

Summaries

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Syndrome of Nonverbal Learning Disabilities

The aim of the present study is to address the syndrome of nonverbal learning disabilities (NVLD). According to the literature, individuals diagnosed as having NVLD present difficulties that primarily affect the individual's visuo-spatial functioning. The study is an attempt to define the syndrome in children and outline its symptoms in terms of academic, social and emotional functioning. Although the etiology is yet unclear, NVLD's symptoms are assumed to be pervasive and associated with the right hemisphere. Such right hemisphere deficits lead to secondary difficulties in mathematics, social skills and emotional disturbances. Furthermore, NVLD syndrome is similar to other developmental disorders (Asperger's syndrome, Gerstmann's syndrome, etc), which involve right hemisphere dysfunction. Such disorders are discussed in the paper. Finally, this article offers a number of intervention strategies which will help psychologists, educators and parents to deal with difficulties that a child with NVLD exhibits.

G. Flouris – M. Ibrinteli

Multiple intelligences and the social studies curricula of Greece and England: The cases of 1982-2005 and 1990-2005 reforms respectively

The theory of Multiple Intelligences (M.I.) was inaugurated in 1983 by Howard Gardner who supports the position that intelligence is not of a single type-as measured by the I.Q.- but it is comprised of at least eight relatively different capabilities. Thus, it is of utmost importance that school activities lead to all types of intelligences in order to suit better the needs of all students and not those who possess the advantage of having fluency in linguistic and logical-mathematical types of school subjects and activities, which seem to dominate all school subjects. Based on the above conceptualization, we conducted a content analysis in the social studies curriculum objectives of Greece (1982-2005) and England (1990-2005) in order to

ascertain how intelligent is the social studies curriculum in the above subjects in both countries and what varieties of intelligences are reflected in them. The results revealed that the array of MI, in both countries, is limited, with the exception of logical-mathematical and interpersonal intelligences. It is recommended that a multiplicity of intelligences ought to be cultivated in all school subjects through the multiple representation of content.

F. Vlachos – G. Andreou

Brain asymmetry and education

This study attempts to review and comparatively evaluate the neurobiological findings concerning the localization of brain functions and the specific allocation of these functions in the two cerebral hemispheres. Our aim is to try to give an answer to the questions that are raised particularly by those who deal with the consequences of brain research in everyday life and education, in the light of constantly increasing knowledge and information on the subject of brain asymmetry. The study concludes with the assertion that the brain is a highly integrated system and its parts rarely work separately. Consequently, most activities require collaboration of both the cerebral hemispheres and the assertion that each subject is characterized either by a holistic-intuitive way of thinking -in which only the left hemisphere is involved- or by an analytical-logical approach of problem solving -in which only the right hemisphere is involved- is considered a simplified one.

K. Dossa – K. Lamnias

Pupils' orientations to Meanings

This paper attempts to analyze the orientation to meanings as structural component of the concept of code. In particular, it is intended to show the importance of the initial contextualization of childrens' experiences, within their families, and the roles of distinct types of family organization, according to Bernstein's theory, for the creation of elaborated or districted orientation to meanings. Out of this analysis it becomes clear that in the theory of codes, there is a movement from linguistic indicators to their semantic.

Finally, the study points out that the primary contribution of elaborated or districted orientation derives from and legitimated by the social division of labor and it is transmitted to the family, which is in fact the “place” where the distinct orientation to meanings is constructed.

E. Andreou

The neuropsychology of school victimization: Research findings concerning effects of victimization experience of brain development

The main forms that victimization in school can take concern physical attacks, verbal violence and psychological – emotional abuse. These behaviors are directed on a regular basis by the most powerful children to the powerless and are based on intention to cause physical and mental pain to the victim.

This study examines the adverse consequences of school victimization and the role that victimization experience plays in brain development, as well as issues that concern the neuropsychological research regarding school victimization. Taking into account that the development of the brain depends to a great degree on experience, ways of utilizing the neuropsychological research regarding school victimization are examined and directive lines of intervention are suggested with the purpose of tackling the adverse consequences of victimization experience on cognitive abilities as well as the children’s whole functioning.

P. Misailidi – D. Papoudi

Expression, perception and understanding of emotions in autism: Psychological and neurobiological findings

The aim of this paper is to review studies investigating emotional development in autism. The paper is organized in three parts. First, studies are reviewed suggesting that autistic children have profound difficulty in the ability to express emotions and to perceive the emotional expressions in the faces of others. Next, studies are discussed which show that autistic children compared to typically developing children have difficulties in the

expression and understanding of "complex" emotions (shame, guilt, embarrassment, etc). Finally, studies are presented supporting a connection between the emotional deficit and structural and functional abnormalities of the amygdala in the autistic brain.

V. Zampethanis

A neuropsychological approach of a specific disorder in mathematical reasoning

The occurrence of skills and learning difficulties related to mathematics has been studied early last century. Both children and adults encounter learning difficulties in mathematics, as pointed out in studies and research. The conclusions of cognitive psychology and neuropsychology contribute to the accurate identification of the problem of learning difficulties in mathematics. Drawing an effective remedy project and thus finding solutions to the problem under the best conditions can be easier by clearly understanding the problem.

A. Kalaitzaki

The Relating Theory: Clinical and therapeutic applications

The Relating Theory, the questionnaires that derive from it and their implementation in clinical practice (with case studies, couples and families suffering from various mental disorders) are introduced. The Relating Theory proposes that a person both relates to and is related to by others, either positively or negatively. The Relating therapy aims at replacing negative relating with positive relating and also fortifying the person to cope effectively with the negative relating of others. Couple therapy and family therapy aim at correcting negative interrelating between pairs. The instruments for measuring a person's negative relating, a couple and a family's negative interrelating, in conjunction with the therapist's clinical evaluation, are very useful in psychotherapy, for the understanding and assessment of a person, a couple and a family's predominant areas of relating difficulties, correspondingly.

M. Kotitsa*The use of Virtual Reality technologies
in neuropsychological studies*

This paper reviews studies that demonstrate the utility of Virtual Reality (VR) in psychology. It starts with an outline of the types of VR technologies and related issues, followed by a description of a number of VR tests developed for assessment and rehabilitation purposes. It then emphasizes one of the main assets of VR simulated environments, namely that they may feature high ecological validity without sacrificing experimental control and, in this way, VR may improve the ecological validity of neuropsychological investigations that look, in particular, at executive functioning. It is precisely within this context that recent work is reviewed: a set of computer-based tasks that allow carefully controlled, simulated environments, and where participants (a group of patient with frontal lobe lesions and a control group) are faced with 'real world' situations. The results show marked group differences; importantly concerning the extent to which non-VR assessment may indicate a sparing of executive abilities, it can be assumed that VR is more sensitive in identifying executive deficits in these patients. It appears that there is great scope in psychology for validating VR tests as clinical and research tools.

Fr. Gaillard – A. Karapetsas*Bridging Neuropsychology and Education*

This chapter is divided into three parts. In the first chapter, it is made an attempt to clarify and analyse the relationships between brain's development and learning by examining notions that facilitate this relation such as the notion of function, of functional systems and of instrumental functions. Take for granted the fact that learning boosts brain organization, the second part examines the variables that play a crucial role and have an influence not only on learning but on cerebral development, too. The third part offers an experimental exercise regarding writing. Signature appears as a simple procedure and can be used as a great predictor of prewriting development. It is greatly contingent on age and (pre)school experience and can be used as a vital tool for evaluating learning disabled children who face writing difficulties.

G. Galantomos*The neural dimension of metaphor*

The goal of this paper is to examine the neural aspect of metaphor. The neural theory of language stems from the cognitive linguistic research and is an effort to comprehend the way neural circuits affect and shape human language and thought. Metaphor within the framework of many approaches was seen as a deviant means of language meaning or a figure of speech assigned to rhetorical and aesthetical purposes. Contrary to these well established beliefs, cognitive linguistic view points at the ubiquity of metaphor in ordinary speech and furthermore suggests, through experimental findings, the embodied nature of many abstract concepts. That is, the choice to speak in metaphorical terms is inevitable since it is based on neural connections in different cerebral areas of the brain arising naturally from the interaction of people with their bodies.