THE American Journal of Humanities and Social Sciences Research (THE AJHSSR) 2023
E-ISSN: 2581-8868
Volume-06, Issue-03, pp-66-72
www.theajhssr.com Crossref DOI: https://doi.org/10.56805/ajhssr
Research Paper Open Access

Theatrical techniques in learning volleyball skills and developing life skills on elementary PE students

[1]Christinides Y., Zetou E., [2]Derri V., Michalopoulou M.
School of Physical Education and Sport Sciences/Democritus University of Thrace, Komotini, Greece

ABSTRACT

The purpose of this study was to examine whether the technique of dramatization and theater game will have a positive effect on learning the skill of setting and passing in volleyball and on the development of life skills, in children of the 3rd grade of the primary school. The participants were 137 students (boys and girls), aged 8-9 years (MO=8.07, TA=.83). The participants had not been taught volleyball at all. The students were randomly divided into three groups, the dramatization group (DG, N=48), the theater game group (TG, N=43) and the control group (CG, N=46). During the implementation of the intervention program, the dramatization group was taught sports skills and academic subjects using the dramatization method, the theater game group using the theater game method, while the control group was taught the same skills and subjects with the typical way of teaching the physical education course and according to with the detailed program. Bartlett, Smith, Davis and Peel's [1] set test and the AAHPERD (1965) pass test, modified for the children's age, were used to assess skills. Three measurements were taken (before-after the end of the intervention and one week after without practicing these skills (retention test). The test process was videotaped to assess the quality/technique of the skills, after examining the intra-rater and inter-rater reliability. The assessment of life skills was done by completing the questionnaire by the students at the beggining and at the end of the intervention program. The analysis of variance with repeated measures showed that all students learned the skills, but students of dramatization group were better than those of theater game and control group. Theater game students there were no differences with the students of control group. In developing life skills, the experimental groups (DG & TG) were better than those of control group in all three factors. In conclusion the use of dramatization and theater game are useful tools in the physical education course, to achieve its goals.

KEYWORDS – dramatization, theater game, life skills, physical education, volleyball.

1. INTRODUCTION

Many researches aim to investigate the effect that theatrical techniques, drama, dramatization and theater game, have on the educational process. The possibilities provided to the learning function by their implementation are enormous. The most important part of the knowledge is mastered by the participants themselves, during, depending on the degree of their participation [2]. Theater means education, supported Grammatas [3], and theatrical animation in school "is not only aimed at the personal development of the participants, but, at the same time, through play and fiction, it looks forward to the acquisition of knowledge and skills, related to concepts, processes, phenomena and events" [4]. Dramatization means turning a story from a simple text into theatrical action and it motivates the child to move in two big spaces: imagination and action. These spaces communicate and at the same time encourage the child to pass easily from one to the other continuously. "For a new methodology of expression and creativity with exercises and techniques, which can be used for the acquisition of knowledge or the understanding of all, but all, knowledge objects and above all to lead to personal and social learning and development" Alkistis [5]. With the theater game, the students become familiar with the environment, know their body, socialize and their mood for self-expression is strengthened. "The play is not based on the text. However, it is not excluded that it starts from a text or from an "action plan" that the teacher animator may have drawn up alone or together with the children. This plan of action can be based on subjects of the curriculum" [6]. Researchers such as Peter Slade in 1958, proponent of "theatre for the child" who considers theater as a method of emotional education and self-expression, Brian Way in 1967 with "participatory theater" who sees it as a process of personal development and self-actualization, Richard Courtney with "developmental theatre", Nellie McCaslin with the method of "creative dramatization", Geoff Gillham, Dorothy Heathcote who is also the lecturer of "educational theatre" after 1970 etc. pave the way for the introduction of theater in schools as an educational tool [4].

Bolton [7] writes that what excited early progressive educators about theater was not innovation in the curriculum, but the learning process. Children could now have fun learning if they were shown this engaging dramatic way. In the second half of the century, the pedagogical view of the theater is slowly established. "Scientific data increasingly supports the necessity of theater in education, which utilizes developments in the sciences of education, social sciences and the research experience of modern theater and artistic troupes and movements [4]. A research that looked at different reviews of drama education and philosophy of education [8] concluded that good teaching is based on trust, rich interaction and creative passion which can be taught through drama and improvisational exercises such as word games, role playing and physical movement. Another research [9] that was done in six elementary schools and involved children of the first three grades considers theatrical activities as ideal sources for elementary school children to approach scientific topics. As students talked, moved, posed, and positioned themselves, they constructed and shared meanings with their peers and teachers while acting out their roles. Theater/drama can be used in mathematics and science in combination with a wide range of creative tasks that keep the teacher "alive" and make the lessons so interesting that they activate the students" [10]. The work of Sengun & Iskenderoglu [11] focused on the study - analysis of 17 articles/analyses that used the creative drama method in teaching mathematics. The researchers of these studies demonstrated that engaging the dramatic method with mathematics had positive effects on student achievement, attitudes, and creativity. While another research [12] with two groups of students, an experimental group that was taught mathematical concepts using the creative drama method and a control group that was taught in the traditional way, proved that the experimental group was more effective in retaining knowledge. People who engaged in the learning process with their whole-body during drama activities made more connections with their subjects because they used all five senses.

Student creativity increased in Hui and Lau's [13] research. The sample consisted of first and fourth grade students, and the experimental group that participated, outside of school for one day a week for sixteen weeks, in a theater training program, showed significant differences with the control group. In another study [14] the results showed a significant improvement in two characteristics of divergent thinking, fluency and flexibility, in students who made up the experimental group after attending a series of creative drama classes three hours a week for ten weeks. Findings from interviews, diaries, and response sheets in Lin's [15] survey of sixth-grade students showed that drama was seen as useful in developing creative skills and qualities such as imagination, independent thinking, and risk-taking, after watching of a ten-week drama course. In physical education, there is no systematic implementation of theater in the teaching of the cognitive subject, perhaps because the nature of the course includes some form of theatrical techniques, such as play, improvisation and kinetic creativity and investigation. The research of Robinson and Meyer [16] examining 21 PE teachers and 162 students, revealed that interactive theater is a beneficial pedagogical practice for health education. In another research [17] drama techniques were successfully applied to teach Greek traditional dances in the physical education class at school. Fitzgerald [18] studied a range of research and concluded that drama could be a useful tool in education and physical education. Nascimento and Krug [19] examined the possibility of an interdisciplinary dialogue between theater and physical education, so as to contribute to the initial formation and training of physical education teachers, while Mavroudis [20] examines the implementation of various theater techniques in physical education and how this can help in the learning process. The purpose of the present research was to examine whether theatrical techniques, such as dramatization and theater game, would have a positive effect on the learning of the set and the pass skills in volleyball and the development of life skills, in children of the 3rd grade of the Primary school. The research hypothesis raised is that the intervention with the technique of dramatization and theater game will help the students to learn the set and the pass in volleyball, but at the same time they will also develop life skills.

2. METHOD

2.1 Participants

The participants were 137 students (boys and girls), aged 8-9 years (MO=8.07, TA=.83). The participants had not been taught volleyball at all. The students were randomly divided into three groups, the dramatization group (DG, N=48), the theater game group (TG, N=43) and the control group (CG, N=46).

2.2 Procedure

The research was carried out in the school premises during the Physical Education lessons, lasted four weeks with two teaching units per week. During the implementation of the intervention program, the dramatization group was taught sports skills and academic subjects using the dramatization method, the theater game group using the theater game method, while the control group was taught the same skills and subjects with the typical way of teaching the physical education course and according to with the detailed program.

2.3 Instrument

2.3.1 Quality assessment of skill

During skill outcome measures (Bartlett, Smith, Davis & Peel, 1991) for the set, AAHPERD (1965) for the pass, students were videotaped by a camera placed 7 m away and at an angle 45^{o} with the movement of the student so that his/her movement can be seen both forward and sideways. The camera was placed on the side of the student's preferred hand. Then the movement of the student was recorded, in a special protocol containing 4 main points of the technique (criteria). The student was assessed with 1 point for each item she performed correctly and 0 if she did not perform it correctly. Therefore, the best for each attempt was 4 points (5 attempts X 4 = 20 points for the best). Rater training was required and internal (intra-judge objectivity) and external (inter-judge objectivity) validity was checked between the raters, who were coaches of the Volleyball sport [21][22][23].

2.3.2 Life skills assessment

Questionnaire to assess knowledge and perceptions regarding the use of life skills: goal setting, positive thinking and strategic problem solving. A questionnaire based on the work of Hogan [24], adapted for the Greek population by Papacharisis [25], was used. The students completed the questionnaire in order to evaluate the knowledge and perceptions regarding the functioning of life skills. The questionnaire consisted of 10 questions that assessed 3 factors, in which the students were asked to rate on a 7-point scale (1=strongly disagree to 7=strongly agree):

A. Understanding the concept of life skills, the factor that referred to whether students understood the content of life skills teaching (eg, I completely understood what goal setting means and how it differs from dreaming).
B. Perceptions of the function of life skills, the factor that referred to whether students perceived the value of life skills (e.g, life skills bring about positive outcomes).
C. Transfer of life skills to other domains, the factor that referred to whether students perceived the use of life skills in other areas and subjects within school as well as outside school (e.g. life skills can be applied in our lives in general).

2.4 Statistics

For the analysis of data, descriptive statistics, ANOVA analysis for initial measurements, ANOVA with Repeated Measures, and Paired t-test analysis to find differences between measurements were used. The SPSS 21 statistical package was used and the level of significance was set to $p<.05$.

3. RESULTS

3.1 Initial measurements

One way Analysis of Variance showed no significant differences in the initial measurements, in the set and pass skills between the three groups, which states that the participants of the groups prior to intervention started from the same level (Table 1).

Table 1. Means and standard deviations of participants of three groups in the first measurement in two skills and game performance.

Groups	Dramatization N=48		Theater game N=43		Control N=46		P
	M	SD	M	SD	M	SD	
Set skill	2.48	3.14	2.60	2.43	2.0	2.34	.528
Pass skill	1.85	2.69	2.07	2.07	2.85	3.42	.201

3.2 The effect of the intervention on skills performance

3.2.1 Set skill

Analysis of variance with repeated measures on the last factor (pre, post and retention tests) and the group as independent factor (dramatization, theater game and control) revealed that there was significant interaction between group and measurement ($F_{4,268}$=4.132, $p<.001$, η^2 =.058). There was also, main effect for measurements ($F_{2,168}$=194.047, $p< .01$, η^2 =.592), and for groups ($F_{2,134}$=5.245, $p< .01$, η^2 =.073) in set skill performance.

Table 2. Means and standard deviations of participants of three groups in three measurements of the set skill.

Groups		1st measurement		2nd measurement		3rd measurement	
		M	SD	M	SD	M	SD
Dramatization	48	2.48	3.15	9.83	4.18	9.54	4.48
Theatrical game	43	2.60	2.43	7.81	4.50	7.56	4.57
Control	46	2.00	2.35	7.54	3.97	6.11	4.30
Total	137	2.36	2.67	8.43	4.31	7.77	4.64

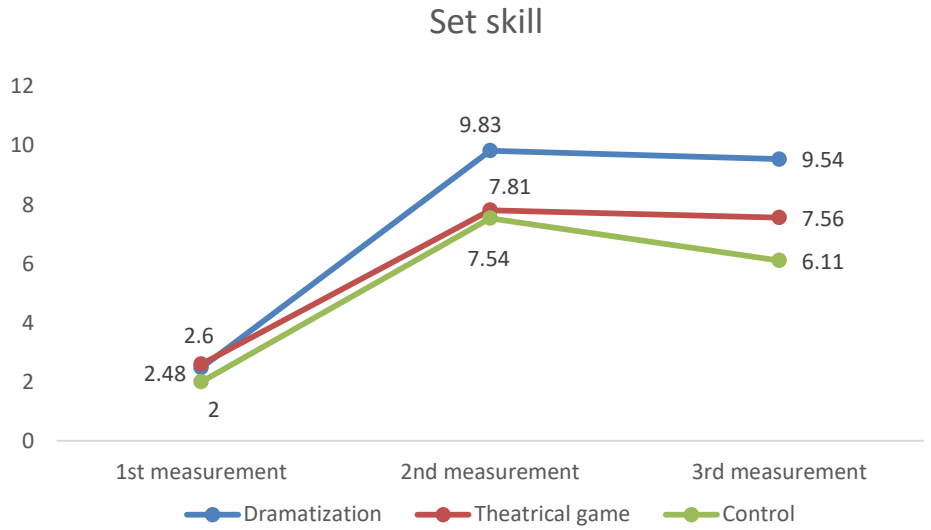

Figure 1. The performance of the participants of the three groups on the set skill in three measurements.

Bonferroni post hoc analysis between the group factor showed that there were significant differences ($p<0.05$). All groups had development in three measurements, but the participants of dramatization group there was better than those of theatrical game and control groups. Theatrical game participants there were no differences with the participants of control group.

3.2.2 **Pass skill**

Analysis of Variance with repeated measures on the last factor (pre, post and retention tests) and the group as independent factor (dramatization, theater game and control) revealed that there was significant interaction between group and measurement ($F_{4,268}$=19.819, $p<.001$, η^2 =.228). There was also, main effect for measurements ($F_{2,168}$=285.31, $p< .01$, η^2 =.680), and for groups ($F_{2,134}$=8.411, $p< .01$, η^2 =.112) in pass skill.

Table 3. Means and standard deviations of participants of three groups in three measurements of the pass skill.

Groups		1st measurement		2nd measurement		3rd measurement	
		M	SD	M	SD	M	SD
Dramatization	48	1.85	2.69	11.33	3.01	10.33	2.70
Theater game	43	2.07	2.07	8.35	3.86	7.21	3.85
Control	46	2.85	3.42	6.17	4.60	7.48	5.13
Total	137	2.26	2.80	8.66	4.40	8.39	4.23

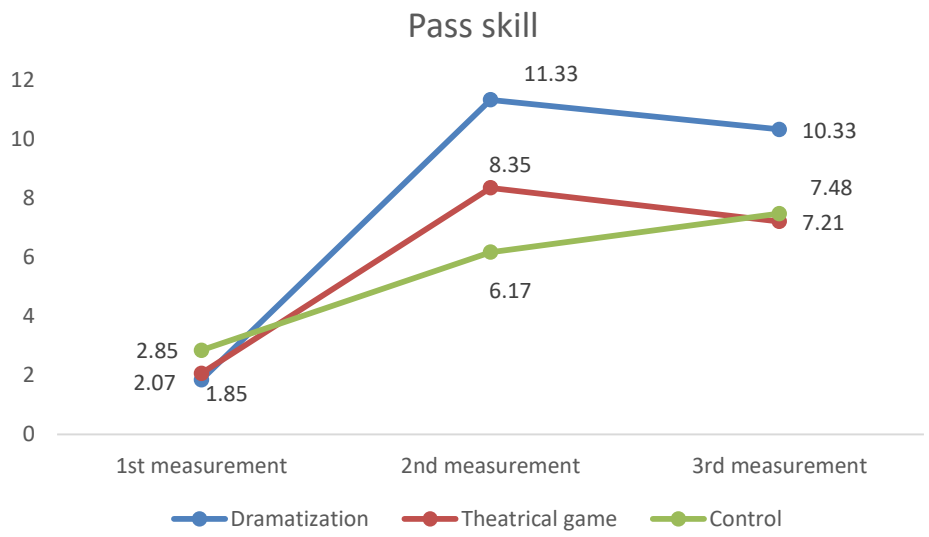

Figure 2. The performance of the participants of the three groups on the pass skill in three measurements.

Bonferroni post hoc analysis between the group factor showed that there were significant differences ($p<0.05$). All groups had development in three measurements, but the participants of dramatization group there was better than those of theater game and control groups. Theater game participants there were no differences with the participants of control group.

3.2.3 **Life skill learning**

Table 5. Means and standard deviations of the participants of three groups in three factors of life skill questionnaire in pre and post measurements.

			1st measurement		2nd measurement	
	Groups	**N**	**M**	**SD**	**M**	**SD**
Knowledge	Dramatization	48	5.20	.47	6.42	.57
	Theatrical game	43	5.34	.34	6.57	.46
	Control	46	5.17	.47	5.89	.64
	Total	137	5,54	.44	6.29	.63
Perception	Dramatization	48	5.28	.40	6.05	.52
	Theatrical game	43	5.26	.47	6.21	.56
	Control	46	5.31	.27	5.53	.51
	Total	137	5.28	.39	5.93	.60
Transfer	Dramatization	48	5.06	.43	6.31	.58
	Theatrical game	43	4.92	.39	6.10	.78
	Control	46	4.99	.44	5.04	.99
	Total	137	4.99	.42	5.82	.97

Internal consistency estimates the reliability of questionnaire was checked in the factors of the life skill questionnaire using Cronbach α. There were high values in each factor (Knowledge of life skills -4 questions, a=.91, Perception of the use of life skill-3 questions, a=.73, Transition of life skills in other domain -3 question, a=.83). ANOVA repeated measures revealed significant interaction between groups and measurements ($F_{(2,134)}$ =7.83, η^2=.105, p=.000), main effect of measurement ($F_{(1,134)}$ =304.38, η^2=.694, p=.000), and main effect of group ($F_{(2,134)}$ =15.86, η^2=.191, .p=.000), for Knowledge of life skills. There was also significant interaction between groups and measurements ($F_{(2,134)}$ =16.76, η^2=.20, p=.000), main effect of measurement ($F_{(1,134)}$ =149.63, η^2=.528, p=.000), and main effect in groups ($F_{(2,134)}$ =9.827, η^2=.128, p=.000), for the Perception of use

factor. For the factor Transition in other domain there was significant interaction between groups and measurements ($F_{(2,134)}$ =24.35, η^2=.267, p=.000), main effect of measurement ($F_{(1,134)}$ =109.65, η^2=.450, p=.000), and main effect of group ($F_{(2,134)}$ =28.159, η^2=.296, p=.000). In table 5 there were Means and standard deviations of the participants of three groups in three factors of life skill questionnaire in pre and post measurements.

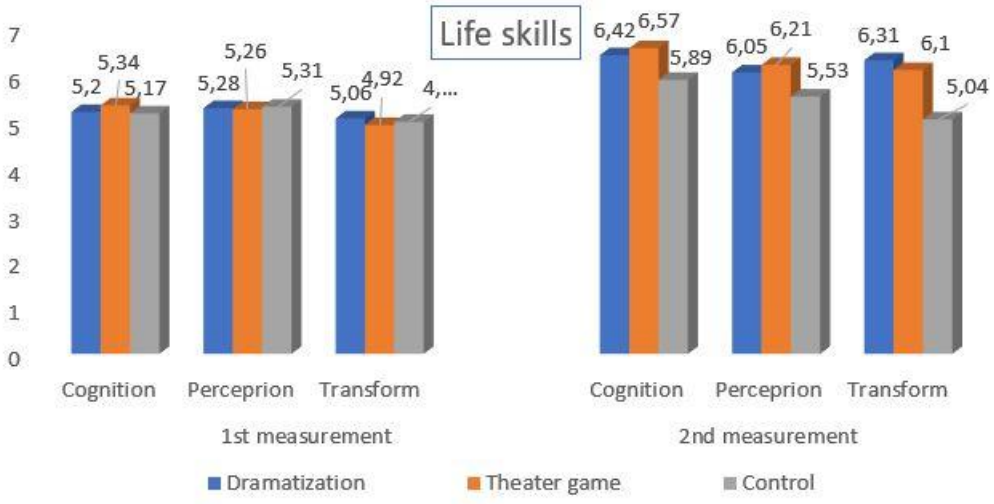

Figure 4. Participants responses in three factors of life skill questionnaire, in pre and post measurement.

Bonferroni post hoc analysis between the group factor showed that there were significant differences ($p<0.05$). All groups had development, but the participants of dramatization and theatrical group there were better than those of control group in all three factors.

4. DISCUSSION

The purpose of this study was to examine whether the technique of dramatization and theater game will have a positive effect on learning the skill of setting and passing in volleyball and on the development of life skills, in children of the 3rd grade of the primary school. The results showed that all students learned the skills, but students of dramatization group were better than those of theater game and control groups. Theater game students there were no differences with the students of control group. In developing life skills, the experimental groups (DG & TG) were better than those of control group (CG) in all three factors. The students in the experimental groups understood the content and value of life skills and were able to effectively transfer them to other areas in and out of school. This was expected, as the theater is a place where the students can develop themselves in many ways, as they participate with all their senses.

It can be assumed that the students were positively disposed towards the use of dramatization and theater game and wanted to participate enthusiastically in the lessons, as it was something new. This is consistent with literature research, where the use of dramatization as a means of teaching and learning had a positive effect [26], as also results from review research [18] on the usefulness of drama for children with disabilities, where the drama emerged as a useful tool. We would agree with Nascimento and Krug [19] on the development of an interdisciplinary dialogue between theater and physical education and with the Goldstein's reflection on how positive effects role play and theater game can have. The theater with all the expressive means it has, can be turned into a valuable source of tools that could be used in education. More researches should be done, assessing the pleasure/satisfaction of students from the PE lessons, using theatrical techniques. In conclusion the use of dramatization and theater game are useful tools in the physical education course, to achieve its goals.

REFERENCES

1. J. Bartlett, L. Smith, K. Davis, and J. Peel. Development of a valid volleyball skills test battery, Journal of Physical Education, Recreation and Dance, 62(4), 1991, 345–351.
2. E. Papageorgiou, Drama in education: expression, communication and social consciousness. Proc. 5th International Conference on Theatre/Drama and the Performing Arts in Education: Creating New Roles in the 21st Century, Athens, March 2006, 239-244.
3. T. Grammatas, Teaching of Theater (Athens: Tipothito, 1999).
4. S. P. Papadopoulos, Theater Pedagogy (Athens: Author, 2010).

5. Alcistis, Dramatic art in education: Flight of life, Boeing 777, Diavazo, 482, 2008, 130-133.
6. L. Kouretzis, Theater Education 1. Book for the teacher (Athens: OEDB, 1993).
7. G. Bolton, Changes in Thinking about Drama in Education, Theory into Practice, 24 (3), 1985, 151-157.
8. T. Toivanen, K. Komulainen, and H. Ruismaki, Drama education and improvisation as a resource of teacher student's creativity, Procedia Social and Behavioral Sciences, 12, 2011, 60-69.
9. M. Varelas, C.C. Pappas, E. Tucker-Raymond, J. Kane, J. Hankes, I. Ortiz, et al, Drama Activities as Ideational Resources for Primary-Grade Children in Urban Science Classrooms, Journal of Research in Science Teaching, 47 (3), 2010, 302-325.
10. P. Stang, Theatre/drama as a medium for teaching math, history, science? YES! Proc. 5th International Conference on Theatre/Drama and the Performing Arts in Education: Creating New Roles in the 21st Century, Athens, March 2006, 411-415.
11. Y. Sengun, and T. Iskenderoglu, A review of creative drama studies in math education: aim, data collection, data analyses, sample and conclusions of studies, Procedia Social and Behavioral Sciences, 9, 2010, 1214-1219.
12. H.C. Kayhan, Creative drama in terms of retaining information, Procedia Social and Behavioral Sciences, 1, 2009, 737-740.
13. A. Hui, & S. Lau, Drama education: A touch of the creative mind and communicative-expressive ability of elementary school children in Hong Kong, Thinking Skills and Creativity, 1, 2006, 34-40.
14. S. Karakelle, Enhancing fluent and flexible thinking through the creative drama process, Thinking Skills and Creativity, 4, 2009, 124-129.
15. Y. Lin, Drama and possibility thinking – Taiwanese pupils' perspectives regarding creative pedagogy in drama, Thinking Skills and Creativity, 5, 2010, 108-119.
16. D. Robinson, and M. Meyer, Health education and interactive drama: Findings from a service learning project, Health Education Journal, 2011, 1-10.
17. G. Lykesas, S. Douka, M. Koutsouba, P. Bakirtzoglou, I. Giosos, and D. Chatzopoulos, Theatre and theatrical game as teaching methods for Greek traditional dances, Sport Science, 11, 2018, 23-30.
18. H. Fitzgerald, Dramatizing physical education: using drama in research, British Journal of Learning Disabilities, 35, 2007, 253-260.
19. M. S. Nascimento, and H. N. Krug, Theatre and school physical education: A sensitive dialogue in initial formation of teachers of physical education. Holos, Ano, 31(3), 2015, 246-258.
20. N. Mavroudis, The effect of Drama in education towards the subject of Physical Education in elementary schools, European Journal of Physical Education and Sport Science, 7(1), 2021, 43-55.
21. S. Langendorfer, and L.D. Bruya, Aquatic Readiness Developing Water Competence in Young Children (Human Kinetics, 1994).
22. E. Zetou, M. Fragouli, and G. Tzetzis, The influence of star and self modeling on volleyball skill acquisition, Journal of Human Movement Studies, 37, 1999, 127-143.
23. E. Zetou, G. Tzetzis, N. Vernadakis, and E. Kioumourtzoglou, Modeling in learning two volleyball skills, Perceptual and Motor Skills, 94, 2002, 1131-1142.
24. C. Hogan, The impact of a peer-led program on the peer leaders' leadership-related skills, unpublished master thesis, Virginia .Commonwealthn University, Richmond, VA, 2000.
25. B. Papacharisis, Implementation of life skills programs in physical education and sport, doctoral diss., University of Thessaly, Trikala, 2004.
26. V. Brown, Drama as a valuable learning medium in early childhood, Arts Education Policy Review, 118(3), 2017, 164-171.