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A New Age in Teaching and Learning: Imparting Learning Strategies to Battle Implications of Dyslexia and ADHD

Abstract

The Learning Strategies Course (LSC) is a new and unique intervention program while working with students with LD (learning disabilities) and ADHD (Attention Deficit Hyperactive Disorder). It was designed to improve their academic and general functioning. The program was developed by the researcher due to growing need for finding a solution to the objective difficulties of students with learning disabilities in the education system.

The background and the program principles will be presented in this article.

Key words: Cognitive Modification, Mediated Learning Experience, Zone of Proximal Development, Learning Strategies Course.

Introduction

Living in a modern and advanced society requires a shift from manufacturing to emphasizing information and knowledge. In addition, it creates a new direction of social relationships due to increased use of new digital technologies especially among young people (Buckingham & Willett, 2006). This creates re-conceptions of key skills needed at everyday lives for people in our society.

The educational system is the social mechanism that creates those changes, yet the system proceeds slowly and maintains its conservative performances. Researches show that students with L.D. and ADHD may be at high risk of underachievement during school years and beyond (Klein & Mannuzza, 2000; Rief, 2005). The students may develop low self-esteem and frustration as a result of academic underachievement, failures and social isolation which can continue into adulthood. These effects can harden their integration into modern society.

Living In a Modern Society

One of the main characteristics of our modern life is the rapid changes that confront a person with intensive need of adjustment through learning (Feuerstein, 2010). Knowledge itself is growing ever more specialized and expanding exponentially. According to Binkley "success lies in being able to communicate, share, and use information to solve complex problems, in being able to adapt and innovate in response to new demands and changing

circumstances, in being able to marshal and expand the power of technology to create new knowledge and expand human capacity and productivity" (Binkley, et al., 2010, P.1).

From a different perspective, Bronfenbrenner (1977, 1979, 1980, 2005) emphasizes the important role of development reflects the influence of environmental systems. The most relevant layers to our discussion are the macrosystem and the microsystem. The macrosystem includes cultural values, norms, customs, laws, attitudes and ideologies of the culture in which the child lives in (Berk, 2000). In our society, the macrosystem reflects values like importance of education, achievements and self-fulfillment. The microsystem refers to the most immediate environment the child lives in, including the family, school, neighborhood, peers and the interactions that are developed within this environment (Bronfenbrenner, 1997). This leads to the very important role of the teachers and the educational system.

Johnson and Pupilampu (2008) added the techno-subsystem as a dimension of the microsystem. They claimed that children are exposed to living and nonliving elements of communication (peers and hardware), and to information and recreation technologies in their direct environments. According to a national research project made in Canada (2003, 2005), school children reported that 94% of them access the Internet from home. It takes them one third of their time. Johnson and Pupilampu (2008) also claimed that developmental consequences of Internet use during childhood may be both positive and negative.

The Educational System – Facts and Role in Modern Time

Feuerstein (2010) claims that belief in one's students and in oneself as capable to make the needed changes has a critical place in the teacher's work. The common assumption among many of the teachers in Israel is that the student's difficulties are fixed and unchangeable. Therefore it is impossible to change their cognitive structure and learning ability. Those teachers do not consider their everyday work with the students as a critical factor in the child cognitive and behavioral development. As a result, they conceive their job as "knowledge agents". Their teaching is mainly based on facilitate the learning materials towards the student instead of promote the struggling student towards his peers (Feuerstein, 2001).

In contrast to this attitude, Feuerstein claims that any student should be equipped with a thinking ability. For that purpose, Feuerstein (2008) has developed a special kind of interaction strategy in learning situations: Mediated Learning Experience – MLE. It deals with the source for the cognitive impairment and strongly emphasizes the role of the mediator in learning; to select and organize the stimuli for the child. There are twelve key criteria for MLE each of them provides a different approach of interacting with the learner (Feuerstein, 1980, 1991; Mentis, et al., 2008; Vigoya, 2005). Feuerstein's view lightens the role of the educational system in modern society. New standards for what students should be able to do must replace the basic skills that were taught in the past.

Binkley et al. (2010) working with the research group, Assessment and Teaching of 21st Century Skills (ATC21S) introduces 21st century learning through a model that includes 10 skills grouped into 4 categories, as follows:

Ways of Thinking

Creativity and innovation

Critical thinking, problem solving, decision making

Learning to learn, Metacognition (knowledge about metacognitive processes)

Ways of Working

Communication

Collaboration (teamwork)

Tools for Working

Information literacy

Information and communication Technology literacy

Living in the World

Citizenship – local and global

Life and career

Personal & social responsibility, including cultural awareness and competence.

Cognitive Modifiability

Feuerstein considered cognition as the most important component in the development of the human being. He believes that all students are modifiable creatures; capable of acquiring new cognitive structures which open new areas that were not previously included in their knowledge and abilities (Feuerstein, 2010).

Vygotsky (1962) developed the term “zone of proximal development” (ZPD); the distance between the actual development level and the level of potential development. The key to proceed in the ZPD requires adult guidance in collaboration with peers and emphasizes creating meaning and not teaching specific skills (Vygotsky, 1986).

Both Vygotsky and Feuerstein considered learning as a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment

and with his peers. Learning is advancing from “Spontaneous” to “Scientific” concepts (Vygotsky, 1962). From those that derive directly from experience to the one that derive from systematic learning and accumulated knowledge. Those concepts are the equivalent to Feuerstein's two modalities of learning: a direct and a mediated approach. The mediated learning ensures the effective learning. Vygotsky's principles of the ZPD reflect the same approach as Feuerstein's twelve criteria's for the MLE.

Both researchers were not interested in the current abilities of the students but in their ability to proceed, in “how” instead of “what”. They emphasized the major role of the teacher in class as a guide- teacher and not an authoritative teacher.

The Learning Strategies Course – LSC

The LSC was developed by the researcher for about 10 years till it comes to its final model. It was first designed in order to give an appropriate solution to high school students with L.D. and ADHD that in spite of good behavior in class, high I.Q. and motivation they were under achievers. The atmosphere and attitude in school towards those students motivated the researcher to develop a different approach among educators. The essence of the LSC is the integration of knowledge and skills under the supervision of the teacher as a mediator who creates the proper learning environment for the students. The goal of this course is to transform those students from underachievers to self and efficient learners by providing tools to handle successfully any academic tasks by themselves.

The LSC is a metacognitive process about learning; “learning how to learn”. It deals with variety of issues beginning with understanding what is learning, what is efficient learning, organizational skills, reading comprehension and improving written and oral expression skills. The researcher believes in the students' ability to make the cognitive changes even if they are teenager with L.D that already have gap in knowledge and are very much frustrated due to objective difficulties and low performances. The teacher is fully intentioned to transcend the recipient's needs or concerns. The students from their side are opened to the mediator's input and demonstrate cooperation by being involved in the learning process.

The LSC is designed as 3-4 months intervention program within a small group of junior high, high school and university students. All the work is done on the regular learning materials of class. The three primary elements of the workshop are: student activity, group discourses and self-monitoring procedures.

Summary

The LSC is an original applicable model based on Vygotsky and Feuerstein's theories that were adjusted to the 21st century's needed skills. Following Vygotsky, the LSC is the tool that enables LD / ADHD learners who are unable to learn on their own, but can continue to learn when guided. Following

Feuerstein, the LSC enables the students to label, compare, categorize, and give meaning to a present experience as it relates to prior and future ones as a result of mediating teaching.

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