

Identifying the difficulties in learning floor gymnastics in distance education: a case study of public and private elementary schools

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Abstract:

Covid-19 has affected the learning process in primary education, especially Physical Education, Health, and Sports (PEHS). Before the pandemic, students did sports and physical activity with teacher guidance and supervision. The pandemic constrains both students and teachers conducted distance learning as the most effective solution. Therefore, the PEHS teacher faced a challenge in delivering the material and achieving learning outcomes. Besides delivering material, the PEHS teacher should ensure that the students comprehended the theory, did the assignment, succeeded in practice without direct teacher supervision. This research aimed to study the comparative of floor gymnastic implementation for the 5th-grade students at the 11th Madrasah Ibtidaiyah Negeri (MIN) West Jakarta and Labschool Elementary School Cibubur Indonesia during distance learning. That way, researchers will identify the learning difficulties that occur in the two schools. From the technique of delivering different materials, the learning difficulties experienced by students are various. This study conducted mixed-method research that combined quantitative and qualitative methods. The quantitative data was collected through multiple choice questionnaires for students, which measured the learning difficulties. Moreover, qualitative data was gathered from principals' and PEHS teachers' interviews. The data were then analyzed using descriptive statistical analysis by comparing internal and external factors. The internal factor consists of physical, psychological, and fatigue (stamina) aspects. Meanwhile, the external factors consist of home (parent support), school (teacher), and the environment. The results showed that MIN struggled with students' psychological, family, school, and environmental aspects because of a lack of facilities. Meanwhile, Labschool only faced students overweight as the physical aspect problem. Therefore, this research recommended that besides providing appropriate and creative learning, teachers, students, and parents should collaborate to achieve the maximum learning outcome.

Key Words: Covid-19 pandemic, distance learning, physical education, floor gymnastics

Introduction

The Coronavirus Disease 19 (Covid-19) pandemic has tremendously changed human lives in the world. However, the pandemic has also put the education system on pause to prevent the virus spread (Pokhrel, S., & Chhetri, 2021). Therefore, the Ministry of Education and Culture of the Republic of Indonesia issued a regulation that the learning activity is conducted in distance learning (Churiyah et al., 2020). During distance learning, students did self-learning orientation, where the teacher delivered lessons not in the same room or without face to face (Brady & Pradhan, 2020).

During distance learning, every teacher faced special issues. For example, in science courses, the teacher dilemma in providing science experiments (Verma et al., 2020). In music courses, the teacher faced problems in practicing musical instruments (Octaviani, 2021). Like science and music, Physical Education, Sports, and Health (PEHS) course in Elementary Schools, which requires more practice than a theory, also faced a significant challenge conducting the physical activity. In addition, restrictions on sports, cultural and musical events, travel, and social interaction are considered to have significantly reduced opportunities for active rest, which is the key to stress management (McCloskey et al., 2020; Parnell et al., 2020; Hashimoto et al., 2021). Unfortunately, most PEHS teachers only provided written assignments during distance learning. Therefore, students did not experience movement techniques, physical activity, or practical experience. In fact, through those experiences, students developed physical, mental, social, and emotional fitness (Sukintaka, 2001).

The implementation of distance learning is similar to online learning. Regardless, distance learning requires electronic technology, such as laptops, smartphones, electricity, and internet connections (Asvial et al., 2021). Without this technology, the learning process is ineffective (Berawi, 2021). This research studied the

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PESH implementation during distance learning, especially for floor gymnastics topics in the 5th grade of Elementary School. Floor gymnastics requires physical activity to improve students' motor skills (J. A. Adams, 1976; Popescu et al., 2013). Motor skills optimize didactical, pedagogical, psychological, and biomechanical processes. However, teachers and students must concern about safety, discipline, and courage during the implementation because floor gymnastics is challenging (Martanti. DR. Winarni. S, 2020). An improper movement leads to an injury. Consequently, sports teachers have to ensure that the material was carried out correctly. Besides, teacher creativity was also required to support learning implementation (Karo Karo, A. A. P., M, B. A., Sari, I. E. P., Sihombing, H., & Sari, 2020).

This research aimed to study the comparative of floor gymnastic implementation at public and private elementary schools in Indonesia during distance learning. The research analyzed techniques and obstacles (internal and external factors) of those two schools. The internal factors were from the students themselves (physical, psychological, and fatigue). Meanwhile, the external factors were from the school, family, and environment. The data was then analyzed qualitatively and quantitatively using descriptive statistical analysis. Based on the analysis, the study recommended a technique and solution for floor gymnastic implementation at elementary school during distance learning.

Materials & Methods

This study conducted mixed-method research that combined quantitative and qualitative methods to obtain comprehensive, valid, reliable, and objective data (Onwuegbuzie, 2010). The research compared floor gymnastics learning difficulties in public and private schools during the distance learning. First, the data was collected by disseminating instruments to various respondents: the school principal, PESH teachers, and the 5th-grade students. The principle and PEHS teacher were interviewed with the open question, meanwhile the students were receipt multiple choice question. The research instruments are shown in table 1.

Table 1. Research instruments

	Statements	Question types
Principal		
	The school's support and facilities in floor gymnastics implementation during distance leaning	Open question
Teacher		
	The floor gymnastic material	Open question
	Media to deliver floor gymnastics material	Open question
	The effective methods and media to help students comprehend the floor gymnastic theory	Open question
Students		
	Student able to practice floor gymnastics movements	Multiple Choice

The interviewed data from the principal and PEHS teachers were analyzed qualitatively. This interview obtained information on learning processes, facilities, and media, because the learning objectives can be obtained once the teacher provided theory, instructions, and examples to guide students in practicing floor gymnastics movements. In addition, those data were also supported by observation and documentation.

A total of 118 students were involved. They consist of 78 students from the 11th Madrasah Ibtidaiyah Negeri (MIN) West Jakarta and 40 students from Labschool Elementary School Cibubur. The MIN is a public school. In contrast, Labschool is a private school. However, 5th-grade students could not choose answers with an attitude scale of more than two, so that the quantitative data was obtained from "Yes" and "No" questions. The data was then analyzed with descriptive statistics. The learning difficulties were then categorized into internal and external factors. The internal factor was from the students themselves consists of physical, psychological and fatigue (stamina) factors. Meanwhile, the external factor was from home (parents support), school (teacher), and community.

Results

The results described the learning difficulties of floor gymnastics at MIN and Labschool. As mentioned in the previous part, the difficulties or obstacles were divided into internal and external factors. At first, the internal factor consists of students' physical, psychological, and fatigue (stamina) during the floor gymnastics implementation were analyzed. The data showed that 44% of the MIN students had difficulties in physical aspects because of obesity or overweight. The ideal weight for the 5th-grade students was from 45 kg to 50 kg. However, once the student's weight was over the ideal, it could slow their movement. As a result, the student got difficulty practicing floor gymnastics. In addition, 66% of students faced psychological barriers because they were afraid to practice floor gymnastics. Wherein a fault movement led to an injury. Finally, 46% of students dealt with stamina problems or fatigue. They felt exhausted during the activity.

Meanwhile, the student's external factors were home (parents support), school (teacher), and community. The home factors were 79%, school factors were 79%, and community factor was 45%. The home factor showed that most parents did not involve in the learning process. Furthermore, the school factor indicated that teacher

guidance was not maximal. In the end, the environmental factor expressed that the student did not support by a proper environment, such as appropriate space for practicing. The percentage details are shown in figure 1.

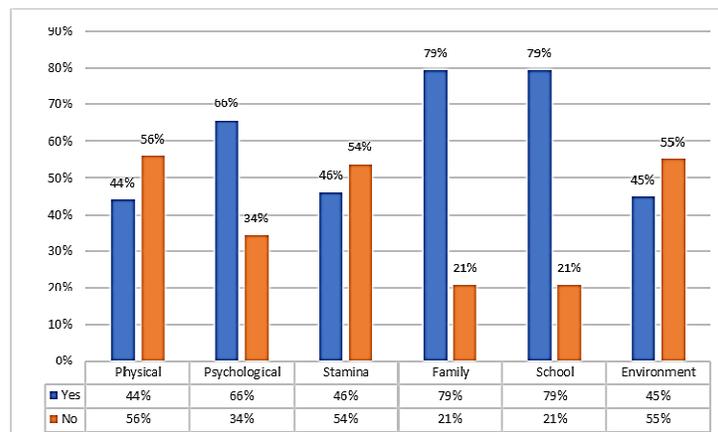


Figure 1. The interviewed result of MIN West Jakarta. The data was obtained from 78 students. "Yes" indicated that the student faced a problem. Meanwhile, "No" indicated that the student did not have a problem.

In the interview, the MIN principal stated that the school had used the WhatsApp application, Google Forms, and website e-learning-min1jakarta.com for online learning. Meanwhile, the PEHS teachers explained that the floor gymnastic topic was delivered in theory with minimum practice or exercise. This situation happened because teachers could not do direct supervision in practice. Before the pandemic, the floor gymnastic topic was taught in four sessions. In the pandemic or distance learning, this topic was still delivered in four sessions. Here, the teacher delivered learning material in a video via the WhatsApp application. After that, teachers evaluated students' comprehension through assignments by Google Forms.

On the other hand, the data research at Labschool showed that 55% of students faced difficulties in self-learning floor gymnastics because of the physical aspect where their weights were above average. This overweight cause students could not be active during the exercise. In the psychological aspect, 22% of students experienced psychological barriers, while 78% did not. However, this 78% of students were happy event they have to do self-learning. They were focused, confident, and motivated to learn floor gymnastics. While in the fatigue aspect, 15% of students had difficulties in the exercise due to their stamina.

Besides internal factors, students also faced external factors, where family factors were 13%, school factors were 9.00%, and community factors were 43%. This external factors data showed that the Labschool students did not face difficulties in floor gymnastics learning at home. The details are shown in figure 2.

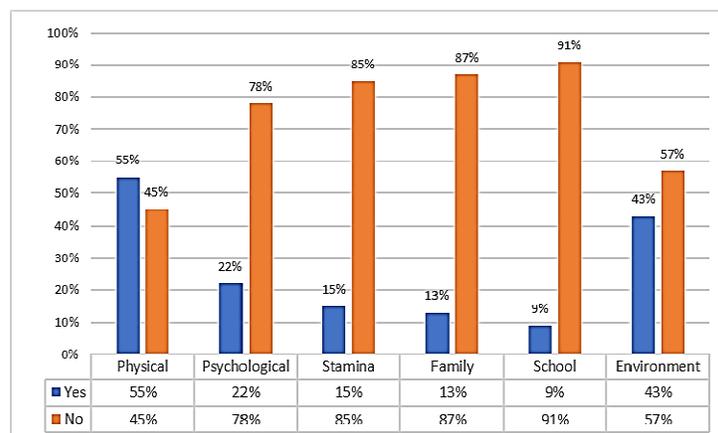


Figure 2. Interview result of Labschool Elementary School Cibubur Students. The data was gained from 40 students. "Yes" indicated that the student faced a problem. Meanwhile, "No" indicated that the student did not have a problem.

In the interview, the Labschool principal said continuously monitored the teacher's learning strategy during distance learning. In addition, the principal encouraged the teacher to conduct the best proper application during distance learning, such as zoom meetings for virtual face to face, Seesaw for upload students' videos, google

form for evaluating the student's comprehension, PowerPoint for an exciting presentation, and Youtube for watching a video.

The Labschool PEHS teachers explained how they delivered floor gymnastics topics before the pandemic. Floor gymnastics required sequences of practice. Besides, the practice has high risk, so that the teacher set face-to-face meetings four sessions. In each session, the teacher explained the theory and then gave examples step by step. To enhance students' comprehension, the teacher also played videos and gave direct feedback in practice. The teacher also set a particular time for the student to discuss their difficulties during the practice and then provided the solution. During distance learning, PEHS teachers did the same sequence of activities remotely. Again, teachers provided appropriate media to replace face-to-face activities, including practice and assessment. Here the direct supervision was taken over by the parent. Therefore, both teacher and parent ensured that the exercise or physical activity did correctly.

Comparison data of two schools

During the research, 118 students' conditions from both schools were healthy and fit. The data showed that there was a significant difference in interview results between MIN and Labschool students. The difference is shown in Figure 3, and the variables were physical, psychology, fatigue (stamina), home (family), and school (teacher), and environment.

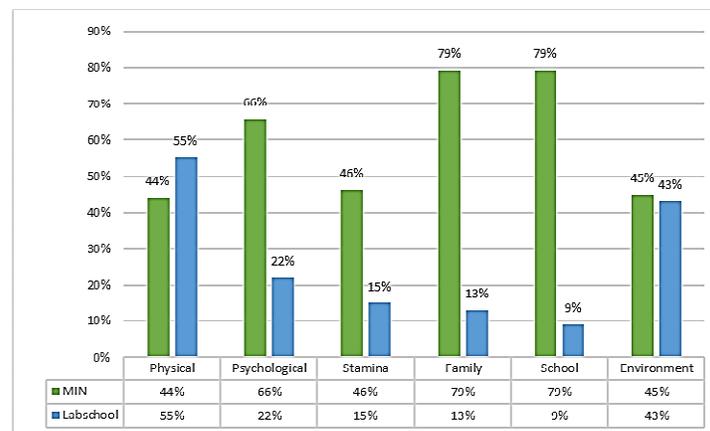


Figure 3. Difference in responses for each variable, the blue and green are MIN and Labschool data, respectively.

Figure 3 showed that 45% of MIN students and 55% of Labschool students were overweight. This condition led those students could not move freely during the floor gymnastic exercises. From the psychological aspect, Labschool students have a lower percentage problem than MIN students. Furthermore, it indicated that Labschool students have greater motivation than MIN students. Therefore, the Labschool students had a high interest and motivation in participating in the floor gymnastic exercise. The fatigue or stamina aspect showed that 47% of MIN students and 15% of Labschool students felt tired when practicing floor gymnastics.

Regarding students' background and family aspect, the data showed that 79% of MIN students and 13% of Labschool students did not support by the family. Here, the support was supervision during the distance learning, where the family helped students studied the theory, did the assignment, and practiced the exercise. Furthermore, the school's aspect showed that 79% of MIN students and 13% of Labschool students had problems with the school facilities and teacher guidance. The gap was big because Labschool is a private school with better facilities than MIN. Finally, the environmental aspect was environmental support. The data showed that 45% of MIN students and 43% of Labschool students did not get proper support from the environment, such as an appropriate place for practicing.

Those data were compared and analyzed. It showed that the learning difficulties level of MIN students was higher than Labschool students. Finally, the fact showed that distance learning achievement (floor gymnastics) was affected by internal and external factors.

Discussion

Learning difficulties were obstacles in the learning process. As a result, the learning process could not achieve the maximum outcomes. Sometimes, these obstacles did not be realized by students or teachers. Obstacles came from internal and external factors. The internal factors were from the students themselves, such as physical, psychological, and fatigue (stamina) aspect. Moreover, the external factor was home (family), school (teacher), and environment.

Even though in the pandemic students must do distance learning, they needed to comprehend the subject material. The comprehension was indicated by measuring the knowledge and skill. The knowledge and skill were analyzed by the results of assignment and practice (performance), respectively. A good performance indicates that the student comprehends the theory, understands the techniques, and able to demonstrates it.

Gymnastics is a physical exercise on a floor to promote endurance, strength, flexibility, agility, coordination, and body control. Whatever motion is performed, the main goal is to improve physical quality and comprehend of its control (Mahendra, 2000). Usually, people with overweight fear doing sports, including floor exercises. Therefore, in the floor gymnastics implementation, the overweight students must provide a specific lesson plan to perform the basic movements. In general, overweight students were afraid to fail because of lack of body balance (Tarigan, 2000).

However, the physical barriers did not affect the Labschool students' psychological aspect because the interview showed that the floor gymnastics topic was well-planned online learning. The learning was adjusted with the students' condition, minimized students' fear, and encouraged them to practice. Besides, most of the online learning was delivered synchronously. Therefore, teachers and students might do a direct communication via zoom meeting application. This direct communication helped the teacher to monitor student activity during the practice. Plus, the role of parents is significant in providing children's learning facilities. During children's home study, the dominant tool utilized is a mobile phone. The basics of mobile phone-backed physical exercise should be workable, considering elementary school children are easier to get access to from such devices (Howard, 2017; Papastergiou et al., 2021). In addition, parents are also involved in the learning process and conduct direct supervision in a comprehensive environment. Thus, the primary practice of floor gymnastics will be safer and more comfortable to do.

Meanwhile, MIN students faced many problems during the floor gymnastics online learning. In the internal factor, students faced obesity, which influenced their performance in floor gymnastics exercise. They were afraid a mistake led to an injury. Students learned the theory from material and video, which were delivered via the WhatsApp Application. Besides, there was no direct communication between teacher and students, nor direct supervision from the parents (family aspect). The MIN West Jakarta delivered the floor gymnastic material asynchronously. In asynchronous learning, the teacher distributed learning material simultaneously without virtual face-to-face with the student or with indirect communication (Sadikin, A., & Hamidah, 2020). Here, the indirect communication between teacher and student did via an application, for example, WhatApp, Learning Management System (LMS), and website, anytime and anywhere. The research explains that teaching that integrates Information and Communication Technology (ICT) devices with proper pedagogical design can improve students' motivation and learning outcomes (Attewell & Enhanced, n.d; Haßler, B., Major, L. & Hennessy, 2015; Sung et al., 2016; Papastergiou et al., 2021). On the other hand, Synchronous and Asynchronous learning improve the quality of dialogue (Narayana, 2016). Furthermore, the learning environment also affected the learning process. A positive emotional environment can support children aged 7-11 years for gaming activities (Petkova & International, 2016; Petkova & Aleksieva, 2018). Most students did not have a proper space for practicing as well as facilities at home. This condition also led students afraid and uncomfortable to do floor gymnastics exercises at home, yet a conducive environment could provide a sense of comfort and build self-confidence.

The school aspects consisted of the teacher and the learning media facilities. The teacher played an essential role in delivering learning material to students. The learning materials were arranged in the curriculum to help students' comprehension. Sometimes there was an obstacle in distance learning from school and students because of the lack of facilities. The school also has a significant effect on student learning quality. A good school environment gives good quality learning and vice versa.

There were also some differences in delivering the gymnastics floor material between MIN and Labschool. The difference was influenced by the school characteristics, conditions, and policy. The data showed that a school with complete facilities, good infrastructure, competent teachers, and cooperative parents could reach the maximum achievement in distance learning. However, the success of PEHS in distance learning was not solely based on facilities, infrastructure, teacher and parent, but also influenced by creative learning development. Therefore, the students enjoy the learning process, even though in online learning or distance learning.

Conclusions

The research studied the floor gymnastics implementation for the 5th-grade students at two different schools during distance learning. The students showed difficulties in self-learning because of internal and external factors. MIN is a public school that has lacks facilities struggling with student psychological, home, school, and environmental aspects. Meanwhile, Labschool is a private school which has good facilities faced overweight student problem. The research recommended that besides providing appropriate learning plans and implementing them creatively, teachers must motivate and provide feedback to the students. Furthermore, the parent should also help and supervise the student to comprehend theory and practice during distance learning. Therefore, good cooperation between the teacher, student, and parent could achieve maximum learning outcomes during distance learning.

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