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του Τμήματος Ελληνικής Φιλολογίας του Δημοκριτείου Πανεπιστημίου Θράκης
σε συνεργασία με το
ΕΚΕΦΕ Δημόκριτος – Ινστιτούτο Πληροφορικής και Τηλεπικοινωνιών
με τίτλο: «Εξειδίκευση στις Τ.Π.Ε. και Ειδική Αγωγή – Ψυχοπαιδαγωγική της ένταξης»

ΣΤΡΑΤΗΓΙΚΕΣ ΜΑΘΗΣΗΣ ΚΑΙ ΠΡΟΤΕΙΝΟΜΕΝΟ ΕΚΠΑΙΔΕΥΤΙΚΟ ΥΛΙΚΟ ΓΙΑ ΤΗ ΔΙΔΑΣΚΑΛΙΑ ΤΗΣ ΦΥΣΙΚΗΣ ΣΕ ΜΑΘΗΤΕΣ ΜΕ ΑΥΤΙΣΜΟ

LEARNING STRATEGIES AND SUGGESTED TEACHING MATERIALS FOR TEACHING PHYSICS TO STUDENTS WITH AUTISM

της

Ανεστοπούλου Χαρίκλειας

Μεταπτυχιακή διατριβή που υποβάλλεται
Στην τριμελή επιτροπή για την απόκτηση του μεταπτυχιακού τίτλου του
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Του Τ.Ε.Φ. – Δ.Π.Θ. σε συνεργασία με το Ε.Κ.Ε.Φ.Ε. Δημόκριτος – Ινστιτούτο Πληροφορικής και Τηλεπικοινωνιών
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ΠΕΡΙΛΗΨΗ

Οι μαθητές με ΔΑΦ πολλές φορές δυσκολεύονται με τις επιδόσεις τους στο σχολείο, καθώς ο παραδοσιακός τρόπος διδασκαλίας δεν είναι εποικοδομητικός για αυτούς. Ειδικά στα θετικά μαθήματα, όπως η Φυσική, η οποία περιλαμβάνει αφηρημένες έννοιες, η κατανόηση γίνεται ιδιαίτερα απαιτητική. Η εύρεση της κατάλληλης μεθόδου διδασκαλίας και αποτελεσματικών μέσων που θα οδηγήσουν σε εις βάθος κατανόηση και κατάκτηση των εννοιών της Φυσικής είναι επομένως πολύ σημαντική. Σύμφωνα με τα αποτελέσματα της βιβλιογραφικής ανασκόπησης, παρεμβάσεις που αξιοποιούν τη χρήση point-of-view video modelling, προσομοιώσεων, εικονικής και επαυξημένης πραγματικότητας και εκπαιδευτικών ρομπότ μπορούν να είναι ιδιαίτερα ευεργετικές στη διδασκαλία ατόμων με ΔΑΦ για μεγάλο εύρος δεξιοτήτων. Λαμβάνοντας υπόψη τις μεθόδους διδασκαλίας και τα παραπάνω εργαλεία, δομούνται διδακτικά σενάρια για ορισμένα κομβικά κεφάλαια της σχολικής Φυσικής. Τέλος, συζητούνται οι περιορισμοί της έρευνας και προτάσεις για μελλοντικές έρευνες.

Λέξεις κλειδιά: αυτισμός, φυσική, point-of-view video modelling, προσομοίωση, εικονική και επαυξημένη πραγματικότητα, ρομπότ

ABSTRACT

Students with ASD often struggle with their performance in school as the traditional way of teaching is not fruitful for them. Understanding becomes particularly challenging especially in sciences, like Physics, which deals with abstract notions. Therefore, it is crucial to find the appropriate teaching methods and effective ways that will lead to a substantial understanding and mastery of Physics. According to the results of the literature review, the interventions that make good use of point-of-view video modelling, simulations, virtual and augmented reality and educational robotics can be extremely beneficial in teaching a wide range of skills to individuals with ASD. Based on the teaching methods and the above educational tools, teaching scenarios are developed for some key chapters of school Physics. Lastly, research limitations and suggestions for future research are discussed.

Keywords: autism, physics, point-of-view video modelling, simulation, virtual and augmented reality, robotics

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