# THE INFLUENCE OF THE STUDENT'S GENDER IN THE EXPERIENCE OF DISTANCE EDUCATIONAL PROGRAMS: THE CASE OF GREEK STUDENTS

G. Aretoulis<sup>1</sup>, P. Digkoglou<sup>2</sup>, D. Manou<sup>1</sup>, J. Papathanasiou<sup>2</sup>, G. Tsaples<sup>2</sup>, E. Aretouli<sup>3</sup>

<sup>1</sup>Aristotle University of Thessaloniki (GREECE) <sup>2</sup>University of Macedonia (GREECE) <sup>3</sup>University of Ioannina (GREECE)

#### Abstract

Distance education has an increased presence in the current educational system and is complementing the traditional face to face system of teaching and learning. The current research paper investigates the influence of the gender of the students on the experience of distance educational objectives, needs, learning preferences, and preferred instructors. This study aims to clarify the way the gender changes the students' preferences within the context of the distance education programs. In order to succeed in this research endeavour a questionnaire survey has taken place. This survey lasted for five months and is still ongoing. Students from Greek universities took part in the research and 311 responses were collected. Responses were correspondingly processed and inserted into a database. The questions within the survey were 124 and produced a corresponding number of variables within the database. The survey has taken place through email. The questionnaire survey managed to collect data regarding participants' profile and distance education preferences. The findings of the current research indicate that indeed gender influences several preferences regarding distance educational programs and the students experience within an online course. More specifically, a number of highlights of the current findings focus on the learning styles. In this context, male students have a preference for tasks, projects, and situations that involve unfamiliarity, going beyond existing rules or procedures, and maximization of change. They like new challenges and I thrive on ambiguity. Furthermore, male participants have a preference for tasks, projects, and situations that allow working with others in a group or interacting with others at different stages of progress. Male students seem not to enjoy working alone. Finally, both male and female students have preference for tasks, projects, and situations that lend themselves to great flexibility of approaches, and to trying anything when, where, and how they please (work asystematic or even antisystematic). This is an ongoing research initiative and as a result data is being collected on a daily basis and correlations are becoming more clear with the accumulation of responses.

Keywords: Distance Education, University Students' Characteristics, Gender, Questionnaire Survey, Distance Learning

### 1 INTRODUCTION

Distance education has an increased presence in the current educational system and is complementing the traditional face to face system of teaching and learning. During the COVID19 pandemic distance education has evolved rapidly, due to the special circumstances faced by the educational community and due to new technologies, such as video conferencing, which facilitated the whole process. The digital environments (for video conferencing, shared writing, chat, forums and more) during the pandemic have been widely used, because they have been established tools for several years [1].

In Greece, higher education has been equally transformed, as in all over the world, during the pandemic. During the pandemic all programs were offered online and turned into distance education. After the pandemic most programs returned to face-to-face, while other remained as online and distance educational programs. However, a new demand for distance education programs has been created. Nowadays, more and more Greek HEIs (Higher Education Institutes) develop various distance-learning programs and at the same time, there are programs that operate in a hybrid form. In addition, there exists a university, the Hellenic Open University, which offers postgraduate and undergraduate programs almost exclusively by distance learning.

There are currently several research efforts to investigate more the pros and cons of distance education and its impacts on students, educators and the educational process in general. The effort of Kyriakou, N., Kompos, N., Loukis, E., Leoutsakos, T. in their paper entitled "Evaluating Greek Government Digital Distance Learning Policies in Higher Education for the Covid-19 Period" [2] provided a plethora of useful results. For instance, they presented that the participants in their survey were neutral to satisfied with the digital educational resources (technological and human) provided to them during the Covid-19 period. In another area of interest that focuses on the educational outcomes, the responses reveal that the online lectures, in comparison with the traditional face-to-face ones, present a similar level of concentration. Finally, yet importantly, it is evident that the extent of online participation of students in the exams of the theory and the laboratories has been large to very large.

This research paper explores another very interesting dimension of the distance education: the role of the students' gender in the experience of distance educational objectives, needs, learning preferences, and preferred instructors. This study aims to clarify the way the gender changes the students' preferences within the context of the distance education programs.

### 2 METHODOLOGY

In order to identify the role of the students' gender in distance education, a questionnaire survey has taken place. The survey lasted for five months and is still ongoing. Students from Greek universities took part in the research and 311 responses were collected. Responses were correspondingly processed and inserted into a database. The survey has taken place through email. The language of the survey was Greek and succeeded in collecting data regarding distance education experience, learning preferences, and preferred instructors.

The questions within the survey were 124 and produced a corresponding amount of variables within the database. The questions were divided in the following discrete parts:

- Participant Profile
- Distance Education Experience
- Learning Styles
- Personality Characteristics

An SPSS Database was created including 124 questions and 311 participants. Corresponding parameters were created for the data to be inserted in the SPSS database, inter alia, nationality, age, gender, marital status and number of children, level of education and occupational status. The sample consists of 31,8% female participants and 67,5% were male participants. Most of the participants were either undergraduate (58,5%) or master students (37,3%). Almost half of the participants were students without any occupation (44,1%). Almost all of them are studying in State Government Universities and around half of them consider themselves having an average level of computer expertise (43,1%), whereas only 10% have a good level of computer expertise.

The learning style preferences selected in the current study included a number of statements, where the participants were called to suggest how much those statements described themselves as a student. The range was from 1 (not at all) to 5 (completely).

### 3 RESULTS

The questionnaire survey managed to collect data regarding participants' profile and distance education preferences. The findings of the current research indicate that indeed gender influences several preferences regarding distance educational programs and the students experience within an online course.

A number of highlights of the current findings focus on the learning styles. Male students prefer listening and oral teaching methods more that female students. Both male and female students have preference for tasks, projects, and situations that lend themselves to great flexibility of approaches, and to trying anything when, where, and how they please (work asystematic or even antisystematic).

Table 1. Preferences for learning styles

Students' Gender	I can understand the material better through listening and oral teaching methods			I have preference for tasks, projects, and situations that lend themselves to great flexibility of approaches, and to trying anything when, where, and how I please (work asystematic or even antisystematic)		
AS (Asymptotic Significance), AR (Adjusted Residual), Response	AS	AR	Response	AS	AR	Response
Female Students respond with	<,001	3,4 / 2,0	Slightly / Moderately	0,051	2,0 / 2,7	Not at All / Slightly
Male Students respond with	<,001	4,2	Very	0,051	2,0	Moderately

It appears that male students prefer tasks, projects, and situations that involve unfamiliarity, going beyond existing rules or procedures, and maximization of change. They like new challenges and thrive on ambiguity. Furthermore, male participants prefer tasks, projects, and situations that allow working with others in a group or interacting with others at different stages of progress. Male students seem not to enjoy working alone.

Table 2. Working with others and New challenges

Students 'Gender	projec allow w group of at differe	ts, and sit orking wit r interactir ent stages	ce for tasks, uations that th others in a ng with others of progress. I orking alone	I have a preference for tasks, projects, and situations that involve unfamiliarity, going beyond existing rules or procedures, and maximization of change. I like new challenges and I thrive on ambiguity		
AS (Asympto tic Significan ce), AR (Adjusted Residual) , Respons e	AS	AR	Response	AS	AR	Response
Female Students respond with	0,042	2,2	Not at all	0,024	3,0	Slightly
Male Students respond with	0,042	2,2 / 2,1	Very / Completely	0,024	2,8	Very

The survey has also demonstrated that male students can handle pressure better than the female ones as presented in Table 3.

Table 3. Remain calm under pressure.

Students' Gender	Remain calm under pressure			
AS (Asymptotic Significance), AR (Adjusted Residual), Response	AS	AR	Response	
Female Students respond with	,011	2,7 / 2,3	Not at All / Slightly	
Male Students respond with	,011	2,3	Completely	

Female students are not interested in theoretical discussion, but they believe in the importance of art more than the male students do according to Table 4.

Table 4. Art and theoretical discussions

Students' Gender	I Am not interested in theoretical discussions			Believe in the importance of art		
AS (Asymptotic Significance), AR (Adjusted Residual), Response	AS	AR	Response	AS	AR	Respon se
Female Students respond with	0,04	2,5	Not at All	0,012	3,1	Complet ely
Male Students respond with	0,04	2,8	Moderately	0,012	2,2 / 2,8	Slightly / Moderat ely

Likewise, female students enjoy poetry and going to art museums, which is presented in Table 5.

Students' Do not enjoy going to art I do not like poetry museums Gender AS (Asymptotic Significance), AR (Adjusted AS AR AS Response AR Response Residual). Response Female <.001 <.001 Students 4.3 Not at All 4.5 Not at All respond with Male Students <.001 3,3 Completely <,001 2,7 Very respond with

Table 5. Poetry and Art Museums

These first results present gender differences in distant education providing new dimensions and perspectives in addition to the ones already found in literature, such as motivation and dropout/failure rate [3].

#### 4 CONCLUSIONS

In this paper, first results of an ongoing research initiative on the role of gender have been presented. As this is an ongoing research, data is being collected on a daily basis and correlations are becoming clearer with the accumulation of responses. The role of gender in the experience of distance educational programs has not yet been thoroughly explored in literature, although there are very interesting research outcomes, which could be further analysed in relation to the students' gender. For instance, according to Simonson et al. [4] successful distance learners tend traditionally to be abstract learners who are intrinsically motivated and possess an internal locus of control. Future research could focus on such assumptions and the relationship with the students' gender.

The design of online courses should generally take into account the expected number and type of students, the configuration of the environment and the tools available [5]. However, the role of the students' gender is not usually taken into account. Issues of collaboration within students and group interaction are equally important [4] and further studying including the gender perspective may lead to extremely useful results for the development of distance educational programs.

In order for distance educational programs to be academically successful and inclusive for all students, there is a growing need to develop and evaluate programs and practices designed to be more inclusive. Further research regarding the relationship between gender and academic performance in distance education is needed [6]. Without a more critical examination of the factors that reinforce students' academic commitment and motivation in distance educational programs, it is unlikely that the offered programs will result in a substantial increase in educational inclusiveness.

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