

**EQUIPE PROJECT**  
Case Study

**Teaching about New technologies to Preschool teachers**

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**Abstract**

This study examines the use of computer-based technologies and new technologies of in-service preschool teachers as well as their educational needs and their expectations in the application of new technologies. The answers of a group of preschool teachers in Greece were analysed and it was found that most of the teachers did not have any access to computer based technologies during their undergraduate studies; so they are unable to use them in their classroom. Since teachers are learners they expect to attend more courses on new technologies and relevant themes in the future.

**Introduction**

Preschool teachers bring experience with children, knowledge of the limits imposed by the curriculum frameworks and flow of life in kindergartens. They also need to master a number of practices and to be aware of preschool technology experiences and their importance in subsequent school development. They also have to be adaptive learners.

One of the teacher's role is to gain access to the children's ideas about technology and to make the right decisions on how they can be developed. The main goal of education should be seen in the development of intellectual and creative abilities of students. Piaget (1929) worked on how children's ideas develop. Recent studies (Raper et al 1987, Reiss 1993) show that effective teaching and learning depend on childrens' existing ideas and subsequent good teaching. So, the way teachers accept and teach technology is very important to young children. New Technologies (NT) provide new opportunities to the teaching and learning process. Researchers (Clements 1994, Shade et al 1990) have shown the gains and the obstacles of the use of technology in education. It is noticeable, that they all agree that technology is a useful tool in the teaching process when it is not misused (Aubrey 1994, Campbell et al. 1992, Shayer et al 1981).

As preschool educators become active participants in a technological world, they need training and support to find ways to incorporate technology into their classrooms. So, education on NT to preschool teachers is an important factor of applying technology to children's classroom.

The aim of this study is to present our experiences of a NT course taught in a group of Preschool-(Early Childhood) Teachers in the University of Ioannina.

## **Materials and Method**

We asked 28 preschool teachers to attend a course on NT. All subjects were women aged between 25 and 40 years. They had all completed a two-year course in Preschool education. Only 7 of them worked as teachers in a kindergarten.

This course was a combination of lectures on computers and NT, self study periods either in the library or at home, Internet seminars and practice on NT in the University.

All subjects first attended some lectures concerning computer hardware, the development of software, the Internet and technology applications.

We encouraged free access to technology through libraries and computer centers.

We developed a plan for the use of technology in a preschool program and we gave them appropriate software programs.

The teaching techniques we used were based on new technologies in order to improve personal efficiency and their self-esteem. Moreover we encouraged teachers to establish an asynchronous communication between them for collaborative and life long learning.

## **Results and discussion**

All teachers found the course very interesting and worked on computers very hard. At the end of the course they learned how to write an essay on a computer and they became comfortable and confident in using computers.

The problem they had to face at the beginning of the course was that they were not familiar with computers and NT. For some of them it was their first time to learn how to use a computer. Another problem they had with computers was the linguistic one. Some teachers did not know English very well and others knew foreign languages other than English. So, they had to learn at least the basic English terminology we use for computers before using the Internet.

At the end of the course, technology proved for these teachers, as a tool for communication and collaboration amongst them and also a tool for teaching children. Telecommunications and the Internet enabled preschool teachers to obtain information about children in kindergartens from around the world and interacted with distant experts and peers.

They collaborated on classroom projects and they learned how to use computers and technology in the future. Pedagogical considerations behind the course have shown that teachers become confident using NT when they practice on them at least once or twice a week. So we can conclude that technology is a powerful tool for professional development.

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