Chapter 7

The Effect of Technology-Enhanced Classrooms in Middle School Education

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ABSTRACT

This study examined whether technology-enhanced classrooms enhanced students’ learning despite their various dominant intelligences and learning styles. For this purpose, a comprehensive investigation was used to verify whether and in what ways students benefit from technology-enhanced classrooms. As the research design, a cross-implementation experimental method was developed for the study by the researcher. Lesson plans and materials were prepared for English and mathematics subjects considering Gagne’s nine events of instruction and Bloom’s taxonomy. The Technology-enhanced Classroom Perception Scale and a standardized open-ended interview were prepared to examine the perceptions of both students and teachers. In the end, some interesting differences were found between the treatment and control groups, although they were not significant. One of the most important reasons for this might be the positive attitudes of English teachers in general but negative attitudes of mathematics teachers towards technology-enhanced classroom.

INTRODUCTION

In the new millennium, technology has become a sine qua non of our lives. Technology has two significant characteristics: It constantly develops and it influences all areas of life, including education. In line with these characteristics, those on the positive side of the digital divide have immediate access to the latest educational information, entertainment, social media, world news, and other types of technological advances. As such, the entire world is at these people’s fingertips. Yet, those who are on the negative side of the digital divide fall further behind, thus widening the gap further.
Technology is the most effective opportunity provider as far as education is concerned. While the developed world has access to the “information highway,” developing countries have limited and varying levels of access. Another significant issue is the countries’ attitudes towards “new” technology. Developed countries keep up with “new” technology naturally, whereas developing countries progress more slowly.

Although in North Cyprus the integration of “new” technology into people’s everyday lives is very fast, evidence shows that technology has not been widely adopted in the basic (national) education system due to the difficulties caused by bureaucracy (“KKTC’de Akıllı Telefon Kullanımı Yüzde 44’e Yükseldi”, 2015; “KKTC’de 2015 Yılı Sonu Itibarıyla Mobil Telefon Abonesi Rakamı Inanılmaz!”, 2016). In North Cyprus national education is based on a central system under the direction and supervision of the Ministry of National Education (MNE). It is governed by laws, and all educational organizations and schools are under the scrutiny of the Ministry.

In North Cyprus the education system is changing continuously in an effort to bring standards up to par with developed nations. The national education system was last examined in 2005 during the 4th National Education Council Meeting. The importance of technology integration was emphasized, and it was decided that major modifications would be required in order to meet the current and future needs of society.

This new system defines ideal learners as:

*Individuals who are well adapted to the information age, with a developed ability to think, understand, and solve problems, a profound sense of personal responsibility; who have acquired a variety of skills; who are attached to democratic values, open to change and to new ideas, deeply conscious of their own culture and able to interpret different cultures, capable of contributing contemporary civilization and to generate knowledge and technology; and can aptly use computer technology. (MNE Brochure, 2005, p. 6)*

The vision and mission of the new education system were carefully modernized; thus, the emphasis on learners increased thanks to the ever-growing importance of technology in the current era and the new generation’s exposure to it.

In order to realize a learning environment where all students in a classroom benefit from instruction and learn as much as possible, the various needs and expectations of students were considered. These were related to students’ learning styles, learning pace, background knowledge, learning experiences, levels of motivation, abilities to understand, ages, needs and interests, and socio-economic statuses.

In order to raise standards and implement innovations from education systems around the world, it is essential to employ various tools, such as learner-centered, cooperative, and constructivist learning approaches and to use technology in the classroom. It is also important to consider individual differences, encourage conceptual and real-life-based learning, and to help students become creative and skilled. In addition to these necessities, the real needs of society, what is expected in the future, and the place society aims to have in the world should all be taken into consideration to offer a better education to students. Teachers should be trained and supplied with the necessary skills, information, aids, and equipment needed to provide a better education.

Considering the facts mentioned above, students who are currently enrolled in the North Cyprus Basic Education System cannot get the utmost benefit from it. Therefore, this study examines whether technology-enhanced classrooms facilitate students’ learning despite their various dominant intelligences and learning styles. For this purpose, a very comprehensive investigation and inquiry is utilized to verify whether and in what ways students benefit from technology-enhanced classrooms.