



Peer tutors as a form of intervention strategy in physical education learning

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Abstract

In physical education, if students do not have self-confidence, lack attention, often feel dissatisfied, and are irrelevant to their daily lives, it will have an impact on reducing motivation. In interindividual relationships, peer tutors are needed to provide motivation in overcoming problems. The purpose of this study is to find out how much influence peer tutors have in physical education learning. The results showed that peer tutors in grade 12 can provide motivation to students in grades 10 and 11 in physical education learning. ARCS' motivational models of attention, relevance, confidence, and satisfaction were used to analyze the data. The research design uses qualitative descriptive with interview techniques as a data collection instrument. This study used the highest performing grade 12 students in school as peer tutors. The conclusions in this study show that peer tutors have a role to motivate learners to learn physical education as an intervention strategy to improve physical education learning outcomes.

Keywords: peer tutors, interventions, physical education

Introduction

Physical education is a learning that cannot be separated from movement activities. Physical education leads more to psychomotor aspects or the ability to move (Lochbaum *et al.*, 2020) ^[16]. Motivation can boost self-confidence and lower anxiety (Arroyo *et al.*, 2014) ^[2]. When doing challenging activities, students will be motivated and tend to be more focused on learning (Arroyo *et al.*, 2014) ^[2]. One of the keys to motivation is the ability to have self-competence (Slizik *et al.*, 2020) ^[20]. Control of individual actions is one of the motivational criteria (Chang *et al.*, 2020) ^[4]. Specifically, motivation is the natural desires and tendencies of learners that influence how they act (Abouhadid & Shafik, 2019) ^[1]. The learning environment is often associated with problems in motivation.

Some learners find it difficult to practice motion in physical education. In addition, learners do not have the confidence to be able to move (Bjerregaard *et al.*, 2018) ^[3]. In addition, students are also dissatisfied with the feedback given by the teacher (Widyastuti *et al.*, 2017) ^[22].

Thus, teachers and learners can be helped in their learning because there is a role of peer tutors (Dong *et al.*, 2019) ^[8]. However, peer tutors in the case of this study at a higher-grade level, can give one-on-one attention to learners who are struggling to increase their motivation in learning. If learners are involved in learning activities, they will have a great responsibility in completing the assigned tasks. It is relevant to ensuring that learning meets the requirements for future studies. The purpose of this study is to establish the views that peer tutors have with respect to their role in motivating 10th graders and 11th graders to learn in relation to the four categories of student motivation, namely attention, relevance, confidence and satisfaction, adapted from Keller (1987) ^[11].

This research is important to do because it is to measure how much role tutor peers play as an intervention strategy to encourage students to excel. Intervention is an attempt to intervene in an activity (Racinais *et al.*, 2017) ^[18]. Motivasi dapat berubah karena sebuah intervensi (Liu & Lipowski, 2021). Research on peer tutors has shown several benefits. Peer tutors may be able to shorten the response time for feedback from teachers. Peer tutors provide different perceptions in learning activities (Khalid *et al.*, 2018) ^[12]. Peer tutors provide effective feedback in learning (Kraft *et al.*, 2018) ^[13]. Learner understanding can be built by providing relevant feedback (Panigrahi *et al.*, 2018).

Method

The research method uses descriptive qualitative. This study aims to find out how much motivational intervention from peer tutors is in physical education learning. The method used is in accordance with the purpose of providing an understanding of peer tutors. Four categories adapted from Keller's ARCS motivational model (1987) were used as a basis for compiling interview instruments and data analysis. To minimize subjective conclusions, interview results are also measured to be relevant to the answers given because data collection uses qualitative data.

The research was conducted at SMA Negeri 4 Surakarta with a special exercise class program. Each class has 300 students in grade 10 and grade 11. The samples in the study were 60 students from grade 10 and 60 students from grade 11. From the total population of peer tutors in grade 12, purposive sampling was selected with the

following criteria: (1) voluntary participation, (2) participating in peer tutor programs, (3) students of sports-specific classes, (4) taking level 12, (5) having an average score of 78% in the previous class. peer tutor participants consisted of six men and four women. Learners who need additional support in physical education can only be identified after pre-testing in the first cycle. The program is implemented outside of intracurricular time, so as not to interfere with student learning activities. Learners who score low on previous tests or exams are encouraged by teachers to attend so that they get additional learning.

The interview instrument is conceptualized in relation to research questions about learners' views on the role of peer tutors in learning physical education in relation to the four categories of student motivation (attention, relevance, self-confidence, satisfaction) adapted from Keller (1987) ^[11] and problem statements (Many learners are not motivated to learn physical education because they find it difficult to notice, view physical education as useless, lack confidence in their ability to engage in motion activities, and may not be satisfied with the quality of the feedback received from the teacher). The interview questions are: What is the role of peer tutors in motivating learners to physical education learning? How do learners maintain attention in classes managed by peer tutors? What is the relevance of what peer tutors convey to learners? How to increase self-confidence in peer tutors? What is the level of student satisfaction when studying with peer tutors?

Data were analyzed using theoretical thematic analysis (Braun & Clarke, 2006). Predetermined categories are used that are in line with research questions adapted from Keller's ARCS (1987) ^[11] motivational model, namely Attention, Relevance, Confidence and Satisfaction, as well as synonyms or similar terms, e.g. 'responsive', 'important', 'comfortable' and 'happy'. To ensure trust, research questions guide research progress and determine instrument choices. All the data were compared with the motivational model from Keller which was further developed and strengthened with the results of the study.

Result

This research is carried out so that educational problems, especially learning problems in the classroom, can be solved adequately. The use of appropriate learning strategies is carried out to overcome these problems so that learning activities and student learning outcomes can be optimally improved. The learning strategy in question uses peer tutors to guide and assist learners in physical education learning in the classroom. It is necessary to know the characteristics of peer tutors who overtake several things including a tutor must have criteria to have academic ability above the average student of one class, be able to work together with fellow colleagues, have high motivation to achieve good academic performance, have an attitude of tolerance, and be friendly with others, have high motivation to make the discussion group the best, be humble, brave. Responsible likes to help others who are having difficulties.

The duties and responsibilities of peer tutors include providing tutorials to members on the material studied, coordinating the discussion process to be creative and dynamic, conveying problems to the tutor if there is teaching material that has not been mastered.

The advantages of peer tutors compared to other methods, for example, are sometimes a better result for some learners who have feelings of fear or reluctance towards the teacher, for tutors tutoring work will be able to strengthen the concepts being discussed, for tutors it is an opportunity to train themselves to hold responsibility in carrying out a task and train patience, strengthening relationships between learners to reinforce social feelings. Based on observations, it shows that compared to before the action, there was an increase in student activities and learning outcomes in understanding physical education learning. However, this increase is still not optimal. Students only understand play techniques but have not been able to apply them in physical activity. moves affect brain and cognitive function, activates multiple areas of the brain, and uses cognitive and motor functions and multiple sensory systems simultaneously (Schneider *et al.*, 2019) ^[19]. It can be said that doing physical activity with a peer tutor is an effective way of learning (Cruder *et al.*, 2020) ^[7].

Teachers have tried to demonstrate teaching techniques and guide learners who are experiencing difficulties in the hope that learners can imitate them. Students also perform repetitive exercises with the teacher. This increase is less than optimal due to inadequate student interaction and less effective teacher guidance strategies. Many students are still reluctant to ask their teachers and friends who are peer tutors. Teachers are overwhelmed by guiding all students who are having learning difficulties. Peer tutors also cannot understand how to help other friends with our expectations, as teachers and practical advisers.

At the next meeting, the learning atmosphere looked more conducive. Students are more comfortable practicing with peer tutors. Student difficulties can be effectively overcome with the help of peer tutors. The increase in learning activities is shown by their enthusiasm for practicing together in a group. Each group repeatedly conducts physical education activities. The peer tutor corrected the movements that were still wrong, and guided him to practice together again. With the help of peer tutors, teachers can condition student learning well by forming student groups and practicing with peer tutor guidance. This is different from the situation. At the 3rd meeting, a practice score is taken for each student. The technique used by the teacher in taking practice scores is to approach each group that is playing together, then the students take turns doing practice tests. The collection of grades by the visiting group of students aims at time efficiency, keeping the learning atmosphere conducive, and students conducting practical tests comfortably. The assessment results in the cycle show a more optimal improvement after the teacher uses learning strategies by utilizing peer tutors to guide and assist students in learning.

Table 1: Categories of student motivation in physical education

Category	Frequency	Student Opinion	Number of Student
Attention	30 (25%)	Humour	9
		Media Use	9
		Active participation in learning	4
		Real examples according to experience	8
Relevance	23 (27,6%)	Focus on one learning objective	6
		Hands-on training	8
		Benefits for everyday life	9
Confidence	35 (29,2%)	Greater hope of success	3
		Friendlier	1
		Constructive feedback	10
		Not afraid of being wrong	6
Satisfaction	32 (26,7%)	More fun	13
		Feeling cared for by peers	10
		Getting fair treatment	5
		Getting Reinforcement	4

Table 1 the frequency of learners' answers to how peer tutors play in motivating 10th and 11th graders in physical education learning. Percentage and frequency of learner responses relevant to the four categories. Student opinion is an opinion submitted by students that is used as a word in a statement. The results showed percentages in the attention category (30 out of 120; 25%), Relevance (23 of 120; 27.6%), confidence (35 of 120; 29.2%), and satisfaction (32 of 120; 26.7%).

Discussion

Physical education learning activities in groups using the peer tutor method can improve learning activities and outcomes in students. The learning methods established by the teacher should allow students to learn more, not just learn by product. The product of learning in general emphasizes only the psychomotor aspect. When learning, the process can allow learning objectives both in cognitive, affective and psychomotor terms. Therefore, the learning method is directed towards achieving the goal, emphasizing the learning through its process more. Learning can go well in terms of interaction. The interaction in question is one-way from teacher to student. However, there must be a two-way interaction, that is, the interaction of students with the teacher, students with other students, and the environment. Learning can be interpreted as a process of interaction between learners and their environment to change behavior for the better. When action is taken, teachers use peer tutor learning methods to use smart students to provide learning assistance to less intelligent students. The learning strategies applied by the teacher create an interesting and fun learning atmosphere, as evidenced by the increase in student activities and learning outcomes. From the implementation of peer tutor learning can be drawn one opinion that peer tutor learning can be related to 4 things, namely:

Four subcategories are classified in the category attention, namely humor, the use of media, active participation in learning, and real examples of experiences in physical education learning. Students' attention is obtained through an interest in learning, peer tutors provide humor to gain the interest of learners. Learners commented that providing examples in person can help learners visualize the activities to be done.

In order to get the attention of learners, peer tutors provide different teaching methods from teachers. to make it easier for learners, peer tutors provide tricks with innovations in learning. This finding is similar to Gatti *et al* (2019) ^[9] which states that the media is useful for attracting the attention of students. From these findings, it can be concluded that peer tutors believe that understanding physical education associated with real life will have a significant impact on increasing the motivation of learners (Kazanidis *et al.*, 2018) ^[10].

Tutor peers discuss how they prefer to work and actively participate in using media to motivate learners. Because it means that the learner actually has something unique. To attract the attention of students, a more in-depth discussion is needed in the learning activities of the learners who lead students to be more active. in order to focus more on attention, peer tutors are changing the way material is presented in learning. Learners convey that the presentation of interesting material is more important than teaching in the standard category. Tutor peers are mentioned using various methods and media to keep students' attention. These findings may suggest that learners need the help of peer tutors in an effort to keep their attention. Innovative and varied strategies contribute to making learners more motivated in physical education learning.

In the attention category, it can be seen that peer tutors are able to attract the attention of learners mainly through the provision of concrete examples and through the use of methods that are different from before.

Active participation can be carried out to maintain attention in learning. the most common method peer tutors use is to actively use the method of engagement. this shows that if peer tutors invite students to participate actively, it is certain that students will pay attention to physical education learning activities. These findings suggest that learning participation created by peer tutors provides motivation in following learning. so that it can be concluded that related to attention can be addressed by providing humor, using interactive learning media, active participation, and providing real examples with daily life.

Relevant focuses on one learning objective, hands-on training, and benefits for everyday life. On the relevance category, peer tutors feel that the material of the overlay should be relevant to real life. If this is not appropriate it will cause some learners to become unmotivated to learn physical education. This recognition can be interpreted to mean that other peer tutors believe that learners, who attend tutorial sessions voluntarily, already know that physical education is relevant to their lives. Learners state that they must be thinking about showing the initiative to come so it already shows that it is important to get good grades. This finding is in line with Chue & Nie (2017) ^[5] which states that learners need to be encouraged to make efforts in order to influence motivation and achievement. The findings suggest that learners who follow the instructions can assist in achieving goals and addressing their motivational problems. The motivation received by learners can be beneficial for their future. Learners state that relevance in physical education makes them understand how much they should understand physical education today, such as the basics. The motivation to participate in physical education learning can be above by introducing the relevance of physical education learning to real life.

Peer tutors provide an important role in terms of relevance. The relevance here is to match the interest in the learner with the needs of the future so that what the learner learns provides tangible benefits in the future. The methods that peer tutors use convince learners that they must believe that the efforts made today have an impact on their future.

Self-confidence consists of four categories, namely hope for success, greater feedback, friendlier, constructive, and not afraid of being wrong. Tutor peers indicate that they explicitly assign learning requirements to learners. On the other hand, peer tutors will be more friendly in providing material. However, some peer tutors talk about organizing questions in increasing the level of difficulty, thereby creating opportunities for success. The learner said that he let the learner start with a simple question. In accordance with the findings of Garcia *et al.* (2016) ^[14] argues that tasks are considered too difficult and believing in failures will affect their motivation. The findings suggest that to overcome self-distrust in completing tasks, learners are more likely to rely on peer tutors. Another advantage obtained is that students are not afraid to feel wrong in carrying out movement activities so that it has an impact on increasing their motivation.

Peer tutors state that they especially help in increasing the confidence of learners by believing that success results from maximum effort. Learners are highly motivated with constructive feedback because this is often due to peer tutors providing clear goals of overcoming expectations for success. The autonomy that teachers provide helps to increase the responsibility of learners. The findings state that some peer tutors meet the need for student competence, effort, and linkages by motivating learners to increase their confidence.

This shows that peer tutors play a role in encouraging learners to take personal responsibility for the activities carried out. They attribute their work to learners' efforts and learners' drive to become more and more confident in their abilities. Same as the findings Cleary *et al.* (2017) ^[6] who argue that when the learner is positively affected by motivation it will be easy to complete the task, be on standby, and be able to continue other tasks in the future easily.

The satisfaction factor of discussing pleasure when taught by peer tutors is that it is more fun, feels cared for, gets fair treatment, and gets rewarded. Learners explained that peer tutors try to show that they can get better grades because the activities carried out are more fun.

Some learners get attention during the learning process. Some other learners stated that they received fair treatment in their groups and were not discriminated against by other learners.

These two peer tutors specifically alluded to unexpected awards. Intrinsic motivation can be encouraged by using reinforcement and rewards as a form of reward to learners. Often the motivation of the learner to learn physical education is associated with a reward or punishment. These findings are in line with Wang *et al.* (2020) ^[21] claims that gifts are a form of extrinsic motivation, which is considered more valuable than intrinsic motivation. It can be concluded that the awards given by peer tutors can provide satisfaction and increase the motivation of learners in completing tasks on physical education learning. The findings that rewards for motivating learners' learning showed high significance. Peer tutors point out that their goal in learning is to encourage learners to be more active in learning.

From the results of the study, several similar views were found on the role of peer tutors in motivating students in grade 10 and students in grade 11. The ten peer tutors provide positive reinforcement to learners in every learning activity. Peer tutors help improve learners' self-confidence in learning by paying attention to their characteristics and ways of learning. Moreover, peer tutors are open to explaining to students the subject to what suits the student's interests.

Conclusion

Low mobility not only affects the progress of students in each learning activity but also affects the attitudes and character of students formed due to the learning process. The strategy to improve students' performance in physical education is to motivate them to learn. Learner motivation may increase with help from peer tutors. So it can be concluded that if peer tutors can increase student motivation so that learning outcomes are maximized. It can be seen that peer tutors provide an effective role in motivating students in grades 10 and 11 to improve physical education learning outcomes. In accordance with Keller's use of the ARCS motivation model (1987) Peer tutors have a role in physical education learning as a fun tutor and make active participation to maintain attention and focus on goals. Peer tutors who have expertise according to the field are adaptable and friendlier, as well as fun according to experience so as to have a greater expectation of success to learners. Students feel that

they are not afraid of being wrong if there is a tutor who accompanies them because they feel cared for and get fair treatment.

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