Modification of Rhythmic Activity Teaching Materials: Study of Development Based on KKNI Curriculum

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Business schools should design customizable curricula to assist students in identifying and learning critical skills, knowledge, and attitudes to compete in their targeted global markets. The Rickey and Klein technique is used in this research, which follows an R&D (research and development) research methodology. Total of 60 students who participated, there were a total of 30 students who participated in the limited trial. Based on the IQF curriculum in a limited trial with an average value of 45% falls into the very poor category. The results of the primary trial were regarded to be in a Good category because they had an average value of 75%, whilst the results of the operational trials were judged to be in the Very Good category because they had an average value of 92%. The findings of this study demonstrate, that the instructional materials for rhythmic activity courses based on the IQF curriculum developed by researchers are very effectively implemented in the learning process.

Keywords: teaching, rhythmic activity, KKNI curriculum

INTRODUCTION

Everyone, including young children and senior citizens, is capable of engaging in sport as a kind of physical activity (Suryadi, Gustian, & Fauziah, 2022). Physical activity carried out through sports, can have a positive impact on fitness (Bile & Suharharjana, 2019; Chrisly M., Djon, & Shane HR, 2015; Dharma & Boy, 2020; Endrianto & Ma'mun, 2019; Fikri, 2017; Firmana, 2018; Hadi, 2019; Hayudi & Pratama, 2019; Julianto, 2016; Majid, 2020; Prativi, 2013; Prayoga, 2020; Suryadi, 2022; Suryadi & Rubiyatno, 2022;

Suryadi, Samodra, & Purnomo, 2021). Various activities are carried out in the community to get a healthy and fit body (Suryadi, 2022). In line with Meo et al., (2021) who say exercise has great benefits for health, as well as contributes to physical, emotional, and psychological well-being (Hughes et al., 2020). These statements reveal that sport is a physical activity that positively impacts daily life. In addition, a study proves that there is an increase in physical fitness by doing rhythmic activities for two weeks (Kunarti, Jubaedi, & Nurseto, 2018).

Rhythmic activity refers to a series of human movements that are carried out in rhythmic patterns, adjusted to changes in tempo, or are merely body expression movements following musical accompaniment or beats outside of music. Rhythmic activity can also refer to movements that are not accompanied by music but still follow beats. Children enjoy participating in rhythmic activities because they share many of the same qualities as creative movements that are closer to the realm of art. As a result, this type of movement has a beneficial effect on the development of children's gross motor skills and is therefore very popular among children (Anggraini, Sutarjo, & Wulan, 2016; Iswatiningrum & Sutapa, 2022; Maghfiroh, 2020; Ulfah, Dimyati, & Putra, 2021; Wijayanti, 2020), basic movement (Zulfahmi, 2016). Furthermore, this movement can also improve physical fitness, develop skills and instill mental and spiritual values (Imam in Sudarsini, 2016). In addition, the Department of Sports Science at the Faculty of Sports Science (FIK) at the State University of Medan requires students to take Rhythmic Activity as one of their required courses (Unimed). The existence of Rhythmic Activities provides a foundation for the development of experienced and potential teachers who are capable of contributing to the growth and formation of a social environment while possessing the necessary knowledge to do so for them to play a role in society.

Students will have access to Rhythmic Activity lectures thanks to the provision of lecture materials based on contracts as well as lecture teaching resources. Students at the Faculty of Sports Science (FIK) at Unimed are allowed to participate in rhythmic activities as a form of reinforcement for them to acquire the skills necessary to cultivate and diversify the presence of sports in the community. Where, to achieve success in learning the curriculum has a fairly central position in education (Andini, 2019; Huda, 2017; Usmar, 2017; Yuliawati, 2021). With the development of education so that it also provides an important role for change and facilitator of curriculum development initiatives (Bens, Kolomitro, & Han, 2021), and even teachers are emphasized to carry out school-based curriculum development (Priestley, Minty, & Eager, 2014), as well as in education for doctors (Schneiderhan, Guetterman, & Dobson, 2019), and nurses (Ard, Farmer, Beasley, & Nunn-Ellison, 2019), and sports are no exception (Martínez-López, Suárez-Manzano, De La Torre-Cruz, & Ruiz-Ariza, 2019). As part of an attempt to improve the overall quality of education, the curriculum needs to be bolstered by including technological and communication skills, as well as a commitment to developing creative performance qualities (Maba, 2016). Curriculum development refers to national standards to achieve national education goals (Andini, 2019).

The development of fundamental ideas like industry associations, professional associations, professional certification bodies or institutions, middle and high-level education and training institutions, and reliable and comprehensive accreditation bodies or institutions is what the Indonesian National Qualifications Framework, also known as the term, known by the abbreviation KKNI, is all about. The regulation that governs KKNI can be found in Presidential Regulation of the Republic of Indonesia Number 8 of 2012 (Wahyuni, Khadijah, Budianti, & Maisarah, 2021), in the context of the method of education and training, as a means of contributing to the formation of the character and identity of the Indonesian nation. The preparation of performance based on scientific elements, abilities, and expertise is the fundamental idea that underpins the KKNI's development (Rezeqi, Brata, Handayani, & Gani, 2020), this is in line with the learning outcomes that have been achieved through the education, training, or experience that has been completed. This is in line with Sitepu, Nasution, & Ibrahim, (2019) who said that the treatment of the IQF curriculum prepares university graduates to have competent skills, and becomes one of the reference curricula following the job market (Mawardi, 2016). A study conducted showed that the implementation of the IQF curriculum had a positive impact on improving the quality of students (Badaruddin, 2021).

A challenge that is being faced in this investigation is the creation of instructional materials for Rhythmic Activities. The FIK Unimed curriculum is based on lecture materials that have been developed and have not been subject to any modifications to this point in time. Aspects of the need for Rhythmic

Activity lectures need to be developed under the IQF curriculum at the University. Another problem is that the IQF curriculum is still relatively new and there are many obstacles in its application, so it becomes less than optimal. Next are the limitations of books and learning plans that are not yet owned based on a specific IQF (Sitepu, Nasution, & Ibrahim, 2019), and the lack of understanding of the IQF curriculum (Suradi & Amaliyah, 2020). The provision of teaching materials in Rhythmic Activity lectures is the first step to creating a KKNI room in lectures according to the courses that are taught. The selection of teaching materials correctly can realize the objectives of lectures properly so that they can contribute to the University in realizing a superior academic system at national and international levels.

Therefore, the implementation of the Rhythmic Activity course can be carried out properly by developing teaching materials based on the Indonesian National Qualifications Framework (KKNI). Based on the KKNI perspective, each study program must clarify the profile of graduates (Fathoni, 2015), and the presence of the KKNI, it has an impact on changes in the learning process (Iqbal, Rosramadhana, Amal, & Rumapea, 2018). The IQF is structured according to fundamental concepts that are consistent with the approach that was used by other nations when building the institutional qualification framework (Student, 2015). The KKNI policy as a curriculum set by the government provides a level of work qualifications that juxtaposes, equalizes, and integrates the education and training sector as well as work experience to provide recognition according to positions in various sectors (Endriani, 2015). Although previously Sitepu, Nasution, & Ibrahim (2019) researched the development of the IQF curriculum in learning basic gymnastics, and Wahyuni et al., (2021) carried out the development of the IQF curriculum in the Early Childhood Education Study Program. However, no one has continued to develop teaching materials for rhythmic activities based on the IQF curriculum in 2022 and discuss them, especially sports learning in Indonesia. So that this is one of the gaps that can be developed as well as the reason why this study is important. Based on this statement, this study aims to develop teaching materials for rhythmic activity courses based on the IQF curriculum.

RESEARCH METHODS

Participants

Students in the Physical Education and Recreational Health and Recreation Study Program at FIK Medan State University acted as research subjects for the development of teaching materials for rhythmic activity courses based on the IQF curriculum. These courses are based on the International Rhythmic Fitness Federation (IQF) curriculum. The preliminary test was carried out by a group of thirty students, the primary test, also known as the big group trial, was carried out by fifty students, and the operational trials were carried out by sixty students utilizing an instrument in the form of a questionnaire. The IQF curriculum served as the foundation for each of the tests.

Procedure

The Rickey and Klein technique is used in this research, which follows an R&D (research and development) research methodology. The Rickey and Klein method emphasizes analysis, which encompasses all aspects of design, production, and evaluation. The manufacturing of Rhythmic Activity teaching materials that are tailored to the Unimed KKNI Curriculum using product specifications to improve an existing design is the activity that is being investigated as part of this research (without eliminating the principle of the previous content). According to Sugiyono (2016), the approach to research and development is carried out by using the internal method. He explains that the primary focus of research on design and development is analysis, which encompasses all aspects of the process, including production and evaluation.

The research and testing that is done to develop already existing products is included in the third level of this technological development procedure study. The process of generating instructional materials for Rhythmic Activity includes the following stages: 1) Potential and Problems; 2) Literature Study and Information Gathering; 3) Product Design; 4) Design Validation; 5) Design Revision; and 6) Product

Creation. 7–Limited Trial, 8–Product Revision 1, 9–Main Trial, 10–Product Revision 2, 11–Operational Trial, 12–Product Revision 3, and 13–Dissemination and Implementation are the steps that follow.

Potential and Problems

The first step in this strategy is to determine the possibilities and issues that may arise, namely the constraints of reference resources or reference teaching materials in the Rhythmic Activity course, which is governed by the regulations of the Indonesian National Qualifications Framework (KKNI).

Product Design

The development of teaching materials, which will be provided to students as part of the Rhythmic Activity course that is part of the Health and Recreation Physical Education Study Program, is the third stage of the design process for the generated product (PJKR). The product offers assignment content that is following the curriculum of KKNI University, which includes the following items: A critical book review (CBR), a critical journal review (CJR), micro research, routine assignments, concept engineering, and project duties are all examples of what are known as "critical reviews."

Design Validation

Experts in Rhythmic Activity fields of physical education, sports science, sports coaching, and traditional and modern sports are responsible for carrying out the fourth step of product design validation for the company's Rhythmic Activity teaching materials. The validation method is carried out in the form of a *Forum Group Discussion* (abbreviated as FGD), and its purpose is to determine whether or not the design can be successfully transformed into a product.

Design Revision

Experts will carry out the fifth stage of design revision, which is called a Forum Group Discussion (FGD), to identify which product designs are appropriate for use as teaching materials for Rhythmic Activities at Medan State University.

Product Manufacturing

In the sixth stage, which was the manufacture of instructional material book products following a design revision, the research team's job division strategy was to be able to finish the entire book's content. This was accomplished by dividing up the work. The product manufacturing stage is carried out with the assistance of references in the form of related journals and Rhythmic Activities, Rhythmic Activity books before development, and product support books, specifically about sports, physical education, culture, and the most recent developments in sports. The FGD conducted by the research team about the materials that are currently being worked on carried out the first step of the product's completion.

Limited Trial

The seventh stage consisted of a brief experiment that was carried out on thirty different students. Students were given Rhythmic Activity books to read and study for one week as part of the trial procedure, and then, after serving as respondents, students were given an evaluation tool about the books they had been reading.

Product Revision 1

The restricted product test will provide the data that will be used in the eighth step, which is the product revision stage. The method of revising that is utilized is to segment the tasks into a comprehensive conversation following the outcomes of the calculation performed by the research instrument. Product revision 1 is the name given to the first iteration of the product's revision, and the findings of that trial will be evaluated once more in the primary trial.

Main Trial

The ninth stage of the primary trial had a significantly larger number of participants compared to the previous stage's sample size. The first experiment, also known as the large group trial, was carried out by sixty individuals making use of a questionnaire as the research tool.

Product Revision 2

The tenth stage is the stage in which product revisions are made in response to the findings of the primary product test. The approach of revision that was implemented consisted of conducting FGD on the data received from the instrument in depth and making improvements under the results of the calculation of the research instrument. Product revision 2, also known as the initial product revision, is currently undergoing operational testing, in which its outcomes will be evaluated once more.

Operational Trial

The testing of the product on a significantly wider number of participants than the primary test group is the eleventh and last stage of performing operational trials. The tool used for the operational testing was in the form of a questionnaire, and there were a total of ninety participants. The experiment was carried out by providing the respondent with a copy of the Rhythmic Activity book and instructing them to study it once more over the course of a week. After that, the respondent was given an evaluation tool related to the book that was being researched.

Product Revision 3

The evaluation of the twelve-and-a-half people who participated in the research as part of the operational test phase was subject to a twelfth-stage revision. The results of the stage of operational testing constitute the final step of the product development series; hence, the results gained will be brought back to the FGD and continued at the stage of product implementation and dissemination.

Dissemination and Implementation

After the release of the International Standard Book Number (ISBN), the next stage of this research, known as product implementation, involves using Rhythmic Activity teaching materials to be used in Rhythmic Activity lectures at the Faculty of Sports Science (FIK) State University of Medan (Unimed).

Data Analysis

The next step in the research process is for the research team to conduct focus group discussions (FGDs) to form instruments that are arranged to obtain data that occurs during the lecture process or student learning of the Faculty of Sports Science (FIK) using interactive multimedia-based media. This activity is the next step in the preparation process for making media. A questionnaire or a questionnaire incorporating a Likert Scale is used as the format for these tools. The data that was gathered via the use of questionnaires will be processed to generate product assessment findings categories that are designed based on the results of the questionnaires (Sudijono, 2009). Data analysis techniques were assisted using *Microsoft Excel 2019 software*.

TABLE 1
ASSESSMENT CATEGORY NORMS

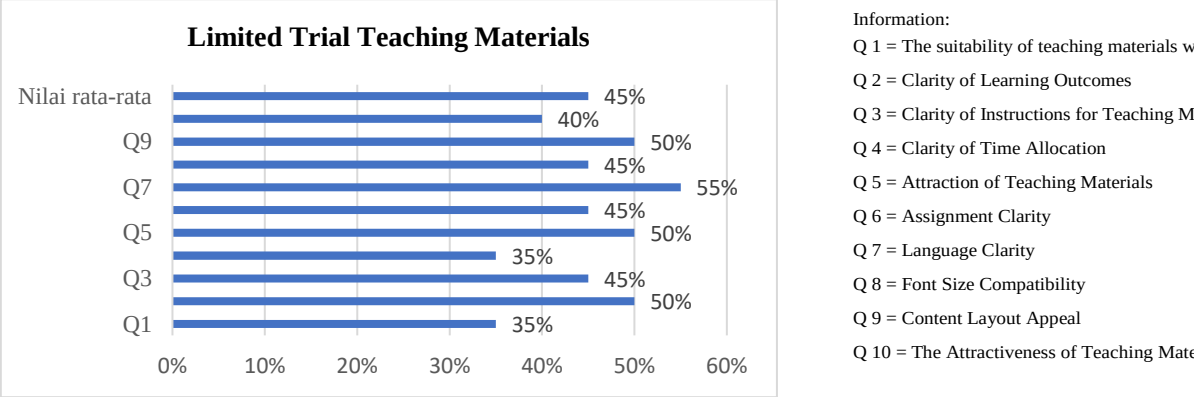
Percentage	Category
80% - 100%	Very well
66% - 79%	Well
56% - 65%	Enough
46% - 55%	Not enough
<45%	Less once

RESULTS AND DISCUSSION

Results

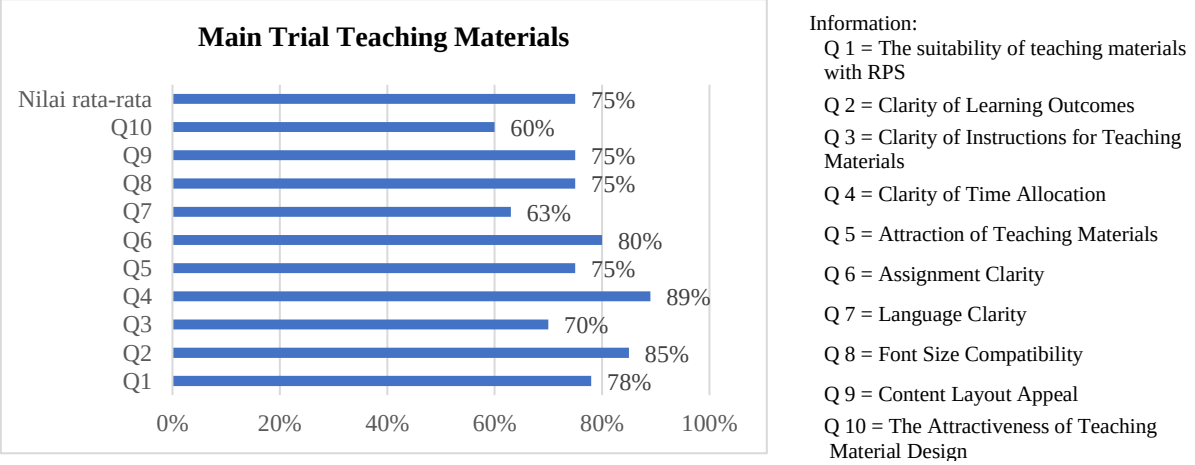
According to the findings of the product feasibility assessment, design revisions were made by the research team using the Forum Group Discussion (FGD) process. Based on these findings, the research team determined which product designs are appropriate for use as teaching materials for Rhythmic Activities at the Faculty of Sports Science, State University of Medan. For the subsequent stages of the production of the book to be completed in their proper sequence, the revision stage is carried out on the book cover and on refining the composition of the contents. The cover, the publisher's statement, the introduction, the table of contents, and the contents of the book.

FIGURE 1
RESULTS OF THE DRAFT OF TEACHING MATERIALS IN A LIMITED TRIAL



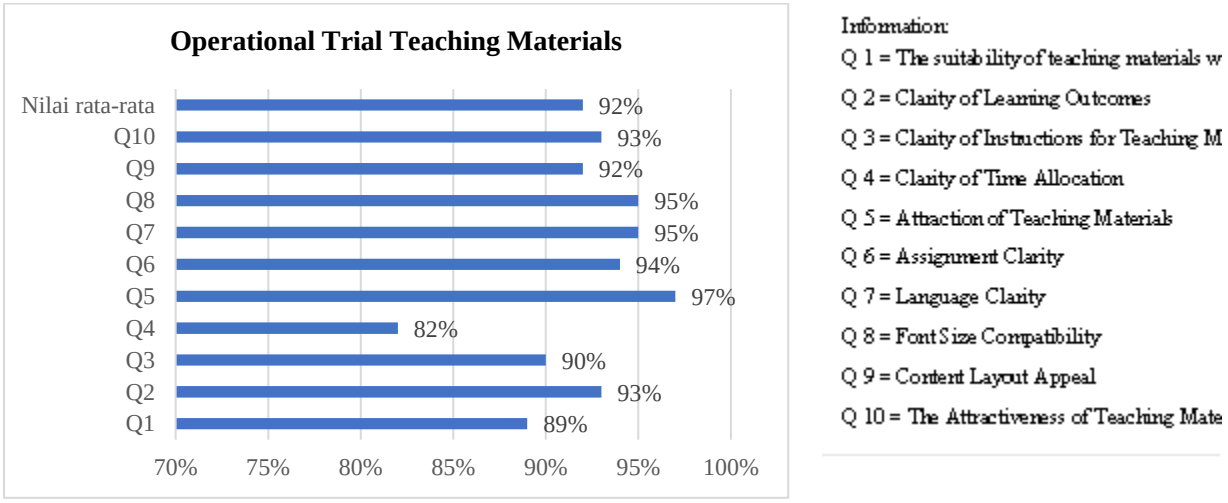
The results of a limited trial conducted on students with a total of 30 people were obtained by giving Rhythmic Activity books to students to study for 1 week, and then students, as respondents were given an assessment instrument against the books, studied showing that the product test results obtained an average value of 45% with the Less category. This was accomplished by giving students Rhythmic Activity books to study for 1 week, and then students were given an assessment instrument against the books studied. Graph 1 displays the outcomes, as can be seen.

FIGURE 2
RESULTS OF THE DRAFT OF TEACHING MATERIALS IN THE MAIN TRIAL



Based on what is obtained graph 2, shows that in the development of teaching materials for rhythmic activity courses based on the IQF curriculum with a sample of 60 students, the product test results obtained 75% in the Good category. The results of the study prove that there is a change in the average value that occurs between the limited product test group and the main product test group, namely an increase from 45% to 75%.

FIGURE 3
RESULTS OF THE DRAFT OF TEACHING MATERIALS IN OPERATIONAL TRIALS



In graph 3, the results of the operational test with a sample of 90 students of the Physical Education and Health and Recreation Study Program, the results showed that the operational test phase of the product obtained 92% results in the Very Good category. The results of this study certainly prove that the teaching materials for rhythmic activity courses based on the IQF curriculum developed by researchers are very well implemented in learning. The next stage of this research is the implementation of the product by applying the Rhythmic Activity teaching materials after the publication of the International Standard Book Number (ISBN) and used in the Rhythmic Activity lectures at the Faculty of Sports Science (FIK) Medan State University (Unimed).

Discussion

This study aims to develop teaching material for rhythmic activity courses based on the IQF curriculum. Based on the assessment through the *Forum Group Discussion (FGD) process* by the research team determine product designs that are suitable for use as teaching materials for Rhythmic Activities at the Faculty of Sports Science, State University of Medan. Research and development results in a limited trial with a sample of 30 students showing an average value of 45%, which is a very poor category. Furthermore, the main group trial with a sample of 60 students showed an average value of 75% which was in the good category. The results of the study prove that there is a change in the average value that occurs between the limited product test group and the main product test group, namely an increase from 45% to 75%. Next, the results of the study showed that the product operational test stage obtained 92% results in the Very Good category.

The results of this study provide evidence that teaching materials for rhythmic activity courses developed based on the IQF curriculum show that they are very well implemented in rhythmic activity learning. The results of previous relevant research conducted in the Early Childhood Islamic Education study program showed that the book product developed by referring to the IQF was very well used in learning (Wahyuni et al., 2021). Other studies have shown that the KKNI-oriented Acehnese cultural

learning model is valid, practical, and effective, used (Tanjung, 2020), and in basic gymnastics learning the *hybrid learning model* (Sitepu et al., 2019).

The importance of curriculum development in the world of education (Shibub, 2019), of which is to improve the quality of learning through the use of good teaching materials (Setyowati, Sari, & Habibah, 2020). Developing various aspects of knowledge, skills, and attitudes, will improve critical thinking and be ability to form logical thoughts (Nugroho, Permanasari, Firman, & Riandi, 2021). A study conducted by Putra, Fakhri, & Fitriani, (2019) provides additional evidence related to very feasible and interesting teaching materials, namely gamification-based problem-solving.

Various phenomena in everyday life need to be criticized, especially by students as the nation's young generation (Setyowati et al., 2020), one of which is teaching materials that are practiced. In addition, teaching materials, this will make it easier for teachers to learn (Rahmani, Mustadi, Maulidar, & Senen, 2021). The problem of curriculum development is also one of Saudi Arabia's visions (Alhomairi, 2018). Therefore, educators need to be trained in the learning process through the development of teaching materials, thus creating students who can think critically so that they can be applied in the community (Setyowati et al., 2020). Based on these results provide an overview of the importance of curriculum development, especially in Indonesia to achieve effective and interesting learning to achieve the goals of national education.

This study proves that the teaching materials for rhythmic activity courses based on the IQF curriculum developed by researchers are very well implemented in learning. The teaching material for rhythmic activities is in the form of books published by the International Standard Book Number (ISBN). Where the IQF curriculum has a positive and significant influence on student research interests (Agusti & Sihotang, 2019), and its implementation can improve the quality of students (Badaruddin, 2021). Furthermore, a study by Putri & Putri, (2020) that the application of KKNI-based mini roleplay in English for Tourism can be interactive, active, and attractive learning.

CONCLUSION

The results of the research and discussion have a strong foundation related to the development of teaching materials for rhythmic activities based on the IQF curriculum, based on references from previous studies that have been carried out which are listed in the discussion results and discussion. Therefore, it can be concluded that the teaching materials for rhythmic activities based on the IQF curriculum developed are feasible to use. The results of the study showed changes in the average value that occurred between the limited product test group in the very poor category, the main product test group in the good category, and the operational product test in the very good category. The results of this study prove that the teaching materials for rhythmic activity courses based on the IQF curriculum developed by researchers are very well implemented in learning. Rhythmic Activity Teaching Materials are disseminated and implemented by publishing the International Standard Book Number (ISBN) from the National Library of the Republic of Indonesia. Further research recommendations prove the effectiveness of rhythmic activity teaching materials developed based on the IQF curriculum on student rhythmic activity learning outcomes.

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