# A Needs Analysis of Interactive Multimedia Based Practice Model of Sepak Takraw Basic Technique

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The purpose of this study was to know the needs analysis of interactive-multimedia based practice Model of sepak takraw basic technique. This study was conducted at extracurricular activities at the Palembang City Junior High School. This study used a descriptive qualitative method. The process of collecting data used observation, interview, questionnaires, and documentation. The results of practice analysis can be described as follows: (a) The lack of student interest in participating in sepak takraw extracurricular activities is because students feel sepak takraw is a difficult sport (b) the lack of student interest in practice sepak takraw basic technique moves due to the lack of initial knowledge about the sepak takraw basic technique and at the beginning of practice the trainer only gives warming instructions. (b) In the core practice of the sepak takraw basic technique, the students perform the movements exemplified by the trainer. (c) Evaluation / feedback has not been found when the practice process takes place related to the mistakes made by student movements. (d) At the end of the practice activities, students are only cool down without a thorough evaluation of the practice that has been done such as a description of the errors of movement. They are often done by students. (e) The absence of further explanation of the material that will be delivered by the trainer so that makes students confused when making movements at the next meeting. It can know from the percentage of students interesting, enthusiasm, and their agree of interactive multimedia learning. Besides that, the facilities of practice are most dominant using technology.

**Keywords:** Interactive Multimedia, Learning Practice, Needs Analysis, Basic Technique, Sepak Takraw.

#### 1. Introduction

Sepak takraw comes from the word "sepak" in Malay which means kick and the word "takraw" which comes from Thai which means a ball made of rattan. This is in line with the opinion (Zarei, 2020) regarding the understanding of "sepak takraw", "Sepak Takraw means "kick ball" as "Sepak" comes from the Malay word meaning kick and "Takraw" is a Thai word used for a rattan ball". Thus "sepak takraw" is a sports game played by kicking a ball whose ball is made of rattan. "Sepak takraw" is a unique sport because it takes skill to play it, a player must

play the ball with all limbs except hands without falling to the floor, as well as the unique shape of the ball.

According to Syakir et al., (2014) "The sepak takraw ball is unique since it is not enclosed like any other balls, as such air can pass through the ball and there are many seams on its surface".

There are many seams on its surface". The sepak takraw ball is not enclosed and has a hole consisting of 12 holes so that air can pass into the ball and has a surface in the form of uneven rattan weaves.

Sepak takraw is a semi-acrobatic sport because it requires finesse and agility in playing it. In sepak takraw there are movements that require skill such as lifting one leg up to kick the ball, jumping movements, and somersault movements. Sepak takraw is a spectacular three-a-side game in which a ball is propelled over a high net using any part of the body other than the hands-usually the foot, knee, shoulder, or head. The game combines soccer and gymnastics (Maseleno & Hasan, 2013). This is in line with (Udomtaku et al., 2014) who said that sepak takraw is a kind of sport combining the skills of playing ball with gymnastic and quickness as same as volleyball. Parts of the body including the head, chest, feet, and thighs are allowed players to use in order to move the ball over the net on the court with the same size as double badminton court. In one team, consists of 3 players with different positions, to scores 21 points for the winning in each set. The first team who reach 2 winning sets is the winner of the game.

In the match, there are many sepak takraw numbers including team numbers consisting of 3 squads, team match numbers consisting of 3 (three) core players and 2 (two) reserve players, double event match numbers consisting of 2 (two) core players and 1 (one) reserve player, quarter match numbers consisting of 4 (four) core players and 2 (two) reserve players, and hoop match numbers consisting of 5 (five) core players and 1 (one) reserve player. Each number has different match rules such as the number of players and service and field positions. But basically every player must master the basic techniques of sepak takraw, namely sepak sila, sepak kura, memaha, head, serve, smash, and block.

Sepak takraw is also one of the materials that can be taught in small ball learning in physical education subjects. This is stated in the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 37 of 2018, (Permendikbud, 2018) one of the basic competencies that students must achieve is understanding and practicing specific motion variations in various simple and or traditional small ball games. In addition, Indonesia is one of the countries that claims that the sport of sepak takraw originated from Indonesia. Sepak takraw in Indonesia used to be known as sepak raga. Even now, sepak raga is one of the sports in the Indonesian Traditional Sports Preservation (PORTINA). PORTINA is one of the Sports Parent or Inorga in the Community Sports Committee (KORMI). Thus, the sport of sepak takraw should have been popularized in Indonesia.

In fact, this sport is still unfamiliar to children and only in certain areas, plus the current conditions where technological advances are growing which result in changes in people's behavior that can reduce movement activities. According to (Fauziah, 2013), the advancement of information technology in the life of mankind has a huge impact on the transformation of values that exist in society, as a result of which all information that is both positive and negative can be accessed by the public.

As a result, all information that is both positive and negative can be easily accessed by the entire community and whether it is recognized or not, it has slowly begun to change the lifestyle and thinking patterns of the community. The development of games is very influential on children and what is currently favored by children is online games. In addition to online games, children are also more interested in technology than physical activity. This is also due to the lack of promotion of physical activities such as sports to the world of technology. "Technology is considered to be a big part of people's daily lives; it is important and vital that children learn how to use it at an early age" (Nawzad et al., 2018), which means technology is considered to be a part of daily life and requires children to learn to use technology from an early age.

South Sumatra's sepak takraw achievements are also still not prominent. This is due to the lack of sepak takraw matches organized at the regional level, in addition to matches that are still very lacking in coach training to improve the quality of coaches is also still very minimal. This is evident from 2019 to 2022 only one regional level coach training was held so that this triggered a lack of motivation and renewal of the coaching knowledge of sepak takraw coaches in South Sumatra.

Meanwhile, in the game of sepak takraw there are many skills needed. According to Rahman in (Hanif, 2015), the mastery of sepak takraw skills required by players is individual skills and match mastery skills. The individual skills referred to are the skills of sepak sila, sepak kura, sepak badek, sepak cungkil, memaha, mendada, and heading. Meanwhile, match mastery skills are in the form of service techniques, handling or passing, smash and block techniques. However, the most important things that must be mastered by players are sila soccer, kura soccer, memaha, heading, serving, passing, smash and blocking.

Seeing the many skills that need to be mastered by players, continuous training is needed and training science is needed starting from cognitive, associative to good movement automation. Practice is one way to be able to master the various skills needed in the game. Various skills required in the game of sepak takraw. To be able to practice properly, every player or athlete who will pursue the sport of sepak takraw, must first understand what elements of movement must be mastered. One way to increase this understanding is by learning or observing movements either directly or through certain media. The more and clearer the information obtained, the easier the next training process will be.

In addition to these problems, in a study (Priambudhi & Tommy, 2021) entitled Analysis of Elementary School Students' Interest in Physical Education Learning in Review of the prevalence of Online Game Access, the results are the influence of online gaming activities on student interest in participating in physical education learning has a negative effect. That means there is a reduction in student interest in physical education learning or physical activity caused by the behavior of students who often play online games. Not only physical education, students' interest in participating in extracurricular sports including sepak takraw sports certainly also has an effect. Thus, in learning physical education and sports activities, there must be renewal and development following the characteristics of students who develop following the changing times.

From the relevant research above, there is a need for renewal or development of learning or training that can adapt to the rapid development of technology today, where the rapid

development of technology also affects the characteristics of students which automatically also affects the interest and motivation of students towards something, especially technology. As a teacher or trainer, we should be able to adjust yourself to make learning or training plans in the form of methods, strategies, and media used according to the characteristics of students.

The world of education today also makes a lot of learning media that utilizes technology, as well as physical education subjects or extracurricular sports activities at school. Starting from video to using applications to support interesting learning. One of them is currently starting to utilize interactive multimedia technology. Basically, multimedia is one of the derivatives of computer technology that can be used as a means of conveying information in which it presents text, sound, images, animation and video (Fauzan et al., 2015). Multimedia consists of two, namely linear multimedia and interactive multimedia. Linear multimedia is multimedia that has no controls that can be operated by users and runs sequentially such as TV and movies. Meanwhile, interactive multimedia is multimedia that has a control device that can be operated by the user so that the user can choose which one to process or play and use next (Fikri & Madona, 2018).

The link with sepak takraw in schools or extracurricular activities is that sepak takraw is a sport that for most students is quite difficult material to implement. This is because sepak takraw is a semi-acrobatic sport. If you see people playing it what is thought is that sepak takraw is a unique sport, amazingly amazing but difficult to do. Based on observations, several obstacles were found during training, including: lack of training variations, many student motion errors when performing basic sepak takraw techniques, limited sepak takraw learning media at school or extracurricular activities and limited training hours in extracurricular activities.

Based on the description above, one of the appropriate efforts to support training in extracurricular sepak takraw is to develop a model of basic sepak takraw technique training packaged in interactive multimedia applications. According to Tamammudin & Widodo, (2020) explains that an athlete who wants to improve his ability by carrying out a training program properly and correctly so that his abilities increase and achieve, achievements can be obtained with routine and well-programmed training. Training is a systematic process of practicing which is carried out many times by increasing the training load from day to day.

The development of the sepak takraw basic technique training model using this interactive multimedia application must refer to this theory by presenting videos and training programs so that students who take part in extracurricular activities can practice following the real videos. Furthermore, the media created must have interaction with users such as games that are cognitive and psychomotor in nature.

From this, it is hoped that the core competencies and basic competencies contained in the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 37 of 2018 can be achieved so that it has an impact on achieving national education goals. In addition, it is also expected to have a positive impact on children's physical fitness by increasing physical activity, can improve the basic technical skills of sepak takraw, and can introduce and socialize the sport of sepak takraw to students.

### 2. Methodology

This research uses a qualitative descriptive method. According to Parse (2001) that the qualitative descriptive research method is to describe various qualitative research sources that are general in nature, seeing interesting phenomena. The participants in this study were students who participated in sepak takraw extracurricular activities in five junior high schools, namely 1) Junior High School Number 19 Palembang, 2) Junior High School Number 18 Palembang, 3) Junior High School Nurul Iman Palembang, 4) Junior High School Number 24 Palembang, and 5) Sumsel Jaya Junior High School Palembang.

The participants totaled 40 students. The data collection process used observation, interviews, questionnaires, and documentation. Descriptive statistical analysis was conducted on the results of the learning analysis questionnaire. The scores obtained were converted into each category then the average score was taken. The results of descriptive statistical documents and observation data during the research

#### 3. Result and Discussion

The main data of the needs analysis used questionnaires distributed to students. The results of the data needs analysis are presented in graphical form so that the data is easy to understand. The following is the data needs analysis;

Table 1. Coaching Style Analysis Results

No	Coaching Style	Percentage
1	Explaining throug silde	9%
2	Studying in group	10%
3	Learning with video	4%
4	Student Make Exercise	10%
5	Competition	8%
6	Explaning in front of the class	14%
7	Giving the examples of movements	13%
8	Self Studying	13%
9	Giving Assigment	11%
10	Games	8%

Table 2. Results of Athlete Training Style Analysis

No	Athlete Training Style	Percentage
1	Imitating teacher movements	20%
2	reading a book	5%
3	Work In Group	20%
4	Excercise in your own way	15%
5	See the Picture then mimic it	15%
6	See video on the internet than practice it	25%

The sepak takraw basic technique training model applied in schools has been running quite well but has not been maximized because of the problems caused by the training methods and *Nanotechnology Perceptions* Vol. 20 No. S8 (2024)

the media used are still conventional. For this reason, it cannot be denied that there is a need for the latest breakthroughs and innovations in the learning models used, in line with current technological advances. By utilizing interactive multimedia, the renewal of the model of training basic sepak takraw techniques made with the aim of being able to attract students' interest in training. So, this learning model is very suitable to be applied in extracurricular junior high school because it is tailored to the characteristics of students.

#### 4. Conclusion

The results of the needs analysis data concluded that the sepak takraw basic technique training model needs to be developed by adding various learning models supported by interactive multimedia learning resources. The learning resources used so far are only books. This means that the learning process is not supported by other literacy as an additional learning resource and it causes students to be less ready to learn and less motivated. Students expressed great interest in the development of an interactive multimedia-based sepak takraw basic technique training model. They will be more excited if there is interactive multimedia. This is a strong reason to be taken by researchers and is an innovative step to help improve the quality of trainers in training sepak takraw with the help of training multimedia.

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#### References

- Fauzan, A., Fatah Sofyan, A., & Ringroad, J. (2015). PEMBELAJARAN INTERAKTIF BERBASIS MUTLIMEDIA "TEKNIK DASAR SEPAK TAKRAW " Studi Kasus: Mts Rohmatullah Cokro Teknik Informatika STIMIK AMIKOM Yogyakarta 2) Doktor ilmu komputer MIPA UGM.
- 2. Fauziah, E. R. (2013). PENGARUH GAME ONLINE TERHADAP PERUBAHAN PERILAKU ANAK SMP NEGERI 1 SAMBOJA. EJournal Lmu Komunikasi, 1(3), 1–16.
- 3. https://www.ejournal.ilkom.fisip-unmul.ac.id/site/wp-content/ uploads/2013/07/ejournal eka RF (07-01-13-03-45-59).pdf
- 4. Fikri, Hasnul & Madona, A. S. (2018). PENGEMBANGAN MEDIA PEMBELAJARAN BERBASIS MULTIMEDIA INTERAKTIF. In Hendrizal (Ed.), Nucl. Phys. (Vol. 13, Issue 1). Penerbit Samudra Biru.

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- Hanif, A. S. (2015). Kepelatihan Dasar Sepak Takraw (1st ed.). PT RAJAGRAFINDO PERSADA.
- 6. Maseleno, A., & Hasan, M. (2013). Move Prediction in Start Kicking of Sepak Takraw Game using Dempster-Shafer Theory. 376–381. https://doi.org/10.1109/ACSAT.2012.8
- 7. Nawzad, L., Rahim, D., & Said, K. W. (2018). The Effectiveness of Technology for Improving the Teaching of Natural Science Subjects. Indonesian Journal of Curriculum and Educational Technology Studies, 6(1), 15–21. https://doi.org/10.15294/ijcets.v6i1.22863
- 8. Permendikbud. (2018). Permendikbud RI Nomor 37 tahun 2018 tentang Perubahan atas Peraturan Menteri Pendidikan dan Kebudayaan Nomor 24 tahun 2016 tentang Kompetensi Inti dan Kompetensi Dasar Pelajaran pada Kurikulum 2013 pada Pendidikan Dasar dan Pendidikan Menengah. JDIH Kemendikbud, 2025, 1–527.
- 9. Priambudhi, G. R. & T. S. (2021). Indonesian Journal for. 2(1), 336–344.
- Zarei, A. (2020). Sport Tourists 'Preferred Event Attributes and Motives: A Case of. JOURNAL OF HOSPITALITY & TOURISM RESEARCH, XX, 1–26. https://doi.org/10.1177/1096348020913091