

Application of Guided Inquiry Learning Strategy on Thematic Learning of Science Material at Madrasah Ibtidaiyah

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Article Information:

Received 2022-10-19

Revised 2022-12-02

Published 2023-06-11

Keywords: Guided Inquiry; Learning Model; Thematic Learning.

ABSTRACT

This study aims to analyze the planning, implementation, and evaluation of the implementation of the Guided Inquiry learning strategy in thematic learning with the theme of Natural Sciences (IPA) at MI Miftahul Ulum III Sumber Sari Gumukmas, Jember. The method used is a qualitative approach with the type of field research. Data collection was carried out through observation, interviews, and documentation. Data analysis refers to the interactive model of Miles, Huberman, and Saldana which consists of three stages: data condensation, data presentation, and drawing conclusions. Data validity is obtained through triangulation of techniques, sources, and time. The results of the study indicate that the implementation of the Guided Inquiry learning model in the classroom consists of several stages, namely: (a) Initial Activities, (b) Core Activities, (c) Final Activities, and (d) Learning Evaluation. The implementation of this strategy has proven effective in increasing students' interest in learning, especially in materials about invertebrates, changes in the state of objects, and conductors. The conclusion of this study is that the implementation of the Guided Inquiry strategy has a positive impact on students' interest in learning science in madrasah Ibtidaiyah.



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INTRODUCTION

In the current era of globalization, all activities depend on technology, including the field of education. The development of technology in the face of the Industrial Revolution 4.0 requires the education sector to continuously innovate to improve the quality of future human resources (Ghufron, 2018; Nurchalis, 2020). One of the key breakthroughs is the government's independent learning policy, launched in early 2020, which encourages students to explore their thinking freely and requires teachers to innovate by developing appropriate learning strategies for the Industrial Revolution 4.0 (Uspayanti, 2021; Afrianto, 2018; Lase, 2019). As technology advances, mindsets change, and so must education and teaching methods. The independent learning policy aims to direct education towards utilizing technology and providing space for students to develop their talents and active thinking abilities. This dynamic shift also demands that teachers implement dynamic learning strategies, particularly for elementary school students who are naturally curious and easily bored with static methods. At this age, students enjoy discovering new things, prompting teachers to innovate by utilizing the environment as a learning resource. Learning should not be limited to classroom modules that focus solely on theory and practice (Kaahwa & Muwanguzi, 2023; Agyeman & Aphenah, 2023), but can also take place outside the classroom. Selecting the right strategy is crucial for ensuring an effective learning process, especially in subjects like science, where abstract material requires tailored approaches to achieve learning objectives (Dewi et al., 2017).

Science presents a strategic opportunity to prepare human resources for the challenges of industrialization and globalization. Science learning fosters critical, creative, and independent thinking in students (Lasia, 2010; Yulianti, 2016), while also aiming to help them understand natural

How to cite

Rahayu, I. D., & Prayogo, M. S. (2023). Application of Guided Inquiry Learning Strategy on Thematic Learning of Science Material at Madrasah Ibtidaiyah. *EDUCARE: Journal of Primary Education*, 4(1), 1–12. <https://doi.org/10.35719/educare.v4i1.127>

phenomena, concepts, and principles that can be applied in everyday life, as outlined in Permendiknas Number 22 of 2006. It also raises environmental awareness and encourages students to take part in preserving natural resources for a sustainable future. Science education promotes curiosity and trains students to think critically and objectively in problem-solving. Learning through experimentation provides hands-on experience, enhancing students' comprehension of the material, especially since science is often considered a difficult subject by many (Annisa & Simbolon, 2018; Bugarso et al., 2021; Kranz et al., 2022). One major reason for this is the use of less effective teaching methods, such as lectures and rote practice, which fail to provide students with a concrete understanding of the concepts. Each subject has unique characteristics, requiring different strategies and media to teach effectively. In science, strategies that encourage group discussions, such as the Inquiry Strategy, are particularly effective. Inquiry, derived from the English word "inquiry," refers to questioning, investigation, and the scientific process of formulating and testing hypotheses (Ramadhan & Usriyah, 2021).

The inquiry strategy is considered the most suitable method for science learning, particularly guided inquiry, as it aligns with Piaget's theory, which emphasizes stimulating students to reason, analyze, and draw conclusions. According to Piaget, learning is a mental process aimed at optimizing individual potential (Ramadhan & Hidayah, 2022), making the inquiry strategy ideal for elementary students in science education. Guided inquiry facilitates learners in constructing knowledge through investigation and discovery, encouraging active participation as they seek solutions to questions and problems (Annisa & Simbolon, 2018). This research aims to describe the planning, implementation, and evaluation of guided inquiry in science learning, particularly in the cognitive and psychomotor domains. The cognitive domain involves thinking skills such as memorization, understanding, application, analysis, and evaluation, while the psychomotor domain pertains to the ability to act and apply skills learned from experiences. The practical benefit of this research is that students at MI Miftahul Ulum III Sumbersari Gumukmas Jember can improve their learning outcomes, particularly in the human digestive system material, through the application of guided inquiry. For teachers, this study offers valuable insights for effectively applying the guided inquiry learning model in science education.

A study by Hendracipta involving 5th-grade students at Ciherang Elementary School, Gunungsari, Serang, Banten, divided 26 students into experimental and control groups to assess the effectiveness of the guided inquiry model in science learning. The results showed that the average post-test score of the experimental class was 74.66, while the control class scored 63.73. The inferential statistical analysis used in this study confirmed that the experimental class, which applied the guided inquiry model in learning about the properties of light, demonstrated better critical thinking skills than the control class. This improvement was attributed to the freedom given to students to fully explore their mental and intellectual potential in line with scientific principles (Hendracipta, 2016). Similarly, another study conducted by Arief in 2015, using a tiered inquiry strategy in science subjects on global warming, involved 35 students over three sessions. This study employed discovery learning, interactive demonstrations, inquiry learning, and laboratory inquiry to enhance students' science literacy. Pretest and posttest scores revealed a significant improvement, with the average pretest score of 7.94 increasing to 13.23 in the posttest, showing a 20.33% increase in literacy (Arief, 2015). The inquiry stages, from discovery learning to laboratory investigations, encouraged students to read, explain, and conduct experiments, deepening their understanding and interest in scientific phenomena.

In a proposed experimental study, the hypothesis is that elementary school students who are taught science using a guided inquiry learning strategy will exhibit statistically significant enhancements in their critical thinking abilities and comprehension of scientific concepts compared to peers taught through traditional lecture-based methods. This anticipated improvement will be quantitatively measured by higher post-test scores in cognitive and psychomotor domains, specifically in lessons focused on the human digestive system and the properties of light. The study

will systematically compare the outcomes of two teaching methodologies to ascertain the efficacy of guided inquiry in fostering a deeper understanding and application of science among young learners.

RESEARCH METHODS

This research utilizes a descriptive qualitative approach, employing field research as the type of study. The research was conducted at MI Miftahul Ulum III Sumber Sari Gumukmas Jember, specifically in 5th grade. The selection of MI Miftahul Ulum III as the research site was based on relevant considerations related to the research objectives. In determining the research subjects, the researcher used purposive sampling, which is a technique of selecting data sources with specific considerations. These considerations include selecting individuals who are considered to have the most knowledge about the subject matter or those in authoritative positions, thus facilitating the researcher in exploring the object or social situation being studied. The main subjects in this study include the head of the madrasah at MI Miftahul Ulum III, the head of student affairs, the head of curriculum, teachers, and students.

In the qualitative study focused on the implementation of the guided inquiry learning model, the researcher tailored data collection techniques to deeply understand the teaching dynamics and educational outcomes. These methods included observation, interviews, and documentation, each serving a specific role in the research process (Sugiyono, 2017). Observations were crucial for gaining real-time insights into classroom dynamics, such as the interaction between teachers and students during science lessons. This method allowed the researcher to directly witness the pedagogical interactions and the engagement level of students with the guided inquiry activities. Interviews were another pivotal data collection technique, conducted with the madrasah head, teachers, and students. These interviews provided nuanced, qualitative insights into the perceptions and experiences of all stakeholders involved with the guided inquiry method, highlighting challenges, successes, and the overall impact on student learning and teacher facilitation. Lastly, documentation of school-related materials, such as curriculum plans, lesson plans, and student learning reports, offered a foundational context. This documentation helped correlate the observed classroom behaviors and interview responses with the planned educational objectives and strategies, thus providing a comprehensive understanding of how guided inquiry was integrated and implemented in the educational setting. Together, these techniques ensured a robust and holistic collection of data, critical for evaluating the effectiveness and nuances of the guided inquiry approach in an educational context.

In this research, a descriptive qualitative analysis using the interactive model by Miles, Huberman, and Saldana (2014) is employed to rigorously handle and interpret the collected data. The process starts with data condensation, where data gathered through observations, interviews, and documentation are simplified, organized, and abstracted. This involves coding the data to identify key patterns, trends, and themes, making the extensive data more manageable and focused. Following this, the data display stage arranges the condensed data into structured formats such as narrative descriptions, matrices, tables, or figures. This organization is crucial as it visually maps out relationships and themes, facilitating easier analysis and interpretation. The final stage, conclusion drawing and verification, involves synthesizing the displayed data into coherent findings. This phase is iterative, with continuous cross-referencing between the data displays and the raw data to ensure the conclusions' validity. The researcher uses triangulation and cross-checking techniques here to verify the findings, enhancing the research's credibility. Each stage of the model interacts dynamically, allowing for revisions and refinements to ensure a deep, accurate understanding of the data, culminating in well-supported research conclusions.

RESULTS AND DISCUSSION

The thematic learning process using the guided inquiry model in practice must emphasize more on the activities of students. This shows that the guided inquiry learning model places participants as learning subjects and not learning objects. In the process of implementing it in the classroom, guided inquiry learning does not only play a role as a recipient of lessons through teacher explanations, but

also plays a role in finding the concept of the lesson itself. This research uses the guided inquiry method. Guided inquiry can be interpreted as a strategy for teachers to provide instructions and guidance on the material being taught as necessary. The instructions given by the teacher are to stimulate students to seek and find information for themselves and solve their own problems. The goal is for students to be able to think critically, be able to solve problems, master public speaking, and be able to hone their abilities. Guided inquiry has six characteristics, including: (1) Students learn based on experience so that they are more active and more critical, (2) Students have more sense of knowledge, (3) through teacher instructions and guidance, students can develop their strengths, (4) students develop gradually, (5) learning differences exist in students, and (6) students get to know their natural and social environment. In this guided inquiry strategy, the teacher acts as a facilitator who concentrates on students in obtaining information, assisting students in finding concepts for their discovery, honing students' talents and skills (Yanti, 2018).

Based on the results of the study, researchers obtained data obtained through interview, observation, and documentation techniques, then presented in the form of data presentation. The data is then analyzed in depth and associated with the theory that is in accordance with the research focus contained in this study to facilitate in answering the questions in the focus of the research. The results of this study are:

Planning the Application of the Guided Inquiry Learning Model In Thematic Learning Of Science Material

Based on the findings, the implementation of the guided inquiry learning model in the thematic learning of science materials at MI Miftahul Ulum III Summersari Gumukmas Jember includes three key stages: planning, implementation, and evaluation. In the planning stage, teachers actively engage in preparing syllabi and lesson plans (RPP) aligned with the thematic learning approach, particularly for science subjects. This process is crucial as it ensures that the learning objectives, methods, and activities are well-structured and meet the competencies outlined in the 2013 curriculum. Teachers prepare the syllabus and lesson plans at the beginning of each semester, ensuring that these documents are updated for each thematic change. Additionally, the content is integrated with real-life contexts, making it relevant to students' immediate environment. This alignment with the surrounding situation allows the learning experience to be more meaningful and engaging for students, fostering better understanding and retention of science concepts. The lesson plans also emphasize the use of inquiry-based activities that promote student engagement and critical thinking, which are essential components of the 2013 curriculum. In the implementation stage, the guided inquiry model is applied in a way that students become the central focus of the learning process. Teachers provide guidance, but students are encouraged to take the lead in exploring and discovering scientific concepts. This hands-on approach promotes active learning, as students engage in experiments, group discussions, and problem-solving activities that help them construct knowledge independently. The teacher's role is more of a facilitator, providing necessary instructions and guidance when students encounter challenges or require direction. By doing so, the guided inquiry model enhances students' critical thinking skills and their ability to apply scientific methods to real-world problems.

This is reinforced by the opinion of Morrison, Ross, and Kemp, who assert that a lesson plan (RPP) is a document that outlines the procedures and organization of learning to achieve specific basic competencies as outlined in the content standards and detailed in the syllabus. The lesson plan covers one or more basic competencies, and each competency is broken down into several indicators, which may span one or more class sessions (Nursobah, 2019). Lesson plans are an essential preparatory tool for teachers, as they provide a clear structure and roadmap for the instructional process, ensuring that all the necessary steps are in place to facilitate effective learning. According to Permendiknas No. 14 of 2007, dated November 23, 2007, concerning process standards for primary and secondary education units, the development of lesson plans must be derived from the syllabus to guide student learning activities in achieving the designated Basic Competencies (KD). Lesson plans are developed for each KD and may be implemented over the course of one or several meetings, depending on the complexity of the material and the pacing of the curriculum. Teachers must design

lesson fragments for each session, ensuring that the content, activities, and assessments are well-aligned with the educational schedule. This systematic planning ensures that learning objectives are met and that students are able to progress steadily through the curriculum.

The Learning Implementation Plan (RPP) serves as a roadmap to optimize classroom instruction. It outlines the specific activities, methods, and materials to be used during each lesson, allowing teachers to anticipate potential challenges and adjust their approach accordingly. By creating a detailed plan, teachers can ensure that learning activities run smoothly and efficiently, facilitating the achievement of learning goals. Furthermore, well-prepared lesson plans provide flexibility, allowing teachers to make adjustments as needed based on student responses or unforeseen circumstances in the classroom. Ultimately, the careful design and implementation of lesson plans enable students to engage in a more structured, focused, and meaningful learning experience, maximizing their potential to grasp the subject matter and develop essential skills.

This is in accordance with what Mukni'ah states in her book, *Learning Planning*, that lesson plans (RPP) serve as the teacher's guide during the learning process in the classroom (Mukni'ah, 2016). Each teacher brings their unique style and approach to teaching, and everything they do in the classroom is usually outlined in the lesson plan. In essence, the lesson plan is not only a roadmap for daily instruction but also a tool for predicting and evaluating the success of the learning process. It helps teachers organize learning activities, ensuring that the lesson follows a logical sequence and that all necessary elements—such as objectives, materials, and assessments—are in place. Effective lesson planning provides clarity and structure for both teachers and students, fostering an environment where learning can occur more smoothly and effectively.

In addition to well-organized lessons, the use of media plays a crucial role in the learning process, acting as an auxiliary aid to help students better understand the material being taught. Mukni'ah emphasizes that media supports learning by offering a visual or interactive dimension that can make abstract concepts more tangible for students. This aligns with the theory proposed by Jalinus in his book, *Media and Learning Resources*, where he explains that media not only serves as a teaching tool but also functions as a message distributor (Jalinus, 2016). Learning media can be understood as any tool or resource that stimulates students' thoughts, feelings, attention, and abilities. Research supports this notion, suggesting that multimedia learning resources, such as visual aids and interactive technologies, can significantly improve students' comprehension and retention by engaging multiple senses (Mayer, 2014). Studies have shown that the use of multimedia in education can enhance learning outcomes by creating more immersive and interactive learning experiences (Clark & Mayer, 2016). Furthermore, learning media can range from simple tools like pictures and diagrams to more complex ones like digital platforms and multimedia presentations, all of which can contribute to a more dynamic and engaging classroom experience. When used effectively, learning media has the power to make difficult concepts easier to grasp and enable students to develop their cognitive and practical skills in a more interactive and stimulating environment (Sung, Chang, & Liu, 2016).

From the explanation above, it can be concluded that the use of media by MI Miftahulu Ulum III Summersari class teachers plays a significant role in attracting students' attention and enhancing the clarity of the material presented. By incorporating appropriate media into the guided inquiry learning model, teachers can create more engaging and effective lessons, making abstract concepts easier for students to understand. Based on observations and findings in the field, the results of the researchers in terms of guided inquiry learning planning at MI Miftahul Ulum III Summersari can be summarized as follows: a) the syllabus is prepared at the beginning of the semester in collaboration with the principal, b) all homeroom teachers collectively create lesson plans at the start of the semester, c) the lesson plans are specifically developed at MI Miftahul Ulum III Summersari Gumukmas Jember, and d) these lesson plans are designed using the guided inquiry learning model, incorporating the necessary media to support learning activities. This structured planning ensures that learning activities are well-organized, and the use of media adds an interactive element that helps facilitate student engagement and understanding. This is further supported by previous research

conducted by Nelly Oktapriyanti in her thesis titled *The Application of Guided Inquiry Learning Models to Improve Student Conceptual Understanding on the Theme of Caring for Living Things*. Her research found that the guided inquiry learning model, when applied, initially yielded mixed results. In cycle I, out of 28 students, only 17 students (60%) achieved satisfactory learning outcomes, while 11 students (40%) did not meet the expected standards. These results indicate that while the guided inquiry model can promote better understanding, its initial implementation may require further refinement and adjustments to fully achieve the desired learning outcomes. Oktapriyanti's study highlights that the learning process is iterative, and teachers may need to adapt their strategies in subsequent cycles. In her case, she took corrective actions in cycle II to improve the success rate of student learning (Oktapriyanti, 2017; Megawati, 2023).

This example underscores the importance of continuous assessment and adaptation when using the guided inquiry model. It demonstrates that while the model offers potential benefits in enhancing student comprehension, teachers must remain flexible and willing to modify their approach based on student performance and feedback. Additionally, the success of guided inquiry learning depends not only on the structure of the lesson plans but also on the effective use of media and resources to engage students and foster critical thinking. By combining well-prepared lesson plans with interactive media and ongoing evaluations, teachers at MI Miftahul Ulum III can optimize the guided inquiry approach to ensure that all students reach the desired learning outcomes. Furthermore, the findings from previous studies like Oktapriyanti's reinforce the notion that persistence and continuous improvement are key components in achieving effective implementation of this learning model.

Starting from this problem, the teacher develops a cycle II plan aimed at addressing the challenges encountered in the previous cycle. The planning for cycle II includes several key components: a) Teachers prepare detailed lesson plans (RPP) that focus on improving student understanding and engagement. These plans are carefully designed to align with the objectives of the guided inquiry model, ensuring that the learning process becomes more interactive and student-centered (Harlen, 2015). b) Teachers also prepare various media and teaching aids, such as visual props or digital tools, to better explain the material in the subtheme of Animals and Plants in My Home Environment. This step is crucial, as the use of media helps students visualize abstract concepts and fosters a deeper connection with the learning content, making it more accessible and engaging (Jalinus & Ambiyar, 2016). c) Teachers create group worksheets (LKKS) for students, designed to encourage collaboration and active participation during the learning process. These worksheets guide students through inquiry-based activities, allowing them to explore the subject matter more independently while working together in small groups to solve problems and discuss their findings (Oktapriyanti, 2017; Megawati, 2023). d) Finally, teachers prepare observation sheets to assess the learning process during cycle II. These sheets are used to monitor student behavior, participation, and understanding, allowing teachers to identify areas for improvement and to ensure that the guided inquiry model is effectively implemented (Arends, 2014).

This approach shares several similarities with the researchers' planning process, particularly in the preparation of lesson plans (RPP), the use of media as a learning aid, and the focus on improving student outcomes through a guided inquiry approach. Both emphasize the importance of well-organized lesson plans and the strategic use of media to enhance student understanding. However, there are also differences in the materials used, the types of media chosen, and the specific implementation of the lesson. For instance, while the current research focuses on the subtheme of Animals and Plants in My Home Environment, other studies or implementations may involve different subject areas or use alternative forms of media to suit the particular needs of the lesson or student group (Brown, 2019). Additionally, the adjustments made in cycle II highlight the iterative nature of the learning process in the guided inquiry model. Teachers must continuously refine their strategies, adjusting both the content and the tools used based on student performance and feedback (Harlen, 2015). By incorporating hands-on learning activities, such as the use of LKKS and other group-oriented tasks, students are more actively involved in the learning process, fostering critical thinking, collaboration, and problem-solving skills (Arends, 2014). The teacher's role as a facilitator

remains central, guiding students through the inquiry process and providing the necessary support while encouraging independent exploration. Through these enhancements, the cycle II planning aims to improve not only the understanding of the specific material but also the overall learning experience, ensuring that students become more engaged, motivated, and capable of applying scientific concepts in real-world contexts (Jalinus & Ambiyar, 2016).

The differences in material, media, and implementation between this research and other studies demonstrate the flexibility and adaptability of the guided inquiry model. Teachers can tailor their lesson plans and media choices to suit the specific needs of their classroom, ensuring that the content remains relevant and that the methods used are effective for their particular group of students. In doing so, they can optimize the guided inquiry learning experience and enhance the overall educational outcomes for their students.

Implementation of Guided Inquiry Learning in Thematic Learning of Science Materials

As a result of the research, several steps of the guided inquiry learning model have been implemented by educators at MI Miftahul Ulum III Summersari Gumukmas Jember. The process begins with the teacher presenting a problem or formulating a problem for the students to solve. This problem formulation is provided with sufficient data and must be clear and easily understood by the students to ensure that they can engage with the task effectively. After receiving the data, students are then tasked with compiling, processing, organizing, and analyzing the information to make sense of the problem at hand. During this process, the teacher plays a crucial role in providing guidance, offering direction when necessary to ensure that students stay on track. As students work through the data, they are encouraged to formulate hypotheses or conjectures based on their analysis. These hypotheses represent their educated guesses or estimates about the solution to the problem. Once the students have developed their hypotheses, the teacher steps in to review and verify the accuracy of the students' conjectures, ensuring that the correct conclusions are reached. Finally, after students have successfully identified the solution, the teacher provides additional practice questions or further challenges to reinforce the learning and deepen their understanding. This systematic approach not only promotes critical thinking but also ensures that students are actively engaged in the learning process, fostering independent problem-solving skills.

In more detail, the findings related to the stages of the guided inquiry learning model in thematic science learning at MI Miftahul Ulum III Summersari Gumukmas Jember can be broken down into the implementation phases of the lesson plan, which includes preliminary, core, and closing activities. The guided inquiry learning model was applied across three different thematic lessons: Theme 1, Sub-theme 1, Learning 1 (covering invertebrate animals), Theme 6, Sub-theme 3, Learning 1 (on conductors and insulators), and Theme 7, Sub-theme 2, Learning 2 (focused on changes in the form of objects). Each of these sessions followed the structure outlined in the lesson plan and adhered to the stages of learning, which can be categorized into the following three parts: the preliminary activity, the core activity, and the closing activity (Majid, 2017).

In the preliminary activity, teachers aim to set the stage for the learning process. According to Majid (2017), the primary goal of this stage is to capture students' attention and engage them right from the start. To achieve this, teachers may use strategies such as initiating fun interactions with students, asking questions, or using media that can pique their curiosity. Building rapport and encouraging student participation early on are key to ensuring a smooth transition into the lesson. Additionally, another important purpose of the opening activity is to motivate students, fostering their enthusiasm for the subject matter. Teachers can accomplish this by making the material relevant to the students' everyday lives, showing them why the lesson is important and how it connects to their experiences. Lastly, the preliminary activity serves to provide references or cues about what students will be learning and the objectives they should aim to achieve by the end of the lesson. This not only sets clear expectations but also helps students mentally prepare for the content they are about to explore, ensuring they are aware of the goals they need to focus on throughout the session (Majid, 2017; Daryanto, 2014).

The core activity represents the main learning process, where students engage with the guided inquiry model. During this phase, students participate in the exploration, questioning, and discovery that are central to the inquiry-based approach (Ramadhan & Usriyah, 2021). For example, in the lesson on invertebrate animals, students may observe samples or diagrams, discuss characteristics of different species, and hypothesize about their environments. Similarly, in lessons on conductors and insulators, students might experiment with different materials to test their conductivity and draw conclusions from their findings. Throughout these activities, the teacher acts as a facilitator, guiding students as they analyze data, formulate hypotheses, and work collaboratively to find solutions (Sugiyono, 2017). The focus of the guided inquiry model during the core activity is to ensure that students actively participate in the learning process, developing critical thinking skills and becoming more independent learners.

In the closing activity, the teacher helps students consolidate their understanding and reflect on what they have learned. This phase may involve reviewing key points, addressing any misconceptions, and asking students to summarize or apply the concepts in new contexts (Dewi et al., 2017). Teachers might also pose additional questions or challenges to deepen students' understanding and reinforce the lesson objectives. At this stage, the teacher can also provide feedback on students' performance and clarify any doubts that may have arisen during the core activity. Closing activities are essential for ensuring that students leave the lesson with a clear understanding of the concepts and are able to connect what they have learned to future lessons (Majid, 2017). In summary, the guided inquiry learning model at MI Miftahul Ulum III Sumbersari Gumukmas Jember is structured to provide students with a comprehensive learning experience that involves active participation and critical thinking. By following the stages of preliminary, core, and closing activities, teachers ensure that the learning process is engaging, structured, and outcome-focused, allowing students to develop both their knowledge and inquiry skills. The focus on interactive learning and the use of real-life applications in thematic science lessons help make abstract concepts more accessible and meaningful for students (Oktapriyanti, 2017; Megawati, 2023).

The initial activity in this activity the teacher says greetings, prays, asks for news, checks attendance, does appreciation and ice breaking, stories regarding the material. Furthermore, Nailul Hidayah informed about the theme to be learned, then in the core activities Nailul Hidayah conveyed the stages of the guided inquiry learning model activities, namely: Students observe the media provided by the teacher, students make statements related to the observed media, students carry out practices related to the material provided by the teacher, students are invited to analyze related to changes in the shape of the media, students are asked to make conclusions related to the learning that has been completed.

In guided inquiry learning, the closing activities play a crucial role in consolidating students' understanding and fostering their creativity and reflection. At this stage, students are required to summarize the material they have learned, which not only helps reinforce the concepts but also encourages creativity as they synthesize information in their own words. The teacher then checks the students' work to assess their understanding and provide feedback. In addition, teachers often give rewards or recognition to motivate students and acknowledge their efforts. A key component of the closing activity is teacher reflection, where the educator assesses the effectiveness of the lesson and identifies areas for improvement in future sessions. Furthermore, students are given the opportunity to express their opinions about the learning experience, promoting a classroom environment that values student feedback and encourages active participation. Finally, the teacher provides a comprehensive conclusion of the lesson, summarizing key points, and ensuring all students have a clear understanding of the material. To close the session on a positive note, the teacher leads the class in a collective prayer, reinforcing a sense of community and shared learning (Majid, 2017). These findings align with Abdul Majid's assertion that the core activity in learning is the focal point, where students engage with themes and subthemes through diverse learning activities, utilizing multiple methods and media. This approach allows students to gain meaningful experiences, actively participate, and foster creativity and independence, all while accommodating their individual talents,

interests, and developmental needs, both physically and psychologically. By integrating these elements, guided inquiry learning ensures that students not only acquire knowledge but also develop essential skills for independent thinking and problem-solving.

Evaluation of Guided Inquiry Learning in Thematic Learning of Science Materials

The evaluation of the application of the guided inquiry learning model in the thematic learning of science material at MI Miftahul Ulum III Sumber Sari Gumukmas Jember uses a combination of test and non-test techniques to assess student performance comprehensively. The test techniques include both written and oral tests, designed to measure students' discipline and understanding of the material. In addition, non-test techniques, such as observation, are used to gauge student participation and behavior during the learning process. In thematic learning for class V, three main forms of evaluation are implemented: a) Daily evaluation, which includes written and oral tests as well as observational assessments, is used to monitor student progress and discipline on a daily basis. This allows teachers to provide immediate feedback and adjust their instructional methods as needed. b) Formative evaluation takes place at the end of each thematic unit, typically in the form of a written test, aimed at assessing students' comprehension of the theme as a whole. Formative evaluations provide valuable insights into how well students retain the material and whether any areas require further reinforcement (Brown, 2019). c) Summative evaluation is conducted at the end of a larger instructional period, such as during the Mid-Semester Assessment (PTS) or End of Semester Assessment (PAS). These evaluations assess overall mastery of the subject matter after all themes have been taught (Harlen, 2015).

In her research titled "The Use of Guided Inquiry Learning Models with Simulation Methods to Foster Critical Thinking Attitudes and Student Learning Outcomes in Social Studies Learning," Riska Oktianita emphasizes the importance of integrating various assessment methods to enhance student learning outcomes (Oktianita, 2016). By employing oral tests, written tests, and observational assessments, this approach offers a comprehensive view of student capabilities. Oral tests are conducted either individually or in groups, typically at the beginning of a lesson to review previous materials or during the lesson to directly measure students' understanding. This allows students to activate their critical thinking and refine their communication skills. Meanwhile, written tests are utilized to assess students' ability to recall and apply concepts learned, conducted during and at the end of learning sessions. Classroom observations help teachers assess non-academic aspects such as engagement, discipline, and collaboration among students. These assessment methods, particularly in guided inquiry learning, measure not only academic proficiency but also support the development of interpersonal skills and problem-solving, providing valuable feedback for continuous student improvement and enabling teachers to tailor their teaching strategies effectively (Arends, 2014).

Moreover, Oktianita's research emphasizes the importance of test flexibility in promoting a deeper understanding of the material and encouraging critical thinking. By utilizing a range of test types—oral, written, and practical—teachers can adapt to different learning styles and needs (Oktianita, 2016). This approach helps ensure that all students are given the opportunity to demonstrate their learning in ways that best suit their abilities. For instance, some students may excel in written assessments, while others may perform better in oral discussions or practical demonstrations of their knowledge. The use of such diverse evaluation methods in guided inquiry learning, as applied at MI Miftahul Ulum III, aligns with best practices in education, helping to ensure that students are comprehensively assessed and supported in their learning journey (Harlen, 2015).

CONCLUSIONS

The conclusions from the research on the implementation of Guided Inquiry Learning in Thematic Learning of Science Material at MI Miftahul Ulum III Sumber Sari Gumukmas Jember are as follows: 1) The planning process includes syllabus preparation and lesson planning at the beginning of each semester, with lesson plans created by class teachers incorporating media and teaching materials, as well as rubrics for cognitive, affective, and psychomotor assessments. 2) The learning process is divided into three stages: (a) Initial activities involving greetings, prayers,

attendance, and ice breaking, (b) Core activities such as observing media, summarizing, practicing, analyzing, and concluding, and (c) Closing activities that include creating summaries, checking student work, providing rewards, reflecting, and offering opportunities for student feedback. 3) The evaluation process consists of practical evaluations, multiple choice and matching tests, formative assessments every two weeks, and summative evaluations through Mid-Semester and End of Semester Assessments.

The research findings on the implementation of the Guided Inquiry Learning model in Thematic Learning of Science Material contribute to both theoretical and practical insights. Theoretically, it reinforces the understanding that well-structured lesson plans, addressing cognitive, affective, and psychomotor domains, enhance student engagement and foster critical thinking, problem-solving, and creativity. The three-stage learning process (initial, core, and closing activities) aligns with constructivist theories, emphasizing active student involvement and teacher facilitation. Practically, the research provides educators with effective strategies for planning and executing guided inquiry-based lessons, highlighting the importance of integrating media and diverse evaluation methods. This approach not only enhances student comprehension but also promotes a dynamic and student-centered learning environment that improves academic outcomes and critical thinking skills.

Future research on the Guided Inquiry Learning model could explore its implementation across various subjects, such as mathematics, social studies, and language learning, and investigate its effectiveness across different age groups, from early childhood to higher secondary education, to understand its adaptability. Longitudinal studies would be valuable in examining the long-term effects of the model on students' cognitive, affective, and psychomotor skills, revealing its impact on critical thinking and problem-solving abilities over time. Additionally, integrating technology, such as digital tools and interactive platforms, into the model could further enhance student engagement and learning outcomes. Comparative studies could evaluate the model's effectiveness against other teaching methods, such as project-based learning or direct instruction, to highlight its strengths and limitations. Lastly, future research should focus on teacher professional development, examining how educators can be better trained and supported to implement guided inquiry effectively, ultimately improving both teaching practices and student performance.

ACKNOWLEDGEMENT

The author would like to express sincere gratitude to all those who contributed to the completion of this research. Special thanks go to the teachers and students of MI Miftahul Ulum III Summersari Gumukmas Jember for their participation and cooperation throughout the study. The author is also deeply grateful to colleagues and mentors for their valuable feedback and support during the research process. Additionally, heartfelt thanks are extended to the editorial team and management of EDUCARE: Journal of Primary Education for providing the opportunity to publish this research and for their guidance and professionalism throughout the submission and review process. Your dedication to maintaining high academic standards is greatly appreciated, and it has been a privilege to collaborate with such a committed team.

BIBLIOGRAPHY

- Afrianto. (2018). Being a Professional Teacher in the Era of Industrial Revolution 4.0: Opportunities, Challenges and Strategies for Innovative Classroom Practices Afrianto Faculty of Teachers Training and Education (FKIP), Universita. *English Language Teaching and Research*. <https://ejournal.unp.ac.id/index.php/eltar/article/view/102675>
- Agyeman, N., & Aphena, V. (2023). The Significance Of School-Based Experience For Effective Teaching And Learning In Schools: A Systematic Literature Review. *Managere: Indonesian Journal of Educational Management*, 5(3), 229–243. <https://doi.org/10.52627/managere.v5i3.224>

- Annisa, N., & Simbolon, N. (2018). Pengembangan Media Pembelajaran Interaktif IPA Berbasis Model Pembelajaran Guided Inquiry pada Materi Gaya di Kelas IV SD Negeri 101776 Sampali. *School Education Journal PGSD FIP Unimed*, 8(2), 217-229. <https://doi.org/10.24114/sejpgsd.v8i2.10199>
- Arends, R. (2014). *Learning to Teach*. McGraw-Hill Education.
- Arief, M. K. (2015). Penerapan Levels of Inquiry pada Pembelajaran IPA Tema Pemanasan Global untuk Meningkatkan Literasi Sains. *Edusentris*, 2(2), 166. <https://doi.org/10.17509/edusentris.v2i2.169>
- Brown, G. T. L. (2019). *Assessment in Learning: Theory and Practice*. Springer.
- Bugarso, J., Cabantugan, R., Tapiculin, Q., & Malaco, A. (2021). Students' Learning Experiences and Preference in Performing Science Experiments Using Hands-on and Virtual Laboratory. *Indonesian Journal of Teaching in Science*, 1(2), 147-152. <https://doi.org/10.17509/ijotis.v1i2.41122>
- Clark, R. C., & Mayer, R. E. (2016). *E-learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning*. John Wiley & Sons. <https://doi.org/10.1002/9781119239086>
- Daryanto. (2014). *Pendekatan Pembelajaran Saintifik Kurikulum 2013*. Yogyakarta: Penerbit Gava Media.
- Dewi, E. P., Suyatna, A., Abdurrahman, A., & Ertikanto, C. (2017). Efektivitas Modul Dengan Model Inkuiri untuk Menumbuhkan Keterampilan Proses Sains Siswa Pada Materi Kalor. *Tadris: Jurnal Keguruan dan Ilmu Tarbiyah*, 2(2), 105. <https://doi.org/10.24042/tadris.v2i2.1901>
- Ghufron, M. A. (2018). The Strengths and Weaknesses of Cooperative Learning and Problem-Based Learning in EFL Writing Class: Teachers and Students' Perspectives. *International Journal of Instruction*, 11, 657-672. <https://doi.org/10.12973/iji.2018.11441a>
- Harlen, W. (2015). *The Role of Formative Assessment in Effective Teaching and Learning*. Routledge.
- Hendracipta, N. (2016). Menumbuhkan Sikap Ilmiah Siswa Sekolah Dasar Melalui Pembelajaran IPA Berbasis Inkuiri. *JPSD (Jurnal Pendidikan Sekolah Dasar)*, 2(1), 109-116. <https://dx.doi.org/10.30870/jpsd.v2i1.672>
- Jalinus, N. (2016). *Media dan Sumber Pembelajaran*. Jakarta: Kencana.
- Jalinus, N., & Ambiyar. (2016). *Media and Learning Resources*. Jakarta: Kencana Prenada Media Group.
- Kaahwa, Y. T., & Muwanguzi, S. E. (2023). Effect of Part-time Teaching on Classroom Interaction and Pedagogical Effectiveness in Government Aided Secondary Schools in Wakiso District – Uganda. *American Journal of Educational Research*, 11(2), 41-52.
- Kranz, J., Baur, A., & Möller, A. (2022). Learners' challenges in understanding and performing experiments: a systematic review of the literature. *Studies in Science Education*, 59(2), 321-367. <https://doi.org/10.1080/03057267.2022.2138151>
- Lase, D. (2019). Pendidikan di Era Revolusi Industri 4.0. *SUNDERMANN: Jurnal Ilmiah Teologi, Pendidikan, Sains, Humaniora Dan Kebudayaan*, 12(2), 28-43. <https://doi.org/10.36588/sundermann.v1i1.18>
- Lasia, I. K. (2010). Pengaruh Model Pembelajaran Inquiry Terbimbing Berbasis Lingkungan Terhadap Keterampilan Berpikir Kreatif Dan Penguasaan Konsep IPA Kelas V. *Jurnal Agama dan Budaya*, 3(2), 37-42.

Rahayu, I. D., & Prayogo, M. S.

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Majid, A. (2017). *Pembelajaran Tematik Terpadu*. Bandung: PT Remaja Rosdakarya.

Mayer, R. E. (2014). *The Cambridge Handbook of Multimedia Learning*. Cambridge University Press. <https://doi.org/10.1017/CBO9781139547369>

Megawati, R. (2023). Application of the Guided Inquiry Learning Model to Improve Student Creativity and Activeness in the Teaching and Learning Process Biology Education Study Program. *Jurnal Penelitian Pendidikan IPA*, 9(5), 2412–2422. <https://doi.org/10.29303/jppipa.v9i5.3744>

Miles, M.B., Huberman, A.M. and Saldana, J. (2014) *Qualitative Data Analysis: A Methods Sourcebook*. Sage, London.

Mukni'ah. (2016). *Penerapan Pembelajaran sesuai kurikulum tingkat satuan pendidikan (KTSP) dan kurikulum (K13)*. Jember: Pustaka Pelajar.

Nurchalis, N. F. (2020). Demands of English teacher competencies: Input for curriculum development at the University. *EnJourMe (English Journal of Merdeka): Culture, Language, and Teaching of English*, 5(2). <https://doi.org/10.26905/enjourme.v5i2.4971>

Nursobah, A. (2019). *Perencanaan Pembelajaran MI/SD*. Pamekasan: Duta Media Publishing.

Oktapriyanti, N. (2017). The Application of Guided Inquiry Learning Models in Improving Student Learning Concept Understanding. *Journal of Educational Research and Practice*.

Oktianita, R. (2016). *Menggunakan Model Pembelajaran Inkuiri Terbimbing Dengan Metode Simulasi Untuk Menumbuhkan Sikap Berpikir Kritis Dan Hasil Belajar Siswa Dalam Pembelajaran IPS (Skripsi)*. Universitas Pasunda.

Oktianita, R. (2016). The Use of Guided Inquiry Learning Models with Simulation Methods to Foster Critical Thinking Attitudes and Student Learning Outcomes in Social Studies Learning. *Journal of Educational Research and Practice*.

Ramadhan, F. A., & Hidayah, N. (2022). Communication of Teachers and Parents of Students in Optimizing Learning during the Pandemic Era at MIN 6 Jembrana Bali. *Al-Aulad: Journal of Islamic Primary Education*, 5(2), 89–101. <https://doi.org/10.15575/al-aulad.v5i2.19357>

Ramadhan, F. A., & Usriyah, L. (2021). Strategi Guru Dalam Mengimplementasikan Pendidikan Multikultural Pada Sekolah Dasar Pada Masa Pandemi Covid-19. *AKSELERASI: Jurnal Pendidikan Guru MI*, 2(2), 59–68. <https://doi.org/10.35719/akselerasi.v2i2.114>

Sugiyono. (2019). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: Alfabeta.

Sung, Y. T., Chang, K. E., & Liu, T. C. (2016). The effects of integrating mobile devices with teaching and learning on students' learning performance: A meta-analysis and research synthesis. *Computers & Education*, 94, 252-275. <https://doi.org/10.1016/j.compedu.2015.11.008>

Uspayanti, R. (2021). Challenges and Teaching Strategies of English Teachers in Industrial Revolution 4.0 Era. *Eduvelop: Journal of English Education and Development*, 4(2), 88-98. <https://doi.org/10.31605/eduvelop.v4i2.894>

Yanti, Y. (2018). Pengaruh Penerapan Model Pembelajaran Inkuiri Terbimbing Terhadap Hasil Belajar Tematik Terpadu Kelas V SD Negeri I Muliosari Lampung (Skripsi). Universitas Lampung.

Yulianti, N. (2016). Pengaruh Model Inkuiri Terbimbing Berbasis Lingkungan Terhadap Kemampuan Pemahaman Konsep Dan Karakter. *Jurnal Cakrawala Pendas*. 2(2). <https://dx.doi.org/10.31949/jcp.v2i2.329>