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Submission date: 10-Oct-2022 08:38AM (UTC+0700)

Submission ID: 1921017650

File name: 125914699.pdf (2.13M)

Word count: 3234

Character count: 18049

Learning communities for ¹prospective teachers through peer-tutoring programs

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Abstract

Learning community program is an ideal place for teachers to develop their competence. This awareness should be introduced earlier to preservice teacher. So they get a habit of learning and sharing in the learning community program. This paper presents the research of learning community program through peer-tutoring methods in developing learning communities for preservice teachers, particularly aquatic learning and swimming teaching skills. The research conducted using the action research flow. There are three findings of this research, namely: (1) preservice teachers develop their teaching skills as teachers, such as preparing, implementing, and closing learning; (2) preservice teachers receive feedback and reflection of their teaching practice; and (3) the implementation of peer-tutoring helps preservice teacher to master swimming techniques properly. In conclusion, preservice teachers improve their competence by learning community program.

Keywords: learning community, preservice teacher, peer-tutoring, and competence

Introduction

The challenge of Physical Education Preservice Teacher Education (PETE) in shaping students as prospective PE professional teachers has received meaningful assistance from the teachers at the school. The assistance is in the form of recommendations from teachers in determining the competencies that must be owned by prospective PE teachers to be able to become good teachers in schools. According to the teachers, the PE prospective teacher must have qualified academic skills, master the latest curriculum development, master teaching material, have good classroom management skills, learning problem solving skills, creative and innovative (Khory, Hartoto, Sudarso, & Prakoso, 2018). This ability should be obtained by students since they studied at PETE. For this reason, PETE must be able to provide good learning services to students to arrive at providing provision to students to achieve high competence.

The main learning services for prospective teachers should be focused on improving teaching skills as the key to the success of the learning process. It takes a long time and many opportunities for prospective PE teachers to get stability in terms of understanding in mastering various teaching skills (Barney & Pleban, 2006). For this reason, PETE needs to provide a learning vehicle in the form of theoretical learning about learning to the practice of teaching in a simple form so that prospective teachers get many opportunities to hone their teaching skills.

A simple form in teaching practice activities that has been proven to have a positive impact on mastering teaching skills for prospective teachers is peer-teaching and micro-teaching (Şen, 2010). The form of peer-teaching is the easiest option that can be done in learning activities in higher education in the form of student learning communities. Forming a learning community becomes an effective choice to help learners in learning prospective teachers get reflective skills on their competencies. In the learning community, prospective teachers can use their members to give input to each other in all matters related to increasing competence. This must always be accustomed to learning in higher education so that prospective teachers are accustomed to the learning community so that they continue to carry when they become teachers at school.

Schools are considered as institutions that are required to carry out their functions in improving the quality of education by always conducting self-evaluations to find weaknesses and strengths in a sustainable manner so that quality improvements are always made (Vanhoof, Van Petegem, & De Maeyer, 2009). The demands for self-evaluation should not only be for schools, teachers as drivers of education at the school level must have a habit of self-evaluation. The impact of habituation is expected to be able to arouse teacher awareness of the needs of themselves in the form of reflective ability to the learning process which is considered to be the main key so that every learning is always corrected according to standards.

At least, there are three things that can be done by the teacher in conducting a self-evaluation for learning, namely asking for the opinion of the teacher/leader, asking for opinions from students, and recording learning to be analyzed according to the standard (Suroto, 2017). Many ways to do reflective activities have been made, even the instruments have been created. However, the biggest challenge is to raise the teacher's reflective awareness for self-quality and even the learning process.

For this reason, this article will describe the results of the use of peer tutoring that is used to form the learning community of prospective teachers in getting them to collaborate with others. In addition, the research conducted aims to help prospective PE teachers who have less skills in swimming.

Peer-tutoring is a mainstay of learning done at universities because it can bring many benefits (Landers, n.d.). Prospective teachers can learn to collaborate with each other to help improve self-competency. For those who become tutors, having higher skills than tutee will benefit from learning to become a teacher. Whereas as a tutee, they will get certain skillful training from peers who at least have a match in the learning atmosphere. In accordance with the learning pyramid, peer-tutoring can have as much as 90% impact on learning outcomes (teaching others) for students (Fencl, 2014). The implementation of peer tutoring strongly supports the formation of a collaborative learning environment between students (D'Arripe-Longueville, Gernigon, Huet, Cadopi, & Winnykamen, 2002). To have an impact on classroom management skills included in teacher teaching skills by prospective teachers, peer-tutoring can be implemented in the form of micro-teaching. The implementation of peer tutoring in the concept of micro-teaching is very possible for tutors who are also students to learn teaching skills, while for tutee they can hone basic skills as learning material (lihat Şen, 2010).

Method

This article contains the results of research conducted using the action research flow. The research began with the lecturers' response in solving the problem in the form of the high number of prospective PE teacher students who were unable to reach the minimum standard of swimming.

1. Subject;

The subjects involved in the study were voluntary students. They are students who have high swimming skills, then act as tutors for 12 students and students who have swimming skills below the standard, then act as tutee as many as 26 students.

2. Instrumentation;

There are no instruments used in tutors' self-evaluations. But a self-evaluation tool was used in the form of a questionnaire filled out by tutors and tutee in providing an assessment of the quality of the learning process carried out by the tutor. The self-evaluation tool contains a closed statement to reveal perceptions with a value of 0-10 in determining the degree of quality of components assessed (Bandura, 2006).

To complete the data qualitatively, each item is equipped with an open entry so that tutors and tutees can write down the problems found during the learning process. The contents of self-evaluation for tutors are quality training, swimming skills, speaking skills, feedback, motivating, evaluating, and reflecting.

In addition, tutors also assess themselves by using check lists in carrying out learning. They are expected to conduct self-assessments related to the implementation of preparation / planning, introduction, core, and closing learning.

To assess the tutee skills in acting, observation instruments are used. The assessment was carried out by the lecturer before the implementation of peer-tutoring and after the implementation of peer-tutoring.

3. Procedures;

The procedure used in this study as in table 1 as follows.

Table 1. Peer-tutoring Implementation Syntax

Syntax	Week	Activity	Description
Peer-Tutoring Orientation	1	lecturing	1. Explanation of the ideal learning needs of prospective PE teachers 2. Exposure of student swimming abilities which are divided into 3 clusters, namely: proficient, ordinary, and need help 3. Presentation of peer-tutoring programs to students according to clusters.
Recruitment	2 & 3	Independent learning	Accommodate student responses to register to become tutors and tutee
	4	Classroom	1. Register students who are included in the peer-tutoring program 2. Forming a group of one tutor helps 2-5 tutees. 3. Create a peer-tutoring implementation schedule.
	5	Swimming pool	1. The pretest implementation of the beauty of swimming tutee breaststroke. Assessed using process-oriented (quality of swimming movements) and product-oriented (swimming distance). Tutee is instructed to swim around the pool by the pool. One round as far as 110m, swimming skills (process-oriented) is done by observation when the tutee swims within a range of 0-30m. 2. The peer-tutoring program begins with the tutee lead tutor to learn swimming about 30-40 minutes.

Cont. Table 1. Peer-tutoring Implementation Syntax

Syntax	Week	Activity	Description
Recruitment	6	Swimming pool	Tutor groups conduct peer-tutoring activities in accordance with the agreed schedule. Observer and researcher provide assistance and observation. Each tutor fills out a form that measures the quality of the tutor and the implementation of the exercises in peer-tutoring.
Briefing and initial evaluation of Tutor performance	7	Classroom	1. Presentation of the results of the analysis of the form filled in by Tutee and the tutor. 2. Presentation of the flow of learning implementation 3. Presentation of the ideal implementation of swimming material learning
Training, mentoring, and data collection	8 - 10	Swimming pool	1. Tutor-tutee takes part in the program to carry out exercises on schedule. The tutor-self self-evaluation form is completed shortly after the exercise is conducted. 2. The Observer observes two tutor-tutee groups, namely: male tutors and female tutors. The researcher accompanied and observed during the exercises conducted by the selected group. Next do an evaluation based on the results of observation.
Posttest tutee	11	Swimming pool	<i>The posttest for a tutee is to take a 30m breaststroke with the right movement.</i>

4. Data Analysis;

Data analysis was carried out using descriptive techniques for data in general. The t-test analysis technique was used to compare the results of tutee skills at pretest and posttest.

5 Results and Discussion

The results of the study are explained in three ways, namely (1) the performance of tutors in designing learning; (2) quality of learning; and (3) peer-tutoring impact in improving tutee swimming skills.

1. The performance of the tutor in designing and implementing learning;

Tutor's performance in designing and implementing learning is revealed by asking for recognition from the tutor using the learning check list. Recognition is proven by operational descriptions in accordance with the activities carried out during the implementation of peer-tutoring. The results of the tutor's performance assessment can be seen in table 2 as follows.

Table 2. Performance of Tutors when Conducting Peer-Tutoring Activities

Phase	Criteria	Implementation	Activity
Preparation	Planning	Yes	No evidence
	Equipment preparation	No	-
Initial	Attendance	No	-
	Apperception	Yes	Trial swimming skill
	Explaining teaching scope	No	-
	Explaining teaching purpose	No	-
	Warming up	Yes	Stretching and dynamic warm up

Cont. Table 2. Performance of Tutors when Conducting Peer-Tutoring Activities

Phase	Criteria	Implementation	Activity
Main	Activity Instruction	Yes	
Activity	Monitoring and evaluation	Yes	No Evidance
	Feedback	Yes	Reinforcement
Closing	Reflection	No	
	Cooling down	Yes	
	Evaluation	No	-
	Appreciation	No	-
	Follow up	No	-
Post teaching activity	Self-Evaluation	Yes	Tutee feedback form

² Based on table 2 above, it can be explained that at the preparation stage the tutor is expected to make an exercise planning document to be applied during peer-tutoring activities. The results of the assessment indicate that students have claimed to make a planning document but the evidence in writing still does not yet exist. They claimed that the plan was written in the notes in the form of the types of exercises to be given to Tutee. For preparation of equipment, it was not revealed.

In the preliminary stage, students as tutors do not attend. This is done because each tutor only holds 2-4 tutee people in his group. They do not feel the need to attend when conducting peer-tutoring activities. Apperception activities are carried out in a way, Tutee is instructed to do breaststroke swimming as best they can. Next, the tutor monitors while assessing the shortcomings of tutee. This deficiency was then used for the basis of training during the training day. Activities convey the scope and objectives of the exercise not carried out. Heating is done by stretching and exercising with a count of 1,2,3, ... etc.

In the closing stages, the tutor does not reflect. Only cooling activities carried out by tutors. While evaluation, appreciation, and follow-up were not revealed.

The implementation of self-evaluation when after learning has been completed. After the implementation of peer tutoring, each tutor is required to read the form filled in by Tutee. The field contains tutee assessment of the quality of learning led by tutors. This is done as a form of self-evaluation by tutors.

2. Quality of learning;

The results of filling in the form by tutee are used to assess the quality of the learning process.

Table 3. Tutor Self Evaluation Results Based on Tutee's Opinion

Components	Score	Category	Activities
Coaching skill	6.7	Good	General activity
Swimming skill	7.3	Good	Demonstration
Communication skill	7.0	Good	The task of motion, explaining, motivating, and others
Feedback	7.3	Good	Criticism, recognition, awards, etc.
Motivation	7.0	Good	Building a positive concept of tutee
Evaluation	7.3	Good	Compare facts and criteria
Reflection	7.0	Good	Improvement of the process carried out
Average	7.1	Good	

² Based on table 3, it can be explained that the quality grades train tutors when peer-tutoring scores 6.7 (good), swimming skills possessed by tutors get a value of 7.3 (good), speaking skills possessed by tutors get 7.0 (good), the skill of giving feedback by the tutor to the tutee gets a value

of 7.3 (good), the skill of giving motivation to the tutee by the tutor gets a value of 7.0 (good), the skill in evaluating the performance of the tutee gets 7.3 (good), and the reflection skill gets a value of 7.0 (good) . The average final score is 7.1 in the good category.

3. Peer-tutoring impact in improving tutee swimming skills

The impact of the implementation of peer-tutoring in question is an increase in swimming skills of prospective PE teacher students who act as tutee. Swimming skills meant are student swimming skills in swimming breaststroke. To find out the significance of the improvement in students' swimming skills, t-test was used with the results as in table 4 as follows.

Table 4. Tutee's Pretest-Posttest Value Enhancement Test Results

Test	Mean	N	SD	Differences		t	Sig.	Conclusion
				Mean	%			
Post	8.1	26	2.519	2.9	56.3%	5.325	0.00	Significant different
Pre	5.2	26	2.191					

Based on table 4 above, it can be explained that students who completed the structured lecture series were only 26 out of 37 students. The mean value of students who complete the structured lecture at pretest is 5.2, the standard deviation is 2.191. While the posttest mean value is 8.1, the standard deviation is 2.519. Different mean pretest and posttest amounted to 2.9 if compared with the value of the pretest, the increase value was 26.3%.

Furthermore, the value of each student is compared using the dependent t test. The results of the analysis show that the t-value is 5.325 with the sig value. amounting to 0.00 so that it can be concluded that the difference that occurs is significant. That is, student skills at pretest increased significantly during the posttest.

Assessment of swimming skills is done using observation techniques. This assessment is expected to teach students to use process-oriented assessment in conducting assessments to improve the quality of motion. Process-oriented assessment is considered to be the most appropriate assessment technique for providing feedback on the quality of student movements (Barnett et al., 2009).The peer tutoring program had positive effects on students' academic performance, especially in helping students academically and socially(Lam & Chan, 2014).

Conclusions

The most valuable results in the implementation of peer-tutoring are the formation of learning communities in the learning process in the university environment. With the formation of the learning community, prospective teachers can carry out activities in enhancing their competence in mastering teaching skills as teachers, namely preparing, implementing, and closing learning. In addition, they can learn from each other to familiarize themselves with the activities of self-evaluation in learning to be able to learn in professional development activities (Patton & Marty-Snyder, 2014). The form of self-evaluation activities carried out in this study is that students as tutors have experience reflecting themselves in learning through input from other students as students (tutee). Finally, the most visible impact, but not the main thing from peer-tutoring, is to make tutee students master swimming techniques.

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