On Forming Key Competences within the ICT-supported Instruction in Higher Education

Abstract

The paper presents research results of the two-year pedagogical experiment comparing test scores in three subjects (Database Systems, Management, IT English) taught either in the ICT-supported way, or in the traditional face-to-face way at the Faculty of Informatics and Management, University of Hradec Kralove, Czech Republic. The main research objective was to find out whether ICT contribute to increasing learners' knowledge and consequently to forming key competences. Didactic tests as the main tool were used within the pedagogical experiment which followed the "pre-test – instruction – post-test – post-test2" structure. The research sample included 687 respondents. Obtained results proved there were no statistically significant differences in learners' knowledge in both approaches to instruction. The results were discussed from two important points of view: (1) teachers' and learners' ability to use the potential of ICT in teaching/learning and (2) the role of teaching/learning styles in the ICT-supported instruction.

Keywords: ICT, key competences, online courses, e-learning, learning styles, Database Systems, Management, IT English

Introduction

Modern information and communication technologies (ICT) have penetrated society, including the field of education. They have become its inseparable part, which brought crucial changes and produced substantial consequences. Social and political development in the Czech Republic in the last two decades has evoked