

Article Type: Research Article

Received: 20/01/2022

Published: 09/02/2022



Open Access Journal of
Biogenic Science and Research
ISSN 2692-1081

DOI: 10.46718/JBGSR.2021.10.000255

Learning Difficulties and Reading Comprehension in the First Grades of Primary School

Theofilidis Antonis*

Department of Psychiatry, School of Medicine, Aristotle University of Thessaloniki, Greece

***Corresponding author:** Theofilidis Antonis, 3rd Department of psychiatry, school of medicine, Aristotle University of Thessaloniki, Greece

ABSTRACT

This paper is a study on the concept of learning disabilities and reading comprehension. Specifically, it studies the learning difficulties and the reading ability in terms of the school performance of the students of the first grades of primary school.

Aim: In our work we try to analyze and present the following topics:

- The definition of the term “Learning Disabilities”, their etiology and the correlation of learning difficulties and reading.
- What learning difficulties do, what we face in reading and writing and how do they affect the school context and students’ performance.
- How to diagnose learning disabilities in reading ability and interventions that need to be implemented in the classroom to reduce them.

Method: We followed the most up-to-date literature on the subject

Conclusions: Learning difficulties can also cause emotional problems in children as they feel that they are lagging behind compared to the rest of the class. Our goal is to include children with learning disabilities in the classroom by adapting the lesson to the children and not the children in it. Our main concern should be the valid and timely diagnosis of difficulties and effective intervention to address them.

Keywords: Learning difficulties, reading comprehension, primary school

LEARNING DIFFICULTIES - DEFINITION AND ETIOLOGY

Learning disabilities are a generalized expression of some of the individual difficulties encountered by students. More specifically, the concept of learning disabilities refers to a variety of heterogeneous disorders, which result in difficulty in learning, speaking, writing, reading, information processing, mathematical computation, attention retention and in the coordination of movements. Every disorder that is part of the learning disability is differentiated in terms of the intensity of its manifestation, the nature and the symptoms of the difficulties, as well as the consequences that they have. These disorders can cause problems throughout the life of the individual [1]. An important point in the study of learning difficulties concerns the impossibility of having common symptoms of expression of these difficulties, a fact that leads to their delayed recognition, which usually occurs

during school age [2].

The goal of any educational system is the success of students in their academic performance, as well as their acceptance by the school environment. Many children, however, who have learning difficulties do not have the expected school performance required. The learning difficulties that can occur to each child individually vary, which makes the role of the teacher difficult, since he is called to deal with each case separately [3].

The origin of learning difficulties seems to be mainly due to dysfunction in the central nervous system of the individual [5]. Thus, learning disabilities come through the pathogenesis of the individual himself. However, apart from the neurological factors that seem to play a major role in the development of learning disabilities, the great

heterogeneity of the symptoms of learning disabilities leads, however, many researchers to conclude that the etiology of these difficulties is very likely to be multifactorial and epigenetic factors also play a role. More specifically, researchers should not neglect the study of environmental, cultural and emotional factors, processes that seem to play a significant role in the occurrence of learning disabilities. Such factors may be an inappropriate school environment, a difficult family environment, depression, anxiety, the child's personality, psychological neglect, etc. Still, we should not overlook the cognitive factors that emerge through low performance in almost all learning activities. In addition, there seems to be a differentiation of learning difficulties in relation to the sex of the child. In contrast to girls, boys have a higher rate of learning difficulties especially in the behavioral field and language learning [4]. Therefore, as learning is a complex, multifactorial process, all the complex factors that may affect it should be considered. However, all of the above have not yet been clarified in the literature whether they are factors that cause learning disabilities or simply predisposing or risk factors [6].

Papadakou, Palili, Gini, (2014) studied some epidemiological factors that seem to be directly related to the occurrence or not of learning difficulties. The research process showed that children diagnosed with learning disabilities had at least one first-degree relative with learning disabilities. The researchers also found that learning disabilities were directly linked to sleep disorders, attention deficit hyperactivity disorder (ADHD), and a variety of other emotional and social problems. Such problems may be related to anxiety, depression, adaptive disorders and social interaction, etc. The researchers emphasize that the above factors could be considered as prognostic and gain important function in the design of targeted early interventions, with the aim of better academic and social development [7].

Finally, the correlation of learning difficulties with various emotional problems that children may manifest is considered important. Although no precise explanation has been given, it seems that children with learning disabilities tend to develop less positive and more negative emotions, which reduce their willpower and prevent them from making the necessary effort in the school context. (Gugumi, 2015). Behavioral problems can be characterized as internal and external. Problems such as stress, melancholy, depression, obsessive-compulsive disorder, dysthymia and social phobia, as well as disorders such as bulimia, nightmares, anorexia, shyness and isolation are considered internal, while problems such as aggression are considered. Disasters, negativity, rudeness, attention deficit hyperactivity disorder, adjustment and conduction disorders, hostility and theft,

are considered external problems [8]. Bornstein, Hahn & Suwalsky, 2013). Children's intrapersonal or interpersonal adjustment is directly affected by these emotional and behavioral problems, which may be due to students' low self-esteem, which stems from the learning difficulties they face (Koliadis, 2010).

LEARNING DISABILITIES AND READING

Most of the children who have Learning Disabilities have problems in the cognitive process of reading and understanding the written text. The process of reading is a complex task of cognitive function, which refers to the processing and analysis of graphs, phonemes and semantic information of the written language. It is closely related to a variety of other cognitive functions of the child, which must be activated for the full understanding of reading, such as the degree of ability of his phonological awareness and the capacity of his short-term memory, perception, concentration, attention, language and thinking, as well as sensory skills such as vision, motor and reading ability [9] Natália Jordão, Adriana de Souza Batista Kida, Danielle Dutenhefner de Aquino, Mariana de Oliveira Costa, & Clara Regina Brandão de Avila. 2019). More specifically, reading refers to the process in which the student decodes the written symbols of our language and converts them into speech. The graphic processing of these written symbols can contain phonemic, phonological and semantic information about the receiver (Porpodas, 2002).

In order for the reading process to take place correctly, it is necessary not only to decode the imprinted symbols, but also to understand their conceptual content. It is thus an important process of processing and extracting information, deeply connected and dependent on decoding and understanding (Porpodas, 2002. Tsesmeli, S. 2012).

We understand, then, that decoding and comprehension are the two most important cognitive functions that play the most important role in the reading process. More specifically, decoding is the ability to recognize written symbols and automatically convert them to a phonological representation. An important role in the correct decoding is played by the state of long-term memory, access to it and retrieval of any information necessary for the correct letter-phonemic matching [19] (Tzivnikou, S. 2015. Kim, MK, Bryant, DP, Bryant, BR, & Park, Y. 2017) [11]. Comprehension, which is the second equally important cognitive function of reading, presupposes the recognition of the semantic content of words, which can come from the knowledge of the meaning of words, the understanding of their grammatical pronunciation as well as their syntactic structure (Kokkinaki 2014. Westwood, 2016). For the correct understanding of the text, the cognitive strategies should be used correctly, the

words of the text should be recognized and combined with the previous knowledge [12] (Westwood, 2016. Tzivinikou, 2015) [13]. According to Kaldenberg, Watt, & Therrien, (2015) reading comprehension is directly related to the reader's prior knowledge, as the information obtained from a text in order to be generalized and understood, must be processed and to connect based on the knowledge already possessed by the individual. Lack of this knowledge leads to inability to use metacognitive strategies needed for reading (Kaldenberg et al., 2015) [14].

Reading, then, can be said to be the product of these two factors presented above, decoding and comprehension. As a result, any malfunction even in one of these two factors can lead to the so-called Reading Difficulties. Difficulty in reading comprehension can manifest itself throughout the levels of the reading process, from the simple learning of individual graphs to the reading, comprehension and retention of the acquired textual information. The reading difficulties that children present are mainly based on neurological abnormalities, they can be combined with delayed speech and generally with language problems (Kokkinaki 2014).

LEARNING DIFFICULTIES AND READING IN PRIMARY SCHOOL

In terms of reading comprehension in the school performance of primary school students we must keep in mind the basic cognitive development of the reading process. A student is expected to have successfully completed the decoding ability by the second grade of elementary school. By the third grade, a child should not only be able to easily decode the written text, but also understand the meaning of what they are reading. With this in mind, we can talk about learning difficulties related to reading comprehension, only if the child has received the appropriate education for the stage of the class in which he is. The usual deviation of students with learning disabilities from the rest of the class is about one to two years.

Learning disabilities seem to slow down children's performance at school. The motivation and enthusiasm that each student has for learning, does not seem to exist in students with learning difficulties, resulting in a low academic level [15] (Lama, 2019). We understand, then, that the early diagnosis and treatment of learning difficulties in a child in the first grades of primary school is vital. The main problem lies in the field of decoding since the difficulty of the reader to decode the words hinders his entry into the process of comprehension (Kokkinaki 2014) [16].

LEARNING DIFFICULTIES AND WRITING SPEECH PROBLEMS IN PRIMARY SCHOOL

The role of writing in school is very important since apart from being a means of communication it is also one of

the basic skills that will accompany the child throughout his student years and later in life. A necessary criterion for the production of written speech is the linguistic, metalanguage but also the cognitive, metacognitive skills of the individual. An important role in the production of written speech is played by the already existing knowledge and experiences of the individual, his motivations, feelings and goals (Panteliadou 2000. Vasarmidou, D., & Spantidakis, I. I. 2015). Students with learning disabilities have difficulty using metacognitive strategies that should be employed to produce written communication. These strategies would give the student the opportunity in the writing process, would help him in the production and in the end would give him the opportunity to check his result and evaluate it, allowing him to make the necessary corrections (Panteliadou, 2000. Vasarmidou, 2015). However, in addition to cognitive and metacognitive skills, difficulties may also arise in the student's mechanistic skills. These skills include handwriting, spelling, vocabulary development and the use of punctuation, accentuation, writing and the use of uppercase and lowercase letters. Difficulties in some of these skills or in all, create problems in writing [17] (Vasarmidou, 2015. Panteliadou, 2000). Also, features of written speech difficulty can be the reversal or confusion of letters, omissions or additions of letters, illegible letters and permutations. Identifying more serious issues related to speech and reading in combination with writing is much more complicated than the first grade of elementary school, since the difficulty in organizing speech is something common in preschool children (Tzouriadou, 2008) [18].

DIAGNOSIS AND TEACHING INTERVENTIONS IN CHILDREN WITH LEARNING DISABILITIES

There are many cases of students with learning difficulties who have the ability to keep up with the class schedule without particular problems. However, in most cases, the difficulties are quite intense, as a result of which the content needs to be adjusted in order to be able to follow it [20] (Tzouriadou, 2011).

Learning Disabilities are a common problem for many students, but due to their special nature, they enable us to carry out effective intervention programs. This intervention must be timely, in order to deal with the current difficulty in giving birth, as well as not to create negative feelings regarding the self-esteem, self-image and self-confidence of children for their abilities and school performance. Proper intervention comes from a valid assessment of students' dysfunctions and weaknesses and is a multifactorial process, which requires adequate knowledge of the child's weaknesses, strengths and personality, cooperation with parents, study of social, family and cultural environment of the child, as well as many other important information

(Porpodas, 2002). Assessment in terms of cognitive objects should be based on phonological awareness, short-term memory, decoding and finally, comprehension of the reported text (Kokkinaki 2014).

Therefore, a necessary condition for an effective didactic intervention is the correct diagnosis. Specifically, for reading ability, starting with a well-targeted assessment based on the difficulties we detect in the child, we give a specialized approach to the teaching of reading. In order to make this assessment, we must take as a guide the level of reading ability that the student already possesses. The correct evaluation in the kindergarten and in the first grades of elementary school leads to a timely intervention and prevention of the student's difficulties [19] (Tzivinikou, S., 2015).

Today, we are given the opportunity, with the use of appropriate tools, to understand the learning difficulties that a child faces from an early age. Some of the most common screening tests that are mainly related to reading ability are:

- The Predictive Assessment of Reading (PAR). It is considered one of the most reliable and valid tests for kindergarten children, through which we have the ability to predict the reading ability of children up to high school.
- The Texas Primary Reading Inventory (K-2). It focuses on children from pre-school to the third grade and has the ability to recognize and evaluate the developmental stages of their reading [21].
- The Dynamic Indicators of Basic Early Literacy Skills (DIBELS). It is a test that deals with the processes of phonemic awareness, the alphabetic principle and phonological awareness, the ease and accuracy of reading a text, the development of vocabulary and the process of comprehension.

Finally, the AIMS-Web test, which enables the use of Rtl programs and multilevel teaching in schools. It refers to children from kindergarten to high school and gives a basis for the detailed curriculum in mathematics and reading [21] (Tzivinikou, S., 2015)

So, after completing our diagnosis and evaluating the capabilities and needs of the student, we turn to the right teaching intervention. In order to eliminate the differences between the students, we focus on adapting the curriculum to the needs of the student and not the other way around. Thus, the goals we have set in a classroom do not change according to the abilities of each student, but the way they are approached and their degree of difficulty differ (Skidmore 2004). The ultimate goal is to develop learning

strategies and use them within the classroom. Strategies such as group research or peer-to-peer teaching can be particularly useful, not only for students with difficulties but also for all students in the class (Tzouriadou, 2011). By learning to use cognitive and metacognitive strategies, students have the opportunity to process and use the information they will receive, to think and perform a task, and to evaluate their performance in it [22] (Luke 2006).

Students with reading difficulties can improve their reading skills through various educational approaches applied during teaching. Indicatively, we can refer to direct teaching, the formation of small groups that enhance discussion and support, vocal thinking, etc. (Tzivinikou, 2015). Also, strategies that have to do with reading are:

- The Reading Analysis, Merge and Decoding strategy. It refers to students with learning difficulties aged 7 to 12 years and has to do mainly with the connection of sounds with voices.
- Auditory Discrimination in Depth. It emphasizes the posture of the mouth and they learn the feeling that each sound gives at the time of its pronunciation. Thus, students analyze the words and recognize the sounds according to the placement of the tongue and mouth.
- Analysis for Decoding Only. A strategy that is implemented in order to teach students to analyze letter patterns in small words that they often come across. For example, the word "beyond" combined with the words "day, wedding ring, good morning".
- The Read-By-Ratio Approach. This strategy is based on phonemes aimed at word recognition. Through the same spelling patterns of words, students are taught how to analyze and decode unknown words (Tzivinikou, 2015).

CONCLUSIONS

In recent years, there has been a rapid increase in learning disabilities. The percentage of children diagnosed with learning disabilities, which can cause serious developmental problems within and outside the school context, is increasing. Children who have been diagnosed with learning disabilities appear to have serious difficulty adapting to the classroom and thus lagging behind in their academic performance. In the past there was a perception that these children were "lazy", "bad students", "stupid", but now we know that this perception is wrong, since we are not talking about bad or lazy students, but about students who due to a nervous disorder their system, do not have the same capabilities as the rest. Learning difficulties can also cause emotional problems in children as they feel that they are lagging behind compared to the rest of the class. Our

goal is to include children with learning disabilities in the classroom by adapting the lesson to the children and not the children in it. Our main concern should be the valid and timely diagnosis of difficulties and effective intervention to address them.

References:

1. Gugoumi, Lau (2015) Learning disabilities and school bullying. Panhellenic Conference of Educational Sciences: 382-395.
2. Kokkinaki (2014) Diagnostic assessment of learning difficulties in reading. Panhellenic Conference of Educational Sciences: 366-375.
3. Koliadis (2010) Behavior at school: we take advantage of opportunities, we face problems. Athens: Grigoris.
4. Porpodas KD (2002) The reading [χ.6.].
5. Panteliadou S (2000) Learning difficulties and educational practice: what and why. Greek letters.
6. Malik MA, Cheema AB, Shad GM, Rauf M (2014) Causes of learning disabilities in basic skills of students at primary level and remedial techniques used by the teachers. Putaj Humanities & Social Sciences, 21 (2): 51-64.
7. Papadakou S, Palili A, Gini S (2014) Learning problems: prognostic-predisposing factors. Diagnostic & Therapeutic Unit for the child "Spyros Doxiadis", Rhodes 6-8 June.
8. Kandarakis A (2010) Psychopedagogical evaluation of behavioral problems of children and adolescents. Pedagogical review 49.
9. Bornstein M, Hahn CS, Suwalsky JD (2013) Developmental pathways among adaptive functioning and externalizing and internalizing behavioral problems: Cascades from childhood into adolescence. applied Developmental Science 17 (2): 76-87.
10. Natália Jordão, Adriana de Souza Batista Kida, Danielle Dutenhefner de Aquino, Mariana de Oliveira Costa, Clara Regina Brandão de Avila, et al. (2019) Reading comprehension assessment: effect of order of task application. CoDAS (1).
11. Erica R Kaldenberg, Sarah J Watt, William J Therrien (2015) Reading instruction in Science for Students with Learning Disabilities: A Meta-Analysis. Learning Disability Quarterly 38 (3): 160.
12. Westwood PS (2016) Reading and learning difficulties: Approaches to teaching and assessment (Vol. 2nd edition). Camberwell, Vic: ACER Press.
13. Porpodas KD (2003) Diagnostic assessment and management of learning disabilities in primary school (Reading, Spelling, Dyslexia, Mathematics). Patras
14. Kim MK, Bryant DP, Bryant BR, Park Y (2017) A synthesis of interventions for improving oral reading fluency of elementary students with learning disabilities. Preventing School Failure, 61 (2): 116-125.
15. Lama A (2019) Difficulties in english language learning for students with dyslexia. SEEU Review, 14 (1): 196-206.
16. Tsesmeli S (2012) Morphological strategies in the spelling of children with learning difficulties. Modern Education: Quarterly Review of Educational Issues 0 (150): 150-162.
17. Vasarmidou D, Spantidakis II (2015) Teaching and learning the written word. Gutenberg.
18. Tzouriadou M (2008) Curriculum adaptations for students with learning disabilities. Ministry of National Education and Religions-Pedagogical Institute.
19. Tzivinikou S (2015) Learning difficulties - didactic interventions. [electric book] Athens: Association of Greek Academic Libraries.
20. Tzouriadou M (2011) Learning difficulties - issues of interpretation and coping, Thessaloniki: Supplier
21. Skidmore D (2004) Inclusion: The Dynamic of School Development. Buckingham: McGraw-Hill Education.
22. Luke S (2006) The power of strategy instruction. Evidence for Education, 1 (1). National Dissemination Center for Children with Disabilities (NICHCY); Academy for Educational Development.