

Inquiry-Based Online Learning to Improve Basic Technical Knowledge of Football Class Xi Students



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ABSTRACT: The study aimed to determine: (1) the effect of online inquiry learning methods on increasing the knowledge of basic soccer techniques for class XI students and (2) differences in knowledge of basic soccer techniques for class XI students between the experimental group and the control group. The method uses a "pre-test post-test control group design" experiment. The sampling technique is simple random sampling, totaling 33 students in the experimental class with the inquiry learning method treatment and 34 students in the control class. The instrument used is an essay test. Data analysis used a t-test with a significance level of 5%. The study results: (1) There is a significant effect of the online inquiry learning method on increasing the knowledge of basic soccer techniques for class XI students, the t value is 12.158 > t table is 1.693, and the significance is 0.000 < 0.05. (2) There is a significant difference in the knowledge of basic football techniques of class XI students between the experimental group and the control group; the t-count value is 9.617 > t-table 1.668, and the significance is 0.000 < 0.05.

KEYWORDS: inquiry learning, online learning, knowledge, basic soccer technique.

INTRODUCTION

The Coronavirus disease (Covid-19) pandemic is a grievous disaster for the entire population of the earth. The rapid spread of the Covid-19 pandemic has disrupted the education sector, where students are unable to continue their learning activities at school (Jena, 2020); (Wahyuni et al., 2021); (Akat & Karataş, 2020). The impact on education sustainability caused by the Covid-19 pandemic, so that learning is carried out online (Alsoufi et al., 2020); (Mbiydzennyuy, 2020).

Online learning makes students communicate through device intermediaries, reducing interaction between one individual and another in communicating (Esra & Sevilen, 2021). The absence of this interaction, coupled with the limitation of physical meetings, makes students bored and is felt by many families in Indonesia, both in cities and in villages (Simamora, 2020). In Indonesia, many families are less familiar with doing school at home.

The new policy makes teachers think about applying appropriate learning patterns and can be applied in distance learning. Network-based or online learning is expected to be the right solution (Rachmadtullah et al., 2020). The use of online learning in various countries is increasing from year to year. This phenomenon is related to the rapid development of internet technology that integrates various devices used by humans (Aljawarneh, 2020); (Adarkwah, 2021). Most people in remote areas are confused because the information technology infrastructure is limited. The assessment of students who use online media encounters many obstacles in the community. Many community groups in Indonesia will be exposed to the long-term effects of Covid-19. The impact of education from a long-term perspective is the aspect of justice and increasing inequality between community groups and between regions.

Learning during a pandemic is very different from learning carried out before the pandemic, in learning before the pandemic was carried out with educators being able to meet face to face with students at school. Online learning is carried out, namely, educators and students cannot meet face-to-face because there is a distance that separates educators from students (Kusmaryono et al., 2021); (Rizaldi & Fatimah, 2020). This allows educators and students to be in different places through the internet network. Positively, online learning is beneficial for the continuity of learning during the pandemic (Wang et al., 2021); (Rasiah et al., 2020). In practice, online learning aims to meet educational standards by utilizing information technology by using computer devices or gadgets that are interconnected with students and teachers and students (Kassab et al., 2020); (Hoq, 2020); (Ritonga et al., 2021).

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The condition of activities that suddenly changed drastically is a challenge for teachers, especially teachers of Physical Education, Sports and Health (PJOK) so that the goals and objectives of PJOK can be achieved. Physical education is one of the fields of study provided by schools ranging from elementary to junior high to high school. Physical education learning is endeavored to form a good mental and healthy body in order to produce productive humans (Barker et al., 2020); (Nyberg et al., 2020); (Li et al., 2018). Sports coaching is recommended to cultivate students' interests and talents to achieve optimal sports achievements. The achievement of physical education goals is closely related to the teacher's ability to manage learning activities.

In teaching, exciting strategies and methods are needed to facilitate students in mastering the subject matter presented by the teacher. Thus, it is hoped that the material received can be stored in students' memories for a relatively long time. Physical education learning is a very strategic effort to achieve the expected goals. Educational association occurs through active interaction between students as students and teachers as educators. Students carry out learning activities and through this activity, there will be a change in their behavior; while learning activities are carried out by teachers to facilitate the learning process, the two roles will not be separated from the situation of mutual influence in the pattern of relations between the two subjects. Here the teacher plays more of a role as a manager or director of learning. Learning is a means to enable the learning process to occur in the sense of changing individual behavior through experiencing something created in the design of the learning process (Boström et al., 2018).

The current learning process still uses the old paradigm, namely teacher-centered learning by choosing direct learning. The teaching carried out by teachers at this time should have experienced a shift towards a learning center for students; there is also learning that has been centered on students, but in reality, there are still many students who have not been able to express their opinions.

To improve the quality of education and teaching, one of them is choosing a strategy or method of delivering material to increase student learning achievement (Retnawati et al., 2018); (Agarwal, 2018). For example, encouraging students to be actively involved in the learning process in class helps them develop their abilities according to their intellectual level. It will further strengthen students' understanding of the concepts being taught. This understanding requires interest and motivation, without any interest in each student, indicating that students do not have the motivation to learn. This is where the teacher's task must provide support in the form of motivation because with this help; students can get out of learning difficulties.

In the learning process at SMA Negeri 1 Piyungan, especially for class XI students, when the temporary learning process took place, it was seen that there were still some obstacles experienced by teachers or students that caused the teaching and learning process to be not conducive. These obstacles are the lack of variety in the development of learning models in providing subject matter, especially soccer games so that students get bored quickly when taking physical education lessons because the material is too monotonous and does not make physical education lessons a favorite awaited lesson. The next obstacle is that most of the students seemed indifferent. They ignored the material explained by the teacher so that during the learning process, students did not know, master, or understand the material and did not know the purpose of the soccer game taught in the learning.

Teachers as educators are expected to be able to create an environment that can motivate the spirit of learning by increasing the involvement of students directly and responsible for their learning (Islam et al., 2018); (Murkatik et al., 2020) because learning can be obtained with good results if students are willing to learn as well as possible. One of the efforts to stimulate students' curiosity and actively and systematically involve them to get the desired results in a short time in the Physical Education learning process is to apply the Inquiry learning model. The inquiry learning model is one of the relevant models by paying attention to activities that can facilitate students to master literacy skills. Inquiry means investigation / asking for information, free translation for this concept is that students are asked to search and find out for themselves (Simonson, 2019); (Khalaf & Mohammed Zin, 2018); (Uiterwijk-Luijk et al., 2019).

The Inquiry Model aims to train students' abilities in researching, explaining phenomena, and solving problems scientifically (Yuliati et al., 2018). In the inquiry process, the teacher, in this case, only acts as a facilitator, resource person, and group instructor. The inquiry learning model is a series of teaching and learning activities that involve all students' abilities to search and investigate so that they can formulate their findings (Chandra et al., 2020). The inquiry learning model is the process of forming questions, analyzing, and creating new knowledge that fully involves students in the learning (Onyema et al., 2019).

In addition, the inquiry learning model can make students find and use various information and ideas to increase their knowledge of a problem or issue (Sutaphan & Yuenyong, 2019). In other words, the inquiry learning model is a learning model that fully involves students in the learning process, can investigate existing problems, and find solutions to these problems themselves (Jerrim et al., 2020). Inquiry learning emphasizes the process of seeking and finding answers to a question in question.

The steps of the inquiry learning model are observing, formulating problems, formulating hypotheses or initial assumptions, collecting data or information needed in solving problems, testing or finding the truth of initial assumptions by processing existing information or data, and drawing conclusions (Sutiani, 2021). Inquiry learning steps are related to guided discovery learning which

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also facilitates students in formulating problems, providing conjectures, collecting required data or information, processing data to prove the truth of preconceived notions, and conveying ideas in making conclusions.

The application of inquiry learning can provide significant changes in the learning environment so that students can experience scientific attitudes and performance changes that positively affect student achievement (Sasson et al., 2018). Inquiry learning can provide experience, training, and a good understanding of the principles for planning student-centered inquiry activities where students have control over their learning (Song & Kong, 2014). Field (Sotáková et al., 2020) shows that inquiry in the revision phase is more effective than teaching without investigations in terms of conceptual understanding. It affects lower and higher cognitive processes (understanding, application, and analysis) and stimulates learning, especially in students with lower academic performance.

METHOD

This research belongs to the type of quasi-experimental research. The design used in this study was a "pre-test post-test control group design." In this design, two groups were chosen randomly, then given a pretest to determine the initial state of whether there was a difference between the experimental group and the control group. The population in this study were students of class XI at SMA Negeri 1 Piyungan. Sampling in this study was done by simple random sampling. The sample in this study were students of class XIA SMA Negeri 1 Piyungan, amounting to 33 students as the experimental class with the inquiry learning method treatment and 34 students of class XIB SMA Negeri 1 Piyungan as the control class. The instrument used in this research is a test in the form of an essay—hypothesis testing using a t-test using the SPSS 23 program.

FINDING

The research was conducted for four meetings. The pretest was carried out before the learning application was carried out, then a posttest was conducted. Descriptive statistical pretest and posttest knowledge of basic football techniques of class XI students between the experimental group and the control group are presented in Table 1:

Table 1. Results of Pretest and Posttest Statistical Descriptive Analysis between Experimental and Control Groups

Group	N	Min	Max	Mean	SD
<i>Experiment Pretest</i>	33	33.33	46.67	40.40	4.99
<i>Experiment Posttest</i>	33	46.67	73.33	58.99	8.52
<i>Pretest Control</i>	34	33.33	46.67	40.59	5.03
<i>Control Posttest</i>	34	26.67	53.33	40.78	6.92

Based on Table 1 above, it shows that the pretest knowledge of basic soccer technique knowledge of class XI students in the experimental group is 40.00 at the posttest is 58.99 and the pretest in the control group is 40.59 at the posttest is 40.78.

Test the normality of the data using the Shapiro-Wilk method. The normality test was analyzed using SPSS version 23.0 software for windows with a significance level of 5% or 0.05. The results are in Table 2:

Table 2. Results of Normality Test Analysis

Group	Significance	Description
<i>Experiment Pretest</i>	0,062	Normal
<i>Experiment Posttest</i>	0,235	Normal
<i>Pretest Control</i>	0,068	Normal
<i>Control Posttest</i>	0,128	Normal

Based on the statistical analysis of the normality test that has been carried out using the Shapiro-Wilk test, all pretest and posttest data were obtained from the results of the data normality test with a significance value (p) > 0.05, which means the data is normally distributed.

Homogeneity test was carried out to test the equation of several samples, namely homogeneous or not. The homogeneity test is intended to test the similarity of variance between the pretest and posttest using SPSS 23, the results are in Table 3:

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Table 3. Results of Homogeneity Test Analysis

Group	Sig.	Description
Pretest	0,857	Homogeneous
Posttest	0,133	Homogeneous

Based on the analysis results in Table 3, it can be seen that the pretest-posttest values obtained sig. $p > 0.05$, so the data is homogeneous.

The first hypothesis reads, "There is a significant effect of online inquiry learning methods on increasing the knowledge of basic soccer techniques for class XI students." The study's conclusion is significant if the t count $>$ t table and the sig value is less than 0.05 (Sig $<$ 0.05). The results of hypothesis testing are presented in Table 4:

Table 4. Results of the Pretest and Posttest t-test of the Experimental Group

Group	Mean	t count	t table	sig
Pretest	40,40	12,158	1,693	0,000
Posttest	58,99			

Table 4 shows that the t count is 12.158 and the t table (df 32) is 1.693 with a significance value (p) of 0.000. Because t count $12.158 >$ t table 1.693, and a significance value of $0.000 < 0.05$, this result indicates a significant difference. Thus, the alternative hypothesis, "There is a substantial effect of online inquiry learning methods on increasing the knowledge of basic football techniques for class XI students," is accepted.

The second hypothesis reads, "There is a significant difference in the knowledge of basic football techniques of class XI students between the experimental and control groups." The conclusion of the study is significant if the t count $>$ t table and the sig value is less than 0.05 (Sig $<$ 0.05). The results of hypothesis testing are presented in Table 5:

Table 5. Results of the t-test of the experimental group and the control group

Group	Mean	t count	t table	sig
Experiment Class	58,99	9,617	1,668	0,000
Control Class	40,78			

Table 5 shows that the t count is 9.617 and the t table (df 65) is 1.668 with a significance value (p) of 0.000. Because t arithmetic $9.617 >$ t table 1.668, and a significance value of $0.000 < 0.05$, these results indicate a significant difference. Thus, the alternative hypothesis (H_a), which reads "There is a significant difference in the knowledge of basic football techniques of class XI students between the experimental group and the control group," is **accepted**. This means that the experimental group with the inquiry learning method treatment is better than the control group in increasing knowledge of basic football techniques, with an average difference of 18,21.

DISCUSSION

The results of the study showed that there was a significant effect of the inquiry learning method on increasing the knowledge of basic football techniques for class XI students. This is in line with research that has been done, inquiry learning provides benefits to students because it can increase motivation and enthusiasm in learning ((Radu & Schneider, 2019); (Onyema et al., 2019), (Uğur et al., 2020). In addition, the self-regulated inquiry approach improves student achievement, especially for students with higher self-regulation. In addition, students who conduct an inquiry with self-regulated learning strategies increase their propensity to seek help information, self-efficacy, and several aspects of self-regulation, including time management, help-seeking, and self-evaluation (Lai et al., 2018).

With research results (Af'idayani et al., 2018) showed that "The results showed that the inquiry model had a significant impact on the skills of the science process and the learning outcomes of the learners." (Constantinou et al., 2018) also put forward the same thing in his research: inquiry science activity effectively improves learners' learning outcomes". Furthermore, (Ogan-Bekiroğlu & Arslan, 2014) research results that inquiry-based learning can improve students' conceptual knowledge skills and science process skills. Inquiry-based learning can improve cognitive learners' (Mupira & Ramnarain, 2018). One of the benefits of inquiry is to develop students' skills so that they are able to work like a scientist (Gunawan et al., 2019); (Rahayu et al., 2018); By learning

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inquiry, the knowledge obtained by students is easier to remember and more durable because it is obtained from the results of their own thinking (Al Mamun et al., 2020).

The inquiry learning model has many advantages over other learning models. These advantages include an inquiry learning model that emphasizes the development of cognitive, affective, and psychomotor aspects in a balanced way so that learning with this strategy is considered more meaningful and can provide space for students to learn according to students learning styles (Ilyas et al., 2018); (Pratama et al., 2020).

The inquiry learning model is a learning model that emphasizes the process of thinking critically and analytically to seek and find the answer to a problem in question. The inquiry learning model is an approach to learning that expects students to find and use various sources of information and ideas to increase students' understanding of the topic, or problems or require more than just answering questions or getting the right answers. This makes the inquiry learning model directly raise the ability or critical thinking skills of students in responding to problems, both individually and in groups. Through reflecting on the process during inquiry-based learning activities, students are given the opportunity to explore and understand both cognitive and affective domains.

CONCLUSION

Based on the results of data analysis, description, testing of research results, and discussion, conclusions can be drawn, namely: (1) There is a significant effect of online inquiry learning methods on increasing knowledge of basic soccer techniques for XI grade students, with a t value of 12.158 > t table 1.693, and a significance value of 0.000 < 0.05. (2) There is a significant difference in the knowledge of basic football techniques of class XI students between the experimental group and the control group, with a t-count value of 9.617 > t-table 1.668, and a significance value of 0.000 < 0.05. Based on the conclusions of this study, there are several suggestions that can be presented, so that suggestions can be given to various parties, namely: (1) The influence of the inquiry learning model is carried out in groups, so there may be members who are less active, resulting in a less than optimal knowledge of basic football techniques. Therefore, teachers should be able to arouse students to be active in learning activities by providing guidance, motivation, and monitoring in each group. (2) Teachers should familiarize themselves with applying the inquiry learning model with good preparation, including in terms of students and the instruments needed, so that student learning outcomes can be more optimal.

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