



TEACHER PROFESSIONAL LEARNING FOR INCLUSION: A CASE OF DYSLEXIA AS AN (E-)TEACHING APPROACH

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Abstract:

The purpose of this article is to present a case of dyslexia as an (e-)teaching approach of inclusion within the framework of lifelong teachers' education in order to implement theoretical knowledge. The combination of theoretical and applied knowledge aims at supporting teachers in all structures of General and Special Education. The methodological approach uses the case study research design in teacher education. A case of a child with dyslexia is presented, as well as the symptomology that it presents. The next item is the presentation of the diagnosis process followed and the educational intervention of problems encountered by this pupil. Emphasis is placed on an overall response and rehabilitation program, which may include sequential and systematic exercises and instructions at the verbal and visual level. In conclusion, supporting teacher professional development is an important part of the effort to increase the teaching and learning of children with and without learning difficulties. Finally, the paper concerns the presentation of an incident with dyslexia in lifelong teachers' education and training as a specific topic and inclusive issue for a modern democratic school. The paper can provide highlights in (e-)teaching through the example of dyslexic profile.

Keywords: teacher education, teacher professional learning, lifelong, inclusion, dyslexia, educational support, (e-)teaching

1. Introduction

The school performance of each child is in direct interdependence with the level of performance in reading and writing (Polychronis & Antoniou, 2016). This is because, several of the skills and subjects of the analytical program of both the Primary school and the other levels, require the alertness and activation of both the child's perception system

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and the parallel assistance of many individual cognitive and metacognitive competences-linguistic or not (Polychroni, Hatzichristou & Bibou, 2006).

Of course, at this point it should be stressed that several children now in primary school are conquering these basic skills with great difficulty (Polychronis & Antoniou, 2016), even in this category of children belong to children who face difficulties such as dyslexia (Tzivinikou, 2015).

For this reason, there is now an urgent need to conduct differentiated teaching within the classroom according to the needs of each child. Teachers' knowledge of the subject, their previous experience in teaching and the needs of pupils, learning difficulties and their perceptions determine their attitude (Polychronis & Antoniou, 2016). It is now necessary to educate teachers in order to be able to apply differentiated teaching in their classroom, based on the difficulties of each child (Tzivinikou, 2015). However, in order to have a positive result, it is appropriate to train and train the teaching staff in these matters.

Lifelong learning expresses a dynamic approach to the modern aims of education and is one of the European Union's top priorities for the social cohesion of today's societies. It focuses on the need for continuous improvement and upgrading of the knowledge, skills and abilities of individuals to continue their personal and professional development and to adapt them to the rapidly changing international social and professional environment (https://ec.europa.eu/education/policies/eu-policy-in-the-field-of-adult-learning_el).

The support and training of teachers is a contributing factor in the process of integrating students with disabilities into general and special education and is a key part of the whole learning process because it is precisely aimed at providing support for teachers themselves to all students without discrimination (Watkins, 2004). In this context, this posting focuses on lifelong education and training of teachers through dyslexia. The purpose is to present this incidence as a (e-)teaching approach of inclusive education in teacher training and lifelong learning, with an emphasis on the applied dimension. The aim is to engage educators and learners to ensure educational opportunities for all.

Specifically, there is a case of a child with dyslexia, the symptomology that follows and the educational intervention that follows. Emphasis is placed on an overall response and rehabilitation program, which may include sequential and systematic exercises and instructions at the verbal and visual level (Ioannidi & Gogaki, 2019), because "*dyslexic children and adults can become avid and enthusiastic readers when given learning tools that fit their creative learning style*" (<https://www.dyslexia.com/about-dyslexia/signs-of-dyslexia/test-for-dyslexia-37-signs/>).

2. Theoretical Framework

2.1 Defining dyslexia as a learning difficulty

Generally, *“dyslexia is a learning difference which primarily affects reading and writing skills. However, it does not only affect these skills. Dyslexia is actually about information processing. Dyslexic people may have difficulty processing and remembering information they see and hear, which can affect learning and the acquisition of literacy skills. Dyslexia can also impact on other areas such as organisational skills. It is important to remember that there are positives to thinking differently. Many dyslexic people show strengths in areas such as reasoning and in visual and creative fields”* (<https://www.bdadyslexia.org.uk/dyslexia/about-dyslexia/what-is-dyslexia>).

Especially, according to Tzivinikou (2015), dyslexia is the most common learning difficulty and in some cases it is also referred to as language-based learning difficulty. Individuals with dyslexia respond adequately with timely and appropriate treatment. Since effective evaluation is used as a basis for a targeted educational intervention program, pupils with dyslexia need a specialized approach to reading instruction based on their current- acquired level of reading. Such an evaluation helps parents and teachers to agree on the student’s weaknesses and where intervention should start to remove or alleviate these difficulties.

More specifically, dyslexia refers to difficulties in processing visual or auditory information in short-term memory. It is particularly seen in reading and spelling. In particular, omissions, additions, replacements, translations of letters, syllables, or words are made at the reading level. Also, reading is slow, with no flow and no meaning, and the text is incomplete in its understanding. At the writing level, many spelling mistakes are made, even in words that have been taught. The writings are distinguished by scribble, clutter, lack of punctuation, gaps, etc. There are omissions, additions, transpositions, substitutions of letters, syllables and words (Oikonomou & Pantazopoulou, 2000).

It should be noted that not addressing learning difficulties in time, and indeed dyslexia, exacerbates the problem as cognitive deficits increase and the pupil is unable to attend, conquer and assimilate the curricula. Learning problems are becoming more acute in adolescence and cognitive and social difficulties are increasing in adult life. The student develops the belief that he/she is unable to learn and complete a project, resulting in personal and subsequent professional difficulties (Zani & Papoutsaki, 2012), anxiety disorders (Cantwell & Baker, 1991) and/or expressing aggression and anti-social behavior (Williams & McGee, 1994· Singer, 2005). The need for special education and training will help to address the difficulties within the learning process, as well as the school inclusion and social acceptance.

2.2 The need for special education and training

More specifically, in the school period, reading and writing are the basis for the whole learning process. Children who have difficulty with writing skills face parallel difficulties

throughout the courses. Dyslexia can create shortages in academic performance and behavioral problems due to feelings of abort caused by failed efforts. Children with learning difficulties, and with dyslexia, need specially designed Analytical Program instruction that will meet their learning and educational needs and stimulate their skills in an appropriate way (Heward, 2011). Overall, factors that can potentially positively influence the development and progress of children with dyslexia are early and timely diagnosis and evaluation, appropriate counseling and educational support for the child dyslexia for vulnerability and potential emergence, didactic corrective intervention based on pupil level and age, as well as family and school cooperation.

3. Teacher learning for inclusion: Understanding dyslexia as a (e-)teaching example of inclusive education

According to Reid (2016), it is important to recognize the strengths, which can also form part of a dyslexic profile and pupils with dyslexia may need support to be able to utilize these strengths.

3.1 Child's learning profile

A twelve years old student in the Primary School have been diagnosed for dyslexia through the administration of formal and informal procedures (Skaloumpaka & Protopapa, 2017· Porpodas, 2003, 2007). Emphasis has been placed on individualization and continuous observation within and outside the classroom by teachers. His learning profile identifies great difficulties in writing. It is also characterized by short and short-term memory and visual and acoustic memory difficulties. His writings can be distinguished from errors of writing and semantic type, but also of phonologic level of the language, e.g. listening, identifying and identifying linguistic phantom in the word or sentence. At the same time, it does not organize its time and space properly. However, it has imagination, good critical ability and a rich emotional world. His social skills are sufficient for his age. It should be noted that his performance indicates average cognitive abilities.

3.2 Educational support and planning of activities

A personalized training program was developed, where the long-term goal was writing skills: the student had to learn to express thoughts clearly, coherently and in a comprehensible way. Individual short-term objectives are:

- The understanding that what he says orally can be written correctly.
- To write short narrations and participate in language exercises with integrated meanings.
- The use of extensive vocabulary and organize text in a series, subject, chronological, etc.
- The identification of the central idea of a text and understand its individual meanings.

- To stimulate a sense of self-confidence and self-esteem.

An overall plan for response and rehabilitation was developed, including successive and systematic exercises and instructions at verbal and visual level, such as:

- correct formation of letters,
- keeping distances and gaps where appropriate between words,
- correct word highlighting,
- cluster separation,
- separation between parts of the ratio e.g. adjective, noun, verb,
- separation according to the genera of substance and adjectives e.g. male, female and neutral and related endings,
- learning grammatical endings in the climatic parts of speech e.g. names, verbs, verb voices, etc.
- reading and understanding clustered words,
- reading and understanding small texts through questions,
- drawing up small texts, in which teaching and corrective action will be carried out through a Special Intervention Program based on the "*ATHENA Test for the Diagnosis of Learning Difficulties*", on the other hand, the puppet with dyslexia will be supported in psychoteaching and counseling.

The initial objectives focus on skills and then on the acquisition of competences that the student should have according to his or her mental and age level. Emphasis is also placed on achieving the goal as an experience of success and motivation (Lerner, 1993).

3.3 Pedagogical highlights and alternative teaching approach

Criteria for achieving teaching objectives in the context of individual teaching in children with learning difficulties are (Gena, 2007):

- The student must be able to carry out the target behavior requested on the advice of the teacher.
- To carry out the target behavior without the help of the teacher on the one hand, with continuity and consistency.
- The student should be able to demonstrate the behavior itself in different environments and not only in that of the course.

Also, according to research findings (Spantidakis & Kyriazi, 2007):

- Providing hints and instructions either in a verbal or visual manner or in a combination of verbal and visual ways helps pupils with learning difficulties in writing to write more qualitative texts and to make more and more substantial improvements to their texts.
- Finally, the provision of visual allusions may seem as effective as the combination of verbal and visual instructions e.g. the teacher has arranged for what he or she suggests orally to the pupil to appear both as a written instruction and teaching instruction.

In practical terms, collaborative learning and good working relationships with peers, the assignment of computer tasks and short breaks, underlined titles and the note of keywords, drawings, and clear and slow speech on the part of the teacher can certainly provide an effective integration course for pupils with learning difficulties and dyslexic language ris (Katsougri, 2007-2013).

Finally, the reduction of new knowledge to pre-existing knowledge and experiences of the pupil through lifelong learning techniques and active teaching strategies has direct effects on quality teaching and co-education. Such techniques include the use of images to cultivate messages, stories about developing communication and understanding skills, storytelling to promote dialogue and discussion, the role-playing game for organizing and problem solving skills, the use of tables and experiments to develop observation capacities, as well as rational thinking, etc. (Active Methods..., 2004).

4. Conclusions

Support for the vocational development of teachers is an important part of the effort to increase the teaching and learning of children with and without learning difficulties. Training is necessary for teachers, as it contributes to meeting personal objectives and, therefore, to their personal satisfaction, and to facilitating their acceptance from their social surroundings (Moyer & Sinclair, 2015).

Given that in 21st century education, we need to focus on (e-)teaching and educating young people in what they can learn (Middlewood et al., 2005), the combination of verbal and visual ways helps students significantly in writing to write more qualitative texts and to make more and more substantial improvements to their texts. Therefore, their inclusion becomes a achievable goal and thus stimulate the student's academic, emotional and social skills according to the Analytical Program. Finally *“preventing school failure involves developing an inclusive system where all learners – including those at risk of failure and most vulnerable to exclusion – receive a high-quality education”* (<https://www.european-agency.org/resources/multimedia/key-message/preventing-school-failure-involves-developing-inclusive-system>).

Conflict of Interest Statement

The authors declare no conflicts of interests.

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References

- Active Methods for Teaching and Learning, 2004. Fresh Tools for Effective School Health, Unesco.
- British Dyslexia Association. “What is dyslexia?” Available at: <https://www.bdadyslexia.org.uk/dyslexia/about-dyslexia/what-is-dyslexia> Accessed 10/2/2021.
- Gena A, 2007. Teaching of the act of division to children with learning difficulties in mathematics. In: 1st Panhellenic Conference on Special Education with international participation "Special Education in the Knowledge Society", pp. 439-448. Athens: Grigoris. [in greek].
- European Agency for Special Needs and Inclusive Education. <https://www.european-agency.org/resources/multimedia/key-message/preventing-school-failure-involves-developing-inclusive-system> Accessed 10/2/ 2021.
- European Commission. Education and Training. https://ec.europa.eu/education/policies/eu-policy-in-the-field-of-adult-learning_el Accessed 30/12/2020.
- Heward W, 2011. Children with special needs. An introduction to Special Education. Athens: Topos. [in greek].
- Zani F, Papoutsaki K, 2012. Case study: Evaluation and preparation of an Intervention Program for a student with learning difficulties. Proceedings of the 6th Panhellenic Conference of ELL.I.E.P.EK. Athens, 5-7/10/2012. [in greek].
- Ioannidi V, Gogaki H, 2019. Lifelong learning and specific inclusion issues: A case report of an incident with dyslexia in teacher education and training. In: 16th International Conference of the Hellenic Educational Society. Book of Abstracts “The school in democracy, the democracy in school”, pp. 323-324. University of Thessaly. Volos, 29/11-1/12/2019.
- Katsoygi A, 2007-2013. Individualized Educational Program Guide for students with learning difficulties. Athens: Institute of Educational Policy. [in greek].
- Lerner J W, 1993. Learning disabilities: Theories, diagnosis and teaching strategies. Boston: Houghton Mifflin.

- Middlewood D, Parker R, Beere J, 2005. *Creating a Learning School*. London: P.C.P. Sage Publications.
- Moyer J, Sinclair J, 2015. *Stoking the Dialogue on the Domains of Transformative Learning Theory Insights From Research With Faith-Based Organizations in Kenya*.
- Oikonomou K, Pantazopoulou M, 2000. Perspectives and development of children with dyslexia in Secondary Education in relation to the socio-economic level of their family. The role of lifelong learning. In: *Proceedings of the Special Education Conference. Trends and Prospects for the Education and Training of People with Disabilities in a United Europe Today*, pp. 536-556. University of Crete. [in greek].
- Polychroni F, Hatzichristou H, Bibou A, 2006. *Special learning difficulties. Dyslexia: Classification, evaluation and intervention*. Athens: Greek Letters. [in greek].
- Polychroni F, Antoniou S A, 2016. Perceptions of primary and secondary school teachers about learning difficulties. *Proceedings of the 2nd Panhellenic Conference of Special Education*. [in greek].
- Porpodas K, 2003. *Diagnostic assessment and treatment of learning difficulties in Primary School (Reading, Spelling, Dyslexia, Mathematics)*. Patras: University of Patras. Available at: http://edu-gate.minedu.gov.gr/amea/prakseis_epeaek/diagnostikh_aksiologish_math_dysk_olion.pdf. Accessed 30/12/2020. [in greek].
- Porpodas K, 2007. *Investigation tools for learning disabilities*. Patras: University of Patras. [in greek].
- Reid G, 2016. *A Practitioner's Handbook*. Wiley Blackwell.
- Skaloubakas X, Protopapas A, 2017. *Learning Skills and Weaknesses Investigation Software LAMDA. Classes B' – D' Primary and E' Primary – B' Gymnasium. Tool description*. Available at: https://www.researchgate.net/publication/319041424_Logismiko_Anichneuses_Mathesiakon_Dexioteton_kai_Adynamion_LAMDA_Taxeis_B%27-D%27_Demotikou_kai_E%27_Demotikou-B%27_Gymnasiou_PERIGRAPHE_ERGALEIOU_YPOURGEIO_ETHNIKES_PAIDEIAS_KAI_THRESKEUMATON_EPEAEK Accessed 30/12/2020. [in greek].
- Singer E, 2005. The strategies adopted by Dutch children with dyslexia to maintain their self-esteem when teased at school. *Journal of Learning Disabilities*, 38, 5: 411-423.
- Spadidakis G, Kyriazi O, 2007. Development of skills of students with difficulties in producing ideas: Comparison of mnemonic rules and mental maps. In: *1st Panhellenic Conference on Special Education with international participation "Special Education in the Knowledge Society"*, pp. 292-309. Athens: Grigoris. [in greek].
- Tzivinikou S, 2015. *Learning Disabilities - Educational Interventions*. Athens. www.kallipos.gr Available at: <https://repository.kallipos.gr/handle/11419/5332?locale=en> [in greek].

Watkins A, 2004. Inclusive education: information on policy and practice in seventeen European countries. In: Zoniou-Sideri A, (eds.), *Modern inclusive approaches*, vol. A', Theory, pp. 105-135. Athens: Ellinika Grammata.

Williams S, McGee R, 1994. Reading attainment and juvenile delinquency. *Journal of Child Psychology and Psychiatry*, 35, 3: 441-459.

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