

PODCAST-BASED OF AUDIO MEDIA FOR BASKETBALL EDUCATION

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Abstract

Condition of basketball lectures during the covid-19 pandemic which was carried out in a hybrid manner, resulting in less than optimal learning activities. In addition, based on each individual's different learning styles such as audio, visual and kinesthetic, it is important to have new learning media to help increase the effectiveness and attractiveness of learning activities. The purpose of this research is to develop a new learning media based on audio podcasts that can be accessed through the spotify platform. The method used is a research model from Lee & Owen's ADDIE theory (Analysis, Design, Development, Implementation, and Evaluation). The data collection technique used a questionnaire filled out by research subjects, namely PJKR FIK UM students. This study went through several validation stages with details of 1 basketball material expert who produced an average of 92.48%, 1 learning expert with an average of 97.20 % and 1 media expert with an average of 92.80%. So that the product is declared feasible and valid for group testing. In the small group trial phase with 10 respondents consisting of 6 women and 4 men, the average calculation was 85.72%. Meanwhile, in a large group trial with 30 respondents, each 16 women and 14 men, the average calculation was 94%. It can be concluded that the development of podcast-based audio learning media is valid and feasible to use in learning.

Keywords: *podcasts; learning media; basketball lessons*

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INTRODUCTION

Environmental conditions that are increasingly advanced are evidenced by the large number of advanced, renewable technologies that enter and are used by the general public. The existence of technological developments can facilitate access for each individual in terms of communication, work and others (Mukhlis, Kurniawan, & Kurniawan, 2020). Developing technology should be utilized and used properly in order to improve the quality of self and human resources to be able to compete in the current era of modernization, especially in the field of education.

Education is an important factor and becomes the main pillar in the progress of a nation (Umniyyah & Hidayat, 2021). Technology in education is also one of the strategies for developing systems, techniques, and as a tool to improve and enhance one's learning process (Damayanti & Nurafni, 2021). The role of technology in education is very much needed, especially in the current pandemic conditions, because learning activities are shifted from face-to-face activities to online learning methods anywhere (synchronous / direct and asynchronous / indirect) (Handayani et al., 2020; Maulana & Iswari, 2020). Causing many aspects of learning to change according to environmental conditions, starting from the limited mobility of students and also requiring teachers to update the system and modify learning.

Learning during a pandemic is considered less able to have a positive impact on the sustainability of learning activities, both from the aspect of the role of the teacher and the contribution of students in learning. This makes online learning activities not fully implemented so that it is also accompanied by face-to-face learning (Prihandoko, 2022; Jiang et al., 2021; Singh & Thurman, 2019). Starting from 2019 until now, lecture activities use a hybrid method with a composition of 50% face-to-face and 50% asynchronous and synchronous. Some of the obstacles that will arise when implementing the hybrid method in field activities are that it requires support from infrastructure management, course development, as well as mechanisms or technical support for consistent student learning. Therefore, there is a need for learning innovations designed to help deliver learning materials well to students by considering individual learning styles consisting of auditory, visual and kinesthetic. Learning innovation is needed because it can also make it easier for students to understand the material and make the learning atmosphere interesting (Pamungkas & Dwiyoogo, 2022). Learning is a process or stage that is carried out through several stages, ranging from easy ones such as repetition or imitation to difficult stages (Wiguno, Heynoek, & Kurniawan, 2022) . One of the goals of learning is to improve and develop the quality of learning itself (Dwiyoogo, 2018). Learning activities at the State University of Malang, especially the Faculty of Sports Science, involve many outdoor activities because there are so many courses

carried out on the field or certain field places, such as basketball courses and basketball lessons.

Basketball courses cover all activities about the game of basketball, starting from learning basic techniques, rules and refereeing. While the basketball learning course includes a broader discussion and refers or focuses on defensive and attacking strategies, modifying the game according to environmental conditions and being able to organize a basketball game. Lecture activities in basketball and basketball learning courses, the curriculum used by 2020 students is the 2020 curriculum. Due to the policies of the Faculty, especially the Department of Physical Education, Health and Recreation, there are often changes to the applicable curriculum. The curriculum describes several Subject Learning Outcomes (CPMK) taken by students in study units, namely:

Table 1. Learning Outcomes of Basketball Courses (CPMK) and Curriculum Basketball Learning in 2020

CPMK	Basketball Course	Basketball Learning Course
2.1	Students understand about the sport profile of basketball	Students are able to analyze the components of basic movement skills in basketball games
2.2	Students have knowledge and skills in carrying out the basic techniques of playing basketball	Students are able to analyze game rules and refereeing in basketball games
2.3	Students have knowledge and skills in playing basketball	Students are skilled in practicing defense and attack strategies in basketball games
2.4	Students understand the rules of basketball games, matches and refereeing	Students are skilled in compiling basketball games based on the characteristics of students
2.5	-	Students are skilled in organizing basketball matches in lectures

The Course Learning Outcomes (CPMK) contained in the basketball and basketball learning courses become a reference in the development of learning media (Siregar, 2021). Media has a big influence on learning activities (Manalu, Dwiyogo, & Heynoek, 2020). This is in line with the opinion (Pakpahan, et al. 2020) which explains that learning media is an intermediary that functions to convey material to students using the help of certain tools so that students can understand the material quickly. Another opinion states that learning media is an

intermediary from the source to the recipient of a message that can help stimulate stimulation of thoughts, attention, feelings, and motivation to engage in learning activities (Hamid, et al., 2020). The form of media can be in the form of books, internet, films, television, and so on. In an effort to develop learning media, it must be able to adapt to the conditions of technological development at that time (Rozak, Wiguno, Kurniawan, & Mu'arifin, 2021).

One of the learning media that is still rarely found in teaching and learning activities, especially in universities, is audio podcast media. Podcast is a composition of digital audio file types that can be downloaded and can be accessed with the subscription feature of each content file (Markus & Thomas, 2021). The media is still very common when it comes to learning activities (Mayangsari & Tiara, 2019). Generally, podcasts are used as a medium of entertainment only. However, previous research shows that podcasts used as learning tools or media are considered effective in helping to improve one's/student's learning outcomes (Setiawan, 2020). A similar study by Hutabarat (2020) obtained the results that podcasts are a potential medium to be used as a tool in delivering material, especially at universities, the majority of which are digital-based. The advantages of podcasts that are reusability and replaying can make it easier for students to access teaching materials anytime and anywhere, because podcasts are flexible and can be used through several types of media players such as MP3 and MP4 players, cell phones, and so on (Saksono & Indriastuti, 2014). The form of podcast media can contain various topics or themes and can be designed or packaged in a conversation, taklshow, debate or discussion, monologue, lecture and speech (Suriani, 2021).

Based on some of the statements above, the researcher conducted a preliminary study by distributing questionnaires to PJKR students class of 2019 which resulted in several conclusion points including: 1) as many as 67.78% of students who admitted that the presentation of basketball course material was less attractive; 2) the average learning media used during basketball courses are two types of media, namely sipejar and youtube applications, but there are also other

media such as google classroom; 3) as many as 64.40% of students know the audio media with the type of podcast; 4) 86.39% of students stated that it is necessary to develop new learning media to make the learning process more interesting; and 5) 74.72% of students stated that there was no podcast media used in learning. Conclusions based on the description of the data above, there is no podcast-based learning media that was previously used in basketball lecture activities so it is necessary to develop new learning media to increase the variety of student learning resources.

Development of audio podcast-based learning media after conducting a preliminary study which has the aim of being useful for lecturers and students, and can add references for lecturers in using learning media as a helper for teaching and learning activities. Hoping from the development of this development product is that it can help create a new learning atmosphere that can help increase motivation and interest in learning for PJKR 2020 students who are taking basketball courses and basketball learning in hybrid lecture activities.

METHOD

Podcast-based learning media research and development model refers to the development theory of Lee & Owen (2004) , namely the Research and Development (R&D) approach which has stages including: 1) analyzing needs in the field, 2) conducting product design, 3) developing product, 4) implementing the product in the field, and 5) product evaluation. These steps are a series used in this study aimed at solving problems and producing a product. The design of product testing or trials conducted by researchers consists of three stages, namely validation tests by experts, trials in small groups and then large groups. The stages of the expert validation test were carried out by involving three experts, namely basketball material experts, learning experts and media experts. At this stage, the experts review the products that have been designed and produce some suggestions and input for improvement in the next trial. Then the group trial phase, in this study involved 10 students in small group trials while in large group trials involved 30

students. These stages are carried out by distributing questionnaires that will produce some input and suggestions as well as material for product improvement before final implementation in lecture activities. The data generated from the three stages are in the form of qualitative data and quantitative data. Notes and suggestions from experts at the validation stage and group trials as a source of qualitative data. While the results of trials conducted on groups, both small and large in the form of numbers from the questionnaire sheet as a source of quantitative data.

The research and development of this product uses data analysis techniques in the form of descriptive statistical techniques. While the data measurement technique in this study is using the Likert scale, which aims to measure a person's level in various aspects of a certain social phenomenon (Sugiyono, 2019) . The rating for each answer on the Likert scale ranges from very positive to very negative. In order to be used in data measurement, each answer given gets a different score starting from a score of (1), (2), (3), and (4).

Table 2. Statement Evaluation Scale (Sugiyono, 2019)

Number	Information	Answer	Scale
1.	Strongly agree	A	4
2.	Agree	B	3
3.	Doubtful	C	2
4.	Don't agree	D	1

The data obtained in the form of descriptive percentage then processed using the formula from Akbar & Sriwiyana (2011), namely:

$$V = \frac{TSe}{S - max} \times 100\%$$

Information:

- V : Validity
- TSe : Total empirical score
- S - max : Maximum expected score
- 100% : Constant



The next stage is the classification of the percentage results from the calculation of the data which aims to make it easier to conclude the results according to the feasibility level as contained in the table below.

Table 3 . Product Status Percentage (Akbar & Sriwiyana, 2011)

No	Criteria	Information	Meaning
1	75.01% - 100.00%	Very valid	Can be used without any revision
2	50.01% - 75.00%	Quite valid	Can be used with minor revisions
3	25.01% - 50.00%	Invalid	Can not be used
4	00.00% - 25.00%	Very invalid	Forbidden to use

RESULTS AND DISCUSSION

The research that has been carried out has produced some quantitative and qualitative data, including at the validation stage, namely from basketball material experts, learning experts and media experts. The next data is from the small group and large group trial phase. The following is a description of the data that has been obtained:

Table 4 . Results of Data Analysis Validation of Basketball Material Experts

No	Aspect	Percentage (%)	Category
1	Suitability	96.43	Very valid
2	Accuracy	86	Very valid
3	Clarity	95	Very valid
	Average	92.48	Very valid

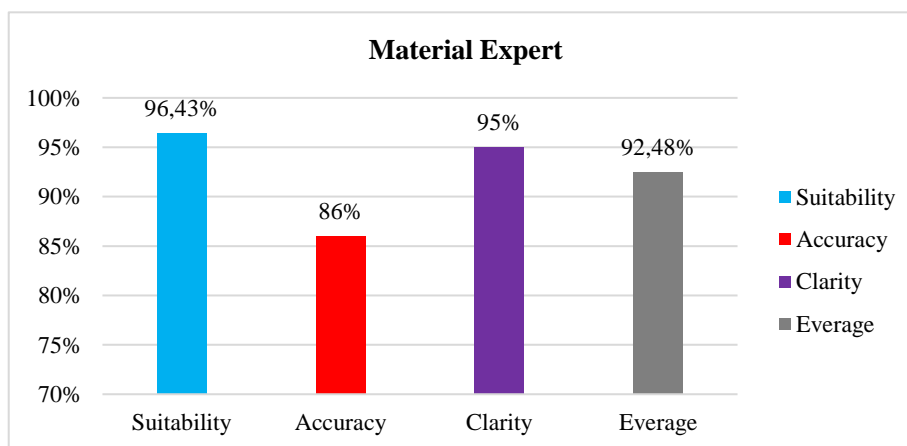


Figure 1. Diagram of the Validation Results of Basketball Material Experts



The results of the calculations and data analysis above are derived from the expert validation test of basketball material based on the guidelines that have been made so that an average of 92.48% is obtained. Furthermore, it is converted into a feasibility table and produces an indication that the product, namely podcast-based audio learning media, is included in the very valid category and deserves to be continued at the group trial stage.

Table 5. Results of Learning Expert Validation Data Analysis

No	Aspect	Percentage (%)	Category
1	Suitability	100	Very valid
2	Accuracy	91.67	Very valid
3	Convenience	100	Very valid
	Average	97,20	Very valid

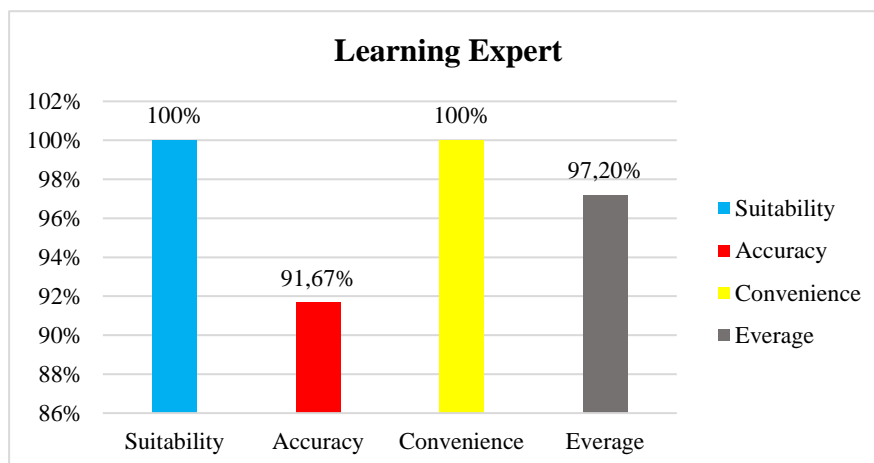


Figure 2. Diagram of Learning Expert Validation Assessment Results

The results of the calculations and data analysis above come from the validation test of learning experts based on the guidelines that have been made so that an average of 97.20% is obtained. Furthermore, it is converted into a feasibility table and produces an indication that the product, namely podcast-based audio learning media, is included in the very valid category and deserves to be continued at the group trial stage.

Table 6. Results of Media Expert Validation Data Analysis

No	Aspect	Percentage (%)	Category
1	Suitability	90	Very valid
2	Accuracy	100	Very valid
3	attractiveness	93.75	Very valid
4	Convenience	87.5	Very valid
	Average	92.80	Very valid

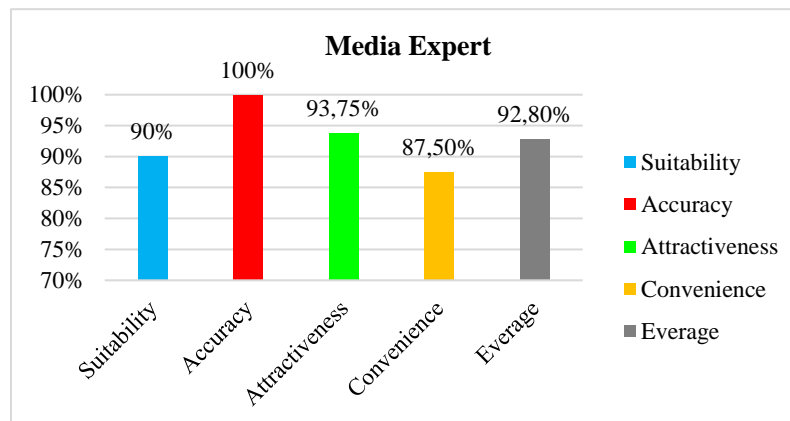


Figure 3. Assessment Diagram of Media Expert Validation Results

The results of the calculation and analysis of the data above come from the validation test of media experts based on the guidelines that have been made so that an average of 92.80% is obtained. Furthermore, it is converted into a feasibility table and produces an indication that the product, namely podcast-based audio learning media, is included in the very valid category and deserves to be continued at the group trial stage.

Table 7 . Results of Small Group Trial Data Analysis

No	Aspect	Percentage (%)	Category
1	Suitability	83.50	Very valid
2	Convenience	86.88	Very valid
3	attractiveness	80	Very valid
4	Clarity	92.50	Very valid
	Average	85.72	Very valid

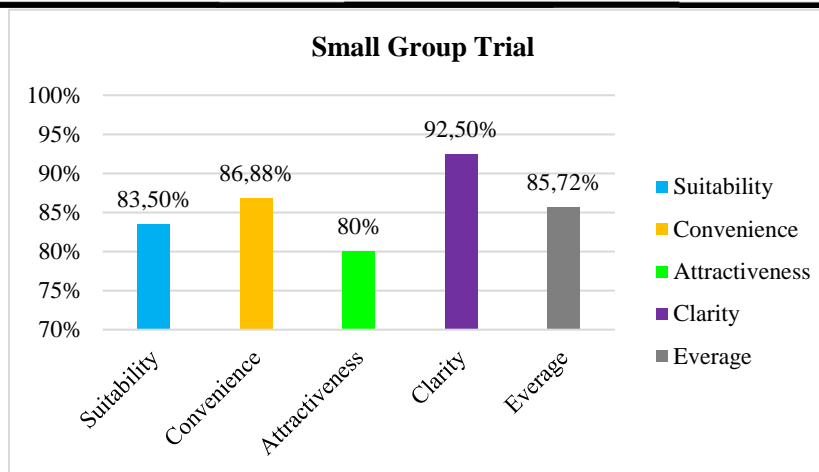


Figure 4. Diagram of the Results of Small Group Trial Data Analysis

The results of the calculations and data analysis above come from small group trials based on the guidelines that have been made so that an average of 85.72% is obtained. Furthermore, it is converted into a feasibility table and produces an indication that the product, namely podcast-based audio learning media, is included in the very valid category and is feasible to be implemented in learning activities.

Table 8. Results of Large Group Trial Data Analysis

No	Aspect	Percentage (%)	Category
1	Suitability	88.03	Very valid
2	Convenience	97.42	Very valid
3	attractiveness	96	Very valid
4	Clarity	95.84	Very valid
	Average	94	Very valid

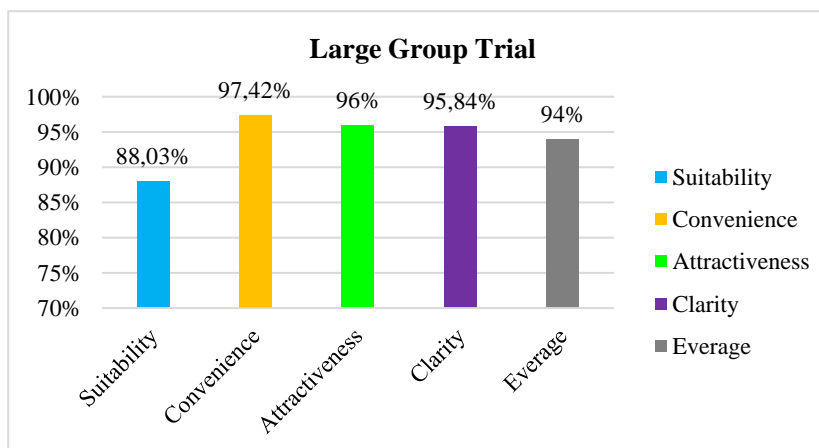


Figure 5 . Diagram of the Results of Large Group Trial Data Analysis

The results of the calculations and data analysis above come from large group trials based on the guidelines that have been made so that an average of 94% is obtained. Furthermore, it is converted into a feasibility table and produces an indication that the product, namely podcast-based audio learning media, is included in the very valid category and is feasible to be implemented in learning activities.

Qualitative data in this study are in the form of criticism and suggestions as well as input from several experts at the expert validation stage which can be used by researchers as material for product improvement.

Table 9. Criticisms and Suggestions from Research Validators

No	Ratings and Suggestions	Information
1	Learning Expert <ol style="list-style-type: none">It is better to add greetings to students at the beginning and the purpose of discussing what podcast content is and its benefits.It would be even better if it was also explained who this podcast is for.Then it seems that this video podcast 1 discusses more about basketball coaching, yet the basic techniques associated with learning are not discussed.At the end of the video, the MC should conclude the conversation that has been discussed on the podcast.	Revised

Discussion

This research and development produces a product in the form of podcast-based audio learning media that can be used in basketball lectures and basketball learning activities and can be accessed through the spotify platform . The learning media designed refers to technological developments that are currently developing. Utilizing audio media in the manufacture of learning products to support practical lecture activities is a new step taken as an additional source of student learning because each student has their own learning style. The existence of research conducted by Madiope proves that *podcasts* provide many benefits and are considered effective in the learning process for both teachers and learning participants (Madiope, M. 2013). Asmi, Dhita & Supriyanto have also conducted research with themes or local history materials and have shown that podcast-based audio media is easy to access and use, and is very helpful and effective to use (Asmi,

Dhita, & Supriyanto, 2019) . Other studies also explain the role of podcasting in education not only to help increase knowledge but also to be effectively used as a medium to improve the quality of students' attitudes, personality and self-confidence (Chester, et al. 2011). Diana & Saputra also explained in their research that the use of *podcasts* as one of the learning media is considered very effective to increase students' interest in learning economic material activities at SMA Muhammadiyah 1 Taman, due to the active involvement of students in teaching and learning activities on economics in the midst of a pandemic (Diana & Saputra, 2020).

Podcast-based learning media has 3 topics of discussion, namely the fundamental basic techniques of basketball games, invasion games, refereeing and organizing matches. The three topics were raised in the podcast learning media content with reference to the list of Course Learning Outcomes (CMPK) for basketball 2.2, basketball learning 2.2 and basketball learning 2.4. The first topic that discusses the basic fundamental technique material is adopted from CPMK basketball 2.2 which explains the various basic techniques found in basketball games, and strategies for learning basic techniques for students. While the second topic which refers to CPMK basketball learning 2.4 discusses the invasion game explaining the basic concepts of the invasion game, the characteristics of the invasion game in which there is a basketball game as an example. The third topic discusses refereeing, rules and technical implementation of matches based on CPMK basketball learning 2.2 which explains the general to specific description of refereeing, some rules and their types as well as some important things needed when carrying out basketball matches. The three discussion topics were created by cooperating with several speaker speakers. This podcast-based learning media certainly has advantages and disadvantages. The advantage of learning media with this type of podcast is that it can be accessed anywhere and anytime, not easily outdated by the times because this type of podcast media is included in up to date or renewable media so that it can be used for a relatively long period of time, students and lecturers can utilizing this media as one of the learning media that can

help channel information or cognitive aspects so that lecture activities can run interestingly. While the weakness of this podcast learning media is that it is limited to one learning stage, namely the cognitive aspect because the nature of podcasts in the form of audio media only results in recipients of information or students as research subjects only being able to receive understanding from this media in the form of knowledge/cognitive, not included in the realm of learning. Skills. Apart from the advantages and disadvantages, this podcast-based learning media is expected to contribute in helping to increase the effectiveness of lecture activities for students and lecturers, help increase student interest in learning and can help facilitate students' understanding of the material provided.

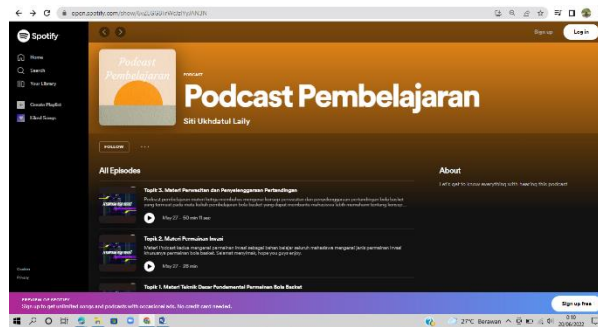


Figure 6. Podcast Learning Media on Spotify Page Computer View

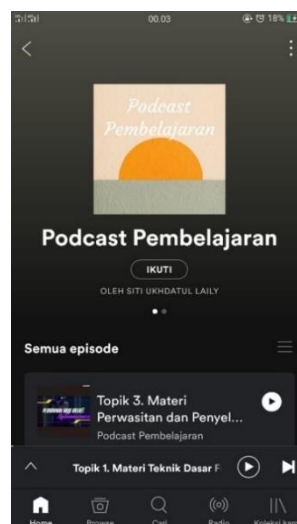


Figure 7. Podcast Learning Media on the Spotify Page Smartphone Display

CONCLUSION

Podcast-based audio media learning product aimed at Physical Education, Health and Recreation students batch 2020 containing discussions with resource persons who discuss basketball lecture material and basketball learning that is suitable for use in these lecture activities. This product is expected to help lecturers and add references to the learning media used. As well as being a new learning media through audio form.

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