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# **Cognitive Difficulties in Writing. Early Educational Intervention**

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**Abstract** – In recent years, the social needs and the scientific discoveries have set as priority both the importance of the early years of human life and the early diagnosis and intervention for inclusive education. In this paper, we will deal with the presentation of a student profile with cognitive difficulties in writing as well as practical early support and early intervention capabilities in general school. Through the psycho-pedagogical diagnostic tool for special education and training, Athena Learning Difficulty Diagnostic Test, the cognitive difficulties of the student were attributed to learning deficits and not to learning difficulties. In the educational intervention program, the expected pedagogical and learning achievements were set with references to the cognitive structures of the student. The didactic scenarios served learning and social goals. The student reviewed his role in the classroom, redefined his relationship with the lessons and developed better communication and collaboration with his classmates. The purpose of this paper is to demonstrate that timely supportive intervention and the provision of special/ inclusive education and training are not selective activities, but another very important source of help and contribution to the child and to the society. They can ensure effective teaching, quality of life and social outlook for children with special educational needs, both in the family and school community but also more widely in society.

**Keywords** – Cognitive Difficulties, Writing, Early Educational Intervention, Learning and Social Goals.

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## **I. THEORETICAL FRAMEWORK**

The last years, the social needs and the scientific discoveries have set as priority the importance of the first years of human life as well as the early diagnosis and intervention. Subsequently, the educational and social politics followed as well as the relevant care for health and education for people with special needs. In particular, the early prime intervention as systematic education is an integral part of Special Training and Education and accession philosophy and it is used to describe the support and guidance process, as well as external interventions to the child and his/her surroundings, such as the enrichment of psychomotor skills, general education, the enhancement of physical skills and the remediation of deficiencies as well as the advisory framework at the behavioral psychosocial and psycho-pedagogic level (Tsichlakis & Kourkoutas, 2012).

In more detail, valid and timely diagnosis and supportive intervention may lead to spectacular results in the special training and education; and this is due to what is a critical developmental phase with a distinctive feature of the plasticity of the brain (Shonkoff & Meisels, 2000).

With early detection and supportive intervention, we aim to prevent secondary disruptions and deficiencies, the creation of favorable conditions of development in the critical stages of the child especially, in support of the family (Kourkoutas & Caldin, 2012), in the attempt to integrate the child into the family, kindergarten, school, so that the transition is smooth and there will be no room for social isolation and school marginalization.

More specifically, with regard to the group of children with special needs, there are two types of population: (a) those of children who are at risk for school sub-achievement and failure and (b) those of children with recognized deficiencies. These two subgroups, which constitute the framework of special education and

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training, although clearly indicating differentiation, have common points regarding the evaluation and practices of intervention. It is worth noticing that the risk refers to: (a) environmental-social factors that threaten the mental and emotional development and (b) biological-inherent factors, which lead to developmental problems and deficiencies. Deficiencies relate to physical, emotional, mental and linguistic development and require early intervention and support strategies (Lerner et al., 2001).

According to Polichroni (2007), early detection and prevention, as well as valid intervention and early coping with learning difficulties within the school, is an issue that has been occupied over the last few years by all professionals who deal with learning difficulties that affect the cognitive, learning and secondary psychological and social sector. The identification of these difficulties and the design of pedagogical interventions through structured educational programs, with a key criterion of individualization in order to strengthen specific areas of cognitive development where weaknesses appear, e.g. phonological awareness, psychomotor maturity, etc., is the most effective treatment at a long-term level.

On the whole, the provision of early detection, support and early intervention services to children with special needs is based on the principle of *differential diagnosis* and problem solving, which requires interdisciplinary contact and collaboration between specialists and professionals, and the principle of the importance of the role of the family in the prevention and reduction of special educational needs and / or disabilities (Tsimpidaki, 2007). At the same time, fundamental factors in effective intervention are the *individual's diagnostic assessment* of the child and *his / her family history*. Specialists can play a decisive role through a wide range of professional practice experiences, approaching the disturbances under the visual angles of education, psychology, psychotherapy, social, medical, school nursing but also other scientists (Varma, 1997).

From this core relationship and inter-disciplinary meeting of scientists, education is called upon to play a decisive role in shaping cultural upheavals in the 21st century globalized society. It is the training of educators, education functionaries and health professionals that will greatly shape the profile of the modern citizen, the active citizen, by focusing on pedagogical and social interaction, which develops within the different teaching and learning contexts in an advisory way (Malikiosi-Loizou, 2001).

## **II. AN EDUCATIONAL EXAMPLE: STUDENT WITH COGNITIVE DIFFICULTIES IN WRITING**

This paper will present a student with cognitive difficulties in writing, as well as the suggested educational intervention, as an example of early support intervention and pupil's inclusion training. In general, the difficulties in the writing are related to the understanding and to the production of the written word or even to the combination of them. It distorts the student's performance, communication and expression in every text that they are called upon to understand, decode or produce (Vlachou & Patsioudi, 2015).

### *1. Student profile with Cognitive difficulties in Writing*

Andrew is a student of fourth grade of primary school with normal intelligence and a satisfactory level of cognitive and perceptual processes. In the psychomotor sector, he is at a good level with regard to fine and gentle mobility. He does not face visual difficulties and his visual and audio coordination is quite good.

However, he faces intense cognitive difficulties at the level of writing and rendering of meanings. He has a simple vocabulary and his reading is quite colorless for his age. Sometimes he is also scribbler on his notebooks.

His understanding is modest and his reasoning is not sufficient at the written level and the meanings he expresses in his texts are often confused with time inconsistencies.

Overall, he is an obedient and cooperative child with friendly relations with his peers. However, the cognitive difficulties that presents affect negatively his self-image. He is easily discouraged and his self-esteem and self-confidence are diminished during his social gatherings.

## *2. Pedagogical Assessment and Teaching Options*

Through the psycho-pedagogical tool Athena Learning Difficulty Diagnostic Test, the cognitive difficulties of the student in writing were attributed to learning deficits and not to learning difficulties.

The element of this distinction was important in setting up a program of early intervention and cognition of Andreas' cognitive difficulties.

This program would start with enhancement and enrichment of the student's linguistic abilities and skills with further development of activities at a personalized level.

In addition, the collaborative method ensured a climate of cohesiveness and cooperation of all pupils in the classroom, ensuring conditions of positive and successful pupils' response to the learning process (Matsangouras, 2000).

Therefore, the expected pedagogical and learning achievements were set out from the starting point of the student's cognitive structures.

In this direction, the "Text for All" [easy-to-read] method was adopted, where the layout of the text is as important as the content. The layout should be clear and easier to understand. Wide margins and long intervals make the text more accessible. The text should be in pieces with a specific number of rows per page. Every suggestion should stop where we would reasonably pause if we use it orally. The cover should make a hint of the content and not be abstract (Arabatzi, 2009). This method was chosen because it considers it very important to visualize the information and to interconnect with the written text, emphasizing the use of the appropriate images as structural elements of the text (Tzivinikou, 2015).

### **III. EARLY INTERVENTION EDUCATIONAL EXAMPLE**

Next, we will refer to learning goals and teaching activities as part of an early intervention and response program. Based on the cognitive subjects/ lessons, the principles of the "Text for All" [easy-to-read] method were used, such as the use of simple but appropriate vocabulary, the explanation of terms and the avoidance of symbolic vocabulary, the logical order of what is mentioned and the small sentences, the attractive illustration and large margins in the formulation of texts, the use of active syntax where possible and the provision of instructions (Tzivinikou, 2015, p. 112).

#### *1. Learning objectives and teaching scenarios*

The learning objectives were materialized through teaching scenarios, is designing activities and processing modules in cognitive subjects of the curriculum, as follows (Xanthi, 2007).

➤ *Selecting modules for the Language subject:*

- The student recognizes word concepts and learns to use them correctly in the text.
- The student learns to combine the meaning of the word with its use.
- The pupil is exercised in writing e.g. letters on the line, clear words and phrases with correct spacing of words, correct use of punctuation, correct spelling of difficult and complex words, etc.
- *Selection of Teaching Modules in the subject of Grammar:*
  - The student learns to correctly distinguish all kinds of speech and knows enough grammatical structures e.g. adjectives, gradients of names (nouns and adjectives), verb convergences and verb tenses, etc.
- *Selection of Teaching Modules in the Subject of Syntax:*
  - The student learns to correctly distinguish the subject, the verb and the subject and their position in the sentence.
  - The student learns to study special cases of sentence structures, e.g. when the verb or the subject is omitted or understood.
- *Selection of Teaching Modules in the Subject of Literature:*
  - The student learns to synthesize summaries and attributes the basic meanings of a literary text, storytelling, etc.
- *Selection of Teaching Modules in the History Lesson:*
  - The student places the events in a time-space sequence, summarizes them and learns to draw conclusions.
  - The student outlines the personality of the heroes and describes the key points of historical events.
- *Selection of modules in the Mathematics subject:*
  - The student learns to make assumptions about problems and to check the accuracy of his case.
- *Selection of modules in the Environmental Study subject:*
  - The student learns to describe natural phenomena, interpret results and lead to a conclusion.
- *Choice of modules in the Course of new Technologies:*
  - The student learns to distinguish different types of files e.g. image, text, sound.
  - The student learns to understand the value of using different types of files.
  - The student learns to research information through the use of the PC.
- *Selection of Teaching modules in the Arts Course:*
  - The student learns to distinguish elegant shapes and create artistic constructions.
  - The student learns to express himself with aesthetics and to imprint it on his notebooks.

## 2. Pedagogical and Teaching Notes

The didactic approach focused on the student's erroneous perceptions, learning gaps and difficulties, for example, difficulty in understanding concepts related to correct use of these words, difficult formulation of simple and complex sentences, difficulty in writing, in production and reconstruction of proposals etc.

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Therefore, the didactic scenarios were connected by directing the student gradually from the simplest to the more complex in all the cognitive subjects, e.g. from the concept-word to the structure of the sentence and the production of text, from the hypothesis to the control of its correctness and the conclusion, from the description to the interpretation, and after concluding judgments, etc. (Xanthi, 2007).

#### **IV. CONCLUSIONS**

In conclusion, the didactic scenarios served beyond the learning and social objectives. Thus, the student developed linguistic skills and competences, learned to make comparisons, formulate rules, discover hidden associations, express themselves, discover knowledge, and draw conclusive thoughts. The student reviewed his role within the classroom, redefined his relationship with the lessons and developed better communication and collaboration with his classmates.

Early support and early intervention is increasingly taking place both within the school community and its necessity helps to reduce negative conditions and influences, thereby accelerating the child's cognitive and social development. In addition, early detection and intervention programs reduce family stress, hamper the creation of secondary problems and work inhibitory in marginalization situations, thus giving economic benefits to society (Lerner et al., 2001).

On the other hand, different types and paces of learning can ensure quality in training, learning and education, through right teaching strategies and techniques, fostering relationships of pedagogical support, educational empowerment, companionship and solidarity within the school community. It is characteristic that the principles of effective implementation practice in early detection and early intervention level consist of co-operation and mutual appreciation of parents and professionals, as well as effective assessment of child and family-centered services (Carpenter, 2001; Brooks-Gunn et al., 2000).

Also, the rational approach to training, education and social inclusion issues requires today the development of social networks, health services and information agencies in order to intervene promptly to develop favorable conditions for support and development for all children and families without discrimination (Dunst, 1985). Therefore, the lack of timely supportive intervention and non-optimal treatment practices are the main operational drivers of social dependence, isolation and marginalization of disabled people (Kypriotakis, 2000), a fact which reinforces factors of social discouragement and isolation. For the above reasons, school and first childhood play an important role in Special Training and Inclusive Education. At the same time, parent counseling and their involvement in any pedagogical treatment process plays a central role and is conducted on the basis of objective information. The school offers natural ways of communication and social interaction, as well as incentives for social learning. Thus, difference and diversity becomes an element of "regularity" in a multiform society (Kypriotakis, 2004).

In this respect, timely supportive intervention and the provision of special education and inclusive education at primary school are not selective activities but a very important source of help and contribution to the child and to society. They can ensure quality of life for the disabled child, the family, to the wider society.

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