DOI 10.26773/smj.231006

SportMont

ORIGINAL SCIENTIFIC PAPER

The Effects of Student-centred Learning Methods and Motivational Climate on Dance Learning

Alen Miletic[1], Durdica Miletic[1], Suncica Delas Kalinski[1]

[1]University of Split, Croatia

Abstract

Student-centred pedagogy is based on constructivist and democratic principles where students are encouraged to develop their reflective and critical thinking and sense of responsibility. The objectives of this study was to: (1) determine which of the three student-centred teaching methods (individual, couple or team) will best influence students in learning dances; (2) analyse the impact of motivational climate on different student-centred teaching methods during the learning of the dances among female and male students. The learning of dance structures from the Adriatic dance zone has been analysed because of its applicability to the Physical Education curricula. The pool of subjects consisted of 30 female and 28 male kinesiology students (aged 21–24), divided into three groups according to their preferred learning methods: individual, couple and team. Three experts evaluated the performance of dancers according to the criteria determined beforehand, in detail. For the assessment of motivational climate in Physical Education, Motivational Climate on Physical Education Scale (MCPES) scale was used with subscales: Autonomy, Social relatedness, Task involving climate and Ego involving climate. According to a two-way ANOVA with the independent variables of gender and teaching methods, and Tukey post-hoc test, the most successful students preferred the couple method in learning linđo, and individual method in learning quatro passi. Significant differences were found in Task climate subscale between the couple and team-teaching method. Further investigation of teaching methods in PE classes is needed to confirm optional student-centred method defined by gender, age, and the type of motor skills.

Keywords: *Adriatic dance zone, gender differences, preferred teaching methods*

Introduction

The implementation of dance structures in PE classes can effectively introduced schoolchildren to the creativity-enhancing proces (Neville & Makopoulou, 2021), which is in accordance with modern society, and the education which fosters lifelong exercise for health and the quality of life. Dance, as art in motion and stage art, is a physical activity with numerous advantages in educational process both among children and youth. The implementation of dance structures in PE curricula has a positive effect on the development of both motor and health status, and can develop students' creativity, sensitivity, emotions, originality, inclusion, and understanding between the genders (Stivaktaki, Mountakis & Bournelli, 2010; Mattsson & Lundvall, 2015; Gibbs, Quennerstedt & Larsson, 2017; Neville & Makopoulou, 2021; Mattsson & Larsson, 2021). Effective learning and teaching are a constant goal of the pedagogues and educators at all educational levels. Two basic approaches in which educational goals could be reached are teacher-centred or student-centred approaches (Serin, 2018; Matsuyama, et al., 2019). Teacher-centredness refers to the traditional communication of knowledge to students in a learning environment, in which the teacher has the primary responsibility (Mascolo, 2009), when knowledge is solely disseminating from a teacher to a student. Student-centredness strives to develop critical thinking and problem-solving instructions among active students in which they expand their skills and understanding.

Teaching styles are extensively investigated in PE classes (Jaakkola, & Watt, 2011; Kolovelonis, Goudas & Gerodimos, 2011; Chatoupis, & Vagenas, 2018; Karlefors & Larsson, 2018; Fernández & Espada, 2021.), but only a few studies have an-

Correspondence:

Djurdjica Miletc
University of Split, Teslina 6, 21000 Split, Croatia
E-mail: durdica.miletic@kifst.eu

alysed the dance teaching styles in PE (Pitsi, Digelidis & Papaioannou, 2015; Cuellar-Moreno, 2016). Therefore, available information analysing the effects of different student-centred teaching styles during both the learning and evaluating dances in PE classes is limited. Teacher–learner relationship in the learning process could be observed and analysed through the reproductive and productive categories. The difference between these two category styles is marked by the share of learner decision-making in classes. According to previous studies, command style, as teacher-centred method, and practice and inclusion styles, as student-centred method, are mostly used in PE classes (Chatoupis, 2018; Fernández & Espada, 2021).

The motivational climate in PE classes affects motivation, personal experience of students, and their attitudes towards physical activity (Moreno, Jiménez, Gil, Aspano & Torrero, 2011; Gil-Arias, Claver, Práxedes, Villar & Harvey, 2020). The authors Soini, Liukkonen, Watt, Yli-Piipari and Jaakkola (2014) developed the tool for assessing the motivational climate in Physical Education. In the process of developing a Motivational Climate on the Physical Education Scale (MCPES scale) the authors used four dimensions that presented social relatedness, perceived autonomy, and task- and ego-involving climate (Standage, Duda & Ntoumanis, 2003; Liukkonen, Barkoukis, Watt & Jaakkola, 2010.).

The teaching goals while learning dances can be achieved with different approaches, learning styles and methods. But question is which kind of learning method or learning environment is the most effective and in the same time the most acceptable for students. The assumption is that the active participation of students in class will encourage their critical reflection and independent problem solving. Especially, the content of dances in PE classes has a prominent place in the development of student's creativity (Neville & Makopoulou, 2021), and inclusiveness. Also, for a dance, learned in PE, to have a lifelong effect, learning method that contribute most to a motivating and positive environment should be put in the focus of modern teaching. Therefore, it is important to gain insight in usage of different student-centred teaching methods during learning dances and ensure optimal motivational climate for realization educational goals.

The objectives of this study are to: (1) determine which of the three student-centred teaching methods (individual, couple, or team) will best influence students in the learning of the dances; (2) analyse the impact of motivational climate on different student-centred teaching methods during the learning of the dances among female and male students.

Methods

Participants

The research was conducted on a sample of 30 female and 28 male subjects, third-year male and female students of kinesiology aged 21 to 24, studying full-time at the Undergraduate Study of Kinesiology, the Faculty of Kinesiology, the University of Split, taking the course named Theory and Methods in Dances.

Study protocol

At the beginning of the learning process, the method of teaching, and the evaluation of dances were chosen independently, by the students. According to their choice three study groups were formed: a) Individual (N=7; 5 female students, and 2 male students); b) Couple (N=17; 10 female students, and 7 male students); c) Team (N=34; 15 female students, and 19 male students). Before the beginning of the study, it was determined whether the students had already had any previous experience in folk dances, and those having such experience did not participate in the study. Then, the participants from all groups were given basic information and instructions regarding: a) basic information on the study and the study objectives, b) basic information on the questionnaire being conducted and the way to fill out the questionnaire, as well as anonymity in the interpretation of results. The participation in the study was voluntary, and the written consent was obtained.

Two dances from the Adriatic dance zone (linđo from Dubrovnik and quatro passi form the island of Korčula) have been chosen for this investigation because of their applicability for Physical Education curricula. Uniform evaluation criteria were set prior to the performance and evaluation of the subjects, without the possibility of additional agreements or mutual consulting (Božanić & Miletić, 2012; Grčić, Miletić & Kuzmanić, 2015). In the first phase of the experiment, basic steps and movements were demonstrated and explained to all students in the same way. Then each student was asked to decide on how they wanted to proceed both with the dance practicing, and during the evaluation of the after-learning process. Three different teaching models of dance training were offered to students. The students who chose the individual teaching method were oriented towards the independent practice of dance steps, and they were evaluated during independent performance. The students who chose the couple teaching method were instructed to practice dance steps in couples, and they were evaluated during couples' performance. The students who chose the team-teaching method were instructed to practice dance steps in groups of five to eight students, and they were evaluated during team performance. Regardless of which learning method was implemented, the judges always evaluated the students individually and according to pre-defined, equal criteria. The basic dance steps in all teaching methods (individual, couple, or team) were the same. An overview of preferred teaching styles is presented in Graph 1. In the second phase, the students in all three groups were continuing to learn dances firstly in slower rhythm followed by counting, than in regular rhythm followed by counting. Then the dances were demonstrated to students followed by original music, when student where connecting basic dance parts in final choreography. Students' were encouraged to practice final choreography in their preferred teaching methods: individual, couple or team).

Measurement

The assessment was carried out by three independent experts in order to determine the objectivity of the tests for evaluating dance structures, in accordance with a previous study conducted on a student population (Božanić & Miletić, 2011; Castillo & Espinosa, 2014, Miletić 2022). The evaluation was implemented by breaking down the traditional ethno-choreography into basic parts, and consequently evaluating each dance part independently by grading it with mark 2 if performed correctly, mark 1 if performed partially correctly, and mark 0 if performed incorrectly (Božanić & Miletić, 2011; Miletić 2022). Final maximal score for each choreography was 10 points.

Motivational Climate on Physical Education Scale (MCPES) questionnaire was implemented according to a study of Soini, Liukkonen, Watt, Yli-Piipari and Jaakkola (2014), in which the questionnaire scales were reduced from 45 to 18 in validation,

the latter determined by 4 factors: Autonomy factor; Social relatedness factor, Task involving climate factor and Ego involving climate factor. The five items from the Autonomy dimension represent a chance to choose among different activities in a PE lesson, and examine the opportunities that PE provides to support students' independence, free choices, and the extent to which they can intervene in shaping a lesson (Topatsi et al., 2022). The five items from the Task-involvement dimension represent effort and self-improvement, and examine the participant's effort regarding personal improvement, and the perception that mistakes are a part of the learning process. The four items from the Ego-involvement dimension represent normative comparison and examine the presence of competitive climate in the lessons, and the sense of superiority over classmates. The four items from the Social relatedness dimension represent the students' unity in PE classes, and explore the development of team spirit, unity, and collaboration between the students to resolve difficult situations during a lesson. According to Soini, Liukkonen, Watt, Yli-Piipari and Jaakkola (2014), the theoretical contents of the dimensions of motivation climate were as follows: (1) Task-involving climate – trying one's best, mistakes were seen as part of the learning process, learning new things, progress in one's own skills; (2) Ego-involving climate – competing in relation to others, comparison in relation to others, showing superiority in relation to others, importance of succeeding more than others, normative comparison; (3) Autonomy support freedom – to make choices, possibility to make choices, possibility to affect the way PE lessons are run, possibility to affect common issues; (4) Social relatedness – supported working together as a team, cohesion during classes, pulling together, class united when practicing. Each item was rated on a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (totally agree). This study was approved by the Ethical Board of the Faculty of Kinesiology, the University of Split (approval number: 2181-205-02-05-23-006, 15, February, 2023).

Statistics

Methods for data analysis were selected according to the aims of the research. In order to determine the influence of different student-centred learning methods on successful dance performance, and to analyse the influence of a motivational climate on dance performance, especially according to gender, a two-way analysis of variance (two-way ANOVA) was used with the independent variables of: a) gender (male and female students), and b) teaching methods (individual, couple, team). The Tukey post-hoc test was used to determine the significant differences among means. For analysing the objectivity of dance experts, and in order to assess the internal consistency of the MCPES subscales, Cronbach's alpha was calculated. Statistica 13.0 (TIBCO Software Inc, USA) was used for all analyses and a p-level of 95% was applied.

Results

According to students' preferred teaching styles presented in Fig. 1, most of the students (58.62%), chose team-teaching style. Second preferred teaching style is couple (29.31%), and the fewest percentage of students chose individual teaching style (12.97%). Male students will often choose team-teaching style when learning dances, while female students more often choose individual and couple teaching style.

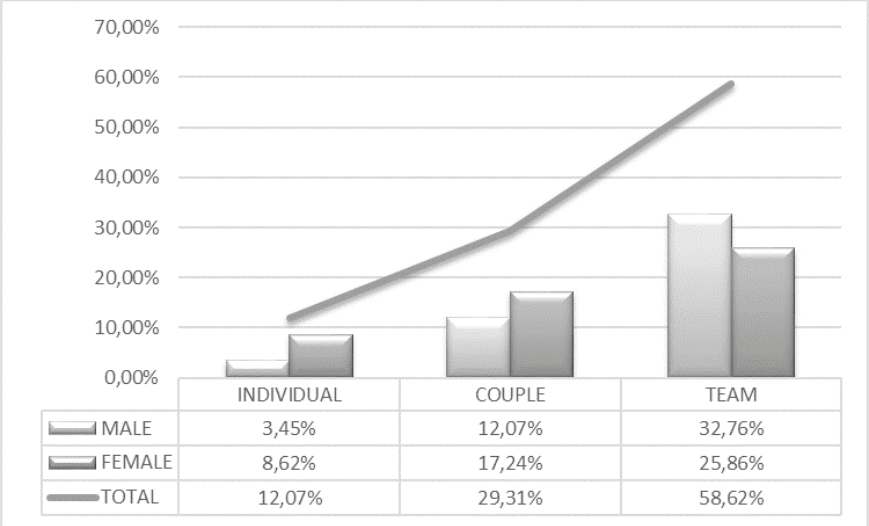

FIG 1. Student preferences in teaching methods (in percentages)

Results of Two-way analysis of variance (two-way ANOVA) with the independent variables of gender and teaching methods and Tukey Post Hoc Test (Table 1 and Table 2) were presented according to Pitsi, Digelidis & Papaioannou, (2015).

Table 1. Internal Consistency of the scales

	α-Cronbach
Task climate (I)	.73
Social relatedness (II)	.81
Autonomy (III)	.72
Ego Climate (IV)	.75
Linđo dance (L)	.98
Quatro passi dance (Q)	.98

Table 2. Mean values and standard deviations (M ± SD) of the three teaching methodes groups (males and females separately) in MCPES subscales (I, II, III and IV) and dance performance (L and Q) and main results of Two-way analysis of variance (two-way ANOVA) with the independent variables of gender and teaching methods and Tukey Post Hoc Test.

	Individual			Couple			Team			Total N=58
	male n=2	female n=5	total n=7	male n=7	female n=10	total n=17	male n=19	female n=15	total n=34	male n=28 female n=30
I	2.90±0.14	2.72±0.67	2.77±0.56	2.94±0.22	3.12±0.54b	3.05±0.44a	2.73±0.55	2.21±0.81	2.50±0.71	2.79±0.47 2.60±0.80
II	3.88±0.88	3.95±0.54	3.93±0.57	4.00±0.65	4.35±0.56	4.21±0.60	3.95±0.72	3.83±0.89	3.90±0.79	3.96±0.68 4.03±0.76
III	3.70±0.71	4.48±0.30	4.26±0.54	4.09±0.38	4.52±0.29	4.34±0.39	4.15±056	4.37±0.64	4.25±0.60	4.10±0.52 4.44±0.49f
IV	2.25±1.06	3.05±0.27	2.82±0.62	2.54±0.73	2.35±0.83	2.43±0.77	2.57±0.69	2.22±0.85	2.41±0.77	2.54±0.69 2.40±0.82
L	9.00±0.47	7.80±1.76	8.14±1.56	9.33±0.88de	8.37±1.49	8.76±1.33c	6.47±2.58	5.93±2.20	6.24±2.40	7.37±2.53 7.06±2.19
Q	9.17±0.24	8.73±1.59	8.86±1.32c	8.29±1.33	7.40±1.71	7.76±1.58	7.14±1.52	7.04±1.66	7.10±1.56	7.57±1.55 7.44±1.72

a: p<0.05 from group total, b: p<0.05 from group females, c: p<0.05 from group total, d: p<0.05 from group male, e: p<0.05 from group female, f: p<0.05 from males total.; I - MCPES subscale Task climate (rang 1-5); II - MCPES subscale Social relatedness (rang 1-5); III - MCPES subscale Autonomy (rang 1-5); IV - MCPES subscale Ego climate (rang 1-5); L - Linđo folk dance performance (rang 0-10); Q - Quatro passi folk dance performance (rang 0-10)

Internal consistency reliability presented with Cronbach alpha coefficients, for the four MCSPES sub-scales (Table 1) were all above 0.70 and ranged from 0.72 (Autonomy) to 0.81 (Social relatedness). According to the values of Cronbach's alpha, calculated for assessing reliability for linđo and quatro passi dances variables, both tests have shown good measuring characteristics of objectivity (0.98) which indicated clearly determined and transparent criteria of the evaluation of dance structures. The highest mean scores (Table 2) of the participants scored on the MCPES sub-scales, for all three groups (individual, couple, team), have been found for the Autonomy dimension, and the lowest mean scores have been found for the Task climate (team) and Ego climate factor (couple and team) in total sample of subjects. According to the Two-way analysis of variance, the Autonomy support dimension had statistical significance F(1.52)=7.354 (p=0.009) for the gender factor. According to the Tukey post-hoc test, significant differences were obtained between male and female students from the overall sample (p=0.015). For the teaching method factor, according to the Two-way analysis of variance, the Task climate dimension had statistical significance F(2,.52)=4.855 (p=0.012). Tukey post-hoc test shows significant differences between couple- and team research group (p=0.011) in favour of the couple group. Furthermore, Tukey post-hoc test shows significant differences between the female couple group and female team group in favour of the female couple group (p=0.008).

In performing linđo dance, the results have shown a significant interaction with the teaching method factor F(2,52)=9.998 (p=0.000). According to the results of the Tukey post-hoc test, significant differences have been found between the total sample of subjects in couple- and team research groups (p=0.034) in favour of the couple group; and in male couple- and female team group (p=0.010) in favour of the male couple group. The differences between the teaching methods in linđo dance performance, separately for each gender, are presented in Fig 2.

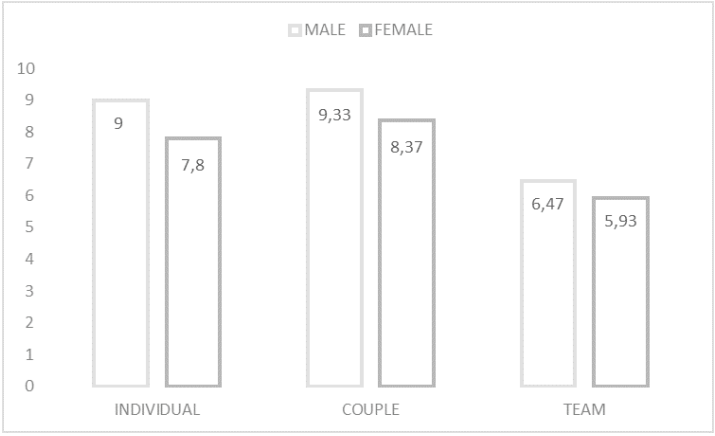

FIG 2. Differences between teaching methods in Linđo dance performance, separately by gender

In performing the quatro passi dance, the results have shown a significant interaction with the teaching method factor F(2,52)=3.985 (p=0.025). According to the results of the Tukey post-hoc test, significant differences have been found between the total sample of subjects in individual- and team research groups (p=0.024) in favour of the individual group. The differences between the teaching methods in quatro passi dance performance, separately for each gender, are presented in Fig 3.

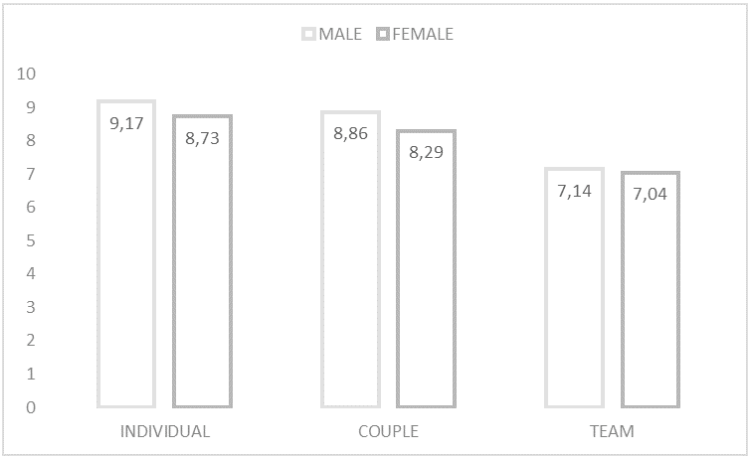

FIG 3. Differences between teaching methods in Quatro passi dance performance, separately by gender

Discussion

Current study has confirmed that the determined criteria for the evaluation of linđo and quatro passi dances were an adequate tool for the objective evaluation of dance skills among beginners. According to the Two-way analysis of variance (two-way ANOVA) with the independent variables of gender and teaching methods and Tukey Post Hoc Test results obtained in this study, only the subscales of the MCPES questionnaire, Task climate, and Autonomy factor have significant roles in the teaching of the dances.

The student-centred learning method in PE assumes an environment in which students can express their preferences and make their own decision regarding creation of PE lessons content. Therefore, the high values of the Autonomy subscale on dance lessons with both genders in this research can be connected to the possibility that students choose the method of dance practicing, as well as the environment in which they dance skills will be assessed. As expected, no differences were founded between the groups (individual, couple or team) because each of three methods was the student choice. Student-centred learning generally has a good effect on the MCPES Autonomy subscale, regardless of the dance skill that students subsequently demonstrate. At the same time, a significantly greater effect on student–centred learning method was recorded on the female population. On a sample of student population from previous studies, there were differences in teaching styles and the Autonomy factor, as male students from the self-check group felt greater autonomy than those from reciprocal and command groups (Pitsi, Digelidis & Papaioannou, 2015). The self-check style could be correlated the most with student-centred learning, therefore, these results are not in line with this study and gender specifics during student-centred learning should be investigated further.

According to second independent variable in two –way ANOVA, teaching method, students in couple group have significantly better results in Task climate subscale then students in team group. The results obtained on the female population especially contribute to this task involving learning climate. Since the students achieved better dance results in couple group then in team group, it is possible that high task involvement climate influenced the better results in dance. When it came to the dance activity, female students felt more competent than male students in making decisions, choosing content and generally in influencing the flow of work in class. The results are congruent with a study by Quested & Duda (2010) conducted on a sample of dancers, according to which dancers' perceptions of autonomy support significantly and positively predicted autonomy and relatedness satisfaction. Further studies of motivation climate and dance performance are necessary to confirm those assumptions.

Student-cantered autonomy in the teaching process, as one of three dimensions of social environment, affects the improvement of intrinsic motivation due to the ability of students to choose certain contents and methods in the teaching process, and to make decisions themselves (Black & Deci, 2000). Self-determination theory (SDT), significantly contributes to understanding the cognitive, emotional, and behavioural patterns related to student progress (Ryan & Deci, 2020), especially in PE. According to SDT, autonomy, competence, and relatedness are the key constructs of psychological well-being and optimal functioning. The environment that will contribute to meeting students' needs in autonomy, competence, and relatedness is the one that promotes a sense of student satisfaction. On the contrary, the environment that limits and restricts students' achievements in need for autonomy, competence, and relatedness will negatively affect the overall feeling of satisfaction (Hagger & Chatzisarantis, 2007; Ryan & Deci, 2020). In this study, female students have achieved the best results in individual teaching method and, with regards to male students, the highest scores have been obtained in team group regarding Autonomy factor. Therefore, significant differences between genders have been found in the creation of positive motivation climate regarding autonomy support freedom, manifested as the possibility to make choices, and the possibility to affect the way PE lessons are run. The differences obtained between the couple- and team-teaching methods regarding Task-involving climate show that the students in couple research group, especially female students, experienced the couple method as the most convenient one for learning, by means of which they can learn new things, and make progress in their skills, and by means of which mistakes will be seen as a part of the learning process. The fact that students are in a position to choose the teaching method that suits them best during learning and evaluation creates a student-centred teaching environment in which students are more active and satisfied during the teaching process (Vansteenkiste, Simons, Soenens, & Lens, 2004). When students are encouraged to develop their own perception in a classroom climate, they develop their individual responsibility. The idea of giving responsibility to students, allowing them to act effectively, and

stimulating reflective and critical thinking in the classroom enrich the democratic society (Soini, 1918).

Students in couple research group have achieved the best results in performing linđo dance, and students in individual research group have achieved the best results in performing quatro passi dance. Most of the students choose team group both for practicing and evaluation. The learning group consisting of 5 to 8 students has probably been the one in which dance competences are the least obvious. It is possible that mostly female students choose team group when they self-assess their performance as worse than the performance of the others. Further investigation of the teaching methods correlation, motivation and level of performance is needed to confirm these conclusions. In this study, the lowest value of task climate and dance performance has been detected in team group. On the other hand, students in individual- and couple groups are more successful in dance performance and less numerous. Individual- and couple teaching methods are a more logical choice of motivated students who intend to improve they dance performance while practicing individually, or in a couple, according to teacher's instructions. Students' possibility to participate in the choosing of the teaching method contributes to the student-centred educational process as a whole.

Although studies usually favour more inventive and less traditional teaching styles in physical education (Koloveloni, Goudas & Gerodimos. 2011; Jaakkola & Watt, 2011; Cuellar-Moreno, 2016; Gokhan, 2012). The obtained results suggest that an optimal teaching method cannot be generalised. Cuellar - Moreno (2016) studied the effects of the command and mixed style on primary-school students, and the main conclusion of this study was that the combination of teaching styles, as opposed to using only a traditional, and reproductive teaching styles, contributed to more varied and positive PE teaching, strengthening students' attention capacity, satisfaction, and appropriate behaviour, while also enabling a proper development of motor skills. Therefore, there is a need to analyse the influence factor, such as age, gender, and the type of activity, in future studies related to the influence of different teaching methods on the learning process itself and on the quality of motor performance.

Study limitation

The limitation of this study is in the small samples of participants in some research subgroups. The essence of student-centred learning is that students can choose learning method. In order for the results to be relevant and in accordance with the set goal of the research, the groups had to be formed according to the choice of the students. The fact that very few students choose an individual method while learning folk dances is important information in the organization of a dance PE lesson. At the same time, small samples make it impossible to generalize the results and limit the conclusions. Further research is needed, on a larger sample of subjects and especially on a sample of school-children, because dance related content used in this study had been intended for beginners and the school programme. Conducting a study on a sample of school-children in PE classes should confirm the most efficient student –centred method while learning dances.

Conclusion

Student-centred learning generally has a good effect on the creation of positive motivation climate regarding autonomy support freedom, manifested as the possibility to make choices and significantly greater effect on student–centred learning method was recorded on the female population. Couple teaching method has a better effect then team teaching method in creation of positive task – involving climate, especially among female students who experienced the couple method as the most convenient one for learning folk dances. In student-centred methods of learning, teachers intend to create positive environment in classes in which students actively participate throughout developing critical thinking and problem solving intentions while reaching the goals of the learning process (Noltemeyer, Palmer, James & Petrasek, 2019; Granero-Gallegos, Baños, Baena-Extremera & Martínez-Molina, 2020). This study confirms that implementation of student-centred methods while teaching of the folk dances in PE classes can affect the way PE lessons are run. Students have achieved the best results in the learning of the Adriatic dance zone dances in individual- and couple-teaching method, and most students preferred to practice dances in team group. Very few students choose the individual method in teaching of the dances, and the small sample of subjects limits the possibility of drawing conclusions for individual subgroups. Further studies are necessary to investigate gender specifics during student-centred learning and motivation climate with dance performance to confirm present results in order to develop student-centred education in PE classes.

Acknowledgements
There are no acknowledgments.

Conflict of Interest
The author declares that there are no conflicts of interest.

Received: 07 March 2023 | **Accepted:** 12 August 2023 | **Published:** 01 October 2023

References

Bozanic, A., & Miletic, D. (2011). Differences between the sexes in technical mastery of rhythmic gymnastics. *Journal of Sports Sciences*, *29*(4), 337-343. https://doi.org/10.1080/02640414.2010.529453.

Cuellar-Moreno, M. (2016). Effects of the command and mixed styles on student learning in primary education. *Journal of Physical Education and Sport*, *16*(4), 1159.

Chatoupis, C. C. (2018). Physical education teachers' use of Mosston and Ashworth's teaching styles: A literature review. *Physical Educator*, *75*(5), 880-900.

Chatoupis, C., & Vagenas, G. (2018). Effectiveness of the practice style and reciprocal style of teaching: A meta-analysis. *Physical Educator*, *75*(2), 175-194.

Castillo, D. B., & Espinosa, A. A. (2014). Autocratic and participative coaching styles and its effects on students dance performance. *International Journal of Learning, Teaching and Educational Research*, *3*(1).

Fernández, M., & Espada, M. (2021). Knowledge, Education and Use of Teaching Styles in Physical Education. *International Journal of Instruction*, *14*(1), 379-394.

Granero-Gallegos, A., Baños, R., Baena-Extremera, A., & Martínez-Molina, M. (2020). Analysis of misbehaviors and satisfaction with school in secondary education according to student gender and teaching competence. *Frontiers in Psychology*, *11*, 63.

Gibbs, B., Quennerstedt, M., & Larsson, H. (2017). Teaching dance in physical education using exergames. *European Physical Education Review*, *23*(2), 237-256.

Gil-Arias, A., Claver, F., Práxedes, A., Villar, F. D., & Harvey, S. (2020). Autonomy support, motivational climate, enjoyment and perceived competence in physical education: Impact of a hybrid teaching games for understanding/sport education unit. *European Physical Education Review*, *26*(1), 36-53.

Grčić, V., Miletić, A., & Kuzmanić, B. (2015). Construction of tests for evaluating the level of hip hop performance. *Research in Physical Education, Sport & Health*, *4*(1), (p.133-136).

Jaakkola, T., & Watt, A. (2011). Finnish physical education teachers' self-

reported use and perceptions of Mosston and Ashworth's teaching styles. *Journal of Teaching in Physical Education*, *30*(3), 248-262.

Hagger, M., & Chatzisarantis, N. (2007). *Self-determination theory in exercise and sport*. Champaign, IL: Human Kinetics, 598.

Karlefors, I., & Larsson, H. (2018). Searching for the 'How': Teaching methods in Swedish physical education. In *Scandinavian Sport Studies Forum* (pp. 25-44).

Kolovelonis, A., Goudas, M., & Gerodimos, V. (2011). The effects of the reciprocal and the self-check styles on pupils' performance in primary physical education. *European Physical Education Review*, *17*(1), 35-50.

Liukkonen, J., Barkoukis, V., Watt, A., & Jaakkola, T. (2010). Motivational climate and students' emotional experiences and effort in physical education. *The Journal of Educational Research*, *103*(5), 295-308.

Mascolo, M. (2009). Beyond student-centered and teacher-centered pedagogy: Teaching and learning as guided participation. *Pedagogy and the Human Sciences*, 1(1), 3-27.

Matsuyama, Y., Nakaya, M., Okazaki, H., Lebowitz, A. J., Leppink, J., & Van Der Vleuten, C. (2019). Does changing from a teacher-centered to a learner-centered context promote self-regulated learning: a qualitative study in a Japanese undergraduate setting. *BMC Medical Education*, *19*(1), 1-12.

Mattsson, T., & Lundvall, S. (2015). The position of dance in physical education. *Sport, Education and Society*, *20*(7), 855-871.

Mattsson, T., & Larsson, H. (2021). 'There is no right or wrong way': exploring expressive dance assignments in physical education. *Physical Education and Sport Pedagogy*, *26*(2), 123-136.

Miletic, A. (2022). Distance learning in dance sport during the Covid-19 outbreak. Acta Kinesiologica 1, 141-147.

Moreno, B., Jiménez, R., Gil, A., Aspano, M. I., & Torrero, F. (2011). Analysis of perceived motivational climate, basic psychological needs, self-determined motivation an discipline behaviors of young students in physical education classes. *European Journal of Human Movement*, *26*, 1-24.

Neville, R. D., & Makopoulou, K. (2021). Effect of a six-week dance-based physical education intervention on primary school children's creativity: A pilot study. *European Physical Education Review*, *27*(1), 203-220.

Noltemeyer, A., Palmer, K., James, A. G., & Petrasek, M. (2019). Disciplinary and achievement outcomes associated with school-wide positive behavioral interventions and supports implementation level. *School Psychology Review*, *48*(1), 81-87.

Pitsi, A., Digelidis, N., & Papaioannou, A. (2015). The effects of reciprocal and self-check teaching styles in students' intrinsic-extrinsic motivation, enjoyment and autonomy in teaching traditional Greek dances. *Journal of Physical Education and Sport*, *15*(2), 352.

Stivaktaki, C., Mountakis, C., & Bournelli, P. (2010). The effect of a cross-curricular study programme in physical education on the attitudes and perceptions of Greek children towards traditional (folk) dance in the first year of secondary school. *Research in Dance Education*, *11*(3), 193-211.

Serin, H. (2018). A comparison of teacher-centered and student-centered approaches in educational settings. *International Journal of Social Sciences & Educational Studies*, *5*(1), 164-167.

Soini, M., Liukkonen, J., Watt, A., Yli-Piipari, S., & Jaakkola, T. (2014). Factorial validity and internal consistency of the motivational climate in physical education scale. *Journal of Sports Science & Medicine*, *13*(1), 137.

Standage, M., Duda, J. L., & Ntoumanis, N. (2003). A model of contextual motivation in physical education: Using constructs from self-determination and achievement goal theories to predict physical activity intentions. *Journal of Educational Psychology*, *95*(1), 97.

Topatsi, A., Kateris, K., Derri, V., Bebetsos, E., Boulougaris, G., & Filippou, F. (2022). The "Motivational Climate in Physical Education Scale" (MCPES) in Greek educational context of elementary school: Psychometric properties. *The American Journal of Humanities and Social Science Research, 5(4),* 34 – 39.

Quested, E., & Duda, J. L. (2010). Exploring the social-environmental determinants of well-and ill-being in dancers: A test of basic needs theory. *Journal of Sport and Exercise Psychology*, *32*(1), 39-60.