

Research Article**Creativity of Physical Education Teachers in Modifying Learning Facilities and Infrastructure in Public Elementary Schools***Ellan Riyadi HERPRATANA¹  SUMARYANTI² **Abstract**

The lack of learning facilities and infrastructure often results in problems and nuisance in the process of physical education learning, but it cannot be denied that the availability of standard learning facilities and infrastructure can also be said to be less proper to conduct physical education learning, especially when the standard facilities and infrastructure are utilized in the learning process with elementary school students as the participants. This research is aimed at revealing the creativity levels of civil-servant physical education teachers in modifying the learning facilities and infrastructure used in public elementary schools in Sewon Subdistrict, Bantul Regency, Indonesian country. The research was a descriptive quantitative study. The subjects of the research were 23 physical education teachers in public elementary schools in Sewon Subdistrict. The method used in the study was survey with the employment of questionnaire as the technique of data collection. Questionnaire was tested to 21 civil-servant physical education teachers excluding the population. Validity was tested using Product Moment formula proposed by Karl Pearson, and reliability was tested using Cronbach Alpha. The reliability of the questionnaire was 0.746. The data were analyzed using descriptive percentage technique. The results of the research reveal that the creativity levels of civil-servant physical education teachers in modifying learning facilities and infrastructure in public elementary school in Sewon Subdistrict are: in the category of "very low" with 9.09% (2 teachers), in the category of "low" with 22.72% (5 teachers), in the category of "average" with 40.90% (9 teachers), in the category of "high" with 22.72% (5 teachers), and in the category of "very low" with 4.54% (1 teacher). Therefore, it can be concluded that the creativity of civil-servant physical education teachers in public elementary schools in Sewon Subdistrict, Bantul Regency, Yogyakarta, is in "average" category.

Keywords: Creativity, physical education teachers, modification, facilities and infrastructure

1. INTRODUCTION

Physical education is a learning process that puts forward a variety of selected physical and sports activities to achieve educational goals (Shen, Chen, & Guan, 2007). According to Utama (2011: 2), physical education is an inseparable part of education in general, because physical education affects the potential of students in terms of cognitive, affective, and psychomotor through physical activity. Through physical education students not only gain ability in terms of activity, but also the skills and values contained in it. Smooth and successful physical education learning is strongly influenced by several factors. Factors that influence learning are teaching methods, curriculum, teacher relations with students, student relations with students, school discipline, tools or learning facilities, and school time (Slameto, 2010: 64).

Received Date: 11/04/2019

Accepted Date: 17/07/2019

To cite this article: Herpratana, E. R. & Sumaryanti. (2019). Creativity of physical education teachers in modifying learning facilities and infrastructure in public elementary schools. *International e-Journal of Educational Studies (IEJES)*, 3 (6), 157-166. DOI: 10.31458/iej.604874

¹ Sport Science, Postgraduate Program, Universitas Negeri Yogyakarta, Indonesia, ellan_riyadi@yahoo.com

² Faculty of Sport Science, Universitas Negeri Yogyakarta, Indonesia, sumaryanti@uny.ac.id

Corresponding Author e-mail address: ellan_riyadi@yahoo.com

The existence of teachers is often in the spotlight of students, parents, the community, and also the government. The teacher is the spearhead and front guard in determining the success of the physical education learning process. Therefore, how important is the commitment and responsibility of a teacher in implementing the learning process. Teachers are expected to play a role in seeking all students to achieve the expected competencies, creating learning that is full of challenges, but to achieve these goals must also be supported by other elements. In learning physical education facilities and infrastructure is one of the important elements to support success in achieving physical education learning objectives and not infrequently also raises and becomes a problem in some schools because schools pay less attention to the provision and provision of physical education facilities and infrastructure, even though the facilities and infrastructure are very important availability to achieve physical education goals (Beutler, 2008). This is in accordance with the opinion of Suryobroto (2004: 1), which states that the infrastructure of physical education is one of the elements supporting the success of physical education learning, and is the most problematic element, especially in Indonesia.

The curriculum is a guideline that is used as the basis for education and physical education is one of the subjects (Bailey, Armour, Kirk, Jess, Pickup, Sandford, & Education, 2009). Physical education material in the Education Unit Level Curriculum in Indonesian has 7 main material, namely: games and sports, development activities, gymnastics, rhythmic activities, aquatic activities, outside classroom education, and health education. Each subject matter contains a variety of learning materials that must be mastered by students in accordance with basic competencies, but the number of learning materials that must be mastered by students and the minimum number of face-to-face meetings, the presence of facilities and infrastructure is clearly needed to facilitate the physical education learning process although in learning a teacher can do it according to school conditions and situations.

The existence of facilities and infrastructure for physical education is needed in learning physical education because the facilities and infrastructure are very useful in the learning process (Lee, Burgeson, Fulton, & Spain, 2007). Benefits of facilities and infrastructure for physical education, namely can spur growth and development of students because students behave, think, and move, and can be easier or more difficult, and attract students' attention (Suryobroto, 2004). It is very clear that the existence of physical education facilities and infrastructure serves to facilitate the physical education learning process.

Physical education teachers should not only be submissive and passive by only accepting problems related to physical education facilities and infrastructure, but physical education teachers should be able to address and overcome existing problems (Adholphus, 2011). One effort that can be done by a physical education teacher in overcoming this problem is to bring up creative ideas accompanied by concrete actions to create good and interesting physical education learning by modifying the material, regulations or facilities and infrastructure so that students are motivated and aim learning can be achieved optimally. For example teachers can modify the facilities and infrastructure that are around or use facilities and infrastructure whose function is the same as a substitute for the actual facilities and infrastructure, or with other efforts in accordance with the material to achieve physical education goals.

The reality in the field, the lack of facilities and infrastructure for learning physical education is one of the issues that is quite evenly distributed and very pronounced for physical education teachers. There are not a few schools in Indonesia at every level of education; especially schools in urban areas do not have a field for physical activities. Although there are, sometimes one field is used together with another school. That way it can be said that the amount is not proportional to the number of students.

The lack of facilities and infrastructure in Sewon Subdistrict often creates problems and disrupts the learning process, but the availability of standard facilities and infrastructure is sometimes not appropriate for learning physical education, especially if the standard facilities and infrastructure are

used and utilized in the learning process of students in elementary school. Often found in volleyball learning, net use and standard volleyball in physical education learning in elementary schools often die when the game and the learning process will often stop because the game does not run smoothly and makes the learning process unable to run as it should so the students will be less motivated in participating in learning and result in not achieving learning goals. In addition, standard volleyball may feel very hard and heavy when hit by students in elementary school.

Facilities and infrastructure are very important things to facilitate the education learning process (Murillo & Roman, 2011). Based on interviews with elementary school supervisors in Sewon District states that not all physical education teachers have creativity in modifying facilities and infrastructure for physical education learning and most teachers only use the facilities and infrastructure that the school has without creativity to modify it. From this, it is important to examine how high the teacher's creativity in modifying physical education facilities and infrastructure. According to Semiawan (1999: 89), creativity is the ability to think about something in a way that is new and unusual and produces good solutions to various problems. Physical education teacher creativity in modifying learning facilities and infrastructure itself is strongly influenced by many factors, including the ability of teachers to see problems related to physical education facilities and infrastructure, the ability of teachers to create and apply ideas in solving problems through modification of facilities and infrastructure, and an open attitude and willingness to accept new things for the advancement of physical education learning.

1.1. Aims of the Research

This research is aimed at revealing the creativity levels of civil-servant physical education teachers in modifying the learning facilities and infrastructure used in public elementary schools in Sewon Subdistrict, Bantul Regency, Indonesian Country.

2. METHOD

2.1. Types of Research

This study uses a type of descriptive research with a quantitative approach. Because this research is according to Sugiyono (2012: 13), descriptive research is a study conducted to determine the value of independent variables, either one variable or more (independent) without making comparisons, or connecting with other variables.

Based on this theory, quantitative descriptive research is data obtained from the research population analyzed according to the statistical method used. Descriptive research in this study is intended to get an overview and information about the creativity of physical education teachers in modifying learning facilities and infrastructure in the state elementary school Sewon District, Bantul Regency, Yogyakarta.

2.2. Time and Place of Research

This research was conducted in all public elementary schools in Sewon Subdistrict, Bantul Regency, Indonesia Country starting from April 25 to May 31, 2016.

2.3. Research Subject

The research subjects used purposive sampling with the provision of physical education teachers in elementary schools in the area of Sewon Subdistrict, Bantul Regency, Indonesia Country. Based on these criteria a sample of 23 physical education teachers was obtained.

2.4. Instruments and Data Collection Techniques

Instrument is a tool used to retrieve data at the time of research using certain methods. The method used in this study is a survey method using questionnaires or questionnaires in closed form as a data collection tool. Closed questionnaire means that the respondent just has to choose the answer provided (Arikunto, 2002: 129).

Data collection techniques in this study using a questionnaire or questionnaire . Syaodih (2010: 219), states the questionnaire or questionnaire is a technique or method of data collection indirectly (researchers do not directly ask questions with respondents. The research questionnaire grid is as follows:

Table 1. Research questionnaire grid

| Variable | Factor | Indicator | Item Number | Total | |
|---|---|--|---|---|--------|
| Teacher Creativity in Modifying Learning Facilities and Infrastructures in Public Elementary Schools in Sewon District, Bantul Regency, Indonesia Country | Ability to see problems related to physical education facilities and infrastructure | The need and availability of facilities and infrastructure | 1, 2 | 2 | |
| | | Condition of facilities and infrastructure for physical education | 3, 4*, 5* | 3 | |
| | | Benefits and utilization of physical education facilities and infrastructure | 6, 7, 8, 9* | 4 | |
| | The teacher's ability to create and apply ideas in solving problems through modification of facilities and infrastructure | | The attitude and willingness of teachers to solve problems related to facilities and infrastructure | 10, 11*, 12, 13, 14*, 15, 16, 17, 18*, 19, 20, 21 | 12 |
| | | | The idea of modifying facilities and infrastructure | 22, 23, 24 | 3 |
| | | | Application of the idea of modification of facilities and infrastructure | 25*, 26*, 27 | 3 |
| | | | Information and technology Knowledge | 28, 29, 30, 31, 32, 33, 34*, 35* | 5 3 |
| Open attitude and willing to accept new things for the advancement of physical education learning | | | | | |
| Total | | | | 35 | |

*: Negative Statement

2.5. Data Analysis

Research on the creativity of physical education teachers in modifying learning facilities and infrastructure in elementary schools in Sewon Subdistrict is a quantitative descriptive study and the data analysis technique of this research is descriptive percentage analysis. The guidelines in scoring answers through questionnaires in this study are in accordance with the scoring guidelines outlined by Suharsimi Arikunto (2002: 215), as follows:

2.5.1. For positive statements

Always answer: has a score of 4; Frequent Answers: has a score of 3; Answer is not always: has a score of 2; Answer Never: have a score of 1.

2.5.2. For negative statements

Always answer: have a score of 1; Frequent Answers: has a score of 2; Answer is Not Always :has a score of 3; Answer Never: has a score of 4.

The data obtained and converted into the table predictions, to clarify the level of creativity in modifying the physical education teacher learning facilities and infrastructure that will be obtained the results of how much percentage for each category using five categories. The categorization uses the mean and standard deviation. According to Azwar (2005: 163), to determine the score criteria using the Reference Norm Assessment on a modified scale as follows:

Table 2. Interval Class

| No. | Norm Range | Category |
|-----|--|-----------|
| 1 | $X \geq \text{mean} + 1.5 \text{ SD}$ | Very high |
| 2 | $\text{Mean} + 0.5 \text{ SD} \leq X < \text{Mean} + 1.5 \text{ SD}$ | High |
| 3 | $\text{Mean} - 0.5 \text{ SD} \leq X < \text{Mean} + 0.5 \text{ SD}$ | Is being |
| 4 | $\text{Mean} - 1.5 \text{ SD} \leq X < \text{Mean} - 0.5 \text{ SD}$ | Low |
| 5 | $X < \text{mean} - 1.5 \text{ SD}$ | Very low |

After the data is processed and it is known the results are then described and drawn conclusions where this technique is used to examine the variables in the study, namely the creativity of physical education teachers in modifying learning facilities and infrastructure in elementary schools in Sewon District. Descriptive percentage is processed by frequency divided by the number of respondents multiplied by 100%, as stated by Sudijono (2008: 43), are as follows:

$$P = \frac{f}{N} \times 100\%$$

Information:

P: Percentage number

F: The frequency that the percentage is looking for

N: Number of frequencies

3. FINDINGS

The data of research on the creativity of physical education teachers in modifying learning facilities and infrastructure in elementary schools in Sewon Subdistrict were all 23 respondents. Data were obtained by distributing questionnaires to respondents' as many as 23 questionnaires, but from the number of questionnaires distributed there were 1 questionnaire that did not return to the researcher so that only 22 questionnaires were obtained from respondents. Questionnaires that are distributed contain statements, based on testing validity and reliability, it is known that from 35 items there are 3 items that are invalid statements, namely items number 20, 21, and 28 so that 32 items are valid statements.

Physical education teacher creativity in modifying learning facilities and infrastructure in elementary schools in Sewon Subdistrict in a row obtained a maximum value of 116, a minimum

value of 88, the *mean* obtained was 102.77, *median* 103, *mode* 103, and *standard deviation* 6.71. The data obtained in this study were in the form of a score derived from a questionnaire filled in by a public physical education teacher in Sewon District. After data from each factor is obtained, it can be converted into 5 categories.

Distribution table data categorizes the creativity of physical education teachers in modifying learning facilities and infrastructure as follows:

Table 3. Classification of teacher creativity in physical education in modifying learning facilities and infrastructures

| No. | Interval | Classification | Frequency | Percentage |
|-------|--------------------------|----------------|-----------|------------|
| 1 | $X \geq 112,84$ | Very high | 1 | 4.55% |
| 2 | $106,13 \leq X < 112,82$ | High | 5 | 22.73% |
| 3 | $99,417 \leq X < 106,13$ | Is being | 9 | 40.90% |
| 4 | $92,706 \leq X < 99,417$ | Low | 5 | 22.73% |
| 5 | $X < 92,706$ | Very low | 2 | 9.09% |
| total | | | 22 | 100% |

Distribution of categorization of creativity in deep physical education teachers modifying learning facilities and infrastructure in the Sewon District primary school respectively in a sequence of 2 teachers (9.09%) including the very low category, 5 teachers (22.73%) including the low category, 9 teachers (40.90 %) included in the medium category, 5 teachers (22.73%) included in the high category, and 1 teacher (4.55%) including the very high category.

Physical education teacher creativity in modifying learning facilities and infrastructure consists of 3 factors, namely the ability factor in seeing problems related to physical education facilities and infrastructure, the ability of teachers to create and apply ideas to solve problems through modification of facilities and infrastructure, and attitudinal factors open and willing to accept new things for the advancement of physical education learning. The following is a detailed data analysis of each factors:

3.1. Ability Factors in Viewing Problems Related to Physical Education Facilities and Infrastructure

The results of the data analysis of the ability factor in seeing problems related to facilities and infrastructure of physical education sequentially obtained a maximum value of 32, a minimum value of 22, the mean obtained at 28.45, median 29, mode 30, and standard deviation 2.72.

After the ability factor data in seeing problems related to physical education facilities and infrastructure is obtained, it will be converted into 5 categories. The following is a table of categorization of data regarding the ability factor in seeing problems related to physical education facilities and infrastructure:

Table 4. Distribution of data categorization ability factors in viewing problems related to physical education facilities and infrastructure

| No. | Interval | Classification | Frequency | Percentage |
|-------|--------------------------|----------------|-----------|------------|
| 1 | $X \geq 32,536$ | Very high | 0 | 0% |
| 2 | $29,815 \leq X < 32,536$ | High | 10 | 45.46% |
| 3 | $27,094 \leq X < 29,815$ | Is being | 4 | 18.18% |
| 4 | $24,373 \leq X < 27,094$ | Low | 6 | 27.27% |
| 5 | $X < 24,373$ | Very low | 2 | 9.09% |
| Total | | | 22 | 100% |

Based on the distribution table categorizing the ability factor in seeing problems related to facilities and infrastructure in physical education sequentially, as many as 2 teachers (9.09%) including very low, 6 teachers (27.27%) including low, 4 teachers (18.18 %) including medium, 10 teachers (45.46%) including high, and no teachers (0%) which included very high.

3.2. Teacher's Ability Factors in Creating and Applying Ideas to Solve Problems Through Modification of Facilities and Infrastructure

The results of the data analysis of the ability factor in seeing problems related to facilities and infrastructure of physical education sequentially obtained a maximum value of 59, a minimum value of 42, the mean obtained was 52.36, median 52.5, mode 51, and standard deviation 4.03 .

After the data factor of the teacher's ability to create and apply ideas to solve problems through modification of facilities and infrastructure is obtained, it will be converted into 5 categories. The following is a table of categorizing data on the factors of the teacher's ability to create and apply ideas to solve problems through modification of facilities and infrastructure:

Table 5. Data categorization distribution of teachers' ability factors in creating and applying ideas to solve problems through modification of facilities and infrastructure

| No. | Interval | Classification | Frequency | Percentage |
|-----|--------------------------|----------------|-----------|------------|
| 1 | $X \geq 58,409$ | Very high | 1 | 4.55% |
| 2 | $54,379 \leq X < 58,409$ | High | 6 | 27.27% |
| 3 | $50,349 \leq X < 54,379$ | Is being | 9 | 40.90% |
| 4 | $46,318 \leq X < 50,349$ | Low | 5 | 22.73% |
| 5 | $X < 46,318$ | Very low | 1 | 4.55% |
| | total | | 22 | 100% |

Based on the distribution table categorizing the capability of teachers in creating and implementing ideas to solve the problem through the modification of facilities and infrastructure Retained Earnings sequentially as many as 1 teacher (4.55%) including the at low, 5 teachers (22 , 73%) including low, 9 teachers (40.90%) including moderate, 6 teachers (27.27%) including high , and 1 teacher (4.55 %) including very high.

3.3. Open Attitude Factors and Want to Receive New Things for Progress in Learning Physical Education

The results of data analysis of open attitude factors and willingness to accept new things for the progress of physical education learning sequentially obtained a maximum value of 26, a minimum value of 18, the mean obtained at 21 , 95 ,median 22, mode 22, and standard deviation 2.39. After the open attitude factor data and willingness to accept new things for the advancement of physical education learning is obtained, it will be converted into 5 categories. The following is a table of categorizing data on open attitude factors and accepting new things for the advancement of physical education learning:

Table 6. Data categorization distribution of open attitude factors and want to receive new things for progress in learning physical education

| No. | Interval | Classification | Frequency | Percentage |
|-----|--------------------------|----------------|-----------|------------|
| 1 | $X \geq 25,554$ | Very high | 3 | 13.63% |
| 2 | $23.115 \leq X < 25,554$ | High | 2 | 9.09% |
| 3 | $20.755 \leq X < 23.115$ | Is being | 10 | 45.46% |
| 4 | $18,355 \leq X < 20,755$ | Low | 6 | 27.27% |
| 5 | $X < 18,355$ | Very low | 1 | 4.55% |
| | Total | | 22 | 100% |

Based on the table of categorization of openness factor categorization and willingness to accept new things for the progress of physical education learning sequentially, there were 1 teacher (4.55%) including very low, 6 teachers (27, 2 7%) including low, 10 teachers (45.46%) were moderate, 2 teachers (9.09%) were high, and 3 teachers (13.63 %) were very high.

4. DISCUSSION and CONCLUSION

Based on the description of the research data, it is known that overall the creativity of physical education teachers in modifying learning facilities and infrastructure in public physical education teachers in public elementary schools in Sewon Subdistrict is in the medium category. Of the 22 State Physical Education teachers in Sewon District Elementary School 2 teachers (9.09%) had very low creativity, 5 teachers (22.73%) had low creativity, 9 teachers (40.9%) had creativity that moderate, 5 teachers (22.73%) have high creativity, and 1 teacher (4.55%) has very high creativity.

The results of this study have differences in terms of results with Sarjono's research (2010) that the creativity of physical education teachers in modifying learning facilities and infrastructure in elementary schools throughout Poncowarno Subdistrict, Indonesian Country is in the high category of 12 physical education teachers, there are 41, 7% of creativity is very high and 58.3% of creativity is high and none of the teachers whose creativity is in the category of moderate, low and very low. The ability to see problems related to physical education facilities and infrastructure is in a high category, the ability of teachers to create and apply ideas to solve problems through modification is in the high category, and an open attitude and willingness to accept new things for the advancement of physical education learning was in the good category (Sarjono, 2010). This difference is quite reasonable due to the different conditions of each region seen from the teacher's competence, the condition of the infrastructure facilities in the school, the creativity of each teacher and other aspects. The following are the results of research on the creativity of physical education teachers in modifying learning facilities and infrastructure in Sewon District, Bantul Regency, Indonesia Country:

4.1. Ability Factors in Viewing Problems Related to Physical Education Facilities and Infrastructure

Factors in the ability of public physical education teachers in elementary schools in Sewon Subdistrict to see problems related to physical education facilities and infrastructure are in the high category. Of the 22 State Physical Education teachers in Sewon Primary School, the ability of teachers to see problems related to facilities and infrastructure for physical education, 2 teachers (9.09%) were very low, 6 teachers (27.27%) were categorized as low, 4 teachers (18.18%) in medium category, 10 teachers (45.46%) in high category, and no teacher (0%) categorized as very high.

The ability of teachers to see problems related to physical education facilities and infrastructure is included in the high category, this is due to the State physical education teacher in the elementary school area of Sewon Sub-district having knowledge of high physical education and most of the public physical education teachers in public elementary schools Sewon Subdistrict has sufficient education and is in accordance with its main tasks and functions and has experience in teaching. Seeing the conditions of physical education facilities and infrastructure owned by schools by way of periodic inventory, utilizing damaged tools for other things, means that each teacher has taken anticipatory steps towards the limitations of physical education facilities and infrastructure. For example, when the teacher prepares a learning implementation plan, the teacher will adjust the number of facilities and infrastructure the school has and also design how it will be used when teaching. The activity of compiling the plan for implementing the learning is proof of the creativity of the State physical education teacher in the elementary school in Sewon Sub-District as an anticipatory step.

4.2. Teacher's Ability Factors in Creating and Applying Ideas to Solve Problems Through Modification of Facilities and Infrastructure

Factors in the ability of public physical education teachers in elementary schools in Sewon Subdistrict in creating and applying ideas to solve problems through modification of facilities and infrastructure are in the medium category. Of the 22 public physical education teachers in the state elementary school Sewon Subdistrict, the ability of teachers to create and apply ideas to solve problems through modification of facilities and infrastructure, 1 teacher (4.55%) was very low category, 5 teachers (22.73%) categorized low, 9 teachers (40.90%) in moderate category, 6 teachers (27.27%) in high category, and 1 teacher (4.55%) in very high category.

The ability of teachers to create and apply ideas to solve problems through modification of facilities and infrastructure included in the medium category, this can be caused by poor supervision management or lack of willingness from the teacher itself because basically the willingness of oneself is very important, by finding solutions, creating ideas which are then followed by applying these ideas to solve problems through modification facilities and infrastructure will also greatly help create better learning so that it can improve the quality and quality of physical education learning. For example in volleyball and soccer learning, a standard ball will feel very heavy and hard for elementary school students, teachers replace it with plastic balls or make modified balls from cork so that learning objectives can be achieved optimally, but not all public physical education teachers in the elementary school of the Sewon Subdistrict, they did it. In this case the teacher must realize how important it is to foster an attitude of knowing and wanting to improve his ability so that the ability to create and apply ideas to solve problems through modification of facilities and infrastructure can improve for the better.

4.3. Open Attitude Factors and Want to Receive New Things for Progress in Learning Physical Education

Open attitude and willingness to accept new things for the advancement of physical education learning are in the medium category. Of the 22 State Physical Education teachers in Sewon District Elementary School, an open attitude and willingness to accept new things for the advancement of physical education learning, 1 teacher (4.55%) was very low category, 6 teachers (27,27%) categorized as ren already, 10 teachers (45.46%) were in the moderate category, 2 teachers (9.09%) were in the high category, and 3 teachers (13.63%) were very high category.

Attitude is open and willing to accept new things for the advancement of physical education learning included in the medium category, this can be caused by a lack of awareness from teachers and pro-active Physical education teachers in the State Elementary School Sewon District to consult, cooperate and exchange opinions with colleagues, as well as a lack of relationship with the surrounding community to overcome existing problems including the problems of physical education facilities and infrastructure. Besides that, it can also be caused by under-utilized learning resources such as books and electronic media to find games and sources of inspiration in finding ideas to solve problems. Besides that the UPTD of Sewon Subdistrict unit has also encouraged teachers to attend seminars and trainings as an effort to improve the quality of physical education learning. By following these activities, the insight into physical education teachers will be more open and aligned with physical education with technological advances, in addition teachers can also get new friends who are also professions so they can exchange opinions and knowledge to always improve their creativity.

Based on the results of data analysis and discussion, it can be concluded that the level of creativity of the State physical education teacher in the elementary school in Sewon Subdistrict, Bantul Regency, Yogyakarta was stated by 2 teachers (9.09%) including very low categories, 5 teachers (22.73%) including low category, 9 teachers (40.90%) included in the medium category, 5

teachers (22.73%) included in the high category, and 1 teacher (4.55%) including the very high category. Thus the creativity of the State physical education teacher in the Public Elementary School in Sewon Subdistrict, Bantul Regency, Yogyakarta is in the medium category.

1. Factor ability to see problems related to facilities and infrastructure physical education stated 2 teachers (9.09%) very low category, 6 teachers (27.27%) low category, 4 teachers (18.18%) with moderate category, 10 teachers teacher (45.46%) in high category, and no teacher (0%). So this factor is in the high category.
2. The ability of teachers to create and apply ideas to solve problems through modification of facilities and infrastructure was stated as 1 teacher (4.55%) categorized as very low, 5 teachers (22.73%) categorized as low, 9 teachers (40.90%) categorized as being , 6 teachers (27,27%) is high category, and 1 teacher (4,55%) is very high category. So this factor is in the medium category.
3. Openness and acceptability of new things for the advancement of physical education learning were stated to be 1 teacher (4.55%) in very low category, 6 teachers (27.27%) in low category, 10 teachers (45.46%) in moderate category, 2 teachers (9.09%) were categorized as high, and 3 teachers (13.63%) were very high category. So this factor is in the medium category.

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