Electronic rubric for motivation in physical education

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Abstract. This study aims to determine the learning motivation of Physical Education (PE) in elementary school students. This research uses the Descriptive method. The subject of research is elementary school student grade 4 about 9 - 11 years as many as 42 students. The instrument used in this study is Electronic Rubric for Motivation in Physical Education (eRMoPE) with 37 question items. The data analysis technique used is descriptive statistical techniques. The results showed that the students' motivation in following the PE learning on the average achievement was 63.64%. It is necessary to have an approach or innovation in learning so that it can improve the motivation achievement of students' physical education.

1. Introduction
Motivation is one of the psychological aspects that encourages a person to express the ability of an action to achieve the desired goal [1]. In the teaching and learning process, the motivational factors possessed by students are very important in encouraging activities to achieve teaching goals in order to get learning outcomes as desired. Students who have good learning motivation tend to follow the teaching and learning process in a good class. Likewise, vice versa, students who lack motivation then tend to follow the learning process poorly so that the learning outcomes obtained tend not to be good.

In a learning process, motivation is one of the keys in an effort to achieve a learning goal, besides that it also requires a passion to do the process of what it wants to achieve. This process is what will mature students in taking learning so it is hoped that in this process students will not experience burnout because of the difficulty in achieving what they desire.

Physical Education (PE) learning is very complex which is supported by several factors including interest, talent, motivation, encouragement, and support of parents, facilities and others so that children can do with enthusiasm [2]. Motivation in PE learning is very necessary to be able to increase contextual enjoyment, knowledge, and physical activity [3].

From previous research studies, students who are intrinsically motivated considering PE to be important learning because it is more fun than doing a task in the classroom [4]. On the other hand, the low motivation of elementary school students towards PE learning is caused because there is no element of play in presenting learning material [5]. Therefore, educators must have the ability to plan, consider, and choose the right and effective learning model, so that what is expected in PE learning can be achieved optimally [6].

Motivation to learn PE is very important to know so that it can be analyzed what factors can influence it so that the learning process can run well. For example, the results of other studies state that the sport education model can increase motivation and intensity of motion learning in adolescent students [7] and
early adult students at 16 years of age [8]. In line with this, the type or model of physical activity play in physical education had a large influence on learning motivation, participation rates in physical activity activities or physical education and perseverance in learning [9].

The success of students in their education is influenced by their motivation. By having the motivation to take part in physical education learning, it is expected that students can take part in every process of implementing physical education learning so that students can maintain and improve their physical fitness level. The presence of motivation in students and the encouragement of teachers and parents is crucial to the implementation of PE learning activities in elementary schools.

2. Method

In this study, the method used is descriptive research method by looking at the phenomena that occur in a group without giving a treatment. The sample used in this study were students of the SD Laboratorium Percontohan UPI Kampus Tasikmalaya, as many as 42 students aged 9-11 years.

The instrument used in this study is an electronic rubric (e-rubric) instrument about the motivation to learn Physical Education by utilizing a Google form called Electronic Rubric for Motivation in Physical Education (eRMoPE). The eRMoPE can be accessed via the link http://bit.ly/AngketMotivasiPenjasSD. Figure 1 shows the initial display of eRMoPE used by students in filling learning motivation. eRMoPE consists of 6 part sections that must be filled in, part 1 contains questions about student identity and part 2 to part 6 consisting of 37 items of questions covering 5 aspects, namely: 1) perseverance in learning; 2) tenacity in the face of difficulties; 3) interest and sharpness of attention in learning; 4) achievement in learning; and 5) independent learning, in accordance with the learning motivation instrument grid shown in table 1. eRMoPE uses the Guttman Scale measurement assessment which is used for clear and consistent answers [7, 10]. Furthermore, the data was analyzed using descriptive statistical techniques with the help of SPSS version 23 program.

Table 1. Guidelines of data collection tools for eRMoPE.

| Aspects                        | Sub-Aspects                          | No. Questions | Total |
|--------------------------------|--------------------------------------|---------------|-------|
|                                |                                      | positive      | negative |     |
| Perseverance in learning       | a. School attendance.                | -             | 1.2     | 2    |
|                                | b. Following the PE learning in the field. | 4             | 3.5     | 3    |
|                                | c. Exercise at home/ outside school. | 6,7,9         | 8,10    | 5    |
| Resilient in the face of difficulties | a. Attitudes toward difficulty in movement in PE | 11,13,15      | 12,14   | 5    |
|                                | b. Efforts to overcome the difficulties of PE material. | 16            | -       | 1    |
| Interest and sharpness of attention in learning | a. Habits in attending PE learning | 17,19         | 18,20   | 4    |
|                                | b. Passion in joining PE learning    | 21,23         | 22,24   | 4    |
| Achieving learning            | a. The desire to excel in physical education | 25,27         | 26,28   | 4    |
|                                | b. Qualification of the results of basic education | 29            | 30      | 2    |
| Independent in learning       | a. Perseverance practicing PE material | 31,33         | 32      | 3    |
|                                | b. Use the opportunity outside of PE learning | 34,36         | 35,37   | 4    |
|                                | Total                                | 37            |         |
3. Result and discussion

3.1. The Motivation in attending PE learning

Data from research results describe students' motivation in attending PE learning in elementary schools. The descriptive summary of the data from the overall research results are as follows:

| Aspect Category | Motivation Score | Percentage of Achievement (%) |
|-----------------|------------------|-------------------------------|
| 1               | 278              | 66.19                         |
| 2               | 167              | 66.27                         |
| 3               | 219              | 65.18                         |
| 4               | 175              | 69.44                         |
| 5               | 150              | 51.02                         |
| Total           | 989              | 63.64                         |

The maximum score that can be obtained for the aspect 1 category is 420, aspect 2 category is 252, aspect 3 category is 336, aspect 4 category is 252, and aspect 5 category is 294. Total motivation score obtained by 42 students is 989 with percentage achievement of 63.64%.

From table 2, it can be seen that the highest achievement of PE student learning motivation is in aspect 4 category with the achievement of 69.44%, while the achievement of student learning motivation is lowest in aspect 5 category with the achievement of 51.02%. The average achievement of PE student learning motivation is 63.64%. For more details can be seen in Figure 1 about the graph of the percentage of students' physical education motivation.
3.2. Achievement for each category

In addition, the results of the student physical education learning motivation based on each category sub-aspect are shown in Figure 2. From Figure 2, it can be seen that from the sub-aspects of PE learning motivation categories, sub-aspects 1 (S1) have the highest percentage achievement, namely 83.33%, while sub-aspect 5 (S2) gets the lowest percentage of achievement that is equal to 47.02%.

![Figure 2. Graph of students' physical education motivation percentage.](image)

Figure 3. Percentage of PE learning motivation graph based on sub-aspects category.

In figure 3, male students achieved a motivation percentage of 66.09% while the achievement of female students' motivation percentage was 60.95%.

![Figure 3. Percentage of PE learning motivation graph based on sub-aspects category.](image)

Figure 4. Percentage of learning motivation PE based on gender.
3.3. The motivation for elementary students in PE learning
The results of the study showed that the average achievement of students' physical education motivation was 63.64%, meaning that students' learning motivation was in a low category. Overall, none of the aspects achieved above 70%. The highest score on aspect 4 with a percentage of 69.44%. However, if viewed from each sub-aspect of the category, sub-aspect 1 (S1) which is about attendance at school has a percentage achievement of 83.33% in the good category, while sub-aspect 5 (S2) on independence in the use of opportunities outside of physical education has a percentage achievement of 47.02% and falls into the low category. Other findings in the field show that male and female students showed sequential achievement of motivation percentage, 66.09% and 60.95%, both of which were in the low category.

By knowing the results of student physical education learning motivation, it can be seen how much students' motivation in learning physical education. Furthermore, in the presence of these data, an educator can develop appropriate learning strategies to increase student learning motivation so that physical activity and student learning outcomes increase.

According to the previous study, many researchers suggest that choosing the right learning model can increase student learning motivation [7, 8]. The research findings corroborate that learning motivation is indispensable for increasing students' participation in physical education, increasing students' physical activity in physical education, and improving student learning outcomes.

In principle, student learning behavior can be influenced by intrinsic motivation, extrinsic motivation, and amotivation [11]. Intrinsic motivation factors usually occur because students feel comfortable following learning and gaining new experiences in learning [12]. Extrinsic factors because of the encouragement from outside [13, 14]. Whereas, factors are amotivated because students do not have the motivation to learn both intrinsically and extrinsically [15]. By understanding the character of each type of motivation, educators are expected to be able to implement the right learning model when problems occur in the student's learning motivation.

Based on the results of research, theory, and previous research findings indicate that the achievement of physical education learning motivation in elementary schools must be developed and improved so that physical education learning can run optimally.

4. Conclusion
The conclusion of this study is that the achievement of student physical education motivation is still low with an average score of 63.64%. Based on the results of research and discussion, then for further research efforts are needed to approach learning or innovation in teaching so that the achievement of physical education student learning motivation can increase. In addition, it can also be known the effectiveness of a learning method in increasing students' physical education motivation.

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