Chapter 15

Computer Skills and Prior Experience with E-Learning Courses as Factors that Affect Development of Intellectual Thinking Dispositions in Online Learning

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ABSTRACT

This chapter examines the effect of three preliminary factors among students who participate in online courses: previous knowledge and experience with computers, Internet skills, and accumulated experience from previous participation in online courses, on improvement of thought tendencies according to Perkins’, Jays’, and Tishmans’ tendency theory (1993, 1995). The study includes 285 bachelor and masters students from Bar Ilan University, who participated in asynchronic and synchronic courses broadcasted in the Fully Web system. The results of the study show that two out of the three examined variables presented statistical significance. The study shows that personal knowledge and previous computer experience and Internet skills affect most thought tendencies in various positive degrees. Nonetheless, the variable that relates to previous experience in online courses was not found to affect thought tendencies. The study’s conclusion shows that personal knowledge and previous computer experience and Internet skills contribute to the improvement of thinking tendencies, which include intellectual thinking patterns and are significant factors for the students’ success in a computerized environment.

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INTRODUCTION

Around two decades have passed since higher education institutions began incorporating the Internet as an alternative studying environment, together with frontal class teaching and learning. This kind of environment, in spite being examined from different angles, still poses meaningful challenges for students and teachers that take an active part in E-learning courses. Today it is quite clear that participating in online courses requires new technological, behavioral and thinking skills, in order to best handle and even successfully complete the course. Although technological skills are a must for taking part in an online course, a majority of students participating in these kinds of courses have arrived, thus far, without suitable prior computer experience or background, inter-networking skills, and Internet based studies skills.

This study focuses on the technological background of the student participating in the E-course in a higher education study structure. The goal of the research is to measure the scale of influence of all three early components which a student brings to the online remote course: personal knowledge and prior computer experience, Internet control skills and previously accumulated E-study experience – on the improvement of thinking dispositions as an informal significant yet valuable indicator for the success of the student in an academic establishment.

Accordingly, the study wishes to examine if links exist between:

1. Personal knowledge and prior computer experience and the improvement of thinking dispositions.
2. Internet control skills and the improvement of thinking dispositions.
3. Previous E-courses studying and the improvement of thinking dispositions.

BACKGROUND

From the accumulated experience of the past years, it appears that a lack of experience and un-familiarity with the Internet learning environment as a formal study structure, is posing, at least to begin with, technological and psychological difficulties for students that take part in online courses. Studies show that students and teachers alike don’t have sufficient command of study technologies and find it hard to put the Internet teaching tool to good use (Shemla & Nachmias, 2006). Insufficient acquaintance with the specific study material, insufficient familiarity with online Web tools, and especially the unorganized structure of content on the Web confuses the Internet user and makes it hard for him to reach his desired destination and information on the Web (Diaz, Aedo & Panetsos, 2001; Wiley & Schooler, 2000). Moreover, the lack of ability and minimal level of expertise in Internet based environments, gives the ‘E-student’ a negative experience. The “lost in cyberspace” phenomenon is described quite a lot in studies as a common phenomenon amongst Web studying students (Danielson, 2002; Otter & Johnson, 2000; Schoon & Cafolla, 2002).

Cappel and Hayen (Cappel & Hayen, 2004) argue that a student’s experience and knowledge in an Internet environment constitute a significant factor in online studying. Findings from their study show that a student with a computer background has a higher chance of success in an E-course and a higher chance of utilizing the advantages of the system than a student lacking such a background. In a similar way, Gordon’s study (2009), which examined the efficiency and contribution of studying with 2.0 Web tools on high school students, showed that one of the significant indicators for the change and improvement of studying was prior familiarity of the computer and Internet technology environment whilst efficiently using the tools within it.