

# GENDER DIFFERENCES IN BELIEFS AND PREFERENCES ABOUT DISTANCE LEARNING AMONG EDUCATORS: EVIDENCE FROM FOUR EUROPEAN COUNTRIES

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## Abstract

In the present study gender differences on beliefs, preferences and attitudes towards distance learning were evaluated among University Instructors. University instructors (N=257; Age: M=49.6, SD=10.1; Gender ratio M/F: 55/45%) from six collaborating Institutions (Aristotle University of Thessaloniki, University of Macedonia, University of Ioannina, Universitatea Lucian Blaga Din Sibiu, Università telematica Degli Studi, Univerzitet U Nisu) from four European countries completed a series of self-reported questionnaires evaluating beliefs, teaching styles and preferences about distance learning. Data was derived from the project "Optimizing Distance Learning Educational Programs; ODLEP). Both similarities and differences in beliefs and preferences were observed between male and female instructors. More specifically, both groups consider equally efficient distance learning as a method of education and prefer smaller number of students in distance education and online courses. On the other hand, more men than women prefer face to face educational methods over distance educational methods, although more male instructors report higher levels of computer expertise. These preliminary results indicate that gender differences may exist in how educators think about distance learning, and how they prefer to deliver knowledge and training. Given that distance learning is of interest to a significant proportion of academics and students, it is of critical importance to evaluate how gender associated factors may be related to successful distant learning experiences.

Keywords: gender differences, distance learning, teaching styles, teaching preference.

## 1 INTRODUCTION

Synchronous or asynchronous distance learning suggests an alternative educational method that has been used in different countries for many years. Distance education has gained popularity the last years, allowing students to attend and teachers to deliver lessons with limited or no physical presence at educational institutions. Unsurprisingly, the pandemic outbreak caused by the spread of the COVID-19, abruptly increased the need for e-Learning courses, which were implemented in educational institutions (i.e., schools, colleges, universities) of many countries as an attempt to continue educational activities under nationwide lock-down conditions [1]. In specific, embracement of online learning methods was observed in universities worldwide with a shift from on-site to off-site, online courses [2]. This transition was more difficult in developing countries, where limited internet access, inability of students and instructors to purchase necessary technological equipment, their low readiness and their insufficient technological competency were recognized as the most frequent and significant obstacles [3], [4]. However, despite the fact that academic institutions had very little time to organize and prepare their online teaching programs, distance learning methods were massively adopted overcoming the risk of discontinuing educational activities [5], [6].

Consequently, this rapid shift to remote education was followed by intense research interest and a number of resent studies were conducted to examine the role of different factors in distance learning methods. Among others, the efficacy of distance educational methods in comparison to face-to-face teaching and learning [7] [8], beliefs and attitudes of educators and learners towards distance education [6] [9] [10] [11] [12], satisfaction with online learning and teaching [13] [14] [15], and characteristics of teachers and learners, such as technological competency/training and personality [16] [17] [18]

[19].(Baruth, et al., 2023; Heine et al., 2023; Kasımoğlu, et al., 2022; Lajunen, et al., 2023) have been investigated. Moreover, research evidence highlight the need of developing more personalized distance learning programs based on the characteristics of instructors and students, such as their preferences, technological skills and other personal characteristics [4].

Teacher characteristics play an important role in online educational procedure [20]. With respect to instructor's gender, previous studies reported its effect on readiness for online teaching (e.g., self-efficacy, perceptions for support provided by the institution) [21] [22], as well as on expectations for and experiences form online teaching [23]. However, evidence from previous studies examining gender differences are inconclusive [23], suggesting that the observed differences between men and women instructors in different readiness constructs may vary [22]. Moreover, although some researchers reported significant differences between men and women instructors in multiple distance learning constructs (e.g., self-efficacy in using technology in teaching, digital competence, attitudes for institutional support, level of confidence) [14] [24] [25] [26], others found no gender differences [27] [28] [29] 2023).In addition, research findings indicate that gender is an important dimension which is associated to professional development, learning and support [22]. Thus, in order to optimize the instructors' distance educational experience, as well as their efficacy, it is necessary to delineate the relationships among instructors' gender, beliefs and preferences towards distance education. Consequently, the aim of the present study was to explore gender differences in beliefs, preferences and attitudes towards distance learning in a group of University Instructors.

## 2 METHODOLOGY

### 2.1 Participants

University instructors (N=257; Age: M=49.6, SD=10.1; Gender ratio M/F: 55/45%) from six collaborating Institutions (Aristotle University of Thessaloniki, University of Macedonia, University of Ioannina, Universitatea Lucian Blaga Din Sibiu, Universita telematica Degli Studi, Univerzitet U Nisu) from four European countries participated in the present study.

### 2.2 Instruments

Participants completed a short questionnaire evaluating beliefs, preferences and technological competency. In specific, participants rated their responses on two questions on a five-point Likert scale (Q2: *What is your level of computer expertise* and Q3: *How efficient do you consider distance learning as a method of education*), whereas three questions required Yes/No answers (Q1: *Are you certified for distance education programs*, Q4: *Do you prefer face to face educational methods or distance education* and Q5: *In distance education and online courses do you prefer larger over smaller number of student groups / more or less than 30 students*). This questionnaire was part of a well-designed structured questionnaire survey, which included different parts, recording specific information related to distant education (i.e., demographics, teaching styles, beliefs, preferences, personality). The questionnaire was implemented on the google forms and lime platforms. Data was derived from the project "Optimizing Distance Learning Educational Programs" (ODLEP).

### 2.3 Data Analysis

Gender differences were explored via Mann Whitney U-test analyses for questions Q2 and Q3. Chi-square analyses were applied in order to examine associations between instructors' gender and their answers on questions Q1, Q4 and Q5. The SPSS software (version 25), was used in order to conduct the statistical analyses.

## 3 RESULTS

Significant differences in computer competency were observed between groups, with male instructors reporting higher levels of expertise than female instructors ( $U = 5712$ ,  $p = .005$ ). On the other hand, female and male instructors consider equally efficient distance learning as a method ( $U = 6998.5$ ,  $p = .526$ ) (Table 1).

Table 1. Differences between male and female instructors in computer expertise and on their beliefs for the efficacy of distance educational method.

Variable	Female			Male		
	Median	Range	Min-Max	Median	Range	Min-Max
<b>Efficacy of distance education</b>	3	4	1-5	3	4	1-5
<b>Computer expertise</b>	4	4	1-5	4	3	1-5

The majority of instructors, male and female, preferred face-to-face teaching methods (n = 206, 84.4%). The results of the chi-square analyses indicated that more male than female instructors prefer face-to-face educational methods over distance educational methods [ $\chi^2(1) = 6.813$   $p = .009$ ] (Figure 1). In regards to instructors' preferences on the size of student participants in an online course, the vast majority of instructors (n = 187, 73.9%) reported their preference for small number of students in online courses (<30 students). However, the chi-square analysis revealed no significant relationship between instructors' gender and preferences on the size of student groups ( $p=.987$ ) (Figure 2). Similarly, the majority of instructors (n=172, 68%), reported that they were not certified for distance education programs, but there was no significant association between gender and certification in distance education programs ( $p = .978$ ) (Figure 3).

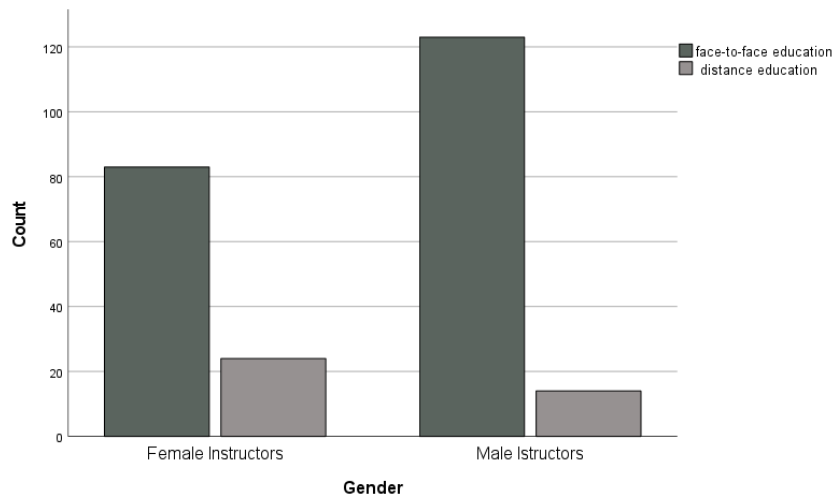


Figure 1. Instructors' preferences for teaching method.

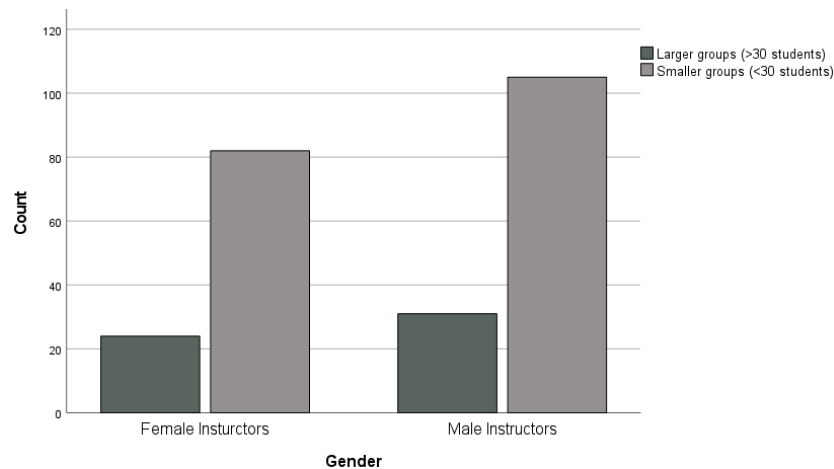


Figure 2. Instructors' preferences for student group size.

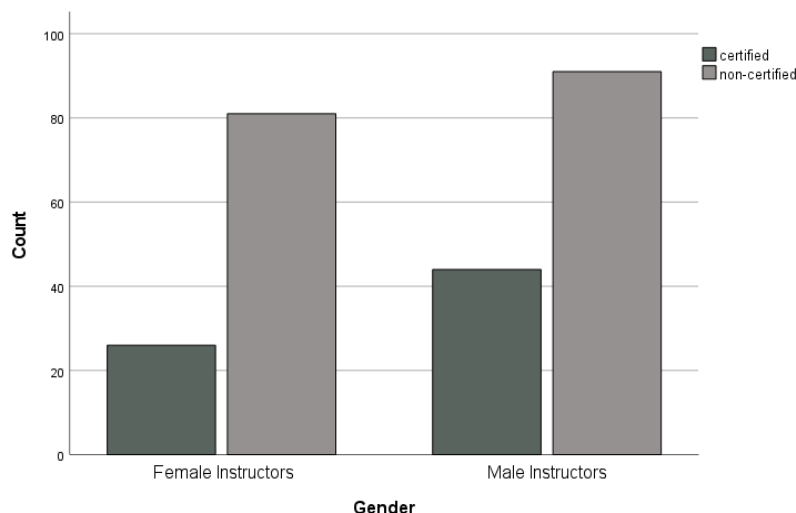


Figure 3. Certified instructors in distance education programs.

## 4 CONCLUSIONS

Instructor's attitudes, technical competence and interaction, suggest critical success factors that affect online education [30]. However, little is known about the potential role of instructor's gender and its associations with these characteristics. This study examined gender differences in beliefs and preferences about distance learning in a group of University instructors from six collaborating Institutions from four European countries (Aristotle University of Thessaloniki, University of Macedonia, University of Ioannina, Universitatea Lucian Blaga Din Sibiu, Universita telematica Degli Studi, Univerzitet U Nisu). The results revealed significant associations between instructors' gender and their characteristics with respect to distance education. In specific, educational method preferences (face-to-face or distance learning), preferences with respect to the number of students/learners, certification in distance education, level of computer expertise and beliefs for the efficacy of online educational method in comparison to traditional, face-to-face educational method were investigated.

Both similarities and differences in beliefs and preferences were observed between male and female instructors. More specifically, female and male instructors consider equally efficient distance learning as a method of education and prefer smaller number of students in distance education and online courses. On the other hand, although the vast majority of instructors prefer face-to-face teaching and learning methods, this preference is related to their gender. The results indicated that more male than female instructors prefer face-to-face educational methods over distance educational methods. Moreover, male instructors report higher levels of computer expertise than female instructors. However, although more male instructors are certified for distance education programs, the results of the present study did not reveal a significant relationship between certification and gender.

These preliminary results indicate that gender differences may exist in how educators think about distance learning, and how they prefer to deliver knowledge and training. Given that distance learning is of interest to a significant proportion of academics and students, it is of critical importance to evaluate further how gender associated factors may be related to successful distant learning experiences. As part of the future research the survey could be extended to investigate potential associations between instructors' gender and teaching preferences, as well as potential differences between male and female instructors in their preferences regarding students' learning styles.

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