

# TEACHERS' ATTITUDES TOWARDS UNETHICAL USE OF MOBILE TECHNOLOGIES IN HIGHER EDUCATION

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## Abstract

*The purpose of research is to explore the attitudes of university teachers towards the use of mobile technologies and to explore their perception of the ethical aspects related to the integration of new technologies. There was applied a questionnaire with closed-ended and open-ended questions. The results of this research highlight university teachers' positive attitudes towards the use of mobile technologies in higher education. These technologies become pedagogical tools in higher education with multiple valences on teacher professional learning.*

**Keywords:** *ethical aspects, mobile learning, university teachers.*

## Introduction

In the last twenty years the use of mobile technology (MT) has exploded, which led to a very strong subject of research for the academic world. Many researchers have focused efforts to study the impact of cell phones, smartphones, and tablets on educational processes at various educational levels. El-Hussein and Cronje (2010, p. 20) defined mobile learning as "any type of learning that takes place in learning environments and spaces that takes account of the mobility of technology, mobility of learners and mobility of learning". Statistics Survey (2018) argues that the mobile phone penetration is forecasted to continue to grow, rounding up to 67 percent by 2019. Despite this, there is a gap between the use of Mobile Technology at the private and professional levels. Gartner Personal Technologies Study (2014) shows that mobile device adoption in the workplace is not yet mature.

## Attitudes and Ethical Use of Mobile Technology

Previous studies have shown that although university teachers have been encouraged to implement information and communication technologies in daily activities, their attitudes about adopting new technologies are diverse (Kennedy et al., 2008; Gilroy, 2004). Some research shows arguments about resistance, scepticism and suboptimal utilization of MT (Blin & Munro, 2008; Dreher et al., 2011; Kirkup & Kirkwood, 2005; Pollara, 2011; Selwyn, 2007). If they are offered the opportunity, teachers even support the banning of mobile phones from being used in university classrooms (Gilroy, 2004). The main reasons for this position are that teachers perceive mobile devices as social

tools that can distract the students from educational tasks (Pollara, 2011). Other studies show evidence that teachers are already embracing this change (Bain & McNaught, 2006). Also, Al-Emran et al. (2016) achieved an exploratory study focused on the higher education students and educators from the perspective of potential acceptance of mobile devices in the educational environment. A conclusion of their study is that M-learning can be a promising pedagogical technology for higher education.

In Romania there are few pedagogical researches on the attitudes of teachers regarding mobile technologies. Strungă (2015) explored the relation between virtual learning communities in initial education process and the development of students' professional identity. Cojocnean (2016) investigated the attitudes of Romanian high school students towards learning vocabulary in second language acquisition with digital tools. In this study we intend to investigate the attitudes of higher education teachers towards the use of mobile technologies and to explore their perception of the ethical aspects of the integration of new technologies. In our research we have discussed both the use of mobile technology in support of students, and mobile learning for teacher professional learning.

The aim of research is the identification of the attitudes of university teachers towards the ethical aspects of the integration of mobile technologies in higher education. The research relies on several questions: a) What is the attitude of university professors towards the use of mobile technologies in educational activities?; b) Are there differences regarding teacher attitudes towards MT, also considering teacher gender and specialization?; c) What is the perception of teachers about the ethical issues raised by using MT? and d) What is the perception of teachers about the rules to be respected for the ethical use of new technologies?.

## Research Methodology

There was designed a quantitative study to measure teachers' attitudes towards unethical use of mobile technologies in higher education. The method of data collection is the questionnaire, due to the advantage of providing quantitative data in a short time and by a large number of participants. The concept of attitude towards the use of mobile technologies by teachers was operationalized in ten components corresponding to the ten items: useful and effective tool in education, opportunities for communication and collaboration among teachers, finding many resources related to work, more active operation of the course material by students, providing feedback to students, developing teaching abilities, work management, preparing courses for students, facilitating communication between students and teachers, the flexibility of the teacher's educational role.

### Sample

104 university teachers from five Romanian universities participated in the study. Depending on the independent variables, the lot is divided into different categories according to: gender (83 female and 21 male); specialization (52 with the specialization of Mathematics and 52 with the specialization of Pedagogy).

### Data analysis

All statistical analyses were conducted using the SPSS version 21.0 for Windows (IBM SPSS Statistics). Descriptive statistics have been used to measure teachers'

attitudes towards the 10 aspects of using mobile technologies in education. Following the One-Sample Kolmogorov-Smirnov Test, one finds that the distribution is not normal, as  $\text{Asymp. Sig. (2-tailed)} < .05$ . The Mann-Whitney  $U$  nonparametric test was performed for measuring the difference between participants referring to the attitude towards the use of mobile technologies.

## Research Results

Statistical averages indicate that the university professors have positive attitudes towards the use of mobile technologies in educational activities. In relation to gender, the values of the Mann-Whitney  $U$  test show that there are statistically significant gender differences at the level of the attitudes of teachers on nine aspects of the use of mobile technologies in education. Regarding specialization, the values of the Mann-Whitney  $U$  test (Table 4) indicate that there are significant differences in all aspects that concern teachers' attitudes toward using mobile technologies in education.

Based on the analysis of the frequency of teachers' answers to the *ethical issues* that determine the use of MT in education, it has emerged that the most frequent problems are as follows (Table 6): piracy of some software ( $n=32$ ), inequality in student access to mobile technologies ( $n=22$ ), retrieving information without reference to sources ( $n=21$ ) and plagiarism ( $n=20$ ).

## Conclusions and Implications

The results of this research are useful for knowing teachers' attitudes towards the use of mobile technologies in teaching and learning activities in universities, as well as for raising the awareness of the ethical aspects of their integration into education. Identifying teachers' attitudes determines the knowledge of the situation about the acceptability of these technologies in the academic environment. The main rules of the ethical use of mobile technologies in education indicated by university teachers are: correct indication of the sources of information, the use of educational sites only during teaching, respect for copyright, setting a strict time to use mobile technologies during classes and developing an ethics code on the use of mobile technologies in education. Determining teachers' attitudes of the ethical aspects of using mobile technology highlights the awareness of the positive and negative effects of their integration into the educational process in higher education.

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