

## **Teacher Education and Gender Equality in Greece: A case study**

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### **ABSTRACT**

*In the sociology of education, a great debate on the issue of gender has been created. Nowadays, educating teachers about gender equality (GE) is a matter of sustainable development especially after the COVID-19 pandemic. The special living conditions of the global social confinement as a measure to eradicate the virus disclosed a worrying outbreak of domestic and gender-based violence in all social categories. After the pandemic, the educational community has been engaged in GE and gender issues with the development of schools' action plans as reflected in relevant studies in Greece and all over the world. The present study attempts to examine the teachers' self-efficacy and needs concerning their training for a sustainable GE practice. The importance of the study originates from the necessity to highlight the teachers' attitudes towards the issues of GE as Greece ranks last in the European Union on the GE Index. For this research, the tool, a validated questionnaire of teacher efficacy for GE practice is administered to secondary education teachers in Greece. Teachers are asked to assess their confidence in gender knowledge, skills, and awareness. The findings of the research showed that the majority of the teachers express their moderate perceptions, great concern, and need for training in developing practices on GE issues at school. However, there are findings that show that patriarchal values are firm in pedagogical practices. This study will create awareness of the necessity of integrating practices of GE in teacher training and education and give the initiative for further studies on the local or national level concerning the attitudes towards GE in education. Integrating GE in the national curricula through suitable teacher interventions could bridge gender inequalities and lead to a more balanced living for future generations.*

**Keywords:** Sociology of Education; Teacher Education; Self-Efficacy; Gender Equality; COVID-19

## **1. INTRODUCTION: Teacher Education & Gender Equality (GE)**

In the sociology of education, the issue of gender and reducing inequalities in all levels of education have been discussed from many perspectives that include social division and economic productivity (Schneider, 2018). At the beginning of the 21st century, many new ideas emerged in gender research across the social sciences (Fennell & Arnot, 2008). Since the 1960s, it is reported that serious efforts have been launched to address Gender Equality globally, regionally, and nationally in which women play vital roles in the development process (UNESCO, 2015). In the World Education Forum in 2015 and the *Final Report Education 2030*, it is stated that “*Education is the path to sustainability – to poverty alleviation, better health, environmental protection, and gender equality*” (UNESCO, 2015). It emphasized that ensuring equity and GE in education is not adequate but, it needs an integrated approach with teachers and their unions participating in the development and implementation of education policies, curricula, etc (UNESCO, 2015). It further emphasizes that “*education systems must adopt a comprehensive approach: develop codes of conduct, apply sanctions when necessary, support teachers with appropriate training and professional status, ensure learning spaces are safe and gender-sensitive, and create models of education for peace*” (UNESCO, 2015). In the Global Education Monitoring (GEM) Report 2020: *Inclusion and Education, All Means All* (UNESCO, 2020), it was revealed that the world is not making progress towards achieving universal education goals. On the contrary, inequalities in human rights, gender equality (GE), and conflicts persisted and were exacerbated by the COVID-19 pandemic affecting learning outcomes (UN, 2020).

On the other hand, *gender* is understood as a multi-dimensional structure of inequality on individual, interactional and macro levels meaning incorporating social norms, gender attitudes, boys' sexuality at school, and gender education (Risman, et al., 2018). Scholars in Western societies stress the need for research programs that will reduce inequality, and unveil the simultaneous necessity of intervention by sociologists of education (Schneider, 2018). McDaniel and Phillips (2018) state that there has been a dramatical shift in our understanding of gender and education, showing inequalities that are reproduced especially in females. They clarify that, we must consider how educational standards affect gender inequality while working toward GE. Even though a lot of knowledge about gender gaps in educational outcomes in recent years has been transmitted, much more research needs to be done to uncover patterns of gender-based change and differences in education (McDaniel & Phillips, 2018).

## **2. The Theory of Gender Codes in Education**

In the sociology of education, Madeleine Arnot<sup>1</sup>, following Basil Bernstein's path, contributed to

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<sup>1</sup> Madeleine Arnot, née MacDonald and publishing under this name until the early 1980s (2004:16), “*is*

the literature in gender studies with her *theory of gender codes* in education which could help interpret the role of schools as places where social relations are transferred (Arnot, 2004: 39). After all, the educational sphere functions not only as a major socialization factor but also as a channel through which culture, values and standard regulations related to gender are transmitted (Kangethe, et al., 2014). In her theory, Arnot establishes the term “*gender code*” as a way through which gender relations are transferred through school knowledge and pedagogies (Arnot, 2004: 36). She supports that understanding the different experiences of girls and boys at school means to emphasize on how the school forms relationships and how it prepares the two sexes in different ways for these destinations by transmitting specific classifications of gender (Arnot, 2004: 220-221). Using the term, *gender code*, it is acknowledged that the school attempts to define the students’ identities and is involved in a process of delivering of this code in which the students play an active role (Arnot, 2004: 222).

The term has been enriched by the cultural theory of Pierre Bourdieu who has recognized the role of gender relations in primary and secondary education and in the formation of the *habitus* i.e. ideas, habits and practices (Arnot, 2004:36). Bourdieu, in his book *Outline of a Theory of Practice* (1977), takes into consideration the sexual division of labor, the sexual hierarchies and highlights the importance of the informal education in identities at home, and through the family, where women play an educational role. Specifically, he concludes that the relationship between the mother and father, due to their antagonistic conflicts in the process of negotiation, was one of the opportunities of cooperation between the sexes and the sexual division of labor (1977:89). At that period research on gender identities was limited (Arnot, 2004). Furthermore, Bourdieu understood clearly that the school structure encompasses the *habitus* acquired in the family via school experiences and pedagogical messages. Consecutively, the *habitus* that is changed by education becomes in turn, the basis of the structure of all subsequent knowledge, from constant reorganization (1977:87). Bourdieu (1977) went even further in his dialectic, and argued that education is not organized in autonomous institutions. Instead, it is a construction site, “*without specialized agents but, performing anonymous, pervasive pedagogic action*”. Finally, he declares that the students imitate behaviors, instead of theories (1977:87).

In the *Social learning* theory developed in the 1960s, by Albert Bandura (1997), the performance of gender, meaning the behavior of the sexes is important in gender expression. This theory suggests that learning is obtained through imitating the behavior of another individual by observation through the processes of attention, retention, reproduction, and motivation caused by

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*internationally known for her work on socio-cultural reproduction theory, her use of Bernstein's theory of pedagogy about gender and education and pupils' voice, and recent youth research in the Global South*”.  
<https://www.educ.cam.ac.uk/people/staff/arnot/>

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reinforcement. Bandura believes that the practice of a behavior is affected by direct and alternative support (Bandura, 1997). Adolescence is a time of change and formation towards adulthood, with the challenges of future roles and lifestyles (Bandura, 1997; Arnot, 2004; Risman, 2018). The *theory of self-efficacy* suggests that a person's confidence in their abilities can determine motivation and decisions (Bandura, 1997). Finally, Bandura used the theory of socialization to explain how girls and boys are trained to think about relationships between men, women, fathers, and mothers (Risman, 2018).

The role of schools and teachers is crucial in gender socialization (Arnot, 2004). Education mediates between the individual conscience and the society (MacDonald, 1977 in Arnot, 2004: 32). The teaching profession, unlike other professions, has lost its legitimacy (Fennell & Arnot, 2008). Moreover, teachers experience a depreciation of skills as professionals in modern organizations that must meet the demands of the 21st century for their own interests (Primikiri, 2020: 222-224). They are considered as guardians of intellectual and moral values, the transmission of accepted beliefs and the thoughts of their communities (Kouroutsidou & Raptis, 2021). Teachers, as gender representatives, interact with students through established approaches (Aliprandi- Maratou & Vlastari-Diovouniotou, 2020). Schools are the field where an environment of GE can be inherently developed and teachers can play a central role in this transformation through actions and discipline (Guedes, 2012). But, since the educational systems do not prepare their employees efficiently, some of them enter the profession with limited or insufficient skills (Primikiri, 2020: 194-195).

In the “*From Access to Empowerment UNESCO Strategy for gender equality in and through education 2019-2025*”, it is stated that gender biases and discrimination still penetrate the entire education process and they are incorporated in the teaching and learning process, through polarization and expectations in the teachers- students interactions (UNESCO, 2019). Quality education is the key to combating gender-based violence at schools as teachers are at the center of the procedure (Pliogkou & Katsarou, 2024). They are perceived as role-models and hence, need to abandon their stereotypical attitudes to promote healthy behaviors and mentalities (Thanos & Kogkidou, 2022).

According to the 2030 Agenda for Sustainable Development (SD) of the United Nations (UN) for future peace and prosperity on the Earth adopted in 2015, Sustainable Development Goals (SDG) 4 and 5 concern inclusive and equitable quality education and gender equality respectively (United Nations, 2015). More specifically, SDG 4 stresses that quality education means ensuring teachers' competence through international cooperation in teacher education. SDG 5c highlights the adoption and strengthening of sound policies and legislation to promote GE (United Nations, 2015). However, to achieve effectiveness and sustainability, gender-responsive pedagogy must be integrated into both the pre- and in- service teacher training

programs in educational organizations to give “*teachers the opportunity to re-examine their own gendered assumptions, attitudes and expectations*” (UNESCO, 2019).

At the beginning of the article of *The World Economic Forum’s Global Gender Gap Report 2024*, it is highlighted that “*at the current rate of progress, it will take 134 years to reach full parity in 2158*” - approximately five generations from now (WEF, 2024). Unfortunately, it is stated that progress in gender equality is very low compared to 2023. Sadly, it pinpoints very little progress towards gender parity compared to 2023. Remarkably, the Global Gender Gap stands at 68.5% across all 146 countries in the Index of 2024.

### **3. The case in Greece**

Research on GE issues in the Greek education system is re-introduced with a new interest in studies on gender-based violence (Kouroutsidou & Gasouka, 2021). Studies on teacher training for GE or gender issues in early childhood education, primary education and tertiary education come mainly from relevant social sciences (anthropology, laography, ethnography, history, philosophy, psychology etc.), but, there seems to be a gap in studies in secondary education from the sociological aspect. Namely, Tsouroufli’s (2002) qualitative ethnographic study in a Greek secondary school showed that the teacher-student interaction is influenced by teachers’ different behavior towards girls and boys, the general lack or low level of gender mainstreaming, and tacit assumptions about gender, and the lack of training in GE (Tsouroufli, 2002).

According to Kladouhou [in Kandsa, et al., (2010): 204-206] studies about attitudes and perceptions of teachers towards gender reveal a degree of inconsistency between sensitivity to GE issues in general, and identification of gender inequality at school. This is well illustrated by studies showing that the Greek teachers are not objective concerning gendered roles of male and female students. All in all, findings on students’ gender behavior can be associated with teachers’ attitudes (Kladouxou, 2010).

Indicatively, in Kouroutsidou & Raptis’s (2021) research on 223 primary education teachers of the prefecture of Dodecanese, a questionnaire, designed on the feminist approach, examined teachers’ attitudes and perceptions on gender-based violence and education. The results confirm the importance of teacher training and gender awareness towards a pluralistic and holistic educational process to meet social and cultural needs (2021: 192).

In Thanos & Kogkidou’s (2022) collective volume *Gender and Education*, special projects, programs, and studies on gender inequalities, gender biases, and violence in Greece are presented mainly in the primary and tertiary education. One of the conclusions is that teacher training and education in Greece do not equip teachers with practices that would promote GE. In the recent research of Pliogkou & Katsarou (2024) in primary education teachers of the prefecture of Ipiros,

the issue of gender-based violence and gender inequalities is examined. Teachers stated that they rarely discussed GE topics in class for several reasons such as, lack of knowledge or time. Those who discussed GE in class (2020:207) have some training on the issue. Among teachers' research recommendations, the need to bring GE to all levels of education is considered as very important (2024: 205).

Finally, Tzimopoulou (2022), in her research in secondary education teachers in Athens, discovered that perceptions and expectations about students (regarding the behavior and attitudes of male and female students) have a very important impact. Most teachers believe that the reproduction of gender stereotypes occurs unconsciously and uncritically in the educational environment, as gender stereotypes originate from gender socialization in the family. The semi-structured interviews showed that even if they are all ardent supporters of GE, *"they testify that practice differs from theory, and that equality in the educational environment is formal, but not substantial"* (Tzimopoulou, 2022).

Concerning the school curriculum, GE issues are included in the *Skills Labs* in the mandatory schedule of Kindergartens, primary and junior high schools according to the ministerial decision 3567/B'/04-08-2021 (e-nomothesia.gr, 2021) that has been put into practice from the Institute of Educational Policy (IEP) and the Greek Ministry of Education as life skills (IEP, 2021). For example, GE issues can be included in the *Knowing My Body - Sex Education* unit in the module of that has to do with wellness. However, according to IEP (2021) the choice of modules is optional and random. In Pradaki's research in primary education teachers (2022), they assessed the training they received as theoretical and fast. They believe that training courses are not designed according to teachers' needs or ideas (Pradaki, 2022).

According to the Index of the European Institute for Gender Equality (EIGE), Greece comes last in ratings concerning the progress in domestic and gender-based violence on international level (EIGE, 2023). Also, the Greek education system, through formal publications and guidelines of the IEP has not classified issues of gender diversity and equality as central until the year 2022 (Peleki & Nikolaou, 2023). Moreover, the media states that domestic and gender-based violence is increasing with the males performing femicides which can prevent young people from harmonious relationships (Peleki & Nikolaou, 2023).

Finally, the recent Law 5029 (A' 1-3-2023) (e-nomothesia.gr, 2023) was put into practice linking school-violence and bullying with gender issues and teacher training to develop healthy relationships. In particular, the law states clearly that the educational community should be based on relationships of trust which preconditions the training of all stakeholders to practices that eliminate school-violence, discrimination and intimidation towards *"vulnerable groups due to race, disability, religious beliefs, ethnic origin, sexual orientation, identity, expression, gender*

*characteristics or family status”.*

As a follow-up of Law 5029 (A' 1-3-2023), in 2024 the Greek Ministry of Education created the platform “*Stop Bullying*” for schools. Students, teachers, and other stakeholders can report incidents of school violence which is also related to gender bullying and gender inequalities (Management of school violence incidents - n.d.). Finally, Grinou (2015) discovered that, although teachers are opposed to gender discrimination at school, they have neither studied nor understood gender issues (Grinou, 2015). Consequently, the concern about the reproduction of stereotypical and gender misbehaviors in the school environment that inhibits healthy behaviors and robust relationships is rather strong.

#### **4. Purpose And Methodology Of The Research**

The aim of this study is to examine the self-efficacy and educational needs of secondary school teachers to implement GE in the Greek educational environment. The research includes teachers from secondary schools in the prefecture of Etoloakarnania. It follows the progressive line of social research in education in the specific area. Specifically, the analysis of masculine stereotypes among adolescent boys revealed the persistence of patriarchal attitudes, the violent behavior in the region, and the limited role of schools in educating students on GE (Peleki & Nikolaou, 2023). This research stems from the need to further investigate teachers and GE practices in the context of the modern Greek education as there are only a few recent studies on primary school teachers during the COVID-19 pandemic (Kouroutsidou & Raptis, 2021; Pliogkou & Katsarou, 2024). Also, as the pandemic and recovery progressed, teachers showed a special interest in GE and gender issues that emerged in school action plans of the area (Peleki & Nikolaou, 2023).

Theoretically, this research is based on the theory of *Gender Codes* by Madeleine Arnot (2004) in her book *Reproducing Gender? Essays on Educational Theory and Feminist Politics* which adopts a feminist approach in Sociology of Education and stresses the role of teachers as agents of change concerning their practices and attitudes towards gender pedagogy. The research questions of this study were formulated as follows: 1) How aware are Greek secondary school teachers of gender issues nowadays? 2) Are teachers confident in implementing gender pedagogy in their classes? 3) What attitudes have the teachers developed concerning gender issues? 4) What is their general stance towards integrating Teacher Education programs concerning GE in secondary education?

##### **4.1. The Research Tool**

In this research, a *validated questionnaire* was distributed. The first section concerns *closed-questions* on demographic information of age, school, level of studies, job status, years of

experience etc. The second section is the validated TEGEP scale by Miralles-Cardona, et al. (2022) which is divided into three sub-sections. Teachers are asked to state their level of agreement or disagreement concerning three variables, Gender Knowledge and Awareness (GKA), Implementing a Gender Pedagogy (IGP), and Gender Developing Attitudes (DGA) in twenty-two statements (22). The purpose of this section is to clarify whether the teachers satisfy the standards of self-efficacy of the TEGEP scale since it appears that its variables can be compared with the behaviors and attributes of the Greek secondary education teachers (Kladouhou, 2010; Kouroutsidou & Raptis, 2021; Tzimopoulou, 2022; Pliogkou & Katsarou, 2024). Finally, the third section is an *open-ended question* that reveals the teachers' attitudes towards the official introduction of teacher training of GE in secondary education in Greece with arguments.

#### **4.2. Sample Population**

The research was conducted on secondary education teachers of the prefecture of Etoloakarnania with *random sampling* (Cohen, et al, 2007). Not only is the prefecture of Etoloakarnania the largest in Greece (5,461 km<sup>2</sup>), but it also rates high in domestic violence numbers on a national level (Peleki & Nikolaou, 2023). The rise of the phenomenon, the measures, actions, and initiatives stress the importance of further investigation of the causes that lead to violence and aggressive and of the importance of stereotypical gender perceptions in the specific area (Peleki & Nikolaou, 2023). Approximately, 85 secondary schools are under the supervision of the Secondary Education headquarters of the area.

#### **4.3. Data Collection Process**

The questionnaire distribution process was conducted in two phases. In the pilot phase, fifteen (15) secondary education teachers participated in resolving translation and linguistic issues. In addition to the improvements, spontaneous reactions are recorded as part of the qualitative research. For example, a Technical/vocational teacher stated that in his more than 20 years of teaching experience in the area, there have been no girls in his classes, so "*how could I ever consider gender practices?*". Also, mainly female teachers expressed their gratitude for the present study stating its importance.

In the second phase, the questionnaire was officially distributed electronically through the Secondary Education Headquarters of the area and addressed to 1400 secondary education permanent and substitute teachers in May-June of 2024. Social media was also, used for faster distribution. Some printed questionnaires were distributed, as well. Finally,  $N= 207$  questionnaires were completed in a random *convenience sample* with a response rate of 14.79% and a maximum error estimate of 0.16 at a significance level of 5%. The *Google Docs App*



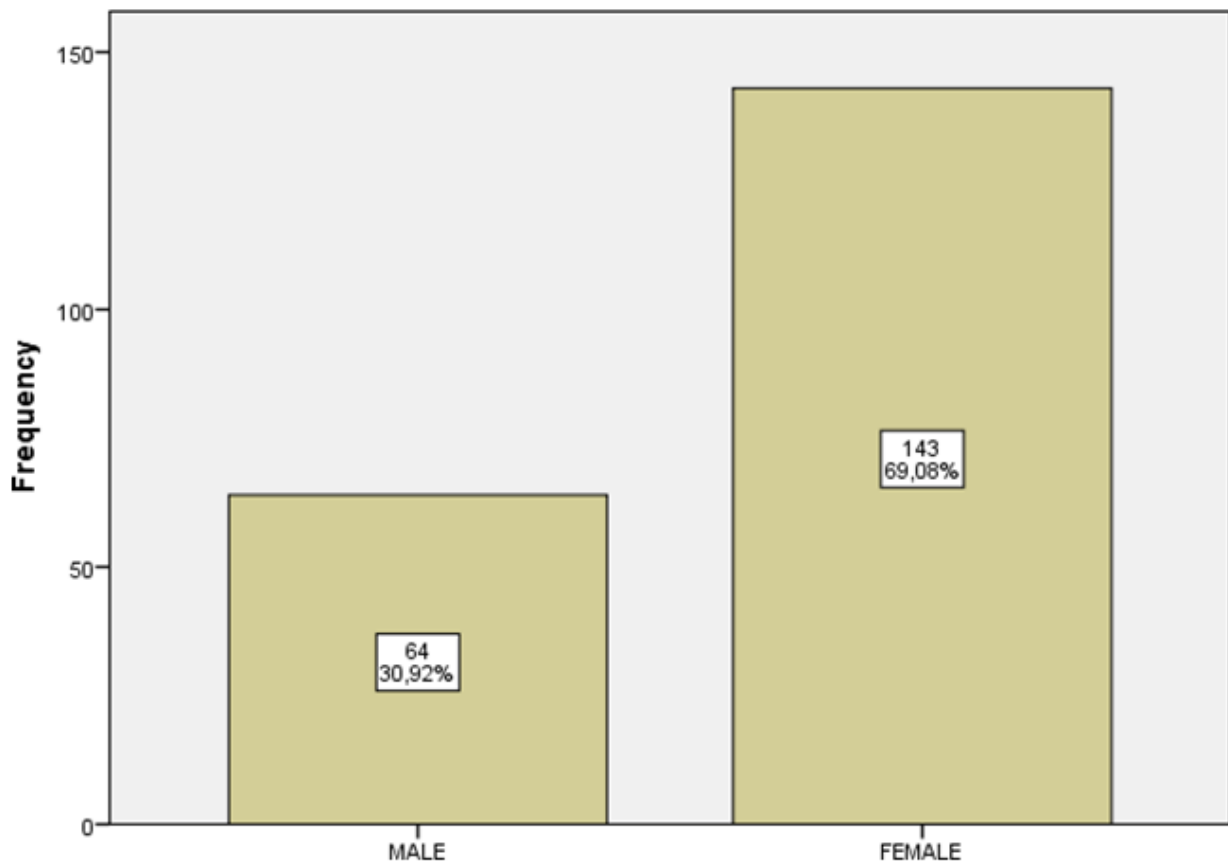
was used to ensure participant anonymity and a letter of consent was attached. The package IBM SPSS Statistics 22 was used for the data analysis. Finally, it is worth highlighting that the Ts of the area responded positively to the research in terms of the originality of the subject.

## 5. PRESENTATION OF THE RESULTS

### 5.1. Demographic Information

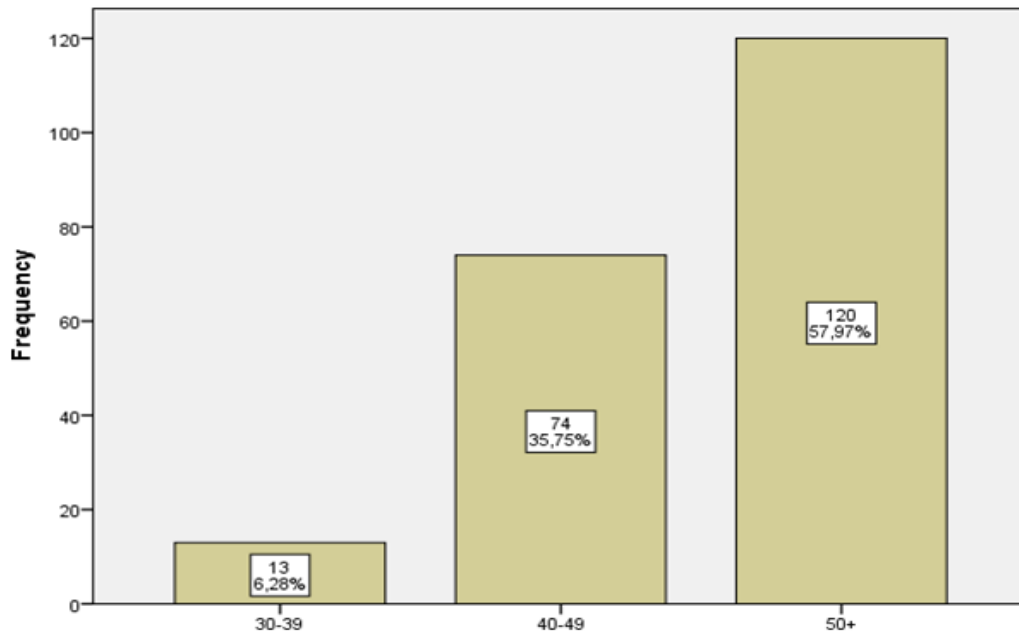
The demographic information of the sample is presented in the following Diagrams. Specifically, 143 female Teachers (Ts) (69,08%) participated in the research, whereas 64 men (30,92%) (Diagram 1).

**Diagram 1. Sample distribution according to Sex (N = 207)**



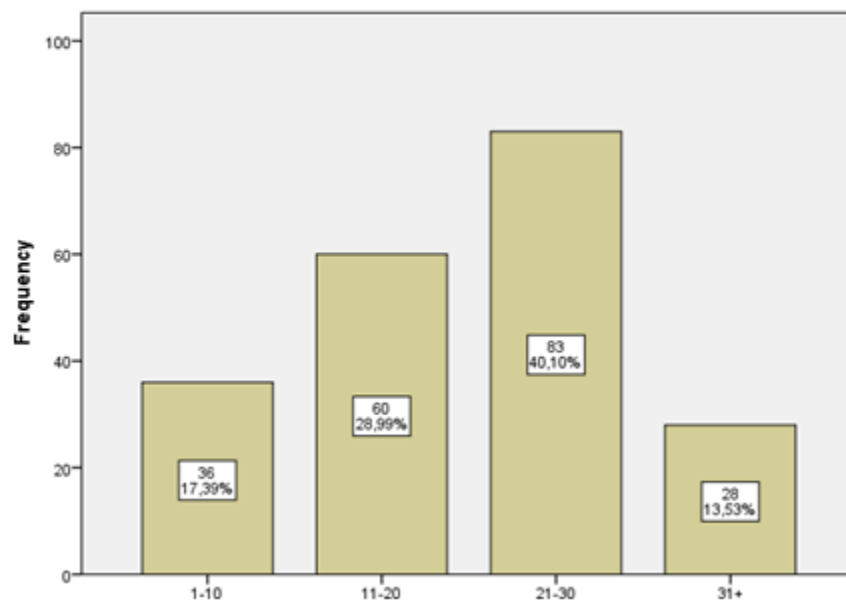
In the age category, 120 Ts (58%) belonged to the oldest category, 50 years and older (Diagram 2).

Diagram 2. Sample distribution according to Age (N = 207)



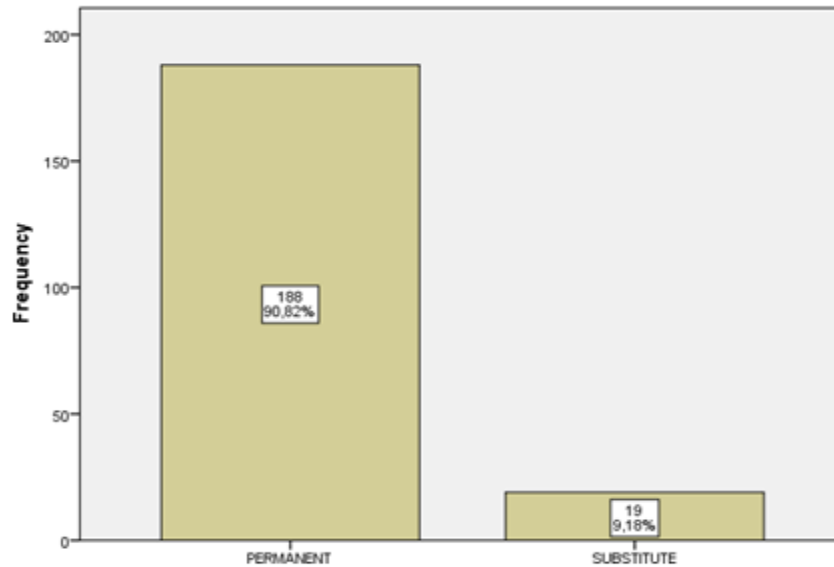
The next diagram presents the distribution in years of experience. Most participants have been for approximately for 21-30 years in the state secondary education (Diagram 3).

Diagram 3. Sample distribution according to Years of Experience (N = 207)



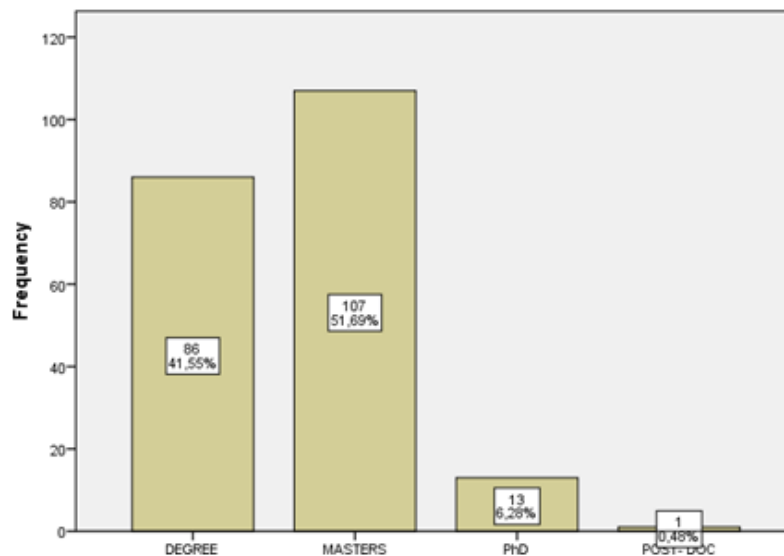
Concerning the job status, permanent Ts are the most (188, 90,8%) (Diagram 4).

Diagram 4. Sample distribution according to Job Status (N = 207)



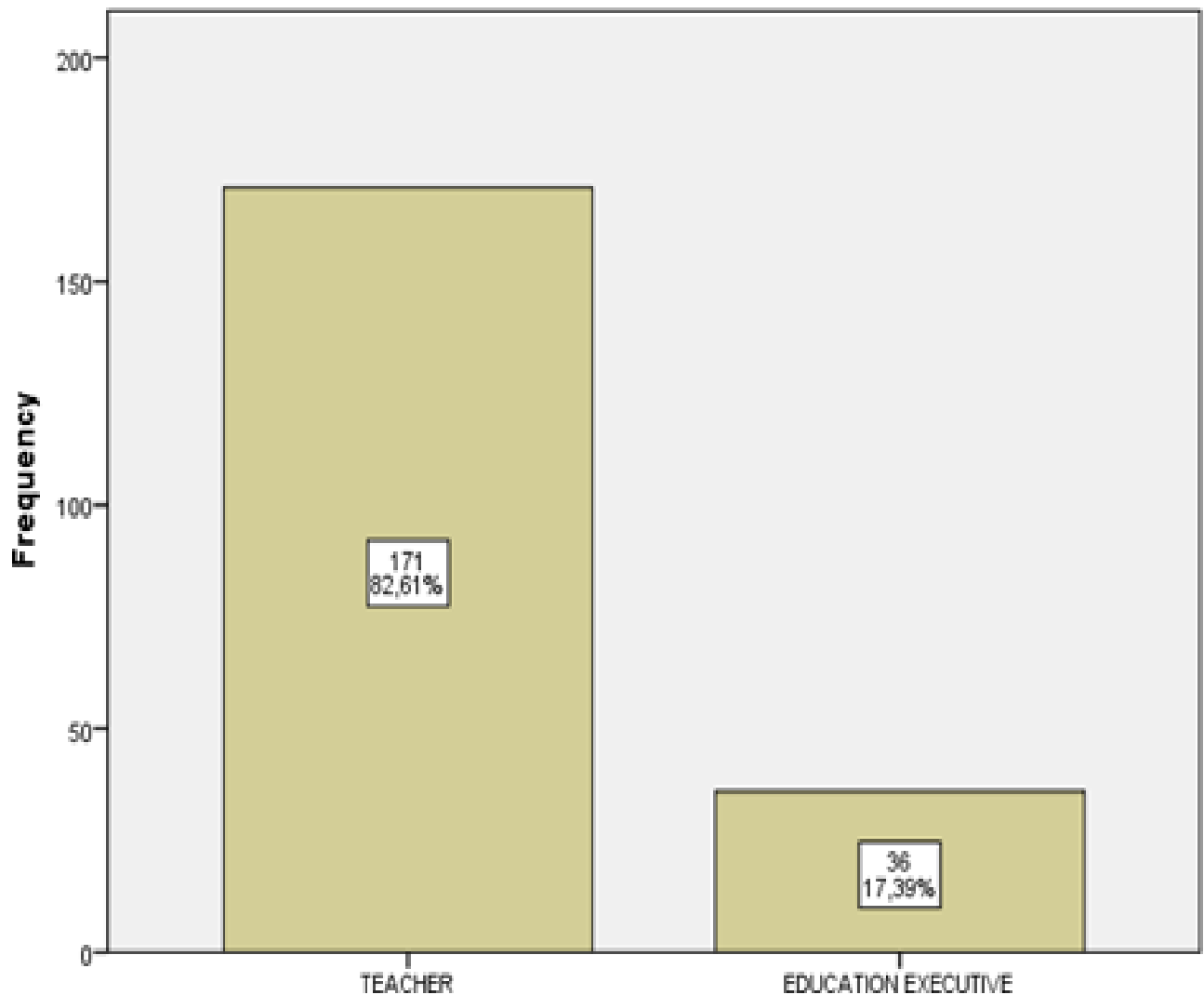
Furthermore, regarding the level of studies, the majority of the participants had Masters degrees (107, 51,69%), whereas only 13 participants had a PhD (Diagram 5).

Diagram 5. Sample distribution according to Level of Studies (N = 207)



Most participants were active school Ts (171, 82,61%). Also, 36 education executives meaning education consultants, school principals, etc. participated as well (Diagram 6) .

**Diagram 6. Sample distribution according to Position of Service (N = 207)**



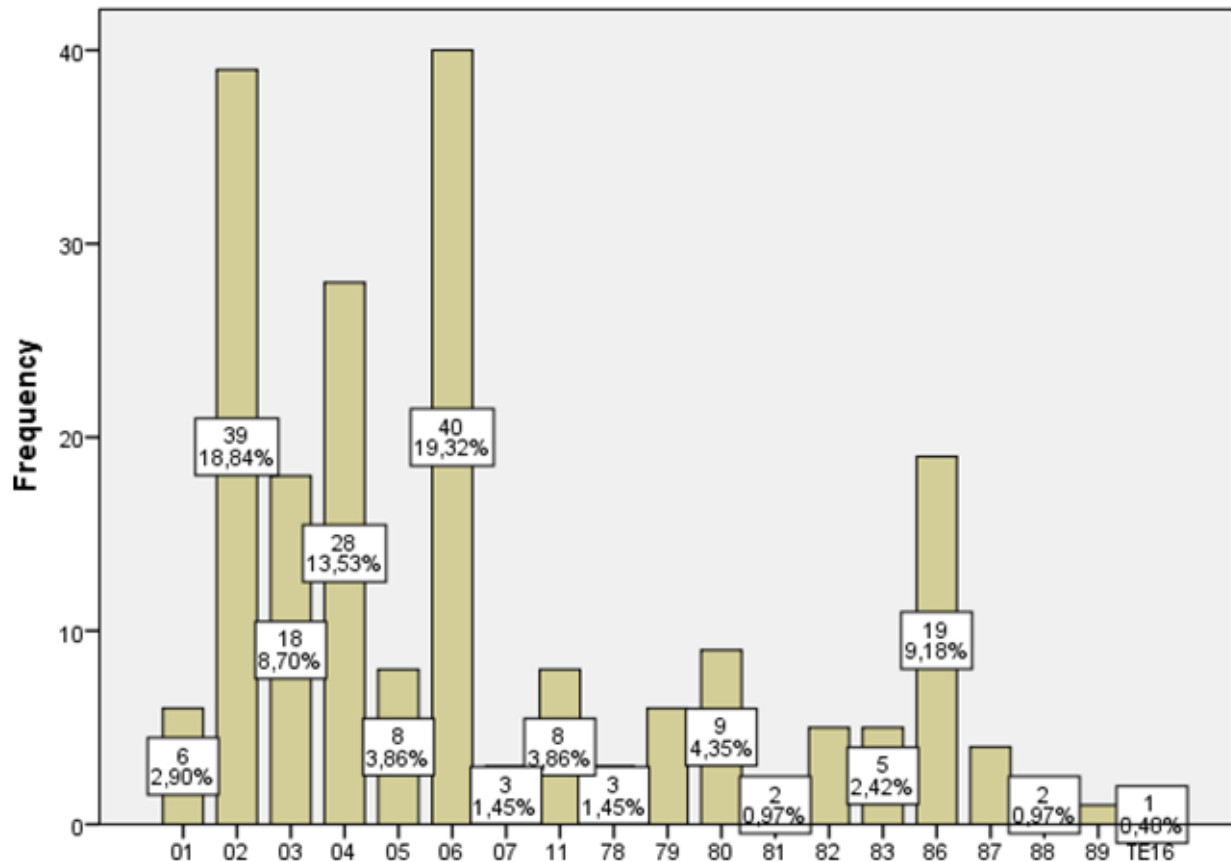
The next diagram (Diagram 7) presents the schools of service of the participants. 46% of the participants served in a state Junior High School whereas, there were responses from state Senior High Schools (25,1%) and minimum participation from the Music School or the School of Performing Arts.

**Diagram 7. School of Service (N = 193, some school executives do not serve in schools)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	JUNIOR HIGH SCHOOL	96	46,4	49,5	49,5
	SENIOR HIGH SCHOOL	52	25,1	26,8	76,3
	TECHNICAL/VOCATIONA L SCHOOL	24	11,6	12,4	88,7
	EVENING JUNIOR HIGH SCHOOL	3	1,4	1,5	90,2
	EVENING SENIOR HIGH SCHOOL	1	,5	,5	90,7
	EVENING TECHNICAL/VOCATIONA L SCHOOL	3	1,4	1,5	92,3
	PRIVATE JUNIOR HIGH SCHOOL	2	1,0	1,0	93,3
	PRIVATE SENIOR HIGH SCHOOL	1	,5	,5	93,8
	MUSIC SCHOOL	11	5,3	5,7	99,5
	SCHOOL OF PERFORMING ARTS	1	,5	,5	100,0
	Total	194	93,7	100,0	
Missing	System	13	6,3		
Total		207	100,0		

The final diagram (Diagram 8) presents the specialties of the participants. The specialties are coded under the official number from the Greek Ministry of Education appointed with Law 4521/2018, article 29 (e- nomothesia.gr, 2018). It is apparent (diagram 8) that specialties of English Ts, Greek philologists (02), and sciences (04) showed the greatest interest in the research. English Ts (06) 19, 32%, Philologists (02) participated in 18,84%, and Science Ts (13,53%). Ts of Social Sciences (78) had limited participation, meaning that only 3 Ts participated in the research.

Diagram 8. Sample distribution according to Specialties (N = 207).



### 5.2. The TEGEP results

In this section, the results of the three sub-sections of the TEGEP questionnaire are presented analytically. Corresponding to the three variables, teachers (Ts) are asked to state their level of agreement or disagreement concerning Gender Knowledge and Awareness (GKA), Implementing a Gender Pedagogy (IGP), and Gender Developing Attitudes (DGA) in twenty – two statements (22) according to Miralles-Cardona, et al. (2022).

Firstly, concerning the first variable, Gender Knowledge and Awareness (GKA), Ts had to express their level of agreement or disagreement concerning their knowledge in 9 statements (Table 1). In the descriptive statistics (Table 1) it is obvious that overall, Ts seemed to be able to recognize theoretical issues of GKA (Mean column) to a good level (Mean 3 to 4, agree somewhat - agree). They appeared to have limited knowledge of legislation on gender equity (A2) and they could not differentiate GE from gender equity (A3) very firmly.

**Table 1. TEGEP GKA scores: comparison of means - Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
A1. GKA TERMINOLOGY on gender issues	207	0	5	3,81	,961
A2. GKA LEGISLATION on gender Equity	207	0	5	3,46	1,152
A3. GKA GE vs GENDER EQUITY	207	0	5	3,54	1,241
A4. GKA GENDER ROLES	207	0	5	3,91	1,096
A5. GKA GENDER DISCRIMINATION	207	0	5	3,93	1,203
A6. GKA GENDER BIAS	207	0	5	3,90	1,271
A7. GKA SEX & GENDER	207	0	5	3,83	1,318
A8. GKA GENDER INEQUALITIES	207	0	5	3,79	1,329
A9. GKA GENDER STEREOTYPES	207	0	5	3,86	1,318
Valid N (listwise)	207				

In the second variable of the TEGEP scale, Implementing a Gender Pedagogy (IGP), Ts had to mark their level of agreement or disagreement concerning their practices in 9 statements as well. Table 2 shows that B1-*Providing equal opportunities to all my students* received the highest score (Mean=4, 51), whereas B5 - *Designing, implementing, and assessing lesson plans with a gender perspective* received the lowest (Mean=2,70).

**Table 2. TEGEP IGP scores: comparison of means - Descriptive Statistics**

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
B1. IGP Providing equal opportunities to all my students	207	1	5	933	4,51	,743
B2. IGP Taking action to prevent reproduction / maintenance of nequalities	207	0	5	829	4,00	1,059
B3. IGP Respecting different gendered styles of learning	207	0	5	849	4,10	1,196
B4. IGP Creating learning environments that foster gender collaboration	207	0	5	885	4,28	,863
B5. IGP Designing, implementing and assessing lesson plans with a gender perspective	207	0	5	558	2,70	1,654
B6. IGP Involving families in implementing school home GE plans	207	0	5	608	2,94	1,432
B7. IGP Conveying values on gender issues	207	0	5	837	4,04	1,150
B8. IGP Collaborating with colleagues indeveloping empathy across gender	207	0	5	770	3,72	1,254
B9. IGP Educating on gender issues	207	0	5	637	3,08	1,605
Valid N (listwise)	207					

In the third variable, Ts were asked to state their degree of agreement or disagreement in Gender Developing Attitudes (DGA) in four (4) statements. Table 3 presents the scores in this variable. It appears that C3 - *Critic about existing tolerance with gender discrimination and violence* received the highest score (Mean= 4,42), whereas C4 - *Speak up against all forms of gender injustice* received the lowest (Mean= 3,83).

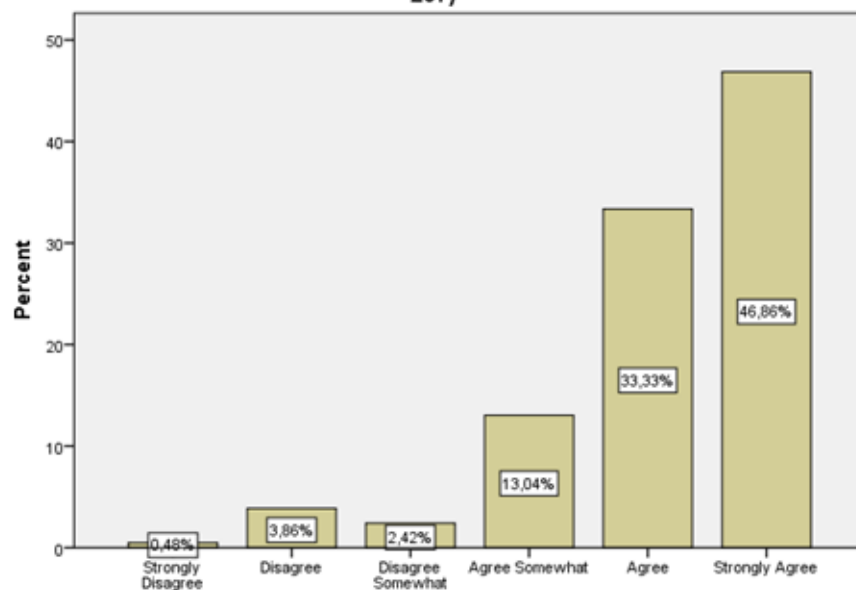


**Table 3. TEGEP DGA scores: comparison of means - Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
C1. DGA Able to exercise gender-sensitive attitudes	207	1	5	3,92	1,045
C2. DGA Able to deconstruct gender stereotypes and prejudice	207	1	5	4,04	,934
C3. DGA Concerned about existing tolerance with gender discrimination and violence	207	0	5	4,42	,888
C4. DGA Able to speak up against all forms of gender injustice	207	0	5	3,83	1,157
Valid N (listwise)	207				

This variable contained one more statement C5, which was removed from the original TEGEP scale (Miralles-Cardona, et al, 2022) but, was included in this research as it was considered suitable. Diagram 9 shows that most Ts were eager to learn about gender issues. On the other hand, the percentages of those who saw it negatively are quite important(Diagram 9).

**Diagram 9. Sample distribution according to C5- Eagerness to learn more (N = 207)**



The previous statement led to the introduction of the last section of the questionnaire. Teachers were asked if they consider the official training in GE practices at secondary education necessary. The following cross-tabulation charts (Table 4) shed light on important data. 91,79% answered *Yes*, whereas 8,21% answered *No*, according to Chi-Square Tests performed in the variables of Sex and the Necessity of Teacher Training in GE in Secondary Education.

**Table 4. Cross-tabulation according to Sex and Necessity of Teacher Training in GE (N = 207)**

			Necessity of Teacher Training in GE in Secondary Edu.		Total
			NO	YES	
SEX	MALE	Count	12	52	64
		Expected Count	5,3	58,7	64,0
		% within SEX	18,8%	81,3%	100,0%
		% within Necessity of Teacher Training in GE in Secondary Edu.	70,6%	27,4%	30,9%
		% of Total	5,8%	25,1%	30,9%
	FEMALE	Count	5	138	143
		Expected Count	11,7	131,3	143,0
		% within SEX	3,5%	96,5%	100,0%
		% within Necessity of Teacher Training in GE in Secondary Edu.	29,4%	72,6%	69,1%
		% of Total	2,4%	66,7%	69,1%
Total		Count	17	190	207
		Expected Count	17,0	190,0	207,0
		% within SEX	8,2%	91,8%	100,0%
		% within Necessity of Teacher Training in GE in Secondary Edu.	100,0%	100,0%	100,0%
		% of Total	8,2%	91,8%	100,0%

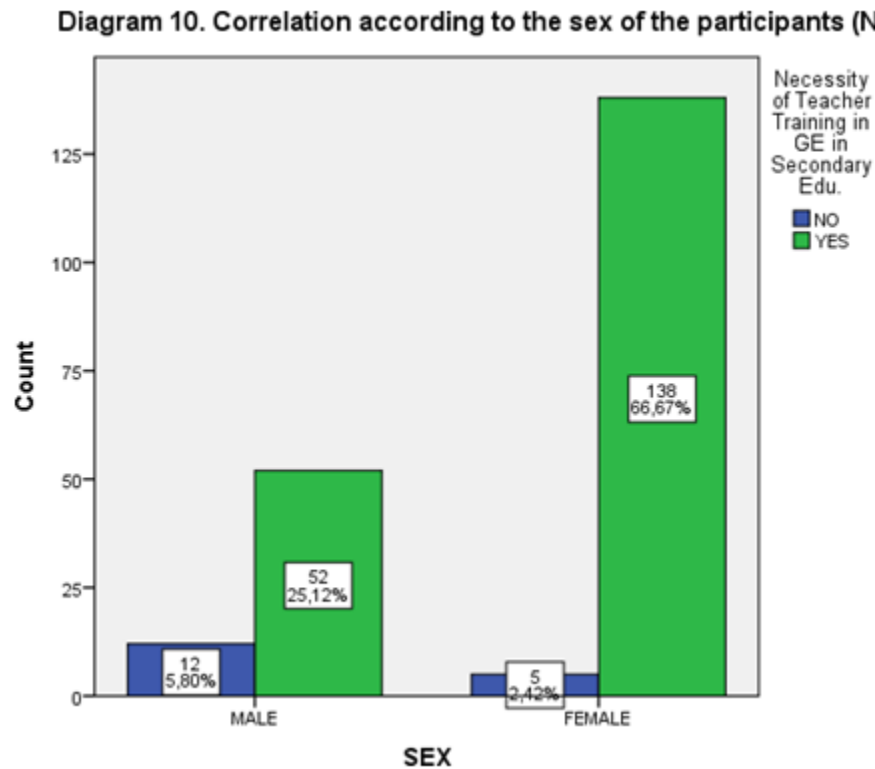
**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	13,647 <sup>a</sup>	1	,000		
Continuity Correction <sup>b</sup>	11,698	1	,001		
Likelihood Ratio	12,420	1	,000		
Fisher's Exact Test				,001	,001
Linear-by-Linear Association	13,581	1	,000		
N of Valid Cases	207				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5,26.

b. Computed only for a 2x2 table

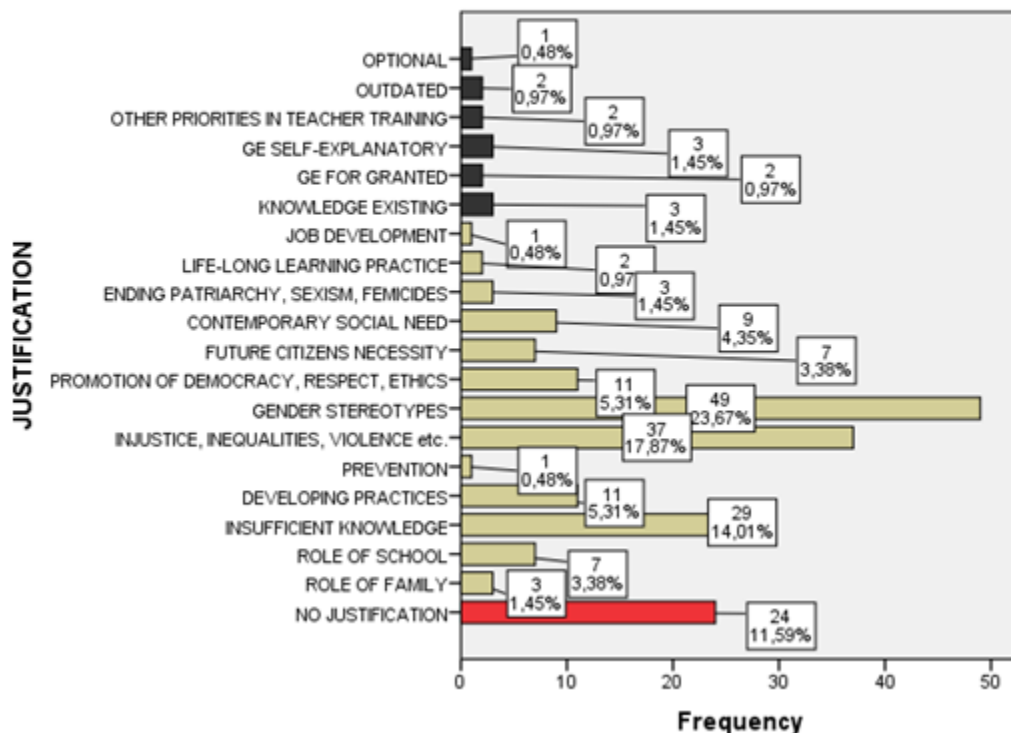
The following diagram (Diagram 10) shows the correlation of answers according to the sex of the participants.



Finally, the *open-ended question* was inserted to ask Ts to justify the previous responses resulting from the statement (C5) and the last question on the necessity of the GE training. The seventeen (17) negative responses were all justified. From them the five (5) negative responses from female Ts were justified their negative response stating that GE is characterized as “*known*” (1 Response), “*given* (1 response), “*self-explanatory*” (2responses), “*and anyone who is opposed to it should not belong to the educational community*” (1). Another response prioritized “*other more important issues for teacher training*” in education. However, no suggestion was made. From the twelve (12) negative responses from male Ts, Teacher Training for GE was characterized as “*self-explanatory*” (4 responses), “*optional*” (1 response), and “*unnecessary*” (3 responses) with the justification that “*I think that nowadays even in secondary education there is no gender inequality*”, “*known*” (2 response) as Ts were aware of GE issues (1 response) and “*outdated*” (1 response). Another participant suggested that there were “*other more important issues for teacher training*” in education without giving an example, though. Finally, there was a justification that stressed the irreversibility of formed perceptions in GE due to the influence of the family and primary school (Diagram 11).

Concerning the responses in general, diagram 11 summarizes the answers. 11,59% gave no justification. Teachers stated that teacher training in GE would contribute to the elimination of gender stereotypes (23, 67%), and gender injustice, inequalities and gender violence (17, 87%). The third strongest argument was that they admitted their insufficient knowledge of GE issues (14, 1%). They also saw GE training as important in prevention and dealing with unhealthy behaviors within school terms as they supported that the role of the family and the role of school were critical in the reproduction of gender stereotypes in secondary education. To be exact, it is recorded that *“in societies with low standard of living, parents' perceptions of gender equality are often unacceptable. The school is the only one that can sensitize the students about it. Ts who have been trained on the specific subject will be able to thoroughly answer the questions and objections of the students, leading them to a new way of thinking with expanded horizons”*. They also, related stereotypical reproductions with the Ts' age, eg. *“The entire educational community is made up of older people (Ts) who have an outdated understanding of gender stereotypes”*. They supported that training in GE would strengthen the relationship between Ts and students. Also, it is stated that training in GE would help in *“continuous updating to keep up with the data of our times and society”*.

Diagram 11. Distribution according to JUSTIFICATION of participants (N=207)



Overall, Teachers appeared to be concerned about their lack of awareness and resources in combating patriarchy. Somebody mentioned “*gender equality only in theory.... In a completely male-dominated world with entrenched social stereotypes, women must claim the path that sexes will take in their lives to reshape their roles, to achieve complete equality*”. Another teacher stated that “*The Greek School has, to this day, strong elements of androcentrism and sexism. Gender normality in school is constructed through the performance of heterosexual identities: the boys in the home group themselves, control the heterosexuality of their classmates and stigmatize girls and "non-males" through sexist and homophobic acts*”. Finally, they reported the ultimate societal need to be trained in GE to eliminate femicides. One teacher suggested that GE training should be mandatory for students and another one supported that GE training should be included in course design for different specialties.

## **6. Discussion**

Teacher training for GE has been an issue of great interest as an aftermath of the international agreements on Sustainable development (Miralles-Cardona, et al., 2022). The pedagogical interest derived from the Agenda 2030 in which SDGs 4 and 5 refer to education and GE clarifying the necessity of educating gender-sensitive professionals through teaching, research, and innovation to facilitate quality education (UNESCO, 2015). Additionally, scholars agree that there is a poor understanding of what education for GE actually is and, specifically, which gender competencies are required for future teachers (Gough, 2016).

This study contributes to the advancement of knowledge by measuring the teachers’ level of skills to implement GE attitudes and practices in their activity through the validated TEGEP questionnaire by Miralles-Cardona, et al. (2022) in Greece. It addresses a data gap in the field of GE in Greece as the country’s progress in domestic and gender-based violence on the international level place is minimal (EIGE, 2023) due to the “*the need to document progress on teaching sustainability by planning interventions and measuring change*” (Miralles-Cardona, et al., 2022). Finally, it is necessary to measure the gender competencies of Greek secondary education teachers in GE during their active careers due to the general concern of possible reproduction of stereotypical and gender misbehaviors in the school environment (Peleki & Nikolaou, 2023).

The findings are important because they emphasize that effective implementation of SDGs 4 and 5 involves *gender code* development and transmission of classifications at school (Arnot, 2004). In terms of self-efficacy theory (Bandura, 1997), it suggests that achieving a full understanding of SDGs 4 and 5 requires an assessment of the three domains (GKA, IGP & GDA) of functioning at a national level in Greece.

Concerning the limitations of this study, its findings should be evaluated with the necessary caution. First, all data collected was self-reported, which means they can be influenced by the personal perception of the participants for themselves (Cohen, et al., 2007: 570). Secondly, the sample only included last school year (2003-24) teachers occupied in the prefecture of Etoloakarnania and from specific specialties, which does not guarantee that the results can be generalized (Cohen, et al.,2007; Cohen et al., 2009: 293). Therefore, future studies with more diverse responses from different specialties, prefectures, and regions would give a more accurate picture. Finally, the asymmetry in the gender representation between male and female participants (female: 69, 08%, male: 30, 92%, Diagram 1) could be balanced with a stratified sampling in future research.

The results of the research remain important as they are confirmed by the findings and the observations of international literature and contemporary scholars highlighting the contradiction between the confidence in the knowledge of GE and the ability to implement strategies in the educational context (Tsouroufli, 2002; Kangethe, et al., 2014; Grinou, 2015; Aliprandi- Maratou & Vlastari-Diovouniotou, 2020; Kouroutsidou & Raptis, 2021; Tzimopoulou, 2022; Thanos & Kogkidou, 2022; Miralles-Cardona, et al.; 2022 Pliogkou & Katsarou, 2024).

Specifically,

1. Concerning the first research question addressed in this study, Gender Knowledge and Awareness (GKA), the data measuring self-efficacy in GKA for a sustainable GE practice are invaluable. Findings support a moderate invariance across the nine (9) indicators of knowledge and provide evidence confirming that the self-efficacy in GKA is stable in secondary school teachers. It became obvious that overall, teachers recognize theoretical issues of GKA to an adequate level but, they also agree to have limited knowledge in legislation on gender equity and GE vs gender equity (Table 1). The findings are important because they agree with the findings of (Fennell & Arnot, 2008; Kangethe, et al., 2014; Grinou, 2015; Aliprandi- Maratou & Vlastari- Diouvouniotou, 2020; Miralles-Cardona, et al., 2022) and emphasize the necessity for further development of the teachers' academic skills on GE issues.
2. Regarding the second research question, Implementing a Gender Pedagogy (IGP), Gender pedagogy seems to be a concern as teachers seem to feel behind or uninstructed from trends and good practices in implementing gender-sensitive lesson plans. Teachers admit their attempt to promote values and issue of gender equality. However, they are not formally trained to do so. Hence, they are not sure if they are formal or exact in the implementation of lesson plans sensitive to gender and engaging the families on GE action plans (Table 2). From a theoretical perspective, these results give greater insight

into the conceptual framework of GE in educational settings and the construct of teachers' self-efficacy for exercising gender pedagogy. As illustrated in Table 2, there is a clear differentiation between learning to know and learning to teach concerning GE practices in the classroom (Grinou, 2015; Tzimopoulou, 2022).

3. The findings of the third research question reveal that Gender Developing Attitudes (DGA) seem to exhilarate but, there is significant uncertainty or admittance of lack of adoption of gender-sensitive attitudes (Table 3). In comparison to the other two variables, (GKA & IGP), teachers are more confident in DGA, as they rate themselves in self-efficacy higher but, still with eagerness to learn more and with a general feeling of mediocre confidence. These findings are important as they coincide with the oxymoron that although teachers rate themselves high in GKA, they cannot easily implement GE practices and gendered subjectivity to their students (Kladouhou in Kandsa, et al., 2010). Apart from that, this general stance proves that SDG4 about quality education and SDG5 about gender equality necessitate the appropriate accelerated teacher training in GE (United Nations, 2015; UNESCO, 2019).
4. Finally, according to the last research question, teachers seem to be rather positive towards the necessity of the implementation of GE training in secondary education for several reasons that have to do with gender socialization, contemporary social needs, the role of family, school and Ts, etc. (Diagram 11). The small percentage that suggested that training for GE is unnecessary comes as a surprise and in contrast to the social reality in Greece (e- nomothesia.gr, 2021) but also to the international social demands and changes for sustainable development (UNESCO, 2019). The data also revealed that female teachers were significantly more confident in all three modules of the TEGEP scale. This is justified as "*women tend to suffer the consequences of gender discrimination more often than men*" (Miralles-Cardona, et al., 2022). Overall, the introduction of formal in-service training in GE is welcomed but, there are still educators who need to be persuaded which signifies the powerful existence and insistence of old practices that have to be abandoned (Kouroutsidou & Raptis, 2021; Thanos & Kogkidou, 2022).

## **7. Conclusions**

Arnot (2004) decades ago described the reproduction of *gender codes* with the subsequent contribution of teachers. Our data supports this trend, which suggests that the tendency to reproduce gender stereotypes at the Greek secondary school applies to the domain of GE and SD. Bourdieu (1977) stated that "*a past that survives in the present and tends to perpetuate itself into the future by making itself present in practices structured according to its principles, ...- is the principle of the continuity and regularity which objectivism discerns in the social world without*

*being able to give them a rational basis". Moreover, in our days, Reigeluth (2021) confirms that "the gendering of society appears to be flexing with greater acknowledgment of the gender spectrum and the many important identities beyond the traditional binary, the categories of boys/men and girls/women continue to be foundational to society's organizing principles".*

More specifically, based on these findings and results, learning opportunities for teachers in GE practices would prevent the past from being reproduced as already is known and GE in Greece would probably improve. For this reason, serious decisions at the institutional level have to be made so as the present and future teachers are persuaded of the importance of their role in GE through the immediate insertion of in-service training for GE and SD. In this way, they will be committed to apply GE practices and critically scrutinize their cultural perceptions so as to abandon their practices and consequently, become active supporters of their students by leading them to critical thinking and change.

In this direction, teacher education programs in Greece should provide teachers with innovative strategies that incorporate GE into study plans, syllabi, and teaching practices. Secondary education schools should remain informed of gender socialization and GE issues, and make decisions to enrich their action plans with a gender perspective. Finally, the present study contributed to the literature by showing that teacher training programs in GE, random interventions and optional action plans in Greece are not enough to adequately support teachers in incorporating GE practices into their classrooms (Chioni, 2020; Kouroutsidou & Raptis, 2021; Marmani, 2022; Thanos & Kogkidou, 2022).

A much-needed step in a healthier direction is to deeply educate teachers on the workings of gender mainstreaming and gender socialization to be efficient about promoting GE practices in action and thus, contribute to the societal change towards a balanced co-existence of the future generations.

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