



Case Study for Hybrid Physical Education Class in Korea

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*Abstract*¹

Background/Objectives: The purpose of this study was as a case study for the application of hybrid classes in physical education classes, centered on the physical education teachers. **Methods/Statistical analysis** An unstructured questionnaire was prepared so that the research subjects could understand and interview the research topic naturally. The interview contents of the case study subjects were described and analyzed centered on the researcher. **Findings:** A model of hybrid physical education classes is needed. Smart devices are needed for each student, and teachers need to be empowered. It is necessary to share content related to physical education and solve the copyright problem. **Improvements/Applications:** It is judged that research on content creation and copyright of hybrid classes is necessary. If the advantages of hybrid classes are utilized in physical education classes, it is thought that it will have a positive effect not only when face-to-face classes are difficult, but also in various situations.

Index Terms

Hybrid class, Physical education, Online, Face-to face, Interview, Smart device

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I. INTRODUCTION

Due to COVID-19, classes were switched from attending school classes to remote classes, or a mixed class of back-to-school classes and distance classes was conducted. As the emergence and spread of new infectious diseases is expected to occur continuously in the future, it is necessary to establish a new type of educational environment.

With the convergence of information and information & communication technology(ICT) in the era of the 4th industrial revolution, the rapid development of artificial intelligence(AI), Internet of Things(IoT), robot technology, drones, autonomous vehicles, virtual reality(VR), etc. It is positioned as a major axis[1][2].

Smart education based on such a hyper-connected platform enables learners to participate in learning on their own, cooperate and solve problems. In addition, the application of physical education classes using smart tools has the advantage of being able to learn anytime, anywhere, and at the same time interacting with students and receiving feedback from teachers immediately. It has the advantage of being able to exercise intelligence and immediately search or find missing information[3][4].

However, in the field, not only is it difficult for teachers to conduct physical education through remote classes, but they are also experiencing difficulties due to the lack of smart tools. This is because traditional physical education classes focus on physical activity and have educational effects in this process. With the change of the times, it is necessary to utilize the advantages of new infectious diseases and hyper-connected platforms by applying a mixture of back-to-school classes and remote classes to physical education classes.

In this regard, we would like to propose a hybrid teaching method through interviews with field teachers on the hybrid class.

II. RESEARCH METHOD

A. Research subjects and method

After listening to opinions on distance learning for hybrid classes targeting 4 male physical education teachers (Gyeonggi A Middle School, Gyeonggi B Middle School, Chungbuk C Middle School, and Chungbuk D Middle School) with more than 10 years of experience as a male physical education teacher, the contents were summarized and concluded with a focus on the researcher.

III. RESULTS

A. Definition of Hybrid Class

The opinions were presented that it can be defined as classes that can utilize various media, opportunities for various sports activities, harmony between face-to-face and non-face-to-face classes, metacognitive physical education, and future physical education.

B. Need for Hybrid Classes and Awareness Level

They agreed on the necessity of online classes, but pointed out the problems with the method and teacher education. Awareness of online classes is also much higher than when Corona started. Regarding the expansion of online classes, they expressed the opinion that four teachers are necessary. However, it is judged that there are many opinions that it is unnecessary because problems such as an increase in the workload of the physical education teacher in the field may appear.

C. Difficulty of online classes for hybrid classes

First of all, we talked about the difficulties of content creation, and secondly, it is difficult to understand student participation in online classes. When the physical education class was conducted through online classes, it was said that the learning effect was lowered, and they complained of difficulties in the evaluation method.

Older teachers feel the limits of online classes due to the difficulty of using smart devices, and have little experience with cloud storage services.

D. Suggestions for Hybrid Classes

The core of operation in online physical education classes is the professionalism of teachers who can operate them along with environmental support. In the end, learning how to use smart devices and the ability of teachers to explore and apply teaching methods using them in a pedagogical way is essential in smart physical education classes. Education on the use of various platforms, interactive communication applications and programs, and education on the use of various smart devices are required.

The interviewed teachers answered that teachers sometimes need editing programs with more advanced functions, and that students need education on simple editing applications.

Teachers were getting most of their video content from YouTube. In this situation, it is difficult for teachers to bear a burden on public use due to copyright issues. Of course, the government is providing institutional support for the free use of

external videos to a certain extent for public classes, but it is true that the scope of its use is limited. Therefore, it is necessary to solve the problem of copyright for public classes.

IV. CONCLUSION AND DISCUSSION

The results of this study are summarized as follows.

First, for hybrid physical education classes, a new physical education model should be proposed by combining face-to-face non-face-to-face classes with a focus on physical activity, the purpose of physical education.

Second, it is judged that smart devices for each student and the practice of physical education using them are more effective. For this purpose, it is necessary to strengthen individual students' smart devices and teachers' capabilities.

Third, it is required to solve the problem of copyright along with the sharing of physical education contents.

Through this study, in order to analyze the effect of hybrid class composition, the opinions of four physical education teachers in each region were synthesized and compared and analyzed. I would like to discuss as follows, focusing on the research results.

First, it indicates that all of the various teaching methods of the hybrid class show a significant learning effect.

It is possible through belief and consensus that the learner has the right to learn to decide the learner's choice to participate in the class. As the responsibility for learning changes from the instructor to the learner, it will change to a truly learner-centered education.

In order for learners to transition to a variety of class participation education, the instructor should provide explanations and time so that learners can take responsibility for their own learning contents, and guide them to acquire the skills necessary for self-directed learning[5].

What is interesting about participation in physical education classes is that while other classes are divided into two types, remote and face-to-face, it proves that physical education classes that prefer face-to-face work very strongly. Also, students who prefer face-to-face classes appear to be satisfied with the fact that they can choose according to their participation method.

For a positive learning experience in hybrid classes, appropriate class design and operation are required. For equal class participation through smooth interaction in the hybrid class, the venue of opportunity should be designed fairly through presentations or discussions to all students[6].

Second, both showed positive responses to the method and necessity of physical education classes using smart devices.

The part that needs to be improved the most in the hybrid class is smooth communication. An essential element of the hybrid class is to have a classroom environment suitable for this. Therefore, if a device and environment suitable for hybrid education classes are not created, there is a difficulty in the interaction between learners and instructors. For smooth communication with students, smart devices that students can use during face-to-face classes should be provided. In addition, in remote classes, various devices are needed to view the screens of learners and instructors participating in face-to-face classes. It is a prerequisite to be equipped with technical environmental conditions that occupy the most important part of the hybrid class[7].

Many universities around the world are currently applying the hybrid classes discussed above in order to guarantee students' right to learn and develop new educational models (Ranan. 2021). In the meantime, active interest and support from educational institutions is needed so that learners can easily access various resources for high-quality class management[8].

Third, the solution to problems related to content copyright-related matters in the physical education class due to the use of smart devices is presented. Among the leadership subjects that deal with the characteristics of various human relationships and have to be directly implemented, the physical education subject may require more practice through face-to-face classes. Thorough preparation for offline lectures is required for production and development. In order to succeed in educational innovation that plans future teaching and learning methods, the will of teachers and learners, development of teaching/learning competency, development of teaching methods suitable for special situations, and support from institutional and environmental aspects should be made[9].

It is expected that the hybrid education culture will be further expanded in schools by bringing about a change in academic and teaching methods that have never been done through hybrid education. If the advantages of the hybrid class are utilized in the physical education class, it is thought that it can have a positive effect not only when face-to-face classes are difficult, but also in various situations. Therefore, hybrid classes are proposed as an alternative and a new physical education method to overcome the limitations of learning that may occur in various ways.

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