IMPLEMENTATION OF THE INQUIRY LEARNING MODEL: SOLUTIONS TO GROW STUDENTS' LEARNING SPIRIT POST PANDEMI COVID-19

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Abstract

This study aims to describe applying the Inquiry Learning model to learning to foster students' enthusiasm for learning. The background of this research is the low enthusiasm of students to study at school after the Covid-19 pandemic. The Inquiry Learning learning model is a series of learning activities that emphasize the process of critical and analytical thinking to seek and find answers to the problems in question. The method used in this study was field research to what extent did student learning outcomes increase with the application of the Inquiry learning model using a qualitative descriptive approach.

Keywords: Implementation; inquiry learning; eager to learn; student

Introduction

After the COVID-19 pandemic, many students experienced a decline in their enthusiasm for learning due to several factors that affected their psychological and environmental conditions, including Extended Distance

Learning (PJJ), where distance learning implemented during the pandemic required students to study from home using communication and information technology. Some students may have difficulty adjusting to distance learning due to limited accessibility, limited devices, or unstable internet connectivity. This can reduce the quality of learning and cause frustration and mental fatigue in students(Sugiyono, 2021). as well as the presence of Life Balance Disturbances, due to the COVID-19 Pandemic changing the pattern of students' daily lives. They have had to adapt to social distancing, spend long hours at home, and may have to deal with additional pressures such as caring for sick family members or dealing with difficult economic situations. This can upset students' emotional and mental balance, reducing their motivation to study.(Purwanto, A., Prabowo, A., & Dwi, 2020)

By interacting someone will be able to develop their insights, and knowledge will increase as well as friends. During the pandemic, because distance learning (PJJ) was implemented during the learning process, social interaction was reduced unlike before the pandemic. Distance Learning (PJJ) eliminates direct social interaction between students, classmates, and teachers. This lack of social interaction can make students feel lonely, isolated, and demotivated. A sense of connectedness and social support from peers and teachers is critical to sustaining enthusiasm for learning(Pratiwi, V., & Anggriani, 2021)

Many people are hopeless and feel that there is uncertainty about the future because the COVID-19 pandemic creates uncertainty about the future, including continuing education and employment opportunities. Students may feel worried about the long-term impact of the pandemic on their careers and this may dampen their enthusiasm for learning

During the Covid-19 pandemic for more than 2 years, people got used to conditions that were all digital and online. After the end of the pandemic or post-pandemic, many students found it difficult to shift from these habits.

Departing from these problems, researchers are interested in researching the implementation of inquiry learning to foster student enthusiasm for learning.

The method used in this research is field research because it is based on data collected directly in the field by observing the research object at the Semarang State Junior High School. The approach used is descriptive qualitative. This research attempts to describe and interpret the existing data, besides that this research is limited to an attempt to reveal a problem or a state of events as it is so that it is simply using facts. The data collection techniques used in this study are observation, interviews, and documentation. The stages of data analysis include three activity flows, namely data reduction, data presentation, and conclusion/verification.

Results and Discussion

Several stages in the inquiry learning process are carried out in schools

Inquiry learning is a learning method for students by inviting them to be active and try to be independent during the learning process. They are taught to have the courage to ask questions and try to find out things related to learning material, either by experimenting or doing research. Inquiry learning is a learning method in which students discover and understand concepts through active processes and critical thinking. In inquiry learning, students are expected to ask questions, seek information, make hypotheses, and test their hypotheses through experimentation and observation. The aim is to facilitate deeper and more memorable learning

POCESS INQUIRY LEARNING



1. Ask Questions

Develop questions that students want to answer. The class teacher gathers students. They were asked to work in groups, looking for interesting topics. Each prepared an interesting problem and then discussed it. Shiva was asked to develop problem questions by way of further investigation, asking for suggestions from other students, and looking for quotes from book sources or other things. The results of observations and interviews with students, they seemed to be happy with this atmosphere, they stated that they felt like playing.

2. Investigate

Namely research or researching the topic. The teacher can provide input in the form of a trusted source on the topic being studied by students. In addition, the teacher can also provide any research methods that are suitable for the problems being faced by students. Most of them have the desire to become researchers. One of the students stated that now they are interested in doing research, and they think this is an interesting experience.

Gulo in his book states that inquiry learning is a series of learning activities that maximally involve all students' abilities to seek and investigate systematically, critically, logically, and analytically, so that they can

formulate their findings with confidence.(Anam, 2016) Meanwhile, Bell prefers to explain what is going on behind the questions, investigations, or inquiries made by students in inquiry learning. According to him, learning that occurs through manipulation, structuring, and transformation of information by students is inquiry learning which results in the discovery of new information. (Priansa, 2017)

"Inquiry learning is a way of learning that emphasizes developing students' skills in critical thinking and solving problems through investigative and exploratory activities." (Soetjipto, 2016). According to the inquiry learning model, a learning method facilitates self-discovery by students of knowledge, attitudes, and skills through changes in their behavior. (Wardoyo, 2013)

One of the results of research on the application of learning with the inquiry learning model shows that the inquiry learning model is significant in increasing the level of student activity in the learning process. They become more responsive, more enthusiastic, more active in asking questions, and more happy to discover new knowledge. The learning activity of groups of students who study using the inquiry learning model is higher than that of groups of students who do not use this learning model (Husni, 2020)...

The purpose of applying the inquiry learning model in education is to facilitate a more effective and enjoyable teaching and learning process for students. This model focuses on an active and student-oriented learning process, where students are guided to find answers to questions and problems through critical and creative thinking processes. According to the Articulated Instructional Model (AIM) Inquiry, which was developed by Lilian G. etc. (Katz, LG, & Chard, 2000), the inquiry learning model has several main stages, namely: (1) giving problems, (2) gathering information, (3) analysis of information, (4) drawing conclusions, and (5) presentation of results.

Therefore, According to the inquiry learning model, a learning method facilitates self-discovery by students of knowledge, attitudes, and skills through changes in their behavior. (Wardoyo, 2013)

3. Process & Analysis

Students are taught to do analysis and provide descriptions of finding things that have been investigated

4. Share Findings

Students are asked to present whatever they have learned. This is useful so that students are more able to explore the problem, because by presenting what they have learned, unconsciously they will understand more about the material or problem.

5. Reflect & Evaluate

Students are taught to reflect. This reflection can think about what has been successful and what has not been successful. Here it is metacognition walking, i.e. thinking about thinking. Ask students to focus on how they learn rather than what they learn.

The inquiry learning model has several types that are adapted to the role of the teacher or tutor. In this learning, the teacher takes a role in the investigation process. Starting from determining the theme to evaluation. There are two types of inquiry learning, namely: Guided Inquiry and Open Inquiry.(Wisudawati et all, 2017)

In the guided inquiry type, the teacher's role in carrying out the learning process, especially in the inquiry process is very large. The teacher's role is to determine the research topic to be carried out, develop questions related to

the topic to be investigated, determine the procedures or steps that must be carried out by students, guide students in analyzing data, and provide worksheets in the form of columns. so that students are quite complete and help make conclusions. Guide inquiry is suitable for use when students are known to have more difficulties in conducting investigations about a material. For example, if the material is considered more difficult than others.

In this type, the teacher only acts as a facilitator in the learning process, to the extent requested by students. Students are then given the freedom and initiative to think about how to solve the problems they face. The Inquiry learning model is different from the conventional learning model, in its approach, learning process, student involvement, and learning outcomes (Sari, 2009), (Soetjipto, 2016).

According to the principal's explanation, the inquiry learning model focuses on active and participatory approaches, while conventional learning is more passive and dominated by the teacher. Inquiry learning models focus on learning processes that focus on problems and questions, while conventional learning is more about transmitting knowledge and information from teachers to students. Student Involvement: In the inquiry learning model, students play an active role and have the opportunity to convey their ideas and opinions, while in conventional learning, students tend to be silent and only receive information from the teacher. Learning Outcomes: The inquiry learning model can improve creativity, thinking skills, and student learning outcomes,

After applying the inquiry learning model, students are rarely absent and do not attend school. They are working diligently and the cooperation between them is getting better. This is in line with several research results, that inquiry learning models have unique characteristics. (Anam, 2016) that is; Focus on student activities to seek and find answers on their own, which means placing

students as learning subjects. All activities aim to motivate and facilitate students in finding their answers so that it is expected to foster self-confidence in students. This learning develops the ability to think systematically, logically, and critically as part of mental development. The goal is not only to master the subject matter but also to use the potential to increase students' understanding of the material.

The inquiry learning model has several advantages compared to other learning models, but it also has weaknesses, as stated by the Principal: "The inquiry learning model takes a long time, because it has to be mature in planning"Following are the advantages and disadvantages of the inquiry learning model(Minner, 2009),(Duschl, 2007),(Lederman, 2007)

SUPERIORITY

1. Improvement of Critical Thinking Skills: Inquiry learning helps students to build their critical thinking skills through the process of information seeking and data analysis.

2. Inquiry learning helps students to deepen their understanding of a concept because thev have the opportunity to carry out research and find information independently.

WEAKNESS

- Time Required: Inquiry learning takes longer than other learning methods because it involves a detailed process of research and investigation.
- Lack of Structure and Direction:
 Inquiry learning can be difficult to undertake without clear instructions and proper structure, which can leave students confused and not knowing where to start.
- 3. Lack of Support: Inquiry learning may require support and

SUPERIORITY	WEAKNESS
3. High Motivation and Interest:	guidance from teachers and other
Students are more interested	resources to ensure that students
and engaged in the learning	can find correct and relevant
process because they have the	information.
opportunity to pursue their	
desired questions and	
outcomes.	
4. Application of Knowledge in Everyday Life: Inquiry learning facilitates the application of knowledge in everyday life by providing opportunities for students to apply their knowledge in real situations.	

School Strategy

An explanation from the school principal that to produce good learning, several strategies have been carried out by the school including:

"Teachers must determine clear and specific learning objectives before starting the inquiry learning process. This helps students understand what is expected and focus their attention on what is important. All teachers are required to prepare lesson plans that are structured and involve various parties and pay attention to the time and resources available and are required

to provide support and guidance to students and ensure that students understand the questions they want to know. Furthermore, all teachers must ensure that students evaluate and reflect on the processes they have done so that they can improve their processes in the future."

Peran Sekolah, Guru dan Siswa

SCHOOL	TEACHER	STUDENT
Schools must ensure	Teachers must	Students must have the
that the facilities and	understand the basic	motivation and desire to
equipment needed to	concepts and principles	learn and find answers to
implement this model	of inquiry-based learning	their own questions. They
are available. This	models, and have skills	must also have the ability
includes equipment and	in compiling and	to think creatively, work
resources for	managing assignments	collaboratively in groups,
conducting exploration	that motivate students to	and have the ability to
and research, such as	think creatively and solve	access and analyze
laboratories, libraries,	problems. The teacher	information
and access to the	must also have the ability	
internet	to organize group	
	discussions and direct	
	students to achieve	
	learning goals	

The school's steps in order to achieve maximum performance are carried out by several policies for teachers including:

1. All teachers must understand the inquiry learning model well. able to define appropriate problems, facilitate the process of gathering

information, guide the analysis of information, and facilitate the presentation of results. Students must understand and understand the purpose of each learning activity. Students must understand how to find answers to the questions and problems given.

- 2. All teachers are required to provide appropriate support and guidance to facilitate the learning process and ensure that students understand each assignment and activity given.
- 3. Provide infrastructure to facilitate the learning process, including textbooks, online resources, and laboratory equipment if needed.
- 4. All Teachers must ensure that students have sufficient time to complete assignments and activities. and ensuring that students have sufficient access to the resources and information needed to complete assignments.

By paying attention to these things, learning using the inquiry learning model can produce maximum achievement and increase student learning interest. Inquiry-based learning is learning that can bring benefits to students. According to the principal's explanation, there were several changes in the students after the inquiry learning model was applied at school:

"Students are able to develop questioning, research, and communication skills, increase collaboration and collaboration between students or groups to get maximum learning outcomes, be able to solve problems, make solutions, and overcome real-life questions and problems. Can develop talents, develop critical thinking skills or critical thinking skills and increase learning success. As well as increasing their participation during the learning process "

The results of applying the inquiry learning model in schools in Indonesia are still limited, but several studies have shown that applying this model can improve learning outcomes and stimulate students' interest in learning. Research conducted by Susilo((Fitriana, D., & Santosa, 2016)) Application of the Inquiry-Based Learning Model to Improve Student Learning Outcomes on Circulatory System Materials shows that the application of the inquiry learning model in biology learning in high school can improve student learning outcomes and increase student learning interest in the subject.

The results of this study indicate that students who are taught using the inquiry learning model obtain higher average scores compared to students who are taught with other learning methods, however, the application of the inquiry learning model still requires greater effort from teachers and schools to overcome obstacles. -obstacles such as limited facilities and infrastructure, limited time, and lack of understanding of the inquiry learning model by teachers. According to Cleverly (Wardoyo, 2013), the learning process using the inquiry learning method involves several stages, such as the Exploration tutorial, where students will look for new things based on their existing understanding. Some students stated that they were enthusiastic about this learning model, self-directed learning. where students learn without the help of others based on the understanding that has been found in the previous stage, tutorial review, where students present their findings from the independent learning stage. Consolidation tutorials, in which students and their groups work together to strengthen their understanding through discussions and presentations as well as plenary tutorials, in which students absorb their individual and group learning and receive reinforcement from a co-facilitator

Conclusion

The inquiry learning model focuses on an active and student-oriented learning process, where students are guided to find answers to questions and problems through critical and creative thinking processes.

The inquiry learning model helps students understand the material better and forms their critical and creative thinking skills. According to the inquiry learning model, a learning method facilitates students' self-discovery of knowledge, attitudes, and skills through changes in their behavior.

The teacher's role is to determine the research topic to be carried out, develop questions related to the topic to be investigated, determine the procedures or steps that must be carried out by students, guide students in analyzing data, and provide worksheets in the form of columns. so that students are quite complete and help make conclusions.

The inquiry learning model has several advantages compared to other learning models, but it also has weaknesses, as stated by the Principal: "The inquiry learning model takes a long time because it has to be mature in planning, involving extensive research and investigation processes. details".

The results of this study indicate that students who are taught using the inquiry learning model have a high enthusiasm for learning, and obtain a higher average score compared to students who are taught using other learning methods, however, the application of the inquiry learning model still requires greater effort than teachers and schools to overcome obstacles such as limited facilities and infrastructure, limited time, and lack of understanding of the inquiry learning model by teachers.

References

Anam, K. (2016). Pembelajaran Berbasis Inkuiri, Metode dan Aplikasi (2nd ed.). Pustaka pelajar.

- Duschl, R. A. at all. (2007). Taking science to school: Learning and teaching science in grades K-8. Journal Citation Reports.
- Fitriana, D., & Santosa, I. (2016). Penerapan Model Pembelajaran Berbasis Inquiry untuk Meningkatkan Hasil Belajar Siswa pada Materi Sistem Peredaran Darah. Jurnal Pendidikan Biologi, 5(1), 20–26. https://doi.org/10.21831/jpb.v5i1.6854
- Husni, H. (2020). The Effect of Inquiry-based Learning on Religious Subjects Learning Activities: An Experimental Study in High Schools.

 Jurnal Penelitian Pendidikan Islam, 8(1), 43. https://doi.org/10.36667/jppi.v8i1.434
- Lederman, N. G. (2007). Nature of science: Past, present, and future. Handbook of Research on Science Education, 2, 17-37.
- Minner, D. D. et all. (2009). Inquiry-based science instruction—what is it and does it matter? Results from a research synthesis years 1984 to 2002.

 Journal Citation Reports. https://doi.org/https://doi.org/10.1002/tea.20347
- Pratiwi, V., & Anggriani, I. (2021). Dampak Pembelajaran Jarak Jauh (PJJ) Terhadap Motivasi Belajar Siswa di Era Pandemi Covid-19. Jurnal PGSD FKIP Universitas Riau, 9(2), 108-117., 9(2), 108-117.
- Priansa, D. J. (2017). Pengembangan Strategi Dan Model Pembelajaran: Inovatif, Kreatif, Dan Prestatif Dalam Memahami Peserta Didik (1st ed.). Pustaka Setia.
- Purwanto, A., Prabowo, A., & Dwi, M. (2020). Dampak Covid-19 terhadap Kehidupan Sekolah dan Peran Keluarga dalam Pendidikan Anak di Indonesia. Jurnal Penelitian Pendidikan, 37(2), 155-169, 37(2), 155-169.

- Sari, R. (2009). Pengaruh Model Pembelajaran Inquiry Terhadap Kemampuan Berpikir Kritis dan Hasil Belajar Siswa pada Materi Sistem Peredaran Darah Kelas VIII SMP. Jurnal Pendidikan IPA, 8(2), 98–108.
- Soetjipto, B. (2016). Peningkatan Kemampuan Berpikir Kritis dan Hasil Belajar Siswa dengan Menggunakan Model Pembelajaran Inquiry. Pendidikan Fisika, 5(2), 89–96.
- Sugiyono. (2021). Belajar Dari Rumah di Masa Pandemi COVID-19: Studi Dampak Pendidikan Dalam Jaringan Bagi Siswa SD Negeri di Kecamatan Cigombong, Bogor, Jawa Barat. Jurnal Pembelajaran, 9(2), 233-248., 9(2), 233-248.
- Wardoyo, S. M. (2013). Pembelajaran konstruktivisme: teori dan aplikasi pembelajaran dalam pembentukan karakter (1st ed.). Alfabeta.
- Wisudawati et all. (2017). Metodologi pembelajaran IPA. Bumi Aksara.