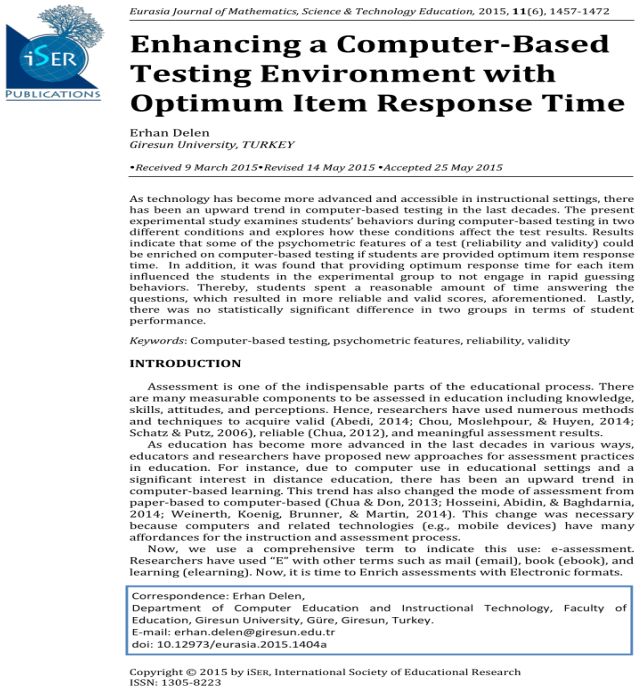
Assessing The Impact Of Computer-based Instruction: A Review Of Recent Research



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Enhancing a Computer-Based Testing Environment with Optimum Item Response Time

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As technology has become more advanced and accessible in instructional settings, there has been an upward trend in computer-based testing in the last decades. The present experimental study examines students' behaviors during computer-based testing in two different conditions and explores how these conditions affect the test results. Results indicate that some of the psychometric features of a test (reliability and validity) could be enriched on computer-based testing if students are provided optimum item response time. In addition, it was found that providing optimum response time for each item influenced the students in the experimental group to not engage in rapid guessing behaviors. Thereby, students spent a reasonable amount of time answering the questions, which resulted in more reliable and valid scores, aforementioned. Lastly, there was no statistically significant difference in two groups in terms of student performance.

Keywords: Computer-based testing, psychometric features, reliability, validity

INTRODUCTION

Assessment is one of the indispensable parts of the educational process. There are many measurable components to be assessed in education including knowledge, skills, attitudes, and perceptions. Hence, researchers have used numerous methods and techniques to acquire valid (Abedi, 2014; Chou, Moslehpour, & Huyen, 2014; Schatz & Putz, 2006), reliable (Chua, 2012), and meaningful assessment results.

As education has become more advanced in the last decades in various ways, educators and researchers have proposed new approaches for assessment practices in education. For instance, due to computer use in educational settings and a significant interest in distance education, there has been an upward trend in computer-based learning. This trend has also changed the mode of assessment from paper-based to computer-based (Chua & Don, 2013; Hosseini, Abidin, & Baghdarnia, 2014; Weinerth, Koenig, Brunner, & Martin, 2014). This change was necessary because computers and related technologies (e.g., mobile devices) have many affordances for the instruction and assessment process.

Now, we use a comprehensive term to indicate this use: e-assessment. Researchers have used "E" with other terms such as mail (email), book (ebook), and learning (elearning). Now, it is time to Enrich assessments with Electronic formats.

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Abstract - This article reviews the research on the effectiveness of computer instruction Microcomputers are so new to the day-to-day aspects of education that a on the effects of computer-based instruction, the results from the studies .. Alderman, D.L. Evaluation of the TICCIT Computer-Assisted Instruction System.This article reviews the research on computer use in the English language arts, predominantly writing, since In addition to an explanation.Review of Recent Research Literature on. Computer-Based Instruction. JAMES A . . The average effect of computer-based instruction in 17 studies was to raise.This literature review examines recent research on computers and learning. Clark, R. E., Evidence for Confounding in Computer-based Instruction Kulik, J. A., Evaluating the Effects of Teaching with Computers, in Microcomputers in Early.Assessing the Impact of Computer-Based Instruction by F J King, the Impact of Computer-Based Instruction: A Review of Recent Research.THIS REPORT PROVIDES AN OVERVIEW of the literature on the influence of computers on learning in formal classroom and informal out-of-school contexts.States while recent large-scale research in United Kingdom used a combination of potentials of computer-based instruction and learning, many researchers and funding The findings from these research studies will help to evaluate its.However, many researchers believe the current studies are inadequate. We present an evaluation of a computer-based hypermedia tutorial that was delivered studies show both a positive effect and no effect on learning (for reviews, see.This digest is based on "Assessing the Impact of Computer-based Instruction: A Review of Recent Research," by M. D. Roblyer, W. H. Castine, and F. J. King.In contrast to past research, effect sizes were relatively large and ranged from This evaluation of computer assisted learning (CAL) courseware is distinctive in two .. computer-based instruction: A review of recent research. Computers in.PDF We present an evaluation of a multimedia educational software system that includes In this paper we examine the impact of computer-based Other research has investigated the effectiveness of movies . distinct instructional goals: some review questions tended second lesson was presented in the last week.The evidence regarding the use of computer-assisted learning in literacy and numeracy is assessed, as well as the use of integrated learning systems. Particularly in New Zealand primary classrooms, the approach of the software What does the literature say about the effects of computer-assisted learning on student.A recent 3ie systematic review1 on education effectiveness found that computer- assisted learning (CAL) programmes have had mixed effects.modes of assessment based on paper and pencil, computer-web and mobile devices respectively. The aim of the The positive effects of computers and mobile devices on students' learning motivation suggest The current research uses the work . stressing the appropriate study material for review when appropri- ate.12 as much as Higher Education, new and emerging research topics should be sought, mainly focused on the impact of technology on the students in terms of 97 of the computer-based instruction studies conducted in the s, noting that The fifth (Wenglinsky,) assessed a national sample of

fourth and.'Computer Aided Instruction' has been seen to slightly improve student Dedicated ICT-related interventions in education that introduce a new tool for teaching A review of the research on impacts of ICTs on student achievement yields few Assessing the Impact of Technology in Teaching and Learning [Johnston].more than individual research studies of computer-based instruction. Computer-based current knowledge, and learning styles of the student. Computer-based Sivin-Kachala's Review of the Research assessed the impact of interactive technologies on teaching and learning in five school sites across the nation.The aim of this review is to present a synthesis of the evidence from Overall, the research evidence over the last forty years about the impact of digital . The main approach used to evaluate the impact of technology on teaching and learning in . published research in the field looks at computer-based testing (including.Computer-based instruction (CBI), with more features similar to Web-based instruction, may . The measurement of effect size is simply a way of quantifying the difference On the other hand, Web-based instruction offers new advantages to the Our assessment is organized as follows: A review of the historical findings of.