‘Specialization in ICTs and Special Education: Psychopedagogy of Integration’
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THE ETIOLOGY OF DYSCALCULIA AND THE DESCRIPTION OF ICT TOOLS FOR THE DIAGNOSIS AND TREATMENT

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ABSTRACT

Dyscalculia is a special learning difficulty that affects a child's ability to understand numerical meanings and perform mathematical calculations. Despite its high incidence, research related to it is little and its justification is still uncertain. For this reason, the present research was initially aimed at exploring the potential factors that favor the development of Dyscalculia. In particular, the neuropsychological and genetic basis of Dyscalculia is studied, cognitive deficits such as attention, memory and visual-spatial ability as well as anxiety about mathematics.

In recent years, significant progress has been made in the use of ICT (Information and Communication Technologies) in the education of pupils with learning disabilities. In the present research, some important studies have been selected to highlight the importance of the use of ICTs, with particular reference to specific web applications, mobile applications and computer applications, both for the diagnosis and for the intervention of students with Dyscalculia. The results of the studies have revealed that the use of ICTs has a significant impact on the development of mathematical learning and works as a valuable aid tool in the educational process of children with Dyscalculia.

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ΙΣΤΟΣΕΛΙΔΕΣ

Δείγματα γραπτών από μαθητές με δυσαριθμησία. Ανακτήθηκε στις 20.04.2019 από https://www.cognifit.com/pathology/dyscalculia

Παράδειγμα του numerical Stroop task. Ανακτήθηκε στις 20.04.2019 από https://www.slideserve.com/adeola/where-does-mathematics-come-from

Η απεικόνιση της νοητής αριθμογραμμής δείχνει γιατί ο εγκέφαλος αποφασίζει ότι το 10 είναι μεγαλύτερο από 1 γρηγορότερα από ότι μπορεί να αποφασίσει ότι το 80 είναι μεγαλύτερο από 70. Ανακτήθηκε στις 20.04.2019 από https://www.globalpartnership.org/blog/why-do-children-need-strong-mental-number-line

Αποτελέσματα του τεστ Dyscalc. Ανακτήθηκε στις 20.04.2019 από http://app.educational-psychologist.co.uk/screening/dyscalculic/