

## **The contribution of microteaching in teaching practice: a research approach to Greek students, prospective teachers**

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## Summary

The present study aims to explore the attitudes and opinions of Greek students, prospective teachers regarding the contribution of microteaching in their teaching practice. The research was conducted among 60 students of the Department of Primary Education of the University of Ioannina during the academic year 2019 - 2020. The sample was selected from 119 students who had attended the course: "Microteaching Workshops: Teaching Applications". A questionnaire with 5 closed-ended five-point Likert scale questions and 2 open-ended questions was used as the main research tool for data collection. From the processing and analysis of the responses using SPSS 28 and the content analysis technique, the main findings are summarized in that microteaching effectively contributes to the improvement of teaching competence and the development of individual teaching skills of students and thus preparing them for the implementation of teaching practice in primary schools.

**Keywords:** teaching practice, microteaching, opinions, Greek students, prospective teachers, primary schools

## 1. Introduction

One of the key conditions for improving the education provided to students in primary and secondary education is the continuous professional development of teachers, which is based on their university education. The continuous upgrading of the theoretical curricula and their practical application in classrooms is one of the main objectives of higher education and especially in the Pedagogical Departments of Primary Education through courses in "Teaching Methodology", "Microteaching" and "Teaching practices in schools" (Darra, 2020). Through the literature review, the gap between theory and practice during the training of future teachers is highlighted and it is proposed to improve and enhance their theoretical and practical training (Avgitidou & Sidiropoulou, 2021; Darra, 2020; Juhler, 2018).

Designing teacher preparation programmes that develop the appropriate knowledge and skills for trainee teachers is an ongoing challenge for higher education (Darra, 2020; Wessels, 2018). Also, several researchers (Avgitidou, 2019, 2014; Darra, 2020; Sfyroera et al., 2020) point out the importance of cooperation between trainees and between the trainer and trainees, the value of interaction within the group context, and the importance of reflection in their training.

A key axis of teacher education curricula is teaching practice, which attempts to link theoretical knowledge with its practical application (Kaldi & Xafakos, 2017; Kouyiourooukis, 2014). In the context of teaching practice, future teachers acquire teaching experiences that will be the starting point for their professional life (Kouyiourooukis 2014). Teaching practice is inextricably linked to the training and education of prospective teachers and serves as a link between the university and the school environment (Altan & Sağlamel, 2015; Botsoglou et al., 2014). Consequently, teaching practice constitutes a privileged level to test what prospective teachers know and are able to do.

At international level, the teaching practice of students is a key teaching subject in teacher education and a prerequisite for successful completion of studies (Gourgiotou, 2020; Babalis et al., 2020). It provides the opportunity for feedback, personal reflection and adoption of personal

teaching style, essentially preparing students for the teaching profession (Androusou & Avgitidou, 2013; Avgitidou, 2019; Babalis et al., 2020; Papandreou & Natsiou, 2020; Sfyroera et al., 2020). Another characteristic of teaching practice is its association with "Teaching Methodology", the branch of pedagogical science that focuses on teaching practice (Papadopoulou & Dimitriadou, 2007). In other words, student teaching practice aims, primarily, to give future professionals the opportunity to come into contact with the authentic school environment, where they will put their scientific and theoretical training into practice (Avgitidou, 2014).

However, the teaching practice of future teachers in a real classroom environment is accompanied by unpredictable events and innumerable problems that arise (Andreasen et al., 2008; Kougiourouki, 2014) that are likely to distract the teacher from his/her teaching because teaching is a complex and multifaceted phenomenon with constant demands and continuous evolution (Kougiourouki, 2014; Fykaris, 2015). These facts are one of the main reasons why several teacher education programmes have incorporated microteaching as a laboratory teaching practice that takes place at the university site before students implement the teaching practices in primary schools.

In Greece, in several Departments of Primary Education, as well as in the Department of Primary Education of the University of Ioannina, students have the opportunity to choose courses related to the implementation of microteaching and its teaching practice in primary schools (Fykaris & Papaspyrou, 2014). Particularly in recent years, microteaching is now considered an established method used in the basic education of future teachers, primarily in the context of courses related to teaching practice (Chatzidimou, 2013; Sofos, 2015; Sofos et al., 2014). In other words, microteaching is being utilized as a methodology for the teaching practice of future teachers (Sofos et al., 2014).

Microteaching is referred to in the literature review as "laboratory exercise", "miniature lesson", "educational and teaching tool", "teaching technique", "teaching method" (Chatzidimou, 2016; Chatzidimou, 2015; Chatzidimou, 2013). However, in summary, we can say that microteaching involves a wide range of applications (Masali & Kougiourouki, 2021; Dayanindhi & Hegde, 2018) and is an educational and training process of laboratory format that has the main purpose of helping both future and serving teacher trainees to practice and acquire specific pedagogical and teaching skills for the whole teaching process (Masali & Kougiourouki, 2021; Chatzidimou & Kougiourouki, 2004). Microteaching is a condensed lesson module delivered within a role-playing context, where peers act as 'learners' (Ledger & Fischetti, 2020).

More specifically, the basic structure of a microteaching includes three phases (Arslan, 2021; Avgitidou, 2014; Zalavra & Makri, 2022; Zalavra et al., 2020; Karlström & Hamza, 2019): (a) the planning phase in which students plan a short lesson module, (b) the teaching phase in which they teach the module to their peers, and (c) the reflection phase to reflect on what happened during the microteaching session. During the microteaching session, the trainee teacher is asked in controlled situations to teach a teaching module (Chatzidimou, 2015; Borko et al., 2008). Micro-teaching is based on the active participation and engagement of trainees, who plan, conduct, parent and evaluate lessons, which are usually limited in terms of targeting, time, content and number of students (Chatzidimou, 2016).

The review of the literature reveals that several studies have been implemented to investigate the effectiveness of microteaching on individual elements related to teacher education (Arslan, 2021; Chatzidimou, 2016). More specifically, studies have shown that microteaching effectively contributes to the professional development of future teachers (Amobi & Irwin, 2009; Chatzidimou, 2011; He & Yan, 2011; Koutsoukos & Fragoulis, 2016; Ogeyik, 2009; Ralph, 2014; Reddy, 2019;), developing their identity as teachers (Papadopoulou & Kipouropoulou, 2020; Mergler & Tangen, 2010), reducing their stress (Peker, 2009), improving their teaching competence (Crichton, 2021; Taşdelen Karçkay & Sanlı, 2009), developing individual teaching skills (Benton - Kupper, 2001; Chatzidimou & Taratorori, 2003; Crichton, 2021; Kiliç, 2010; Koross, 2016), such as preparing the lesson plan, choosing the teaching subject, selecting the teaching objectives, choosing appropriate teaching techniques, equal communication between the members of the learning group and using a variety of assessment techniques.

Consequently, microteaching is demonstrated as an indispensable teaching tool, an interesting educational process and an educational innovation in the basic education of future teachers (Masali & Kougiourouki, 2021; Reddy, 2019; Chatzidimou & Taratorori, 2003). In other words, microteaching seems to play an important role in the context of education, particularly the field of teaching practice and offers a field of research and implementation of teaching practice approaches that contribute to the implementation of teaching practice in primary schools by students (Chatzidimou, 2016).

However, despite the encouraging results of the above studies, it is worth noting that some concerns are raised about the effectiveness of microteaching and its contribution to teaching practices (Luaran et al., 2016; Masali & Kougiourouki, 2021). More specifically, one of the main drawbacks expressed by researchers (He & Yan, 2011; Koutsoukos & Fragoulis, 2016; Ogeyik, 2009; Slabbert, 2002) is that microteaching has the effect of constructing homogenized teachers who teach and behave in a certain way, participating in some kind of teaching game within an artificial and virtual classroom environment that does not exactly simulate the real classroom situation.

Taken together with the above and considering that (Sofos et al., 2014):

- the effective link between theory and practice is a key determinant of the effectiveness and quality of the placement
- microteaching as a traineeship methodology is a technique with very positive results
- the identification of students' problems and concerns about the microteaching they carry out is an important prerequisite for improving traineeship programmes

it becomes evident that the investigation of the opinions and attitudes of students and future teachers in primary schools on the contribution of microteaching to their placements is an important study that is expected to contribute significantly to improving the effectiveness and quality of their placements.

## **2. Method**

### ***2.1 Aim of the research***

The aim of this research is to investigate the attitudes and opinions of students of the Department of Primary Education of the University of Ioannina regarding the contribution of microteaching in their teaching practice in primary schools.

### ***2.2 Research question***

The main research question of this study is the following: "to what extent do students believe that microteaching will help them in their teaching practice in primary schools?"

### ***2.3 Sample***

The research was conducted among students who completed the seventh semester of the Department of Primary Education of the University of Ioannina during the academic year 2019-2020.

The sample of the survey consists of 60 students, of which 45 are female and 15 are male. The sample was selected from 119 students who had registered and attended the seventh semester course entitled: "Microteaching Workshops: Teaching Applications". Specifically, in this course, student interns in groups (4-5 people) designed and implemented a 20-minute microteaching session. The students took part in the research in both the roles of "teacher" and "learner".

Convenience sampling was used to select the sample as there was easy access from the researcher's side to the students' micro-teaching since he was teaching the students himself.

It is worth noting that the survey was conducted some time after the students had been taught the course, which means that the students' opinion is settled and not a fleeting impression of the moment (or sensationalism).

The research interest of this group of students is that they are the future teachers who will teach primary school students

### ***2.4 Data collection and analysis***

The questionnaire was used as the main research tool for the implementation of the research and for the collection of data. The questionnaire consisted of 5 closed-ended five-point Likert scale questions and 2 open-ended questions, which recorded the views of the students who took part in the taught course both as "lecturers" and "students". It should be mentioned that the closed-ended questions were numerically superior, as they require less time to complete and thus become more attractive to the sample. At the same time, the "closed" type questions offer the possibility of more controlled standardization of the collected data and through this effective comparisons of responses, are easy to understand and specific in terms of answers (Friborg & Rosenvige, 2013).

In the questionnaire a scale up to 5 was chosen to give more reliability with the existence of several alternative answers. The options are as follows: 1= Not at all, 2= Slightly, 3= Moderately, 4= Very, 5= Extremely.

Statistical analysis, processing and interpretation of the empirical data was implemented by using the SPSS 28 statistical package. More specifically, the analysis of the questions was performed as follows:

- (a) first, an analysis of the frequencies obtained from the recordings of the responses given was carried out
- (b) a One-way Anova test of means was carried out in order to establish statistically significant relationships between the variables. It is worth noting that no statistically significant correlations were found between variables such as age and gender.

For the analysis of the data from the students' responses to the two open questions, content analysis was chosen taking into account the purpose of the research, the individual objectives and the available material. Content analysis is an objective, systematic and quantitative description of the stated content (Cohen et al., 2000).

### 2.5 Research limitations

The main limitations of this research are: i) the small sample size; ii) it is a study of the views and attitudes of specific students who have been trained and experienced micro-teaching in a certain educational context; iii) the quantitative and qualitative analysis based on the description and deepening of the respondents' views is not intended to lead to a generalization of the findings of a research, but to highlight interesting aspects of the issue under investigation.

Consequently, this paper does not argue for the universal nature of the findings, but rather to highlight important aspects of the educational process concerning the role of microteaching in the teaching practice of students in primary schools.

### 3. Results

The results of the research are presented below in tables with the distribution of student responses by question. For each question, a commentary of the answers is provided.

In variable-question (1): 'to what extent do you consider that your participation in the implementation of the microteaching activities in the context of the course: 'Microteaching workshops: Teaching Applications' will help you during your teaching practice training in primary schools?' (Table 1), of the 60 students who completed the questionnaire, 1 (2%) responded "Slightly", 1 (2%) responded "Moderately", 22 (36%) responded "Very" and 36 (60%) responded "Extremely". Consequently, a very high percentage (96%) is found between "Very" and "Extremely" responses.

**Table 1:** The frequencies in relation to the question - variable (1)

Variable (1)	Frequency	Percent (%)
Not at all	0	0,0
Slightly	1	2,0
Moderately	1	2,0
Very	22	36,0
Extremely	36	60,0
<b>Total</b>	<b>60</b>	<b>100</b>

In variable-question (2): "to what extent do you think that your participation in the implementation of micro-teaching will contribute to the implementation of alternative teaching techniques (e.g. brainstorming, role-playing, group work, etc.) during teaching practice in primary schools?" (Table 2), of the 60 students who completed the questionnaire, 3 (5%) responded "Moderately", 26 (43%) responded "Very" and 31 (52%) responded "Extremely". Consequently, a very high percentage (95%) is found between the answers "Very" and "Extremely".

**Table 2:** The frequencies in relation to the question - variable (2)

<b>Variable (2)</b>	<b>Frequency</b>	<b>Percent (%)</b>
Not at all	0	0,0
Slightly	0	0,0
Moderately	3	5,0
Very	26	43,0
Extremely	31	52,0
<b>Total</b>	<b>60</b>	<b>100</b>

In variable-question (3): "to what extent do you think that after practicing the teaching technique: "group work" for the implementation of microteaching you will be able to apply group work during teaching practice in primary schools?" (Table 3), of the 60 students who completed the questionnaire, 1 (2%) responded "Slightly" 4 (7%) responded "Moderately", 26 (43%) responded "Very" and 29 (48%) responded "Extremely". Consequently, a very high percentage (91%) is found between the answers "Very" and "Extremely".

**Table 3:** The frequencies in relation to the question - variable (3)

<b>Variable (3)</b>	<b>Frequency</b>	<b>Percent (%)</b>
Not at all	0	0,0
Slightly	1	2,0
Moderately	4	7,0
Very	26	43,0
Extremely	29	48,0
<b>Total</b>	<b>60</b>	<b>100</b>

In variable-question (4): "to what extent do you think that after practicing differentiated teaching in the implementation of micro-teaching you will be able to apply it in teaching practice in primary schools?" (Table 4), of the 60 students who completed the questionnaire, 10 (17%) responded "Moderately", 28 (47%) responded "Very" and 22 (36%) responded "Extremely". Consequently, a very high percentage (83%) is found between "Very" and "Extremely" responses.

**Table 4:** The frequencies in relation to the question - variable (4)

<b>Variable (4)</b>	<b>Frequency</b>	<b>Percent (%)</b>
Not at all	0	0,0
Slightly	0	0,0
Moderately	10	17,0
Very	28	47,0
Extremely	22	36,0
<b>Total</b>	<b>60</b>	<b>100</b>

In variable-question (5): "to what extent do you think that after practicing the teaching technique of "brainstorming" during the implementation of micro-teaching you will be able to apply it during teaching practice in primary schools?" (Table 5), of the 60 students who completed the questionnaire, 5 (8%) answered "Moderately", 17 (29%) answered "Very" and 38 (63%) answered "Extremely". Consequently, a very high percentage (92%) is found between "Very" and "Extremely" responses.

**Table 5:** The frequencies in relation to the question - variable (4)

<b>Variable (4)</b>	<b>Frequency</b>	<b>Percent (%)</b>
Not at all	0	0,0
Slightly	0	0,0
Moderately	5	8,0
Very	17	29,0
Extremely	38	63,0
<b>Total</b>	<b>60</b>	<b>100</b>

Students' responses to the two open-ended questions using the content analysis technique were coded into analysis categories resulting from the grouping of similar opinions expressed by the sample students (Tables 6 and 7).

In variable-question (6): 'what made it most difficult for you to design the microteaching in the context of the course: 'Microteaching workshops: Teaching Applications?' " (Table 6), of the 60 students who responded, 3 (5%) answered "The time needed for planning", 3 (5%) answered "The prioritisation of topics and activities", 7 (12%) answered "Finding an original idea", 6 (10%) answered "The different needs and interests of pupils that had to be taken into account", 18 (30%) answered "The choice of topic/module" and 23 (38%) answered "No difficulty".



**Table 6:** Response coding and frequencies of the variable – question (6)

Category of answer to question (6)	Frequency	Percent (%)
The time needed for planning	3	5,0
The prioritisation of topics and activities	3	5,0
Finding an original idea	7	12,0
The different needs and interests of pupils that had to be taken into account	6	10,0
The choice of topic/module	18	30,0
No difficulty	23	38,0
<b>Total</b>	<b>60</b>	<b>100</b>

In the variable - question (7): 'what made it most difficult for you to implement the microteaching in the context of the course: 'Microteaching workshops: Teaching Applications?' (Table 7), of the 60 students who responded, 3 (5%) answered "Working with other members of the student group", 11 (19%) answered " Finding materials for the implementation of constructions, experiments and other activities", 17 (28%) answered "The allocation of time for the implementation of activities and the lesson plan", and 29 (48%) answered "No difficulty".

**Table 7:** Response coding and frequencies of the variable – question (6)

Category of answer to question (7)	Frequency	Percent (%)
Working with other members of the student group	3	5,0
Finding materials for the implementation of constructions, experiments and other activities	11	19,0
The allocation of time for the implementation of activities and the lesson plan	17	28,0
No difficulty	29	48,0
<b>Total</b>	<b>60</b>	<b>100</b>

#### 4. Discussion

In the first three research questions and in the fifth question - referring to the implementation of microteaching, the application of alternative teaching techniques in the implementation of microteaching, the application of "group work" and "brainstorming" - the students' statements are positive in a very high percentage. It is worth noting that a high percentage of students - on average 93.5% for the 4 questions - state the options "Extremely" and "Very".

These data of the first three questions and the fifth question are also in line with recent research confirming that microteaching contributes in a very positive way to the education, training and teaching skills of the participants (Amobi, 2005; Arslan, 2021; Chatzidimou, 2015; Chatzidimou, 2013; Crichton, 2021; He & Yan, 2011; Ismail, 2011; Ogeyik, 2009; Koutsoukos & Fragoulis,

2016; Remesh, 2012;). In particular, from several studies (Arslan, 2021; Arsal, 2014;; Benton - Kupper, 2001; Chatzidimou & Taratori, 2003;Crichton, 2021;Koross, 2016; Kiliç, 2010; Masali & Kougiourouki, 2021), it can be seen that microteaching also contributes to the development of individual teaching skills related to the first three research questions and the fifth research question of this study, such as preparing the lesson plan for the implementation of microteaching, time management, choosing appropriate teaching techniques, group work, brainstorming,etc.

In the fourth research question - implementation of differentiated teaching during the implementation of the microteaching - the students' statements are positive in a very high percentage since 83% of them indicate the options "Extremely" and "Very". These data are confirmed by other researches where it is reported that microteaching contributes to the improvement of their teaching ability (Arslan, 2021; Crichton, 2021; Sofos et al., 2014;Taşdelen Karçkay & Sanlı, 2009), the development of individual teaching skills, the selection and utilization of appropriate teaching methods, such as differentiated teaching, etc. (Chatzidimou, 2013; Chatzidimou, 2015; Chatzidimou, 2016; Masali & Kougiourouki, 2021; Sofos et al., 2014; Fykaris & Papaspyrou,2014).

From the content analysis of the sixth open-ended question regarding the difficulties encountered by the students in designing the microteachings, it is clear that the main difficulties encountered by the students were mainly related to "Finding an original idea for the microteaching" and "The choice of topic/module" to be taught.

The content analysis of the seventh open question regarding the difficulties encountered by the students during the implementation of the microteaching activities shows that the main difficulties encountered by the students were mainly related to "Finding materials for the implementation of constructions, experiments and other activities", as well as "the allocation of time for the implementation of activities and the lesson plan".

Finally, codifying the results of the present research, it emerges that the micro-teaching sessions contribute effectively to the improvement of teaching competence and the development of individual teaching skills of the students so that they are able to apply everything they have implemented in them effectively and systematically in the teaching practice in Primary Schools.

## 5. Conclusions

The vast majority of the student participants in the survey stated that they benefited from the implementation of the microteaching and therefore that it can make a positive contribution to the teaching practice in primary schools. In other words, the value of microteaching as an 'educational method' to contribute effectively to teaching practice in primary schools is recognised. In more detail, the main findings of this research, in conjunction with the research questions, are coded as follows:

- i) A very high percentage of the students surveyed were positive about the necessity of using microteaching as part of the students' practice for the teaching practice in primary schools
- (ii) A very high percentage of the students surveyed were positive about the effectiveness of microteaching in applying teaching methods and techniques, such as differentiated instruction, group work, brainstorming, etc., to the teaching practice in primary schools

In more detail, the results of the present research show that the use of micro-teaching is essential for the teaching practice in primary schools since it contributes to a fairly high degree to the acquisition of knowledge and skills of students regarding basic dimensions of the teaching and learning process, such as the preparation of the teaching scenario, the selection of appropriate teaching techniques, methods and means of teaching, the effective management of teaching time, etc. (Sofos et al, 2014). At the same time, through micro-teaching, reflection on the planning and implementation of teaching is enhanced by providing enough knowledge and skills - regarding lesson planning, time management, application of methods and teaching techniques, etc. - to the student interns so that during the teaching practice they can effectively manage the teaching and learning process (Arsal, 2014; Crichton, 2021).

The students' opinions and attitudes regarding the contribution of microteaching to the teaching practice in primary schools converge on the common assumption that microteaching is a field of coupling theory and practice that "transmits" to future teachers the actual teaching and the roles they are called upon to perform (Arono, 2019; Fykaris & Papaspyrou, 2014). In other words, microteaching enables students to put theory into practice since, through its implementation, they gain more teaching experience in teaching methods and teaching techniques to be able to implement them during their teaching practice in primary schools. (Arslan, 2021).

Taking into account the above data, the implementation of microteaching is considered necessary, as it is an essential support tool both for the teaching practice in primary schools (Arslan, 2021) and for the preparation of future teachers. In the context of this reflection, it is worth mentioning that microteaching should be offered in the curriculum of a university department that trains future teachers as a compulsory prerequisite course to students. Then, only if they successfully complete it then they will be able to move on to the next stage of teaching practice in primary schools.

In conclusion, because micro-teaching as a "methodology of practice" is important and useful for future teachers of all disciplines who will be called upon to teach in primary schools, in secondary schools and high schools, it is necessary to include it as a compulsory course and with increased credit points in the curricula of both the Pedagogical Departments of Primary and Pre-school Education and the University Departments of Literature, Chemistry, Physics, Biology, Mathematics and Foreign Languages. In general, micro-teaching should be included as a compulsory course and with increased credit points in the curricula of all University Departments whose graduates will work as teachers in the future.

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