generally have permanent civil servant status. In public education, first-year teachers in a public school work under the tutelage of experienced teachers. The tutor and trainee teacher share responsibility for the trainee's teaching plan.

Three types of teachers can be distinguished, according to the education level in which they teach: teaching staff in infant and primary education, in secondary education, and in higher education. Teaching in infant education and in primary education requires a teacher certificate in the corresponding speciality, which is a four-years university degree with one of the following specialities: infant education, primary education, music, physical education, foreign language, special education or speech therapy.

The Act on the Improvement of the Quality of Education (LOMCE) states that teachers in primary education can teach in all areas of knowledge in this educational stage and in learners' tutorials. However, they can attain one of the following specialities: infant education, primary education, music, physical education, foreign language, special education and speech therapy. The study programme focuses on both academic and theoretical aspects and on pedagogical practice. The basic training on special education for all learners is one core subject and the specific training for the specialist is much wider.

In addition to holders of primary education degrees, other professionals who have undergone vocational training in nursery school or infant education are allowed to participate in the first cycle of infant education.

For the care of pupils with special educational needs, the education system offers teachers help through specialists in special education, speech therapy and qualified professionals.

Teaching at secondary level requires a postgraduate qualification. In addition, it is necessary to have a professional certificate of pedagogical specialisation obtained through doing a course on pedagogical qualification or a master's degree in education.

Initial training for higher education teaching staff primarily takes place in university establishments or institutions for first-, second- or third-cycle studies.

Senior lecturers are university lecturers with the status of civil servants who gain access through the corresponding competitive examination. Their main tasks are teaching and research. Senior lecturers in universities hold a doctorate degree, while senior lecturers in 'university schools' hold a bachelor's, architecture or engineering degree. These degrees are to be phased out. The latter group was abolished by the 2007 Organic Act Modifying the Act on Universities, which established that these professionals may gain access to the group of university senior lecturers by means of a doctorate degree.

Senior teachers are lecturers who have acquired the maximum professional qualification in university and non-university education and in specialised education (languages education, sports education and arts education: music, dance, drama, preservation and restoration of cultural heritage, plastic arts and design, etc.). They have the status of civil servant.

There are three bodies of senior teachers:

- Senior teacher of secondary education, music and drama education, official language school education, and plastic arts and design studies: this professional holds a doctorate or bachelor's degree and has at least eight years' experience as a civil servant teacher.
- University senior teacher: this professional is a senior teacher at a different university, a senior lecturer at a university, or a senior teacher at a 'university school'; the latter two must have three years' experience and a doctorate degree. Those holding a doctorate degree, with a minimum of eight years' experience, are exempt from fulfilling these requirements.
- 'University school' senior teachers: this professional holds a doctorate degree. This group was abolished by the 2007 Organic Act Modifying the Act on Universities. However, they have the possibility of being integrated into the group of university senior lecturers, remaining in their current situation or applying for the necessary accreditation to gain access to the group of university senior teachers.

In-service training constitutes a right and a duty for teachers of non-university education. Every year the Spanish Ministry of Education, Culture and Sport, through the National Institute for Education Technologies and Teacher Training (INTEF), establishes the priority lines to which the teachers' continuous professional development plans must adapt. It also offers state continuous professional development programmes and establishes the pertinent agreements with other institutions to this end.

In addition, the LOMCE establishes a series of guidelines that must be respected by the continuous professional development programmes offered by the education authorities responsible for planning and organising them in their jurisdiction. They must provide teachers with a diversified range of activities and meet their training needs, as well as establishing other training priority guidelines. The education administrations provide a varied range of free training activities and take the necessary measures to foster teacher participation in these activities. Furthermore, they facilitate teacher access to qualifications which allow mobility between the different teaching areas, including universities, through appropriate agreements with the universities.

The education administrations have also reached agreements with universities and other organisations, such as associations of people with disabilities and professional associations. These agreements allow them to recognise the training these organisations provide to teachers.

The Ministry of Education, Culture and Sport, in collaboration with the autonomous communities, fosters the international mobility of teachers, teacher exchanges and visits to other countries. The in-service programmes adapt knowledge and teaching methods to scientific progress and to specific didactics, as well as to all those aspects of co-ordination, guidance, tutoring, attention to diversity and organisation aimed at improving the quality of education and the functioning of schools. In addition, there must be specific training on the subject of equality under the terms established by the Act on Integrated Protective Measures against Gender Violence.

The LOMCE states that education administrations must foster foreign language learning and use of information and communication technologies by all teachers, regardless of their specialisation, by providing specific training programmes in these fields. They will also be responsible for encouraging research and innovation programmes.

As for university teachers, the universities themselves are in charge of organising continuous professional development activities, which are elective but necessary for receiving some specific additional remuneration.

1.5 Diagnosing SLDs (dyslexia)

In Spain, the term learning disabilities has been used for many years in a general sense. It has been considered synonymous with the broader concept of special educational needs. According to this conceptualization, learning disabilities were not considered a specific diagnostic condition; instead, the term referred to problems or difficulties a student could have with learning, regardless of their cause.

However, the publication of the Ley Orgánica de Educación (Organic Education Law) and the Ley Orgánica para la Mejora de la Calidad Educativa (Organic Law for Improving the Quality of Education) marked a major change because the term special educational needs was replaced by the expression specific needs for educational support due to special educational needs, specific learning disabilities, giftedness, or late entrance into the school system.

Developmental dyslexia falls within the category of specific learning disabilities. Spain is organized into 17 autonomous regions and two autonomous cities. Some regional governments like Andalusia, Canary Islands, Catalonia, Murcia, and Navarra have adopted definitions of specific learning disabilities, based essentially on significantly lower achievement on an individualized normative test ($P_c < 25$) and exclusionary criteria (sensory impairments, intellectual disability, etc).

The educational response to learning disabilities takes place through different service arrangements in schools. In Spain, treatment for learning disabilities involves evaluation, educational counseling, and educational support using ordinary resources such as small group attention or individual attention and extraordinary measures such as individual curricular adaptations (ACIs; Adaptaciones Curriculares Individualizadas).

In Spain, the Spanish language is spoken. Spanish is classified as an Indo-European language of the romance subfamily. Spanish has a shallow and fine-grained orthography.

That is, the orthography-phonology mapping is completely rule-governed across the language, although it is less transparent in writing.

Specifically, the Spanish orthography has 27 graphemes (five vowels and 22 consonants), each of which represents a unique sound, and five digraphs (ch, ll, rr, gu, and qu). The last three are considered positional variants of the phonemes /r/, /g/ and /k/; two diacritical marks: stress mark or acute accent (´), and dieresis (¨).

Therefore, grapheme-phoneme correspondences are predictable in reading, but this does not occur in writing, where inconsistent phoneme-grapheme correspondences are added, producing phonemes that correspond to several graphemes.

In addition, Spanish is regarded as a syllable-timed language, whereas English is considered stress timed. Syllables are the most consistent sub-lexical units in regular orthographies such as Spanish, and 88.73% of the Spanish syllables have a very simple syllabic structure with the CV, CVC, V, or VC combination. The longest syllable has five graphemes with a maximum of two initial consonants that rarely appear in coda position. Some geographic varieties of Spanish differ from each other in terms of phonology, but this does not seem to cause comprehension problems between speakers.

Fundamental supra-segmental features are stress and intonation. The stress in Spanish marks intensity, and it falls on one of the last three syllables in the word, counting from the end (e.g., paroxytone words, oxytone words, and proparoxytone words). Intonation is the melodic curve the voice traces when uttering sentences. On the basis of their direction and the extent of the intonation contour, five types of final inflections have been distinguished that maintain distinctive characteristics surrounding the assertion, interrogation, exclamation, and appeal modes.

Thus, the grapheme-phoneme correspondence is predictable in reading. That is, an expert reader is capable of unequivocally determining the correct pronunciation of a written word or a pseudoword based on correspondence rules. However, this situation does not occur in writing, where inconsistent phoneme-grapheme correspondences are added, producing doubts because a single phoneme can correspond to several graphemes, which affects the transparency of the code.

1.6 Organizations and services involved with SLD adults

Adult education is intended to offer all those over eighteen years of age the possibility of acquiring, updating, completing or expanding their knowledge and aptitudes for their personal and professional development. Adults can make their learning both through teaching activities, regulated or non-regulated, as through experience, work or social activities, so it will tend to establish connections between both ways and measures will be taken for the validation of the learning thus acquired. In addition to adults, exceptionally, those over sixteen years of age can take these courses if they request it and have a work contract that does not allow them to go to educational centers under ordinary regime or they are high performance athletes. Those who turn eighteen years old in the year in which the course begins will be incorporated into adult education.

Students with disabilities have few opportunities to exercise their right to participation and social inclusion once they reach 21 years of age, when compulsory education is over. The options open to these pupils, particularly those who have the greatest need for support, frequently involve segregation; they include attending sheltered workshops or activity centres, staying at home or attending day centres for persons with disabilities aged between 17 and 70.

But long-term institutional care is the only possible future for some persons with disabilities once they reached adulthood.

Pupils who follow the curriculum of a special school, special class or combined education establishment do not receive the same qualification as their peers, but rather a certificate that enables them to work or access segregated vocational training for persons with disabilities.

Pupils do not have access to the educational programmes available to non-disabled adults. Programmes in special schools do not give students access to an adapted curriculum with reasonable accommodation and recognition of individual progress, but rather seek to prepare them to attend sheltered workshops.

These sheltered workshops are not designed to provide a transition to the open labour market and there are no strategies for facilitating the social inclusion and workplace integration of pupils with disabilities. The education authorities do not systematically consult persons with disabilities before making them participate in such programmes.

In terms of post-compulsory education, article 74 of the Organic Act on Improving the Quality of Education states that education authorities must help "students with special educational needs" to continue their schooling in an appropriate form and must adjust the conditions in which the assessments set out in the Act are conducted. Very little attention is paid to this issue, as the vast majority of persons with disabilities have to drop out of school after completing their secondary education. The dropout rates for boys and, especially, girls with disabilities are higher than the national average.

Some programmes have yielded positive results. However, these isolated programmes and decisions are dependent on the initiatives or sensitivities of individuals and, as such, they are not taken or carried out systematically.

Although there is no line of action by the state in terms of LSD adult education, it is true that there is a large number of organizations working in this sector, at national or local level.

Just to name a few:

- ONCE – DISCAPNET (Portal de las personas con discapacidad)
- IVADIS (Instituto Valenciano de atención a los discapacitados)
- CERMI (Comité español de representantes de personas con discapacidad)
- FEACEM (Federación empresarial española de asociaciones de centros especiales de empleo)
- DISFAM (Asociación dislexia y familia)
- AVADIS (Asociación Valenciana para la dislexia y otros problemas de aprendizaje)
- OED (Observatorio estatal de la discapacidad)
- PLATAFORMA EDUCACION INCLUSIVA SI, ESPECIAL TAMBIEN
- PLENA INCLUSION MADRID (Federación de organizaciones de personas con discapacidad intelectual de Madrid)
- FND (Fundación nacional de discapacitados)
- UGT (Unión General de Trabajadores)
- COCEMFE (Confederación Española de Personas con discapacidad física y orgánica)
- SIDIOMS (Plataforma e-learning para la educación especial en idiomas)
- LAWTON SCHOOL (Academia de inglés)
- FUNDACION PASCUAL TOMAS (Formación en e-learning)
- Centros Especiales de Empleo (Special Employment Centres)

People with disabilities participate in the Spanish labour market to a lower level. The crisis further aggravated the prospects for disabled people to access the labour market: their unemployment rates have doubled since 2008 (16.3% and 26.9% respectively).

Special Employment Centres (SECs) are Spain's sheltered employment practice. The development of sheltered employment through the establishment of SECs is the most significant activity designed to ensure the participation of disabled people in the labour market.

Support is provided for new or existing SECs that create new jobs; for SECs maintaining jobs; and for the activities of supporting units, which are intended to help newly hired disabled workers to overcome any difficulties that they might experience during the initial adaptation period.

1.7 The needs of SLD adults in FL learning

The purpose of language teaching is to enable students to use the different languages appropriately, outside the ordinary stages of the education system, and they are organized at the following levels: basic, intermediate and advanced.

In order to access language education, it will be essential to be sixteen years old in the year in which the studies begin. Those over fourteen years of age may also access to the teaching of a language different than the one studied in compulsory secondary education.

Many individuals with learning disabilities experience difficulty in learning a foreign language. Specific Learning Disabilities (SLD) often affect language-based tasks such as reading, spelling, writing, or listening. Problems in the native language will still be present, if not magnified, in the process of learning a second language system.

Phonological difficulties (problems with tasks involving putting sounds together and pulling sounds apart in spoken and written language) and orthographic difficulties (problems with sound-symbol tasks in language) have the most immediate and severe impact on foreign language learning. These types of abilities are called on for such fundamental tasks as learning a new alphabet, a new sound-symbol system or the beginning vocabulary words of any new language.

Other areas that have been found to affect foreign language learning include syntactic abilities (use and understanding of the grammatical rules of language), semantics (understanding word meaning and concepts), and short-term memory needed to acquire and practice new language demands.

Researchers have also identified patterns in developmental history and academic learning that may correlate with later foreign language learning problems. Individuals with learning disabilities who have difficulty learning a foreign language often experienced difficulty or delay in learning to speak, received speech therapy early in their lives, or had a family history of language and learning problems. Academically, they may have had difficulty in learning to read, especially with learning phonics. Early difficulties with spelling and inconsistent use of grammar and mechanics are often part of the individual's learning history and frequently persist into adolescence and adulthood.

Many students having trouble with foreign language acquisition have phonological deficits in their first language. To help these students, the sound system of the target language must be very explicitly taught. With this method, sounds are presented in a highly structured fashion with a great deal of visual, kinesthetic and tactile practice and input. There is a variation on the method of teaching phonology in the target language: teach the fundamentals of phonology in the student's native language before foreign language instruction begins. That is, students are taught to recognize phonemes, to decode, or read words, efficiently and to encode, or apply the sounds to the written language. Basically, they learn what language is and how its sounds and parts function.

It is necessary to adapt the foreign language courses according to principles of instruction known to be effective for SLD students. This means making such changes as reducing the syllabus to the essential elements, slowing the pace of instruction quite considerably, reducing the vocabulary demand, providing constant review and incorporating as much visual/tactile/kinesthetic (i.e. multisensory) stimulation and support as possible.

When a learning disabled student faces foreign language learning, a realistic assessment of the student's situation, problems and needs should be done. In other words, what the student may be able to do in a language and what the learning situation offers may not match at all.

In the Special Education sector in Spain, the possibilities of learning a language are almost nil, but people with special needs have the same right to receive such training. It is very important that this change of social conscience occurs and there are associations and platforms which fight for this, for the full inclusion of people with special needs.

It is true that not all people with special needs can learn languages. This will always depend on the degree of disability that each person presents, but there are many that can do it.

Language classes for people with special needs should be very dynamic, visual and adapted to the needs of each student so it is very important that students with special needs who learn languages do so in small groups.

The attention must be totally personalized and individualized.

Both the materials and the development of the activities must be adapted to encourage learning.

The students increase their self-confidence, their self-esteem and their autonomy and this becomes a great support and a great help for their families, improving their integration, areas related to language, sensory and communication.

Inclusive language classes should be based on an inclusive educational method for all people equally and at all levels of learning, innovative and with 3 main characteristics:

- Closeness.
- Stimulation: adapted activities.
- Fun: games used.

Recording service of classes so that they can visualize them again when they need it and thus offer a safe learning.

Chapter 2. Language E-teaching methodologies and tools in SLD adults' FL learning in the partner countries

2.1 The needs of trainers in FL teaching to SLD adults

Although there are differences across Autonomous Communities in Spain, there is a general lack of human resources.

Regarding trainers, there is a lack of training in inclusive education and the rights of persons with disabilities, and teaching staff prejudices about inclusive education being “the fashionable teaching methodology”. The online training available nationwide, while free, is not mandatory, and there are no incentives to complete it.

Trainers show interest in training and they are aware of its importance, but in many cases they don't find time, resources or training offer to do so. The trainers do not have the necessary educational resources to face their professional work in an optimal way. They want to improve those aspects in which they are most deficient.

The most important training needs required by teachers to improve their teaching from the perspective of educational inclusion are:

- Specific training for each disability: the acquisition of skills that allow interacting, communicating and transferring knowledge to students about each of the subjects taught by the teaching staff.
- Collaborative resources that exist for each type of disability: the acquisition of professional competences that allow the design of cooperative teaching structures in which to accept and share with the rest of the trainers the logical challenges involved in the development of inclusive educational plans.
- Training in inclusive values: the values affect the objectives, the choice of means and the procedures that are part of inclusive educational policies.

Adapting teaching to the diversity among students requires:

- To have professional competencies of the procedures and pedagogical resources to be used. It means to know the teaching techniques that allow to adapt education to each student.
- To work collaboratively in the classroom establishing cooperative learning methods, relying on the diversity of students.
- To dispose of adequate material resources that enable an efficient process of teaching and learning; and adapted to the training needs of all students.
- To dispose of appropriate technological resources.

There is a great diversity of school materials, some of them specific for students with disability. But, in addition to the shortcomings in this area, it is observed a lack of training on how to access and use the available material resources.

The fast innovation in the ICT sector (Information and Communication Technologies) is causing the continuous appearance of new products or new generations of products with sophisticated features that expand and complement the human faculties, especially in the field of communication, shortening differences in access to information and training between the individuals.

New resources continually appear that overcome the previous ones with an enormous functional projection in the field of disabilities, especially in the auditory, visual, intellectual and behavioral field.

The potential of these technologies in terms of the application to education for students with disabilities contrasts with the training received in this field by trainers.

Personal characteristics of the trainer in the field of Special Education:

- Vocation for teaching.
- Patience, since not all students have the same needs or the same goals and not all learn at the same pace.
- Passion for their work.
- Training in the field of special education.
- Motivation.

2.2 ICT methodologies and tools addressed to adults with difficulties in FL learning

The five key propositions that can be identified within the United Nations Convention on the Rights of Persons with Disabilities in relation to the use of ICTs in education are:

1. ICT should be considered as a key tool for promoting equity in educational opportunities.
2. Access to appropriate ICTs should be considered an entitlement.
3. Training of educational staff in the use of general and specialist ICT must be considered a priority area.
4. The promotion of ICT research and development requires a multi stakeholder approach.
5. Data collection and monitoring in the use of ICT in inclusion should be considered an area requiring attention at all levels of educational provision.

New technologies and languages nowadays: new technologies are essential in our daily life; and of course they have become a good way of learning both general and in the world of languages in particular.

Means to learn languages with new technologies: there are many means and resources that facilitate the learning of other languages and that are available to everyone; usually, it is enough to have a device with an Internet connection.

Applications: there is a wide range of applications that give us the possibility to learn and practice a language regardless of where we are; there are many such as Duolingo, Babbel or Busuu, that in addition to learning lesson by lesson, make you have fun playing in a very visual way. These applications are usually free, although most also have a premium option.

Web platforms: normally the aforementioned applications have their corresponding web platform, which is usually more complete and with downloadable material; they also usually include a section of online support or even a chat if you have questions. Some like OpenCulture, Memrise or Lingua-lia are quite complete.

Advantages and disadvantages of using new technologies to learn languages:

Advantages

- Greater flexibility of schedules.
- More entertaining or fun than a traditional class.
- You can do your lesson from anywhere.
- Most are free or quite cheap.
- They usually have multimedia content.

Disadvantages

- They are usually automated and without personalization.
- The content of the lessons is not very broad.
- They do not encourage social relationships.
- No possibility to know the culture you are studying.
- It is more difficult to practice conversations.

2.3 Teachers' and trainers' needs in FL e-learning for SLD adults

Looking at the historical development of inclusive education in Spain, and particularly links to the development of special needs education, it can be assumed that some of the teacher trainers' experiences and qualifications should be related to special educational needs, disabilities and developmental disorders. These contents are the most common ones both in general ('Psycho-pedagogical Bases of Special Education'), and in specific subjects on Special Needs Education for 'therapeutic pedagogy teachers.'

Beside this speciality, we must also highlight the existence of another specialisation in teaching programmes so-called 'Hearing and Speech' addressed to teachers of hearing impaired or deaf pupils or for 'supporting' teachers in mainstream schools to meet different learning difficulties or disorders related to the process of reading-writing acquisition.

Since the educational reform of the 1990's to promote its development, Spain has created complex and diverse teacher training centres, with different organisational approaches, sharing the common goal of promoting training and upgrading and improving the innovation of teacher education, specially regarding the use of ICTs and e-learning.

These 'teacher centres' are at the local level and of different sizes (from 4/5 teacher advisers, to other ones with more than 10/12 teacher advisers). They are being developed and structured to in-service training plans with different programmes: lessons, courses, seminars, workshops, and training plans in schools.

The versatility and dynamism of these sites has led to a broad, diverse and rich range of training facilities, often, more updated and adjusted to the dynamic training needs of teachers, than those provided by universities. At these centres, to have teacher advisers who deal with issues related to the 'attention to diversity and inclusion' has always been considered essential. Their actions on these issues could be isolated or connected to other advisers' actions (usually educational stages together with those responsible for ICT).

In some Autonomous Communities there are also 'teachers' centres' at the regional level, called 'regional centres of reference' that reinforce the impact of some issues which are difficult to address at the local centres due to their expertise or because of their specialisation.

Last remarks:

- Finding teachers trained to teach foreign language to SLD students is even rare.
- Most often in the real world, SLD students find themselves in a classroom of so-called "normal" language learners. In this case, the students must rely on the willingness of the teacher to be inventive and flexible.
- It is almost equally painful when a teacher recognizes the needs of a particular student, but does not have the time or resources or support to be able to adequately accommodate that student, except to the degree the law requires.

3. Examples of projects of FL e-learning support for SLD adults

Category	Description
Title	Support for students with special educational needs due to disability with support from ICT.
Website	https://sidioms.com/educacion-especial/
Author/Institution How is the website funded?	SIDIOMS, Madrid (Spain), with the support of COCEMFE (the Spanish Confederation of People with Physical and Organic Disability).
Content	Online language learning for students with special educational needs due to disability, a month and a half in length, very dynamic and visual, with totally personalized and individualized attention, allowing people with special needs to improve areas related to language and also sensory and communication.
Target audience	Learners of English with SLD.
In which languages is it available?	English.
What does it offer in the area of foreign language learning support? <i>Listening</i> <i>Speaking</i> <i>Reading</i> <i>Writing</i> <i>Taking notes</i> <i>Vocabulary</i> <i>Grammar</i> <i>Pronunciation</i>	The platform provides all facilities.
Is it easy to use? How much time is necessary to be able to use the software? (if available)	The platform has a system that allows the teacher to teach two students at the same time so that between these two students there is a conversation which can be supervised by the teacher and thus improve the level of English and lose fear to have a conversation in another language.
Interface and Technical requirements <i>Time efficiency</i> <i>Saving work for future use</i> <i>Flexibility</i> <i>What kind of access/ installation required?</i> <i>Compatibility</i> <i>Respect for privacy</i> <i>Internet access (rural areas) (if available)</i>	The system works with modern browsers that accept HTML5. Firefox meets all the requirements for a better experience in SIDIOMS platform.

Category	Description
Title	ADOLL project: Accessible Design for Online Language Learning.
Website	http://elrusoenespana.com/adoll/es/
Author/Institution How is the website funded?	Vice-rector for Social Responsibility, Equality and Inclusion of University of Granada (Spain). The project is co-financed by Lifelong Learning Programme of European Commission.
Content	ADOLL is a European project which addresses gaps in the language learning resources for the blind and visually impaired. In particular, the project deals with the creation of a multilingual online application for language learning accessible to unsighted and partially sighted computer users.
Target audience	The purpose of this application is to enable learners with sight problems to acquire basic language competences in three world languages: English, Spanish and Russian. It is intended to be used by adult users (aged 16 years or older).
In which languages is it available?	English, Spanish and Russian.
What does it offer in the area of foreign language learning support? <i>Listening</i> <i>Speaking</i> <i>Reading</i> <i>Writing</i> <i>Taking notes</i> <i>Vocabulary</i> <i>Grammar</i> <i>Pronunciation</i>	ADOLL includes 6 different courses. Each course includes twenty lessons and four tests. Every five lessons are followed by a test. There are different types of activities: <ol style="list-style-type: none"> 1. Dictation 2. Listen and record 3. Multiple choice with one or more correct answers 4. Matching 5. Jumbled order (putting words in the right order) 6. Reading by listening There are three different tools: Glossary, Grammar and Dashboard
Is it easy to use? How much time is necessary to be able to use the software? (if available)	Partners explore the latest opportunities provided by the new learning technologies. The critical issue of the development is to ensure compliance of the innovative e-learning application with the international accessibility standards. Therefore special attention is paid to the issue of compatibility of the e-learning platform with the assistive devices widely used by the blind and visually impaired. The process of the application development includes an active involvement of blind users and experts in the field of language teaching to the visually impaired to ensure their constant feedback regarding the accessibility of the application and appropriateness the learning content.

	<p>To guarantee the high quality of the e-learning product, the project makes provision for testing of the ADOLL application by both unsighted learners and techno-pedagogues.</p>
<p>Interface and Technical requirements</p> <p><i>Time efficiency</i> <i>Saving work for future use</i> <i>Flexibility</i> <i>What kind of access/ installation required?</i> <i>Compatibility</i> <i>Respect for privacy</i> <i>Internet access (rural areas) (if available)</i></p>	<p>The screen reader is used in order to read the native language. The target language is recorded by native speakers and does not use the screen reader</p> <p>The product has been tested with JAWS and NVDA</p>

Category	Description
Title	EUROCHANCE2: Online English, German, Spanish and Italian courses for blind and visually impaired
Website	https://eurochance2.brailcom.org/
Author/Institution How is the website funded?	Lawton School, Gijón, Asturias (Spain) The project is co-financed by Lifelong Learning Programme of European Commission
Content	<p>The overall objective of the project is to improve the access of the blind and visually impaired to the possibilities of language training, to improve the quality of professional and language training, as well as to encourage the interest of people visually impaired by higher education.</p> <p>Outcomes created: digital textbooks for intermediate and advanced students of English, German, Italian and Spanish language. These textbooks are fully accessible to the visually handicapped and were translated into the following languages: English, German, Czech, Norwegian, Spanish, Italian, Hungarian, Polish, Portuguese, French and Romanian.</p>
Target audience	People who are blind and visually impaired.
In which languages is it available?	English, German, Czech, Norwegian, Spanish, Italian, Hungarian, Polish, Portuguese, French and Romanian
What does it offer in the area of foreign language learning support?	<p>The project provides digital language textbooks suitable for self-study as well as as accompaniment to a classical presence study:</p> <ul style="list-style-type: none"> • Interactive Digital Textbooks https://langschooll.eu/textbooks <p>Methodology and study plans for tutors of online language courses aimed at the blind and visually impaired.</p>
<i>Listening</i> <i>Speaking</i> <i>Reading</i> <i>Writing</i> <i>Taking notes</i> <i>Vocabulary</i> <i>Grammar</i> <i>Pronunciation</i>	
Is it easy to use? How much time is necessary to be able to use the software? (if available)	One of the results of the Eurochance2 project was a new e-learning platform called Digital language school. It is a place for distance e-learning courses led by a real human tutor with the help of the Digital textbook and audio-visual communication tools.

Interface and Technical requirements

Time efficiency
Saving work for future use
Flexibility
*What kind of access/
installation required?*
Compatibility
Respect for privacy
Internet access (rural areas)
(if available)

Specific software adapted to the needs of the blind and visually impaired.

References

Aa. Vv (2011), *Dislessia nei giovani adulti. Strumenti compensativi e strategie di successo*, Erikson edizioni, Trento.

Aa. Vv. (2016), *Dislessia e lavoro. Da disagio a opportunità in Lavoro welfare per un nuovo riformismo*, n. 25 anno 3.

Aa.Vv. (2015), *Giovani adulti con DSA, Diagnosi, aspetti psicologici e prospettive di sviluppo*, Erikson edizioni, Trento.

Armstrong T. (2012), *First, Discover their Strengths*, in *Educational Leadership*, www.ASCD.org

Basso E., Dalloiso M. (2013), *L'insegnamento dell'italiano L2 ad allievi migranti con bisogni speciali*, in *EL.LE.*, vol.2, n.2.

Begotti P. (2011), *Imparare da adulti, insegnare ad adulti le lingue*, http://www.provincia.bz.it/cultura/download/Articolo_Begotti.pdf

Bianchi V., Favilla M.E. (2018), *Dislessia e apprendimento di lingue seconde: problemi da considerare per la costruzione di un sillabo per l'insegnamento dell'italiano L2 ad apprendenti dislessici*, <https://iris.unimore.it/retrieve/handle/11380/1155018/184685/012Bianchi-Favilla.pdf>

Cardano M., Cioffi M. (2016), *Una differenza senza nome. Narrazioni autobiografiche di dislessici adulti*, in *Rassegna Italiana di Sociologia*, n.2/2016.

Celentin P., Dalloiso M. (2017), *La valutazione diagnostica della dislessia in contesto di L2. Problemi e riflessioni alla luce della ricerca clinico-linguistica ed interculturale*, in *EL.LE*, vol. 6, Num. 03,

Commissione Europea (2012), *Gestire la Diversità sul posto di lavoro a cura di DG Giustizia*, Commissione Europea.

Commissione Europea (2018), *Raccomandazione del Consiglio sulla promozione di valori comuni, di un'istruzione inclusiva e della dimensione europea dell'insegnamento*, COM (2018) 23.

Condizioni teoriche e spazio epistemologico

Condizioni teoriche e spazio epistemologico

Cooper R. (2017), *Neurodiversity and dyslexia; challenging the social construction of specific learning difficulties*, <https://outsidersoftware.co.uk/wp-content/uploads/2017/03/Neurodiversity-and-Dyslexia-Challenging-the-social-construction-of-specific-learning-differences.pdf>

Dalloiso M. (2012), *Verso la glottodidattica speciale. Condizioni teoriche e spazio epistemologico* in *EL.LE*, vol. 1, n. 3.

Di Tore S., Fulgione M., Sibilio M. (2014), *Dislessia e Videogames: Il Potenziale Didattico dei Videogiochi in "Mediterranean Journal of Social Sciences"*, vol.5, n. 23.

Frassinetti, F., Bolzani, D., & Angelini, D. (2012), *Dislessia negli adulti: una rassegna delle conoscenze*, Erikson, Trento.

Fulgeri G.M., Ghidoni E., Morlini I., Stella G. (2014) *La percezione della dislessia: Un'analisi e una nuova prospettiva d'indagine degli stati emotivi dei soggetti con dislessia*, in *Dislessia, Orientamenti della ricerca*, Vol. 11, n. 1 (pp. 45-73), Ed. Erikson, Trento.

1. European Agency for Special Needs and Inclusive Education: country information for Spain (legislation and policy)
<https://www.european-agency.org/country-information/spain/legislation-and-policy>
2. European Agency for Special Needs and Inclusive Education: country information for Spain (systems of support and specialist provision)
<https://www.european-agency.org/country-information/spain/systems-of-support-and-specialist-provision>
3. European Agency for Special Needs and Inclusive Education: country information for Spain (teacher education for inclusive education)
<https://www.european-agency.org/country-information/spain/teacher-education-for-inclusive-education>
4. Developmental Dyslexia in Spain, 2017, Manuel Soriano Ferrer and Manuel Morte Soriano
5. Boletín Oficial del Estado-A-2006-7899- Legislación consolidada (Ley Orgánica 2/2006, de 3 de mayo, de Educación), 2006
6. Committee on the Rights of Persons with Disabilities: Inquiry concerning Spain carried out by the Committee under article 6 of the Optional Protocol to the Convention, 2018
7. Fiche PES_ES_Support to Special Employment Centres (SEC)
8. Foreign Language Learning and Learning Disabilities, Sally Scott and Elaine Manglitz
<http://www.ldonline.org/article/6066/>
9. Learning Disabilities and Foreign Language Learning, Robin Schwarz
<http://www.ldonline.org/article/6065/>
10. SIDIOMS, academia de ingles online
<https://sidioms.com/>
11. Investigación sobre las necesidades formativas de los docentes en la educación de estudiantes con discapacidad, Fundación ONCE, 2013
12. European Agency for Special Needs and Inclusive Education: ICT for Inclusion project area
<https://www.european-agency.org/projects/ict4i>
13. OnSpain school, academia de idiomas: las nuevas tecnologías y los idiomas
<https://onspainschool.com/es/las-nuevas-tecnologias-y-los-idiomas/>
14. Blog Idiomas del mundo, 10 Sitios Web para aprender idiomas gratis, 2018
<http://queidiomasehablaen.com/blog/10-sitios-web-para-aprender-idiomas-gratis/>
15. Teacher education for inclusion: country report Spain, 2010, Gerardo Echeita and Pilar Pérez Esteve

8. The results of the comparison among the partners' countries and language e-learning indications

1. The legal framework

The point of departure of the desk research was to analyse the laws at national and regional level regarding learning difficulties/disorders in adults, their diagnosis and treatment.

The research issues show a great variability of the reality concerning SLD adults due to the different legal framework of each state. Even in a single country there are significant differences according to the varied regulations set by national and local authorities (regions, communities, municipalities). The presence or absence of public services or private organizations dealing with disabilities and learning difficulties may also affect the situation.

The analysis of the legal framework in the partners' countries shows that norms and measures on learning disorders refer mainly to the school environment, above all to children and youngsters in compulsory education, and no specific attention is paid in workplaces and in lifelong learning paths with only few exceptions.

The following table shows the highlights of the national contexts in a synthetic way. For an in-depth analysis go to each partner's drafts.

County	Legal framework
Austria	Laws against discrimination: Constitution Art. 7 Art. 14 Federal Law for Disabled Equality General Law for Citizen Rights guarantees the free access to employment that cannot be ensured without access to education Absence of standards and great variability among the different regions of the country
Denmark	National Law about special education/training for adults (Ministry of Education) Municipalities and Regions are responsible for the contents as well as for the financial aspects of training. Special education for adults includes counselling, teaching of compensatory strategies and methods that allow the participation in community life.
Greece	The State is obliged to provide students mainstream and special education which cover the needs of all learners regardless of age and educational needs.
The Netherlands	Numerous national and regional programs and initiatives support adults with learning difficulties/disorders to learn the language. In particular two initiatives: <ul style="list-style-type: none"> • Taalakkoord (The Language Agreement) is an initiative of the Ministry of Social Affairs and Employability • Tel mee met taal (Social inclusion by learning the language) is a program by the Dutch Government for Activities aimed at preventing and reducing low literacy

Ireland	Educational and Training Boards (ETBs) and Health Service Executive (HSE) offer support to people with disabilities Other agencies involved are: <ul style="list-style-type: none"> • AHEAD (Association for Higher Education Access and Disability) • NDA (National Disability Authority) • National Plan for Equity of Access to Higher Education
Italy	Law 170/2010 recognises the needs of children/youngsters with SLD and affirms their right to use compensatory tools and dispensatory measures. Ministerial Decree (27/12/2012) defines the Special Educational Needs and extends the compensatory and dispensatory measures to learners with disabilities, learners with SLD, learners with socio-economic, linguistic and cultural disadvantages. No specific laws regulate the inclusiveness of workplaces and the inclusion of adults with learning difficulties.
Spain	Spanish Constitution LOMCE (Act on the Improvement of the Quality of Education). Some regional governments have adopted definitions of specific learning disabilities into which developmental dyslexia falls. Royal Decree 696/1995 updated 1/2013: pupils with special education needs are educated in mainstream schools with mainstream curricula.

2. Diagnosing dyslexia in young and adults

The development of fluent language skills is rooted in complex cognitive processes that include attention, auditory and visual perception and processing, memory and executive function. Students who have difficulties in any of these areas may also have difficulty acquiring the facility with language that schools requires.

In the Irish context Language-based learning disability (LBLD) refers to a spectrum of difficulties related to the understanding and use of spoken and written language, which are the basis for most school activity, but the notion that a foreign language learning disability truly exists is disputed. Language aptitude, native language skills or affective variables such as anxiety, motivation and personality are considered possible causes in problems related to the learning of a foreign language. The results of the research across the partners' countries outline similar problems and needs in people with SLD (dyslexia in particular) and language learning difficulties at different ages and at different steps of their learning paths and lives.

As far as diagnosing dyslexia in children and young people there are positive signals in the partners' countries. Developmental dyslexia is a specific reading disorder of neurological origin that persists throughout life despite having adequate intelligence, education and socioeconomic background. It appears as an unexpected difficulty in reading. The possibility of an early diagnosis, which is essential in order to proceed with a certification and the consequent adaptation of school curricula, is more and more frequent. People may avoid serious challenges in adulthood, only if difficulties have been correctly identified and dealt with at an early stage.

In Greece the Centres for Educational and Advisory Support of the Greek Ministry of Education, Research and Religious Affairs are in charge of identifying and assessing special educational needs thanks to multidisciplinary teams of scientists. These centres provide their services to individual of no more than 22 years of age, but only in recent years a timely and proper diagnosis and intervention are key to tackle learning disorders.

In Spain a psycho-pedagogical assessment performed by specialised guidance services is the point of departure of any curricular adaptations for single learners with special educational needs.

In the Netherlands Municipalities have reimbursed the cost for diagnosis and treatment since 2015. In Ireland the diagnosis is free but only for a limited number of children, in practice only for students with severe difficulties.

In Austria diagnosing dyslexia is still costly and time-consuming and both state-level organisations and private institutions focus their activities on children and teenagers. A general guiding principle is that there are no differences related to age and children and teenagers have the same needs.

The diagnosing of Dyslexia in adults, that is in people who have finished secondary schools, is everywhere very rare and the desk researches do not put in evidence any collected data on this issue. The signs of Dyslexia often go undiagnosed during the school career. Most adults realize they are dyslexic when their children meet problems at school and get a diagnosis. In a technological era like the one in which we live, many of the characteristics of dyslexia are seen as a sign of the times.

There exists a substantial lack of specialized services in the diagnosis of learning disorders in adulthood. Adults are proactive and approach support services and professionals on their own, but whenever they decide to contact a public or a private structure or service they meet mayor difficulties. Adults choose to have their disorder diagnosed on the base of personal awareness or because they need to attend or conclude a learning path (entry test at university, school-leaving certificate, state exams, etc.) or to fulfil required disability procedures.

In Italy an example of a service offered to over-18 adults is that one proposed by the Department of Neurology of the Arcispedale Santa Maria Nuova in Reggio Emilia. They have developed a neuro-psychologic evaluation methodology adapted to the adult age. At the same time, in absence of dedicated services, the Regional School Office of Piedmont states that SLD certification provided in childhood can be considered valid even in adulthood to enrol for university and/or access entry tests.

In Denmark 6-8% of the population are diagnosed with dyslexia and a specific dynamic dyslexia test is addressed to learners of Danish as second language, native or foreign speakers. The Danish desk research puts in evidence that diagnosing SLD in migrants is particularly difficult and uncertain. In case of migrant people's difficulties in FL language learning are brought back to existing difficulties in their own native language.

The diagnosis of dyslexia in adults can represent a trauma or a moment of personal awareness and empowerment, offering the opportunity to give a name and a meaning to a discomfort felt but not identified so far. Dyslexia is an invisible condition that can often be mistaken for unwillingness, indifference or inability. To complicate the situation further, social stigmas about learning disabilities falsely equate conditions like dyslexia and attention deficit disorder with low intelligence. This can make it harder for an adult to accept a diagnosis and seek out treatment. In several cases, dyslexia adults not diagnosed during their school career have activated a process of compensation of their learning difficulties through strategic choices, cognitive styles and psychological adaptation, which makes it difficult to identify the existing problems.

3. Characteristics of SLD adults

The researching activities conducted in the IRENE project about FL learning in SLD adults across the partners' countries show a lack of existing researches and studies on this topic, despite a growing interest and the necessity to improve the competences of adult citizens and employees.

Existing research on the subject was mainly conducted in regards with younger ages, even if there is a growing interest in adults' difficulties and disorders owing to the fact that adults with low literacy and language skills and difficulties in reading have problems in work access and in their careers.

As already pointed out a special attention has been given to dyslexia, compared to other disorders. Dyslexia from childhood can lead to challenges in adulthood in term of educational choice and vocational possibilities. Difficulties in FL learning as an adult are to be attributed to difficulties in the own native language.

Learning difficulties provide a lot of stress in work situations. Uncertainty, avoidance behaviour, stress and burnout are often the result. It appears that employees with severe dyslexia have difficulty to perform at a proper level and even have difficulties finding or keeping a job.

The Spanish desk research shows in SLD adults a lower participation in labour market, aggravated by the economic crisis. In Ireland adults with low literacy and language skills, above all poor reading, have problems in work access.

Low self-esteem going back to previous school difficulties, lack of confidence and the feeling of failure and stigmatisation experienced at school lead to major difficulties as an adult. Important levels of academic and social anxiety persist in adulthood, because of underdeveloped writing skills and the tendency to avoid activities that involve reading and writing. Language learning and in particular gaining fluency and accuracy in the written language is very challenging. Difficulties in the mother tongue extend to difficulties in FL or L2 learning. So learning a FL needs a specific support to overcome difficulties in spelling, reading and writing.

SLD affect adults' work opportunities and we can ascertain a lower participation in labour market, aggravated by the crisis. Nevertheless, no specific attention is given to SLD in workplaces and in life-long learning courses. In companies and working organizations there is lack of knowledge of dyslexia implications and absence of people trained on dyslexia and learning difficulties in adults.

An exception is represented by two projects in the Netherlands aimed at identifying strategies and methods to support employees with learning difficulties. The first project Work & Dyslexia is developed by Dynamika, which provides training for companies that want to support their employees with learning difficulties to improve their language skills. Through training, individual coaching and learning workshops the person achieves insight into what exactly the problem is. He/she learns how different dyslexic people process information and learns to reduce performance drive, perfectionism or uncertainty. He/she improves his/her language skills and becomes more confident and efficient at work. The second project called Lexima has developed a step-by-step plan that describes how employers or companies can deal with dyslexic employees and how they can help them in reading and writing texts in different languages through the use of software. The software can also be used for texts on the Internet and mail programs. It seems that companies may benefit from dyslexic who have a great perseverance and an urge to prove themselves.

4. Learning needs of SLD adults in FL learning

When learning a foreign language, adults with SLD, who have learned to compensate for deficits in their native languages during their scholastic paths, face a linguistic demand that let their deficits resurface.

From the existing researches we know that adults learning a FL need to be involved and to feel the possibility to apply the learning contents in the daily life. SLD adults learning a FL need above all to experiment positive learning experiences and success in what they are doing otherwise they feel disappointment and low self-esteem. In this respect the solidarity of peers may help them to feel at ease. They also need to learn coping strategies. They need to receive regular feedback about their performance but no emphasis should be on effectiveness measurement and evaluation, otherwise they reach high levels of anxiety and stress. The above-mentioned needs must be considered by FL teachers to SLD adults.

According to the Guidelines in the Austrian state of Vorarlberg foreign language teachers should consider several factors in a foreign language class comprising students with dyslexia. Learning progress in SLD adults is slow and requires effort and neither students nor educators should expect rapid, easy results. Teachers must care that students have enough time to adapt to new material and have a sufficient amount of practice. Bigger tasks should be divided into subtasks to make them more manageable. Students have to revise regularly the material already earned in a context balancing old and new material. Repetition and drilling might be necessary to ensure fluency. All available channels for processing information - visual, auditory, sensorial - must be combined to suit the needs of language students and the needs of SLD students. The creation of a language learning environments with attention to audio, visual and kinaesthetic learners has proven to be beneficial to all learners, not only to those with SLD.

When a student with learning difficulties faces a foreign language a realistic assessment of the student's situation, problems and need should be done, as what the student might be able to do in a language and what the learning situation offers may not match at all.

The Italian and the Spanish desk researches clearly outline the main difficulties encountered by adults learning a foreign language, which may be divided into difficulties regarding phonetics and phonology, vocabulary, morphosyntactic system and orthography, each of them demanding a suitable kind of intervention.

Difficulties in perception, discrimination and production of sounds encountered in the mother tongue usually move into the study of a foreign language. In this respect a suitable intervention takes into account the development and reinforcement of the learner's capacity to discriminate and produce sounds of a foreign language (FL/L2). The sound system of the target language must be taught in an explicit way. The fundamentals of phonology in the learner's native language have to be illustrated before foreign language instruction begins. That is students are taught to recognize phonemes, to decode or read words efficiently and to encode or apply the sounds to the written language. This is true also for the teaching of orthography which remains a major difficulty in dyslexic learners. As regards written language fonts, colour background and structure of materials must be adapted to suit the needs of dyslexic learners. There are many Dyslexia-friendly fonts such as Open Dyslexic and Dyslexie. On the contrary, an inadequate choice of font and background colours can lead to problems.

Dyslexic adults reveal difficulties in the acquisition of an adequate vocabulary due to phonologic memory deficit and difficulties in word retrieval. There is a gap between the passive vocabulary and the active vocabulary of the learner, who may benefit from an explicit way of teaching next to the implicit one. The syllabus has to be reduced to the essential elements, slowing the pace of instruction quite considerably an incorporating as much visual/tactile/kinaesthetic stimulation and support as possible. It is necessary to avoid similarities. Learning together similar sounding words increases the chances of confusion.

The difficulties in the retrieval of morphosyntactic rules are due to a deficit in the working memory. In this respect teachers have to acquire basic knowledge about the main morphosyntactic differences between the languages involved, native language and foreign language, in order to foresee possible difficulties or strengths in the learners. The reflexion about morphology and syntax is more effective if based on the practical use of the structures to be learnt. It is important to switch to mother tongue for rules explanation. The goal is to ensure simplicity – the efforts of understanding a new rule, combined with unfamiliar vocabulary, might prove too much of a burden.

Even if no specific difficulties are encountered by dyslexic learners in the area of pragmatics, communication and the practical use of language have to be emphasized. The extra-linguistic elements (gestures, movements, non-verbal language) must be taught and enhanced together with linguistic aspects.

Difficulties in learning a foreign language may vary depending on the specific features of mother language in comparison with the second language. The level of orthographic transparency of the language determines the reading performance of subjects with dyslexia.

For example, English is an opaque, stress-timed language, particularly difficult for learners with SLD, whereas Italian is transparent and therefore less arduous than English. Another case is Spanish which is transparent in reading but less transparent in writing. The grapheme-phoneme correspondence is predictable in reading, that is the correct pronunciation of a written word can be determined unequivocally according to correspondence rules, whereas in the written language phonemes correspond to several graphemes, producing doubts. This makes the acquisition of written language hard in Spanish for SLD subjects. Thus, teachers need to know how the characteristics of each language may affect the students' performances.

SLD adults need to receive clear instructions. Open learning can cause additional stress. In order to combat stress, activities directed towards the psychological wellbeing of students must be an integral part of every lesson. To decrease tension and create the best conditions for learning, an environment is necessary where errors are permitted.

5. Teachers and trainers' needs

The indications collected in the partners' desk researches point out similar trends and perspectives. The lack of official researches about teachers and trainers involved with SLD adults has led to the decision of the Greek and the Dutch partner to interview teachers in their contexts.

A common standpoint is that all teachers involved with learners with special needs must adopt a holistic approach. They must take into consideration the environmental, education, cognitive, social, emotional, economic, health, functional and vocational aspects of the learners.

Teaching to adults requires an adulthood perspective that is a methodology oriented to the specific characteristics of adult age and of adults with SLD, as seen in the above paragraph.

In the field of foreign language learning the focus is on the analysis and comprehension of individual language and cognitive abilities and difficulties, on the examination of all aspects of linguistic elaboration and not only of the phonological and orthographic aspects and in the comparison of the mother tongue with the foreign language learned.

On consideration of the importance of a correct diagnosis of the learners' difficulties and disorders, teachers need to be able to identify students at risk and analyse specific learning difficulties from an individual point of view.

They have to create a positive learning environment, being inclusive and taking care of diversity in the classroom, collaborating with other teachers.

An effort has to be made at meeting the needs of all students in the classroom including those who are well prepared and those with different kind of disorders/difficulties, taking care of the different learning styles of the learners. Trends in FL teaching concentrate on the necessity to give attention to visual, audio and kinaesthetic channels.

Teachers and trainers have to be able to apply an adult learning pedagogical approach, taking care of all emotional and psychological aspects of the learners. The focus should be on personalised didactic plans specifying the aims and objectives of the learning.

Teachers need also resources. They have to take care of the layout and equipment of the classroom, using CALL technologies, mixing e-learning with more traditional approaches.

The fast innovation in the ICT sector causes the continuous appearance of new products with sophisticated features that can be very useful in the field of learning difficulties and disabilities, but it is observed a lack of training for teachers on how to access and use the available material resources.

Finally, the necessity to adopt a cross-cultural communication in a multilinguistic and multicultural environment, especially in L2 courses addressed to migrants, generates a demand for adequate training on this topic.

6. Language E-teaching methodologies and tools in SLD adults' FL learning

ICT use in education is considered a key tool for promoting equity and educational opportunities. New technologies have become a good way of learning in general and in the world of languages in particular. It is usually enough to have a device with an Internet connection to have access at many resources that facilitate foreign language learning.

ICT offers a variety of solutions to foreign language students. The available resources (software, APPS, other on line resources) can be used either autonomously or with the tutoring of a teacher.

All researches across the partners' countries show that learning foreign languages with new technologies offers a lot of advantages, that is principally a greater flexibility of the schedules and more entertaining lessons than in a traditional class. You can access to up-to-date materials on the web from anywhere. The materials offer a combination of text, image, audio and video and instant feedback is given to the students. Despite the fact that you can find free or quite cheap materials, cost seems to remain a critical factor as well as time, above all in those contexts where communication nets are particularly slow and time-consuming. Other critics expressed on the use of ICT regard the content of the of the lesson which is not very broad and with a limited possibility to know the culture related to the foreign language and with a reduced opportunity to establish personal relationships and practice conversations.

Nowadays we may count on a series of Software functions facilitating young and adults with difficulties in language learning such as magnifiers, Text-to speech, Speech-to-text, word prediction, spell and grammar checkers, concept mapping/organizers.

The Austrian research also signals the use of gamified language learning mobile applications, mostly targeted at children, also with SLD, but no applications for SLD adults have been identified. Even in the Greek context ICT tools are used to cover the educational needs of all students and to make the lesson more interactive, but teachers put in evidence that there is a great need for adequate e-learning materials for adults, because the available tools are developed for children and cannot be adapted to adults.

In the Dutch context various language learning methods and experiences use technologies and digital tools but they cannot be defined specifically as tools for adult education. A specific guide for teachers who teach Dutch to low-literate adults with dyslexia was published in 2012 and therefore obsolete, while several updated programs for language learning to children could be detected.

In Italy young students with learning disorders may rely on a lot of resources in learning Italian as mother tongue. The Italian Dyslexic Association has counted the reading and writing software in use, which may be used by adults too. Interesting is the role of social networks in connecting and creating communities for sharing information about learning disorders. The Universities for foreign students in Siena and Perugia have realized some remarkable experiences in e-learning teaching of Italian as L2, but the digital resources addressed to foreign students or migrants do not pay attention to accessibility and are not dyslexia friendly.

The Danish context shows that at University students receive ICT support such as an IT-start package for dyslexia with different programs and that there is a widespread access to Google, Apple and Microsoft text-to-speech and speech-to-text applications. A report about IT and dyslexia as well as the website "My life as a dyslexic" list a number of applications that can be used. An extensive research conducted from 2013 to 2016 on ICT and dyslexia shows that despite the compensatory tools available the students find their use difficult and time-consuming. It also puts in evidence that instructions are required to assure a good use of the tools. Although the use of IT is quite common in FL teaching, there does not seem to be a shared approach to it and the actual use seems to be left to the individual learner.

According to the Irish report ICT can provide teachers with a powerful tool to support learning, on condition that ICT use is integrated through an adequate planning. Above all computer-assisted pronunciation training made a measurable impact in foreign language training. Automatic Speech Recognition (ASR) can facilitate the improvement of pronunciation providing effective feedback. Even the use of chat has significantly raised the amount of learners' language production. Publishing students' multimedia outcomes on a blog or a wiki gives them a real audience for their work, encouraging them to raise their standards. Gamification seems also highly motivating for students who gain points for their efforts and can compare their scores with those of the classmates.

The Spanish research points out how applications which offer online tutorials are an interesting option as the user can talk, listen and discuss his doubts with a person.

The above-mentioned advantages may also apply to SLD students. Moreover, ICT tools enable SLD students to work at their own pace, to achieve a higher accuracy in the work done and are found non-judgemental and non-threatening. On the other hand cost and time remain two critical factors, not only in the Irish context. We have to keep in mind that adult learners are already making sacrifices as far as their financial and time investment is concerned in order to take part in skills development programmes. The time investment needed by the teachers is also a discussed issue. ICT tools are used via visual, sensory or auditory methods. Allowing a variation in the teaching methodologies they suit to the single learner and to individuals with special learning needs. They encourage learners to be autonomous. Autonomous learning is an effective approach enhancing the students' potential and creativity. To be autonomous the learner has to be aware of his own way of learning, his strengths and weaknesses. The learner should feel responsible for his own learning and the learning of classmates. To be autonomous does not mean to work alone but to learn in collaboration with others. Finally the autonomous learner takes responsibility in the assessment of his/her achievements.

The Austrian report draws our attention to the necessity to teach students how to use technology to support their learning. The use of software does not necessarily lead to a positive learning experience. In self-guided learning activities some students skip whole sections in order to advance more quickly through the lessons. Low ability students often make poor decisions when choosing what to learn. A study carried out with dyslexic students in higher education puts in evidence the challenges associated with Virtual Learning Environments use. Dyslexic students seem to learn better when e-learning is mixed with more traditional approaches, with face-to-face interaction. Interaction in e-learning sessions may be guaranteed through the involvement of a human tutor who can give non-specific instructions, specific instructions or demonstrate how to perform certain actions. As sessions progress the tutor contributes significantly less as a result of the increased independency of the learner.

As regards ICT it is to notice that teachers and tutors must have the possibility to call for a contact person to give instructions and provide guidance in the use of tools.

With SLD learners great attention must be paid to "gloctodidactics accessibility", a set of methodological choices, focused at maximizing the accessibility of the learning tools in order to guarantee equal opportunities in language learning. Each methodology needs to focus on the student's communicative abilities and learning style. The Total Physical Response methodology developed by Asher, based on movement, outdoor activity, emotional engagement, seems to be very effective with SLD learners. The principle of this methodology is to use movement as a starting point to activate a learning process.

The research about the Austrian context reports the existence of a lot of good practices regarding accessibility, usability, readability and learnability. As far as accessibility and usability the teacher should assure the learning content is made easily accessible to the client group and use regular group feedback. In terms of readability the teacher should keep the average sentence length from 15 to 20 words, be concise, and use simple vocabulary. The active voice is preferable to the passive one, cross-references have to be avoided. Bullet-points and illustrations can be used to provide a clear meaning. New ideas are best introduced when others are consolidated. The teacher should also consider the individual's predisposition towards e-learning, the necessity for personalisation of tasks and activities and the appropriate level of learning support. Certain activities that are helpful to some learners may be disempowering for others due to the nature of their difficulties. Regarding human interface, students, dyslexic students in particular, learn best when e-learning is mixed with more traditional approaches.

As far as the improvement of adults' skills the report in the Irish, Italian and Dutch contexts put in evidence that e-learning programs should help adult employees to improve their decision-making skills, teaching them to react accordingly when a similar situation occurs in real life.

With ICT dyslexic workers can read smoothly and write flawless, structured texts through a combination of reading software, advanced spell checking and writing tools (including mind mapping). Dyslexics benefit from gaining autonomy over their work in the form of extra time, flexible working hours and working from home. This autonomy provides greater focus, productivity and motivation leading to less chance of absenteeism due to dyslexia stress or burnout. Dyslexia does not become a limitation when the social environment is structured in such a way that the employee can compensate for the problems.

As regards the use of ICT and e-learning Spain counts on a number of teacher training centres with different size and organisational approaches at local level, but in some Autonomous Communities there are also "teachers' centres" at the regional level. At these centres "attention to diversity and inclusion" has always been considered essential. Finding teachers trained to teach foreign language to SLD students is even rare and students must rely on the willingness of the teacher to be inventive and flexible. It is painful when a teacher recognizes the needs of a particular student but does not have the time or the resources to support him adequately.

In Greece there are no data available on the needs of foreign language teachers and trainers in e-learning for SLD adults. The teachers face most difficulties when they teach the foreign language to migrants who are illiterate and/or have learning disorders, but there are almost no e-learning materials available for this target.

7. Summary of selected projects in the area of FL E-learning for adults.

The projects are fully described at the end of the corresponding partners' draft.

Austria

Braiana: in English, German, Arabic, Turkish and Serbian

Mind Meister: in English and German

Kurzweil 3000 in English and German

Greece

Special English: in Greek

English for success: in English

Ireland

Duolingo in 26 languages, among which Danish, Dutch, English, German, Italian and Spanish

Rosetta in 28 languages, among which Dutch, English, German, Irish, Italian and Spanish

Busuu in 12 languages, among which English, German, Italian and Spanish

Memrise in 20 languages, among which Danish, Dutch, English, German, Italian and Spanish

The Netherlands

Alinea Dutch, German, French and English

Spain

SIDIOMS in English

ADOLL in English, Spanish and Russian

Eurochance2 in 11 languages, among which English, German, Italian and Spanish

Conclusion

When we began our common work we were aware that the field of our research referring to adults with difficulties in learning foreign languages was not much investigated. A collaborative process among the partners started, sharing ideas and getting to a common agreement on what the final product could look like, what its main purpose was and to which audience it was addressed. As already pointed out, even in presence of a great amount of information about SLD and foreign language learning in younger ages, a lack of literature and experiences with SLD adults was found. Few researches could be found about the needs of trainers and teachers in FL teaching with SLD adults, despite of a great demand of attention and resources coming from professional resources dealing with the problem (FL teachers, support teachers, etc.).

The education and vocational training system do not cope with the problem and no support is given to individual adults with learning difficulties/disorders learning a foreign language. Only few services could be described regarding specific categories of SLD adults, that is students at University and employees.

Nevertheless, a common path has been individuated leading to the development of a teaching methodology more adequate to the adult public than the most used "scholastic" one. The Total Physical Response and the Autonomous learning seem to be particularly suitable and effective with our target group.

The research findings serve to the implementation of a didactic approach and to the definition of the guidelines for teachers and trainers who will be trained to improve their skills needed to teach FL to adult people with learning difficulties.

As regards e-learning methods and tools the research shows that a lot of programs and devices are at disposal (Speech Software, Extensive dyslexia tools, videogame-like applications), when an adult starts to learn a foreign language, but little attention is given to the measurement of their effectiveness, to the evaluation of their benefits for the teaching and the learning process and to a common reflection about any disadvantages and obstacles.

The mapping of existing practices in the area of FL e-learning support provides sufficient examples with details about their accessibility and usability criteria. Their use might be extended to SLD adults learning a foreign language.

Key Terms

Affective filter

In situations of anxiety the learner opposes a sort of “affective filter” against the new language, what slows down or even prevents the acquisition. A low level of anxiety, an appropriate motivation and an adequate level of self-esteem facilitate learning.

Computer Assisted Language Learning (CALL)

It refers to the employment of ICT methodologies within foreign language learning.

Communicative competence

It refers to the learner’s ability to communicate successfully

Communicative needs

The linguistic resources that learners must acquire in order to be able to communicate in a given range of situations.

Compensative tools

Didactic and technological tools (speech synthesis, recorders, word processor with orthographic checker, etc.) that support the performance of students with special needs

Curriculum design

It is the document that defines the intended learning outcomes, the content, the learning times and evaluation modalities of a course.

Dispensative measures

Interventions that allow SLD students to avoid some activities or to have different rules to develop those activities (more time in evaluation tests, no request to read aloud, etc.)

Domain

A broad sector of social life. Major domains relevant to language learning/teaching analysed in the Common European Framework of Reference (CEFR) are the following: educational, occupational, public, and personal

Dyslexia

According to the International Classification of Functioning Disability and Health (ICF) of the World Health Organization dyslexia is considered a specific developmental disorders of scholastic skills (F81) and could involve a specific reading (F81.0), specific spelling (F81.1) or mixed (F81.3) disorder. The abovementioned disorders have in common: (a) onset invariably during infancy or childhood; (b) impairment or delay in development of functions that are strongly related to biological maturation of the central nervous system; and (c) a steady course without remissions and relapses. Usually, the delay or impairment has been present from as early as it could be detected reliably and will diminish progressively as the child grows older, although milder deficits often remain in adult life.

F 81.0 Specific reading disorder - The main feature is a specific and significant impairment in the development of reading skills that is not solely accounted for by mental age, visual acuity problems, or inadequate schooling. Reading comprehension skill, reading word recognition, oral reading skill, and performance of tasks requiring reading may all be affected. Spelling difficulties are frequently associated with specific reading disorder and often remain into adolescence even after some progress in reading has been made. Specific developmental disorders of reading are commonly preceded by a history of disorders in speech or language development. Associated emotional and behavioural disturbances are common during the school age period.

F81.1 Specific Spelling disorder - The main feature is a specific and significant impairment in the development of spelling skills in the absence of a history of specific reading disorder, which is not solely accounted for by low mental age, visual acuity problems, or inadequate schooling.

F 81.3 Mixed disorder of scholastic skills - An ill-defined residual category of disorders in which both arithmetical and reading or spelling skills are significantly impaired, but in which the disorder is not solely explicable in terms of general mental retardation or of inadequate schooling. It should be used for disorders meeting the criteria for both F81.2 and either F81.0 or F81.1.

European Framework

It is a European document which represents an updated reference for those who works on topics regarding the teaching and learning of languages

Foreign language (FL)

It is a language learned after the mother tongue in a country where it is not spoken habitually.

Functions, communicative

The purposes for which language is used in communication, such as inviting, apologizing, enquiring, narrating etc.

Intercultural awareness

Involves awareness of other cultures in relation to one's own. The Council of Europe promotes a view of intercultural awareness that is founded on tolerance, respect for diversity, and avoidance of stereotyping.

L2

It is the language learned in a country where it is habitually spoken, what distinguishes it from the Foreign Language.

Language repertoire, linguistic repertoire

The language or languages that a person can use to communicate in different contexts and for different purposes

Learning disorders

Disorders in which the normal patterns of skill acquisition are disturbed from the early stages of development. This is not simply a consequence of a lack of opportunity to learn, it is not solely a result of mental retardation, and it is not due to any form of acquired brain trauma or disease

Linguistic competence

The learner knows and applies the rules. He knows the affective, cultural, cognitive meanings expressed by the different linguistic forms.

Mobile Assisted Language Learning (MALL)

It is an approach to language learning based upon the use of mobile devices such as MP3/4 players, smartphones and tablets. MALL combines mobile learning with Computer Assisted Language Learning.

Mother tongue

It is the language first learned by a person, native language.

Plurilingual

The Council of Europe uses "plurilingual" to refer to persons who can communicate, at whatever level of proficiency, in two or more languages.

Phonology

It describes the system of the single elements of a language, called "phonemes". Each phoneme corresponds to a class of sounds which may be interchanged without a change in the meaning of the word.

Scenario

A social activity (such as looking for accommodation, buying clothes, going to a restaurant) consisting of a predictable sequence of communicative situations and involving language activities of different kinds.

Script

The writing system of a language, such as Arabic, Cyrillic (for Bulgarian, Russian etc.), Roman (for Italian, French, English etc.).

Syntax

It is the set of rules, principles, and processes that govern the structure of sentences in a given language, usually including word order.

Tailor-made course

A course (here, a language course) that is designed to meet the specific needs of a certain target group, based on their existing competence and their future communicative needs.