



A Study of Primary School Teachers' Tendencies Regarding the Usefulness of Dramatization in the Educational Process

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Abstract: In this article, we attempt to examine the general teachers' attitudes towards dramatization and the differences that arise according to their major demographic elements, using inferential statistics methodology. Our sample consists of 60 (sixty) Greek teachers, of which 15 (fifteen) are male and 45 (forty-five) are female respondents. The teachers completed all questionnaire's statements correctly (without missing values), allowing us to draw valuable conclusions on both their knowledge and their perspectives regarding the usefulness of dramatization in a school environment and the necessity of its inclusion in the educational process. The analysis focuses both on the general teachers' tendencies and the existing differences that are caused according to the respondents' sex, age, years of experience and their willingness of working with immigrant students. Our analysis is carried out via the Mann-Whitney, Kruskal-Wallis and chi-square statistical tests. These statistical methods are ideal for the comparison of data resulting from questionnaires based on the Likert scale, providing trustworthy and valuable conclusions about the attitudes towards the inclusion of drama in the educational procedure. This paper reveals important existing differentiations in the viewpoints of Greek primary school teachers in terms of dramatization in education, while it brings out a quite positive attitude towards the benefits of including drama in the teaching process of primary schools.

Keywords: dramatization, education, pedagogy, Mann-Whitney U test, Kruskal-Wallis test, inferential statistics.

Introduction

Dramatization is a theatrical technique that can help pupils, better understand certain concepts, both within and outside the educational environment. 'Dramatopoesis', the Greek word for dramatization, is a compound word, formed by the words drama and poetry ('poesis' in Greek). The latter does not refer to its literary significance (poetry: the art of poems) but to its basic etymological meaning, namely: to make, to do, to construct. The first word is a derivative of the Greek verb 'dro', which means: I act, I do, I intervene; it should certainly not be confounded with its theatrical interpretation, which carries an emotional charge.

In this study, through the usage of a well-constructed questionnaire, we explore the tendencies of Greek primary school teachers, regarding the inclusion and beneficial effects of dramatization in the educational process. Special emphasis is placed on comparing their views based on sex, age, years of experience and their desire to work with immigrant students, using the Mann-Whitney U, Kruskal-Wallis and chi-square statistical tests, that are ideal for questionnaires based on Likert scale. The increased percentages of immigrants that have arrived in Greece during the last years, led us to also include in our analysis the examination of teachers' viewpoints with regard to their willingness of working with immigrant pupils in addition to the exploration of dissimilarities based on the aforementioned three demographic characteristics.

Related work includes studies that examine some aspects of the influence of dramatization in the educational process. [Şengün and İskenderoğlu \(2010\)](#) presented the analyses of 17 articles on the use of dramatization in the teaching of Mathematics; [Kayılı and Erdal \(2021\)](#) compared through the Mann-Whitney test the performance of 40 pupils, in order to examine whether dramatization enhances the understanding of preschool children, while [Momeni, Khaki and Amini \(2017\)](#) examine whether dramatization improves the creativity of 4-6 year-olds using a sample of 52 students. Furthermore, [Kilic and Namdar \(2021\)](#) assessed whether dramatization contributes to the acquisition of values in 5 year-old

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children. Finally, [Yaşar and Aral \(2012\)](#) examined whether the inclusion of dramatization in the education of children aged 61-72 months contributes to the development of creative thinking, while [Pesen and Üzüm \(2017\)](#) looked at the self-efficacy levels of English teachers who used dramatization. Another widely used statistical tool that is adequate in the exploration of correlation between the answers of respondents in various questions, is the Spearman index that also belongs to the category of non-parametric statistical tests ([Papageorgiou and Tsaklidis, 2021](#)) rendering it ideal for the particularities of Likert scale.

This article is organized as follows: In the materials and methods section we emphasize the robustness of our questionnaire's reliability through the Cronbach's alpha index, while presenting the necessary characteristics of the statistical tests that we utilize during our analysis. In the results section we display the general tendencies of teachers towards dramatization in parallel with all the useful comparisons that take place in our analysis. Finally, we summarize the findings of our study, providing valuable conclusions for the differences in views of Greek teachers based on their demographic characteristics and their general positive attitude towards the beneficial effects of dramatization aiding the teaching process.

Materials and Methods

Questionnaire 's and statistical method's reliability

As we previously mentioned, this study is conducted with the usage of a well-constructed questionnaire, aiming to reveal the teachers' opinions for the utilization and helpfulness of dramatization in various aspects of the educational procedure. The questionnaire includes 24 questions-statements that utilize the five-level Likert scale aiming to provide a representative scheme of the examined phenomenon to the participants. The answers to the questions of the five-point Likert scale are coded with values ranging from 1 - 5, where higher values symbolize more positive answers to the questions-affirmations. Namely, values 1 – 5 represent options “Strongly Disagree”, “Disagree”, “Neither Agree nor Disagree”, “Agree” and “Strongly Agree” correspondingly.

In this section, emphasis is placed on assessing the reliability of the questionnaire's measurement scale, through Cronbach's alpha coefficient, which returns values ranging from 0 to 1 ([Adeniran, 2019](#); [Tavakol and Dennick, 2011](#); [Taber, 2018](#)). The higher the value, the more reliable is the scale used in the questionnaire items. Values close to 1 are almost impossible in practice; therefore, researchers consider values greater than 0.5 as relatively acceptable, and those greater than 0.7 as extremely satisfactory. In our case, we have a Cronbach's alpha of 0.861 constituting a highly satisfactory value, which confirms the strong reliability of the used scale.

Inferential Statistics

The two non-parametric statistical tests of Mann-Whitney U ([Jingdong and Priebe, 2020](#); [Papageorgiou et al, 2022](#); [Kühnast and Neuhäuser, 2008](#)), Kruskal-Wallis ([Dalgaard, 2002](#); [Brown and Hettmansperger, 2002](#); [Winter and Dodou, 2010](#); [Ostertagová, Ostertag and Kováčet, 2014](#)) are more appropriate in cases of ordinal measurement scale data -such as Likert scale data- as they rely their functioning on order rather than mean values. Statistical methods that invoke the use of the sample mean value are best suited to analyze interval or ratio scale data.

In addition, we come to the selection of chi-square test due to its suitability of managing binary variables or variables with discrete number of options ([Holt, Scott and Ewings, 1980](#); [Franke, Ho and Christie, 2011](#); [Rao and Scott, 1981](#)); for example, variables-questions with only two possible answers (e.g. “Yes” or “No”). As a result, we are able to explore the existence of correlation between the willingness of primary school teachers to work with students that come from immigration according to the three demographic elements of gender, age and years of experience.

In the present analysis, we make extensive use of the generated p-values. The latter, represents the probability that the produced results are randomly generated and not due to a systemic factor ([Andrade, 2019](#); [Nahm, 2017](#); [Gao, 2020](#)). Thus, we realise that the lower the probability, the safer the conclusions drawn; p-values smaller than the selected significance level “ α ” signify that the results of statistical tests are not due to random factors. In our analysis, we use a significance level “ α ” of 0.05. For the statistical tests that take place in this paper we utilized the SPSS (Version 27.0.1.0) software.

Results

Comparison of perspectives based on sex

In this section, we examine the differences in views based on sex, via the Mann-Whitney U test. The variable "sex" is coded as "Male" = 0 and "Female" = 1; the examined sample consists of 45 male and 15 female primary school teachers that answered to all 24 questionnaire's statements. Figure 1 represents a pie chart of the distribution of male and female respondents in the sample.

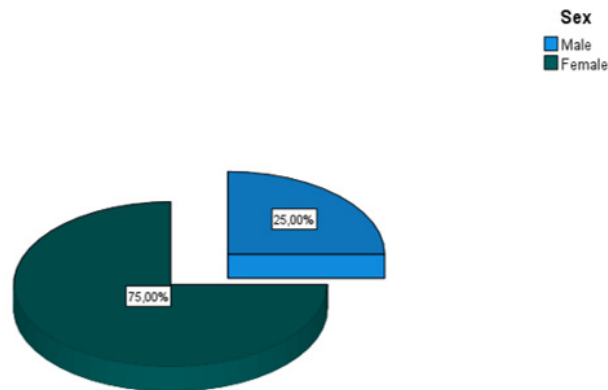


Figure 1. Pie chart presenting the sample's percentages of male and female primary school teachers

Tables 1a-d, illustrate the results of the Mann-Whitney U test. More specifically, the third column presents the number of respondents in each subgroup, the fourth and fifth show the mean value and standard deviation of each group respectively and the sixth column shows the statistical significance of the comparison (p-value). Generally speaking, the corresponding mean values (mean > 3) display positive tendencies towards the usefulness of dramatization's inclusion in the educational environment, regardless of their gender.

Table 1a

Comparison of teachers' views based on sex through the Mann - Whitney test

Teachers' Statements	Sex	N	Mean	Standard Deviation	p-value
1. Dramatization is an effective teaching method	Male	15	4.40	0.632	0.431
	Female	45	4.28	0.645	
2. Dramatization is widely used in the teaching of general classes	Male	15	3.07	0.884	0.836
	Female	45	3.02	0.917	
3. Dramatization is appropriate for teaching foreign-language pupils	Male	15	4.27	0.594	0.636
	Female	45	4.33	0.674	
4. Teachers are trained to use dramatization as a teaching method	Male	15	2.73	0.961	0.636
	Female	45	2.53	0.726	
5. Dramatization presupposes good use of the dominant language	Male	15	3.60	1.183	0.033
	Female	45	2.96	0.952	

Table 1b

	Teachers' Statements	Sex	N	Mean	Standard Deviation	p-value
6.	I have used dramatization in the teaching of the Greek language	Male	15	2.87	1.356	0.637
		Female	45	3.02	0.941	
7.	I use dramatization in the teaching of the Greek language	Male	15	2.67	1.397	0.363
		Female	45	2.96	1.021	
8.	I use dramatization in teaching courses other than the Greek language	Male	15	3.00	1.414	0.537
		Female	45	2.87	1.179	
9.	I create dramatization activities in addition to the content of the textbook	Male	15	2.93	1.223	0.837
		Female	45	2.82	1.007	
10.	I use dramatization when it is suggested by the Teacher's Handbook	Male	15	2.60	0.986	0.132
		Female	45	3.11	1.153	
11.	I would choose dramatization to make teaching more effective	Male	15	3.47	1.060	0.362
		Female	45	3.78	0.735	
12.	I would choose dramatization for more enjoyable teaching and easier learning	Male	15	3.93	1.163	0.970
		Female	45	4.09	0.583	

Table 1c

	Pupils, through dramatization...	Sex	N	Mean	Standard Deviation	p-value
13.	Expand life and learning experiences	Male	15	4.07	0.704	0.698
		Female	45	3.96	0.767	
14.	Gather information about the "Other"	Male	15	3.87	0.834	0.630
		Female	45	3.93	0.720	
15.	Develop their language skills	Male	15	4.00	0.535	0.912
		Female	45	4.00	0.674	
16.	Release emotional charge	Male	15	4.20	0.676	0.123
		Female	45	4.44	0.813	
17.	Develop democratic relationships within the classroom and the school environment	Male	15	3.93	0.704	0.704
		Female	45	4.00	0.769	
18.	Feel creative	Male	15	4.13	0.743	0.040
		Female	45	4.56	0.586	

Table 1d

Pupils, through dramatization...	Sex	N	Mean	Standard Deviation	p-value
19. Combine relaxation and creativity	Male	15	4.13	0.743	0.108
	Female	45	4.47	0.661	
20. Develop motor skills	Male	15	4.20	0.561	0.896
	Female	45	4.18	0.777	
21. Discover and develop their senses	Male	15	4.13	0.640	0.613
	Female	45	4.22	0.704	
22. Stimulate their imagination	Male	15	4.60	0.507	0.904
	Female	45	4.58	0.621	
23. Set aside inhibitions and phobias	Male	15	4.13	0.834	0.772
	Female	45	4.04	0.796	
24. Socialise	Male	15	4.33	0.816	0.703
	Female	45	4.44	0.693	

By observing the generated p-values of tables 1a-d, we pay attention to the statements “Dramatization presupposes good use of the dominant language” and “Pupils, through dramatization feel creative”, with ($U = 217.5, p = 0.033 < 0.05$) and ($U = 230.5, p = 0.04 < 0.05$), respectively. In the case of the statement “Dramatization presupposes good use of the dominant language”, the views of men (mean = 3.6) seem to be more positive compared to those of women, that display a mean value of 2.96. The value of 3.6 indicates that viewpoints of men converge closer to the option “Agree”, while the views of women concentrate on the moderate answer “Neither agree nor disagree”.

Furthermore, the female teachers who participated in the research seem to believe more strongly that dramatization contributes beneficially to the stimulation of children’s creativity, as the mean value of their answers to the corresponding question is 4.56, compared to 4.13, which is the average of male teachers’ responses. No difference in the views of men and women emerge in the remaining items, as illustrated by the respective p-values, which are greater than 0.05.

Comparison of perspectives based on age

Here, we examine the differences of teachers’ opinions in relation to their age, with the help of the Kruskal-Wallis non-parametric test. The variable age is coded as “25 – 30” = 1, “31 – 40” = 2 and “41+” = 3. The initial questionnaire had four age groups; however, due to the small number of participants, the age groups 41 - 40 and 50+ were concatenated and given the code 3. The sample consists of 19 primary school teachers that their age is between 25 and 30, 25 that their age is between 31 and 40 years and 17 that they are over 40 years old. Figure 2 displays a pie chart of the participants’ age distribution.

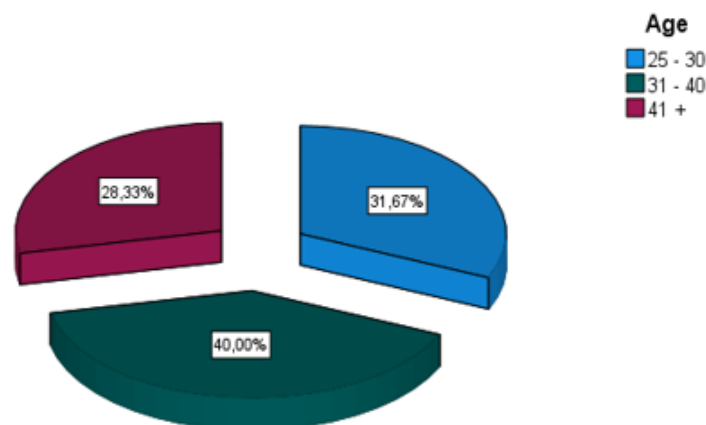


Figure 2. Pie chart presenting the respondents’ age distribution

Tables 2a-d, record the results of the Kruskal-Wallis test based on the constructed questionnaire. Generally, the displayed mean values (mean > 3) show positive tendencies of primary school teachers towards the usefulness and the inclusion of dramatization in the everyday educational environment, regardless of their age. Especially for statements like "Dramatization is appropriate for teaching foreign-language pupils", "Pupils, through dramatization release emotional charge", "Pupils, through dramatization combine relaxation and creativity" and "Pupils, though dramatization discover and develop their senses" the respective average values are even greater than 4 that corresponds to the option "Agree".

Table 2a
Comparison of teachers' views based on age, using Kruskal-Wallis non-parametric statistical test

Teachers' Statements	Age Group	N	Mean	Standard Deviation	p-value
1. Dramatization is an effective teaching method	25 - 30	19	4.00	0.667	0.092
	31 - 40	24	4.38	0.647	
	41 +	17	4.47	0.514	
2. Dramatization is widely used in the teaching of general classes	25 - 30	19	2.84	0.834	0.147
	31 - 40	24	3.33	0.917	
	41 +	17	2.82	0.883	
3. Dramatization is appropriate for teaching foreign-language pupils	25 - 30	19	4.32	0.749	0.934
	31 - 40	24	4.33	0.702	
	41 +	17	4.29	0.470	
4. Teachers are trained to use dramatization as a teaching method	25 - 30	19	2.47	0.513	0.118
	31 - 40	24	2.88	0.947	
	41 +	17	2.29	0.686	
5. Dramatization presupposes good use of the dominant language	25 - 30	19	2.79	0.855	0.097
	31 - 40	24	3.42	1.060	
	41 +	17	3.06	1.144	

Table 2b

Teachers' Statements	Age Group	N	Mean	Standard Deviation	p-value
6. I have used dramatization in the teaching of the Greek language	25 - 30	19	2.74	0.933	0.290
	31 - 40	24	3.13	1.154	
	41 +	17	3.00	1.029	
7. I use dramatization in the teaching of the Greek language	25 - 30	19	2.63	1.065	0.262
	31 - 40	24	3.17	1.204	
	41 +	17	2.76	1.033	
8. I use dramatization in teaching courses other than the Greek language	25 - 30	19	2.58	1.071	0.240
	31 - 40	24	3.08	1.139	
	41 +	17	3.00	1.500	
9. I create dramatization activities in addition to the content of the textbook	25 - 30	19	2.68	0.946	0.342
	31 - 40	24	2.79	1.062	
	41 +	17	3.12	1.166	
10. I use dramatization when it is suggested by the Teacher's Handbook	25 - 30	19	2.89	0.994	0.757
	31 - 40	24	3.00	1.351	
	41 +	17	3.06	0.966	
11. I would choose dramatization to make teaching more effective	25 - 30	19	3.63	0.831	0.260
	31 - 40	24	3.58	0.929	
	41 +	17	3.94	0.659	
12. I would choose dramatization for more enjoyable teaching and easier learning	25 - 30	19	3.84	0.834	0.036
	31 - 40	24	3.92	0.974	
	41 +	17	4.47	0.624	

Table 2c

Pupils, through dramatization...	Age Group	N	Mean	Standard Deviation	p-value
13. Expand life and learning experiences	25 - 30	19	3.89	0.737	0.730
	31 - 40	24	4.04	0.690	
	41 +	17	4.00	0.866	
14. Gather information about the "Other"	25 - 30	19	3.84	0.898	0.935
	31 - 40	24	3.96	0.624	
	41 +	17	3.94	0.748	
15. Develop their language skills	25 - 30	19	4.00	0.745	0.970
	31 - 40	24	4.00	0.590	
	41 +	17	4.00	0.612	
16. Release emotional charge	25 - 30	19	4.26	0.872	0.677
	31 - 40	24	4.42	0.776	
	41 +	17	4.47	0.717	
17. Develop democratic relationships within the classroom and the school environment	25 - 30	19	3.89	0.809	0.744
	31 - 40	24	4.04	0.751	
	41 +	17	4.00	0.707	
18. Feel creative	25 - 30	19	4.37	0.684	0.717
	31 - 40	24	4.54	0.588	
	41 +	17	4.41	0.712	

Table 2d

Pupils, through dramatization...	Age Group	N	Mean	Standard Deviation	p-value
19. Combine relaxation and creativity	25 - 30	19	4.26	0.653	0.318
	31 - 40	24	4.54	0.658	
	41 +	17	4.29	0.772	
20. Develop motor skills	25 - 30	19	3.89	0.737	0.048
	31 - 40	24	4.21	0.721	
	41 +	17	4.47	0.624	
21. Discover and develop their senses	25 - 30	19	3.95	0.621	0.020
	31 - 40	24	4.21	0.658	
	41 +	17	4.47	0.717	
22. Stimulate their imagination	25 - 30	19	4.42	0.692	0.305
	31 - 40	24	4.63	0.576	
	41 +	17	4.71	0.470	
23. Set aside inhibitions and phobias	25 - 30	19	3.84	0.834	0.146
	31 - 40	24	4.04	0.751	
	41 +	17	4.35	0.786	
24. Socialise	25 - 30	19	4.16	0.834	0.139
	31 - 40	24	4.50	0.590	
	41 +	17	4.59	0.712	

For the statement "I would choose dramatization for more enjoyable teaching and easier learning", we obtain $\eta = 6.672$ and $p = 0.036 < 0.05$. Therefore, there is a difference in teachers' viewpoints based on age. Teachers aged "41+" seem to be more open to the use of dramatization, aiming to conduct a more enjoyable and constructive educational process (mean value = 3.98), as their views converge on the "Agree" option, in contrast to the views of the "25 - 30" and "31 - 40" age groups that have more moderate opinions. Also, there is a statistically significant difference among teachers' perspectives, as to whether pupils develop their motor skills through dramatization ($\eta = 6.604$, $p = 0.048 < 0.05$). Teachers aged "41+" are more supportive of the view that dramatization develops pupils' motor skills (mean =

4.47), compared to the "31-40" (mean = 4.21) and the "25-30" group (mean = 3.89). Finally, a significant difference is observed in the tendencies regarding the development and advancement of pupils' senses through dramatization, with $\eta = 7.796$ and $p = 0.02 < 0.05$. The conclusions drawn are similar to the above, as the average values that we obtain are 3.95 and 4.21 and 4.47 respectively, for the three groups. However, even in cases where we do not encounter significant divergences, the age group of 41+ have the greater scores in the majority of the statements.

Comparison of perspectives based on years of experience

At this point, the difference in the perspectives of the teachers who participated in the research according to their years of experience is being examined. The variable "years of experience" is coded as "1 - 6" = 1, "7 - 12" = 2, "13 - 18" = 3 and "19+" = 4. In the original questionnaire there are five groups for this variable, however due to the small number of participants, the subgroups "19 - 23" and "23+" are merged into "19+" group, which is coded with 4. Specifically, the sample consists of 14 primary school teachers with 1-6, 26 with 7-12, 12 with 13-18 and 8 with over 18 years of experience. The respective mean values (mean > 3) display positive attitudes towards the usefulness of dramatization's inclusion in primary school education, regardless of their years of experience. Especially, according to Tables 3a-d, for statements such as "Pupils, through dramatization feel creative", "Pupils, through dramatization socialize" and "Pupils, through dramatization, stimulate their imagination" etc. we observe average values even greater than 4 regardless of the respondents' years of experience. Figure 3 displays a pie chart of the participants' years of experience distribution.

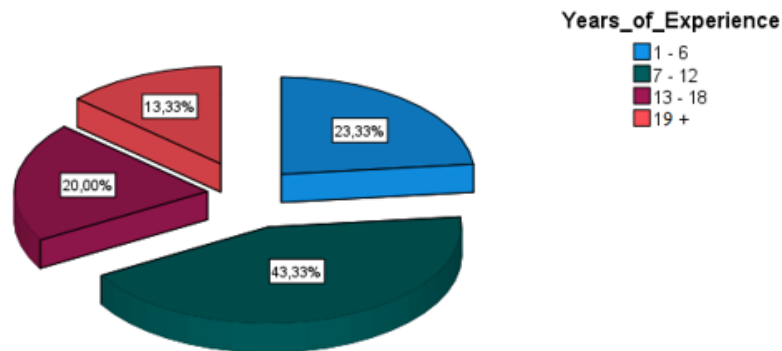


Figure 3. Pie chart presenting the distribution of respondents' teaching experience

Significant difference appears in the statement "Dramatization is widely used in the teaching of general classes" with $\eta = 10.005$ and p - value = $0.019 < 0.05$. This result is due to the dissimilarities in the teachers' views with "7 - 12" and "13 - 18" years of experience in relation to the opinions of the other two groups. More specifically, the mean values 3.35 of group "7 - 12" and 3.17 of group "13 - 18", indicate a much more moderate attitude according to whether dramatization is used in general education classes, while teachers with "1 - 6" and "19+" years of experience are between the "Disagree" and the moderate choice, with averages of 2.57 and 2.63 respectively.

Table 3a
Comparison of teachers' views based on years of experience, according to non-parametric Kruskal-Wallis statistical test

Teachers' Statements	Years of Experience	N	Mean	Standard Deviation	p-value
1. Dramatization is an effective teaching method	1 - 6	14	4.29	0.611	0.115
	7 - 12	26	4.08	0.688	
	13 - 18	12	4.50	0.522	
	19+	8	4.63	0.518	
2. Dramatization is widely used in the teaching of general classes	1 - 6	14	2.57	0.756	0.019
	7 - 12	26	3.35	0.892	
	13 - 18	12	3.17	0.718	
	19+	8	2.63	1.061	
3. Dramatization is appropriate for teaching foreign-language pupils	1 - 6	14	4.43	0.756	0.470
	7 - 12	26	4.19	0.694	
	13 - 18	12	4.50	0.522	
	19+	8	4.25	0.463	
4. Teachers are trained to use dramatization as a teaching method	1 - 6	14	2.71	0.914	0.895
	7 - 12	26	2.54	0.582	
	13 - 18	12	2.58	0.793	
	19+	8	2.50	1.195	
5. Dramatization presupposes good use of the dominant language	1 - 6	14	2.86	1.027	0.354
	7 - 12	26	3.27	0.962	
	13 - 18	12	2.83	0.937	
	19+	8	3.50	1.414	

Table 3b

Teachers' Statements		Years of Experience	N	Mean	Standard Deviation	p-value
6. I have used dramatization in the teaching of the Greek language	1-6	14	2.50	1.160	0.100	
	7-12	26	3.19	0.981		
	13-18	12	2.83	1.115		
	19+	8	3.38	0.744		
7. I use dramatization in the teaching of the Greek language	1-6	14	2.43	1.222	0.098	
	7-12	26	3.19	1.059		
	13-18	12	2.50	1.087		
	19+	8	3.25	0.886		
8. I use dramatization in teaching courses other than the Greek language	1-6	14	2.93	1.072	0.410	
	7-12	26	2.69	1.192		
	13-18	12	2.92	1.379		
	19+	8	3.50	1.414		
9. I create dramatization activities in addition to the content of the textbook	1-6	14	2.86	0.949	0.360	
	7-12	26	2.65	0.977		
	13-18	12	2.83	1.115		
	19+	8	3.50	1.309		
10. I use dramatization when it is suggested by the Teacher's Handbook	1-6	14	2.57	1.222	0.257	
	7-12	26	3.12	1.143		
	13-18	12	2.83	0.937		
	19+	8	3.50	1.069		
11. I would choose dramatization to make teaching more effective	1-6	14	3.71	0.994	0.564	
	7-12	26	3.62	0.752		
	13-18	12	3.67	0.985		
	19+	8	4.00	0.535		
12. I would choose dramatization for more enjoyable teaching and easier learning	1-6	14	3.93	1.072	0.153	
	7-12	26	3.92	0.796		
	13-18	12	4.08	0.900		
	19+	8	4.63	0.518		

Table 3c

Pupils, through dramatization...	Years of Experience	N	Mean	Standard Deviation	p-value
13. Expand life and learning experiences	1 – 6	14	4.36	0.497	0.026
	7 – 12	26	3.65	0.745	
	13 – 18	12	4.17	0.718	
	19+	8	4.13	0.835	
14. Gather information about the "Other"	1 – 6	14	4.36	0.497	0.043
	7 – 12	26	3.65	0.797	
	13 – 18	12	3.92	0.669	
	19+	8	4.00	0.756	
15. Develop their language skills	1 – 6	14	4.29	0.611	0.144
	7 – 12	26	3.81	0.634	
	13 – 18	12	4.00	0.426	
	19+	8	4.13	0.835	
16. Release emotional charge	1 – 6	14	4.71	0.469	0.231
	7 – 12	26	4.15	0.925	
	13 – 18	12	4.50	0.674	
	19+	8	4.38	0.744	
17. Develop democratic relationships within the classroom and the school environment	1 – 6	14	4.21	0.802	0.423
	7 – 12	26	3.81	0.749	
	13 – 18	12	4.08	0.793	
	19+	8	4.00	0.535	
18. Feel creative	1 – 6	14	4.64	0.497	0.629
	7 – 12	26	4.38	0.637	
	13 – 18	12	4.33	0.778	
	19+	8	4.50	0.756	

Table 3d

Pupils, through dramatization...	Years of Experience	N	Mean	Standard Deviation	p-value
19. Combine relaxation and creativity	1 – 6	14	4.50	0.519	0.947
	7 – 12	26	4.38	0.697	
	13 – 18	12	4.25	0.866	
	19+	8	4.38	0.744	
20. Develop motor skills	1 – 6	14	3.93	0.829	0.217
	7 – 12	26	4.12	0.711	
	13 – 18	12	4.50	0.522	
	19+	8	4.38	0.744	
21. Discover and develop their senses	1 – 6	14	4.00	0.679	0.303
	7 – 12	26	4.15	0.675	
	13 – 18	12	4.50	0.522	
	19+	8	4.25	0.886	
22. Stimulate their imagination	1 - 6	14	4.04	0.497	0.678
	7 - 12	26	4.46	0.706	
	13 - 18	12	4.75	0.452	
	19+	8	4.63	0.518	
23. Set aside inhibitions and phobias	1 - 6	14	4.07	0.917	0.351
	7 - 12	26	4.00	0.693	
	13 - 18	12	3.92	0.900	
	19+	8	4.50	0.756	
24. Socialise	1 - 6	14	4.57	0.514	0.678
	7 - 12	26	4.27	0.827	
	13 - 18	12	4.42	0.793	
	19+	8	4.63	0.518	

Regarding the statement “Pupils through dramatization, expand the life and learning experiences”, there is a statistically significant difference with $\eta = 9.260$ and $p - \text{value} = 0.026 < 0.05$. Essentially, the group that differs significantly from the rest is that of “7 – 12” years of experience, which seems to be between the options “Neither Agree nor Disagree” and “Agree” with an average of 3.65, while the other groups clearly agree with this statement. Finally, differentiated answers appear in the statement that elementary school students collect information about the “other” through dramatization with $\eta = 8.156$ and $p - \text{value} = 0.043 < 0.05$. The answers of teachers with “7 – 12” years of experience seem to have been divided between the options “Neither Agree nor Disagree” and “Agree” with an average of 3.65. At the same time, the other three groups converge to the “Agree” option with averages of 3.92 and 4 for the “13 – 18” and “19+” groups, while the teachers who belong to the “1-6” category have the highest average value of 4.36.

Comparison of views according to the willingness of teachers to work with immigrant students

Following the completion of the statistical analysis concerning the differentiation of the views of the teachers participating in the research, based on their gender, age and years of experience, we explore whether and how their opinions have been influenced in terms of their desire to work with immigrant students in their classes. For this purpose, a Mann-Whitney test is performed for each statement, as we have two subgroups, those who wish to work with immigrant pupils, coded with 1 and those who do not,

coded with 0. In our study, 31 of the 60 participating teachers stated that they would not like to work with immigrants, while the remaining 29 display opposite opinion, giving us a highly balanced sample of the feature that is under consideration. Figure 4 displays a pie chart of the respondents' willingness of working with immigrant students.

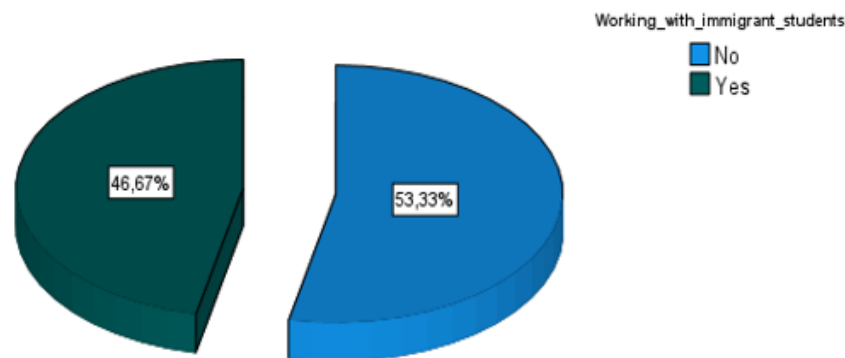


Figure 4. Pie chart presenting the percentages of teachers' willingness to working with immigrant students

Tables 4a-d display the corresponding results of the non-parametric Mann-Whitney U test. Regarding the question "Pupils, through dramatization release emotional charge", there is a statistically significant difference between the answers of the two examined groups ($U = 295$, $p - \text{value} = 0.011 < 0.05$). Looking at the 4th column of the results of table 4c, someone may realize that the teachers who are willing to work with immigrants, strongly support the usefulness of dramatization in the part of students' emotional discharge (mean = 4.66), as their answers seem to tend to the "Strongly agree" option, illustrating a highly positive attitude towards the advantages of dramatization. On the other hand, the views of teachers who do not desire to work with immigrant pupils are closer to the option "Agree" (mean = 4.13).

Table 4a

Comparison of teachers' views according to their willingness of working with immigrant students through the Mann - Whitney test

Teachers' Statements	I would like to work with immigrant students	N	Mean	Standard Deviation	p-value
1. Dramatization is an effective teaching method	No	31	4.23	0.669	0.504
	Yes	29	4.34	0.614	
2. Dramatization is widely used in the teaching of general classes	No	31	3.10	0.012	0.796
	Yes	29	2.97	0.778	
3. Dramatization is appropriate for teaching foreign-language pupils	No	31	4.23	0.669	0.289
	Yes	29	4.41	0.628	
4. Teachers are trained to use dramatization as a teaching method	No	31	2.55	0.810	0.455
	Yes	29	2.62	0.775	
5. Dramatization presupposes good use of the dominant language	No	31	3.29	1.101	0.131
	Yes	29	2.93	0.961	

Table 4b

Teachers' Statements	I would like to work		Mean	Standard Deviation	p-value
	with immigrant students	N			
6. I have used dramatization in the teaching of the Greek language	No	31	2.97	1.110	0.987
	Yes	29	3.00	1.000	
7. I use dramatization in the teaching of the Greek language	No	31	2.87	1.231	0.773
	Yes	29	2.90	1.012	
8. I use dramatization in teaching courses other than the Greek language	No	31	2.87	1.284	0.807
	Yes	29	2.93	1.193	
9. I create dramatization activities in addition to the content of the text-book	No	31	2.77	1.230	0.254
	Yes	29	2.93	0.842	
10. I use dramatization when it is suggested by the Teacher's Handbook	No	31	3.06	1.289	0.541
	Yes	29	2.90	0.939	
11. I would choose dramatization to make teaching more effective	No	31	3.61	0.989	0.497
	Yes	29	3.79	0.620	
12. I would choose dramatization for more enjoyable teaching and easier learning	No	31	4.00	1.033	0.943
	Yes	29	4.10	0.673	

Table 4c

Pupils, through dramatization...	I would like to work with immigrant students		Mean	Standard Deviation	p-value
		N			
13. Expand life and learning experiences	No	31	3.81	0.873	0.082
	Yes	29	4.17	0.539	
14. Gather information about the "Other"	No	31	3.74	0.815	0.074
	Yes	29	4.10	0.618	
15. Develop their language skills	No	31	3.90	0.700	0.267
	Yes	29	4.10	0.557	
16. Release emotional charge	No	31	4.13	0.885	0.011
	Yes	29	4.66	0.553	
17. Develop democratic relationships within the classroom and the school environment	No	31	3.81	0.749	0.065
	Yes	29	4.17	0.711	
18. Feel creative	No	31	4.26	0.682	0.016
	Yes	29	4.66	0.553	

Table 4d

Pupils, through dramatization...	I would like to work with immigrant students		N	Mean	Standard Deviation	p-value
	No	Yes				
19. Combine relaxation and creativity	No		31	4.32	0.748	0.578
	Yes		29	4.45	0.632	
20. Develop motor skills	No		31	4.16	0.688	0.673
	Yes		29	4.21	0.774	
21. Discover and develop their senses	No		31	4.19	0.749	0.961
	Yes		29	4.21	0.620	
22. Stimulate their imagination	No		31	4.52	0.677	0.552
	Yes		29	4.66	0.484	
23. Set aside inhibitions and phobias	No		31	4.13	0.763	0.597
	Yes		29	4.00	0.845	
24. Socialise	No		31	4.32	0.791	0.385
	Yes		29	4.52	0.634	

Quite important is the difference between the two groups in terms of whether students feel creative through the process of dramatization during class ($U = 305$, p - value = $0.016 < 0.05$). The interpretation does not differ much from that of the previous comparison. Once again, the teachers who are positive about the reception classes, support to a greater extent the importance of dramatization in the modern educational environment. Although, this interpretation should not lead us to the conclusion that the respondents who do not wish to work with immigrants do not support dramatization, as their average value is still greater than 4.

Examining the correlation of the willingness of the primary school teachers to work with immigrant students according to their sex, age and years of experience

Finally, we explore through the statistical test of chi - square, the possibility that the views of the participating teachers differ based on whether they want to work with immigrant students in accordance with their sex, age and years of experience. The hypothesis of 20% is valid for our sample; hence we can continue our analysis without cell fusion (McHugh 2013).

Table 5

Chi-square test for the willingness of teachers in working with immigrant students in comparison with their sex, age and years of experience

		I would like to work with immigrant students				p - value
		No		Yes		
		N	%	N	%	
Sex	Male	12	20.0%	3	5.0%	0.016
	Female	19	31.7%	26	43.3%	
Age	25 - 30	6	10.0%	13	21.7%	0.103
	31 - 40	15	25.0%	9	15.0%	
	41 +	10	16.7%	7	11.7%	
Years of Experience	1 - 6	2	3.3%	12	20.0%	0.010
	7 - 12	18	30.0%	8	13.3%	
	13 - 18	6	10.0%	6	10.0%	
	19+	5	8.3%	3	5.0%	

According to the results of table 5, there is a statistically significant difference in teachers' views in 2 out of 3 examined demographic factors. Initially, there is no statistical difference regarding the age factor ($\chi^2 = 4.547$, $p - \text{value} = 0.103 > 0.05$). Although, in terms of teachers' views according to their gender, we notice that there is a significant difference as $\chi^2 = 6.429$ and $p - \text{value} = 0.016 < 0.05$. In fact, observing the percentages listed in table 5, we realize that the opinions of female teachers on whether they want to work with immigrants, resemble a much more open-minded attitude as 31.7% of them selected "No" and 43.3% "Yes" (based on the cumulative number of participants), in contrast with men who clearly leaned towards the option "No", since the percentage of male teachers who do not want to work with immigrants is four times the percentage of those who support this statement (20% selected No and 5% 'Yes' based on the cumulative number of participants).

Difference is also observed in the perspectives regarding the variable years of experience ($\chi^2 = 11.435$, $p - \text{value} = 0.01 < 0.05$), where the percentage of teachers who support working with immigrant pupils is six times greater than the respective percentage of non-supporters, for 1-6 years of experience (3.3% chose "No" and 20.0% "Yes" based on the cumulative sample). On the other hand, the attitude of teachers with 7-12 years of experience seems to be negative (30.0% chose 'No' and 13.3% 'Yes'), while the views of the other two groups are quite more balanced. Hence, it may be concluded that the attitude of teachers towards immigrant pupils, depend on their gender and years of experience.

Discussions

In this paper we explore the perspectives of primary school teachers about the benefits of including dramatization during the educational procedure, as many believe that students through this teaching method develop important skills such as language and motor skills, improve aspects of their personality like creativity, communication and socialization while they stimulate their imagination and reduce the existing stress levels. During our analysis, and with the aid of a well-constructed questionnaire, we generally encounter a quite positive attitude towards dramatization, as the majority of choices leads to averages around the value of 4 that in all the questionnaire's statements signifies positive tendencies in parallel with acknowledgment for the valuable effects of this methodology.

More specifically, during the presented comparisons of respondents' views according to their demographic characteristics like gender, age and years of experience, there are statements where all the participants' groups display highly encouraging tendencies, producing mean values even greater than 4. Characteristic examples are statements like "Dramatization is an effective teaching method", "Dramatization is appropriate for teaching foreign language pupils", "Pupils, through dramatization release emotional charge" etc. where both male and female teachers present averages greater than 4. Moreover, for statements such as "Pupils, through dramatization, stimulate their imagination", "Pupils, through dramatization feel creative" and "Pupils, through dramatization socialize" we observe average values greater than 4 regardless of the respondents' years of experience. We also encounter a similar behavior for the comparisons according to the respondents' age, with instances like "Pupils, through dramatization release emotional charge", "Pupils, through dramatization combine relaxation and creativity", "Pupils, through dramatization discover and develop their senses" etc. provide a characteristic image of the positive attitude towards drama in the educational environment.

As for the comparisons based on the participants' sex, we cannot assume differentiations in viewpoints between the 2 genders as their perceptions about dramatization reveal only minor divergencies. Regarding the years of experience, we also observe minor differences, where the group of teachers with 7 – 12 years of experience produces statistically significant dissimilarities. Another observation about this specific part of analysis is that the groups with more years of experience - namely the groups 13 – 18 and 19+ - display slightly more positive tendencies towards dramatization. In parallel, a quite important pattern is derived from the exploration of the views of the 3 age groups. In all cases where we encounter statistically significant differentiations, the age group of 41+ is the group that causes these dissimilarities, believing to a greater extent into the advantages that the dramatization provide in the learning procedure of primary schools. Also, in the majority of statements without significant differences, the option values of the 41+ subgroup are the most prevalent. In combination with the comment about the comparison based on years of experience, older and more experienced teachers reveal their appreciation to the dramatization's effects on pupils while being more dialectical towards the inclusion of this methodology to their teaching arsenal. Perhaps during the years working in education, they searched or tested these techniques, realizing many of the benefits that the questionnaire states, thus justifying their highly open-minded attitude.

After the above part of analysis, we proceed to the description of the teachers' tendencies according to their willingness to work with immigrant pupils. We deem that this part of analysis is quite interesting and topical due to the increased percentages of immigrants that have arrived in Greece during the last years. Teachers wishing to work with immigrant students, highly encourage the usage of drama in classrooms showing that they are characterized of more modern and unprejudiced opinions, while in cases where they have faced the challenge of teaching foreign language students, dramatization may have constituted a really useful aid in their work. Finally, through the chi-square test, we conclude that there is correlation in whether teachers want to include immigrants in their classes, according to their gender, where female teachers show a much less conservative confrontation of the phenomenon, while the 2 group of teachers with more experience display a much more balanced distribution compared to the remaining ones.

Conclusions

This study aims to examine the views of Greek primary education teachers, regarding the inclusion and usefulness of dramatization in the educational process. Firstly, according to their general responses, we found that, indeed, dramatization is a technique that significantly helps teachers in their lessons regardless of specialty. More and more teachers acknowledge the beneficial effects of this alternative teaching methodology that significantly helps students to develop and improve important characteristics like creativity, language, motor and social skills.

The ordinal scale used in the questionnaire, leads us to the utilization of Mann-Whitney U and Kruskal-Wallis non-parametric statistical tests. These two statistical tests help us to ascertain differences in views on specific questions-statements, while via descriptive statistics we draw further conclusions regarding the opinions of each group. According to the results presented in the above analysis, there are minor differences in the teachers' views based on their gender, while older and more experienced teachers seem to encourage to a greater extent the beneficial effects of dramatization in the educational environment. Simultaneously, teachers that are more open into working with immigrants follow the tendencies of the older and more experienced groups displaying even more open-minded and dialectic attitudes. Although, we should not conclude that the other examined participants' groups do not appreciate the aforementioned methods, as there are numerous examples of statements where all respondents' categories are clearly in favor of dramatization as a teaching technique.

The chi-square test enables us to examine the differences in the willingness of teachers to work with immigrant students according to their three abovementioned demographic elements, providing a highly representative image of the impact of teachers' sex, age and years of experience to their tendencies towards students from other countries. Finally, the presented methodology is ideal in order to manage and utilize questionnaire results, while it helps draw quite interesting and valuable conclusions about the attitudes of primary school teachers against the inclusion of drama in the educational process. It can be easily implemented in a similar way to conduct trustworthy studies in the broader field of education, and even in cases that examine the integration of different types of art therein in the teaching procedure.

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Conflict of interests

The author declares no conflict of interest.

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