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Methods in Learning: An Introduction and Conceptual Review

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ABSTRACT

Effective learning in elementary education is key to creating a generation capable of competing in the global era. Various methods, including student-centered learning, the use of technology in learning, project-based learning, and differentiated learning approaches, have been shown to increase student engagement, critical thinking skills, and problem-solving. Therefore, this study aims to analyze various effective learning methods through a conceptual literature review. Using a literature review or library research approach, this study collects and analyzes various relevant sources to understand the concepts and applications of learning methods. This research finding demonstrates that effective learning methods are crucial for improving the quality of learning and achieving educational goals. This research identifies various learning methods in education: lecture method, discussion method, demonstration method, experimental method, field trip method, practice method, simulation method, debate method, mind mapping method, discovery method, and problem-solving method. This research demonstrates that each learning method has advantages and disadvantages, and therefore, it is important to select and use them appropriately according to the context and learning objectives. Many aspects related to learning methods still require further research, such as the development of more effective and contextual learning methods. However, challenges such as unequal access to technology and teacher readiness need to be addressed to ensure that every student has optimal learning opportunities. The results of this study are expected to contribute to the development of more effective and innovative learning practices.

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1. INTRODUCTION

Education is a crucial element in human resource development. Through education, humans can learn things they previously didn't know (Kusuma et al., 2024; Handayani et al., 2025). Education is a right of all humankind. The right to education must be accompanied by opportunities, abilities, and the willingness of each individual. Thus, it is clear how crucial education is in improving the quality of human resources, ensuring they are on par with others regionally, nationally, and internationally (Van, 2023; Baek

et al., 2024). The quality of human resources is characterized, among other things, by the creativity and productivity derived from the learning they receive (Mulang, 2021; Sinambela et al., 2022; Abbas et al., 2024).

Education is widely believed to be a highly effective foundation for shaping human personality, thus necessitating continuous improvement in the quality of education to produce a more qualified young generation who can be useful to the nation and state (Faratunnisa & Afifah, 2024; Fitra et al., 2024). Therefore, educators are required to further develop their intelligence and skills and to create a classroom atmosphere that engages students and encourages active participation in learning (Bundick et al., 2014; Franklin & Harrington, 2019; Abidin & Muhammad, 2024).

Efforts to improve the quality of education include the ability of educators to innovate, demonstrate creativity, and develop themselves for the better (Seechaliao, 2017; Serdyukov, 2017). Educators must recognize that their task is not merely to teach or transfer knowledge to students; their primary responsibility is to instill positive character values in them (Hajian, 2019; Birhan et al., 2021). Educators must also be able to manage the classroom environment to create a pleasant learning environment (Rafiq et al., 2022; Rusticus et al., 2023). To produce a quality learning process, educators need efficient teaching methods that can positively impact student learning outcomes. Therefore, educators must be able to apply learning methods that are appropriate to the characteristics of their students (Voogt & McKenney, 2017; Uerz et al., 2018; Mustafa, 2022).

In every learning process, educators must be able to choose the right approach and method that aligns with the material and learning objectives (Wijngaards-de Meij & Merx, 2018). This ensures that not only does the educator appear more active, but the students themselves are also highly engaged in the learning process. The most important skill an educator must possess is the ability to use appropriate teaching methods (Yusof et al., 2015; Spiteri & Chang Rundgren, 2020; González-Pérez & Ramírez-Montoya, 2022). This means that when using teaching methods, teachers must adapt them to the teaching material so that the methods used are effective and the stated learning objectives are achieved optimally. The objectives of this paper are as follows:

1. To explain the meaning of learning methods.
2. To understand what is included in learning methods.
3. To understand the function and purpose of learning methods.
4. To facilitate understanding of the scope of learning methods.

2. METHOD

This article uses a qualitative descriptive method with a library research approach, which involves collecting information and scientific papers related to the literature review. This research combines descriptive and qualitative research. It also presents data without manipulation or additional treatment. The primary sources for this research are previous scientific papers closely related to the literature review, such as research methods books, journal articles, internet articles, and other related writings. Qualitative

descriptive analysis entails analyzing, describing, and summarizing various conditions based on information collected from interviews or direct field observations related to the problem being studied. This research aims to provide readers with a more profound understanding of the comprehensive application of literature reviews. In the future, it is hoped that readers will gain stronger motivation and deeper insight to conduct research using various methods and concepts by properly applying literature reviews, which will enable them to produce quality written works. The following shows the library research or literature review process in Figure 1.

Figure 1. Library Research Approach

The steps in conducting a literature review include determining the topic and research question, conducting a comprehensive literature search in various scientific databases, selecting and evaluating relevant and credible sources, analyzing and synthesizing the findings, and arranging them in a structured manner with a logical flow and including appropriate references. Literature review data analysis is a systematic process of identifying, evaluating, and synthesizing information from various studies and publications relevant to a particular topic to gain a comprehensive understanding. This process involves stages such as data collection (literature search), qualitative and quantitative evaluation of data, and analysis and synthesis to determine patterns, similarities, differences, and knowledge gaps that can inform further research or provide solutions to problems.

3. RESULTS AND DISCUSSION

Learning Methods

The term "metha" comes from "metha," meaning "through" or "passing through," and "hodas," meaning "way" or "path." A teacher's systematic actions to teach a subject are called learning methods (Hussein et al., 2017). Using the right strategy helps learning reach its goals. Learning strategies involve methods (Rovers et al., 2018). A smooth and methodical learning process requires the right strategy. Educators must

grasp learning approaches to meet learning goals. The wrong approach guarantees failure. Teachers without methods will fail (Tawfik et al., 2015).

School learning goals include student learning outcomes. Thus, teachers must learn and practice numerous teaching strategies (Louws et al., 2017). Educators must use classroom learning strategies to improve student achievement. Methods are extrinsic motivational, educational, and goal-setting instruments. Teachers should attain learning objectives more effectively with the right teaching style. Teaching methods facilitate student-teacher learning (Villar-Aldonza, 2023). Teachers need techniques to help kids learn efficiently and meet goals. Teachers require ways to use them depending on what they want to achieve after teaching (Lopez-Agudo & Marcenaro-Gutierrez, 2017).

A method is a way to accomplish an objective. All attempts by educators to help children learn are called "learning." Therefore, learning strategies are how instructors offer lesson information to help students attain goals. Teachers build ties with pupils through learning approaches. Learning methods are unique ways of using core educational principles, approaches, and resources to help students learn (Sivarajah et al., 2019).

Learning is important for students; therefore, educational professionals are exploring ways to make it more effective and efficient (Damanik & Widodo, 2024). The viewpoints above suggest that techniques help pupils learn the teacher's topic. Better approaches or stages help educators achieve learning objectives. Teachers can employ many learning approaches. Each learning approach has pros and cons. The right learning method must be understood by educators.

Various Learning Methods

To achieve a learning objective, educators can use various methods (Kioupi & Voulvoulis, 2019). Many methods have their characteristics. The choice of method is tailored to the learning objective, teacher ability, student characteristics, the situation and conditions, available facilities, and the characteristics of the learning material to be presented by the educator. Educators must understand these factors to determine the appropriate method for a lesson. The following are teaching methods in the learning process.

Lecture Method

The lecture method involves teaching a group of pupils orally (Rahman, 2020). Lectures enhance learning through oral narrative. Lectures require the teacher's communication skills. The teacher's material must be clear so pupils can understand it. Lecture Method Benefits (Ajmal & Hafeez, 2020): Lectures are "cheap" and "easy" to implement. Lectures are cheaper than demonstrations because they don't require all the equipment. Easy lectures use only the teacher's voice and require little preparation. Lectures can cover much ground. The teacher can summarize or explain a lot of material in a short period. Lectures can emphasize essential points. This allows the teacher to prioritize crucial areas based on needs and goals. Lectures allow the teacher to control the classroom environment since the teacher is in charge (Liu et al., 2024). Class

organization can be simplified by lectures. No complicated classroom structure or planning is needed for lectures. If pupils can sit and listen, the teacher can lecture.

Lecture Method Flaws: A lecture can only teach students what the teacher knows (Chan et al., 2023). This flaw is the most prevalent since teachers present what they know, therefore pupils learn what they know. Verbalism can result from lectures without examples. Verbalism is a "disease" possibly caused by lectures. Therefore, teachers present simply using their ears. It's understood that each kid has varied learning capacities, including listening comprehension. Teachers with poor speaking skills find seminars uninteresting. Because the teacher's speaking manner is unengaging, kids often lose focus or fall asleep in class. Lectures make it hard to tell if pupils understand. Even if no one asks, pupils may not have asked.

Discussion Method

Problem-solving and debate are connected learning methods. Students work together to comprehend and solve problems in this manner (Mumtaz & Latif, 2017). Students learn to think critically, express viewpoints, and collaborate to solve problems, developing respect. The discussion method also involves the teacher presenting a problem or topic and students actively analyzing, exchanging ideas, and solving it scientifically (Kang & Keinonen, 2018). Students are taught to think critically and democratically, respect others' ideas, and collaborate on communication and problem-solving.

Discussion Method Benefits: Teaching students that problems may be solved in many ways (Gillies, 2011). Shows kids that voicing their thoughts can help them make better judgments. Teaches kids to listen to others' perspectives and be tolerant. Additionally, Discussion Method Drawbacks: Unsuitable for large groups. Discussion participants learn little. Can be ruled by talkers. Many prefer a formal approach.

Demonstration Method

Demonstrations employ items or open materials to teach and learn. Practical practice with these educational resources helps illuminate what is being learned. This strategy engages kids, focuses on the content, and is fun. The demonstration method involves the teacher showing students a process, scenario, or object in real life or in imitation and explaining it (Zulkifli et al., 2022). Students should observe, understand, and compare the subject matter to eliminate confusion and improve engagement and learning.

Demonstration Method Benefits: Clarifies a procedure or object for students. Facilitates diverse explanations. Presenting real objects can address teaching errors (Riswari et al., 2018). Additionally. Demonstration Method Drawbacks: Students may have trouble perceiving the things. Not all objects are demonstrable. Unfamiliar teachers make it hard to understand.

Experimental Method

Experimental learning allows pupils to conduct experiments (Pudlo & Gavurová, 2013). This experiment can be done alone or in groups. It also takes multiple repetitions

with dedicated equipment and space. The process involves conducting a lab experiment. This method requires students to prepare materials and equipment, conduct the experiment, observe, and record the results (Kalangi & Zakwandi, 2023). The teacher receives the final results, usually with individual or group presentations.

Students or subjects actively conduct experiments, examine the process and results, and draw conclusions based on their experiences in the experimental method (Winarsih & Wahyuningsih, 2024). This method allows students to directly experience and solve problems under controlled conditions to prove hypotheses, investigate cause-and-effect linkages, and develop scientific thinking.

The experimental method can give pupils more confidence in their experiments' results than in the teacher's or textbook's. Students can acquire a science and technology exploration mindset. This strategy develops people who can make breakthroughs through studies that benefit humans. Additionally, Experimental Method Drawbacks:This activity is limited to certain disciplines of study and times. Insufficient equipment prevents students from doing experiments. Experimental procedures cannot practice all materials.

Field Trip Method

Field trip instruction is preplanned by the educator. Students must create reports, discuss them with peers and the educator, and record them (Oluwayimika & Adeoye, 2023). Field trips are an active learning strategy that allows students to physically observe objects or locations outside the classroom to get actual learning experiences and widen their perspectives. The processes include arranging the visit, observing and obtaining information, and finishing with report writing, assessment, and follow-up (Larsen et al., 2017; Lavie Alon & Tal, 2017).

Benefits of Field Trips: Field trips use modern, real-world teaching methods. Adjusts school curriculum to meet societal requirements. Teaching boosts kids' inventiveness. Additionally, Field Trip Method Drawbacks: Needs multi-party preparation. Careful planning is needed. Field trips generally prioritize enjoyment over instruction. Needs closer field supervision of pupils' every move. The price is exorbitant. Requires instructors and schools to ensure student safety and field trip success, especially for long-distance travel.

Practice Method

The practice method is sometimes called training. This method teaches pupils soft skills by making, designing, or using something. Experimental activities, demonstrations, simulations, and fieldwork are used in the practical method to give students hands-on experience and apply theory in the real world so they can practice what they've learned (Larsen et al., 2019).

Practical Method traits include: Active learning: Students participate in learning (Akram et al., 2022). Direct Experience: Allows pupils to touch, feel, and utilize materials or tools. Skill Development: Enhances students' abilities and persistence. Concrete Application: Students learn how theory works by applying it to real-life

circumstances. Practical Method benefits include: Direct involvement helps students understand and recall material. Improves practical skills for job and life. Motivates and engages students in learning.

Simulation Method

Simulation is employed in all educational systems, notably behavioral-focused instructional design (Chandanani et al., 2025). Skills training requires real-life practices in specific vocations or simulated circumstances with real-life qualities. Simulation training simulates daily work. Simulating an event or system similar to a real-life situation allows students or participants to understand concepts, practice skills, and solve problems in a secure environment (Fegran et al., 2023). Participants role-play real-life experiences to gain understanding and application skills.

Method purposes of simulation include: Understanding: Helping students understand an idea, principle, or procedure that theory or lectures cannot teach (Alamrani et al., 2018). Skills practice: Practicing professional or life skills, especially practical ones. Teaching kids to tackle real-world issues. Motivating students: Fun and interactive learning experiences drive students to learn. Enhancing collaboration: Teaching pupils to work together to attain goals. Developing kids' innovative thinking and behavior in simulations. Its uses include: Teaching: Funeral management simulations show the procedure. Training: A dress rehearsal simulates the flag ceremony process so attendees understand each step. Planning: An instructional simulation that mimics a real-life system to change decisions.

Debate Method

Students participate in individual or group arguments in this manner. The argument is formal and rules-based, addressing a problem and its solution. Debate is a systematic strategy to examine contentious issues, foster critical thinking, and improve communication (Rodger & Stewart-Lord, 2020). This strategy involves pro and con teams (affirmative and negative) alternating arguments before a moderator and a neutral team (if available). The purpose is to convey factual, logical, and evidence-based viewpoints while promoting mental courage, self-confidence, and a democratic attitude in expressing and appreciating differences of opinion (Toor et al., 2017).

Debate is a systematic way to examine contentious ideas, promote critical thinking, and improve communication (Jagger, 2013). This strategy involves pro and con teams (affirmative and negative) alternating arguments before a moderator and a neutral team (if available). Presenting factual, logical, and evidence-based viewpoints while cultivating mental courage, self-confidence, and a democratic mindset in expressing and tolerating differing opinions is the goal.

Steps to implement a debate: Choose a controversial issue for debate. Pro and con teams are formed. Data investigation and logical conclusions inform each team's argument. Team representatives alternate arguing. Teams use statistics and logic to counter the other team's claims. Conclusion: After the argument, the author or moderator can summarize its main points. Debate method benefits include: Improving Critical

Thinking: Students study data and build logical arguments. Communication Skills: Teaches pupils to speak eloquently, convincingly, and confidently. Student self-confidence grows as they share their opinions in public. Encourages Democratic Attitudes: Students learn to accept others' perspectives and participate in society. Expands Insights: Shows pupils multiple perspectives on a challenging issue.

Mind Mapping Method

A systematic approach to an issue is used here. The problem's causes and solutions are also covered. Mind mapping helps pupils think critically and understand the topic from start to finish (Batdi, 2015). Mind mapping uses diagrams that start with a central concept and branch out into related branches, often using color, symbols, and images to maximize understanding and memorability (Shi et al., 2023).

Mind mapping fundamentals include: Center: Place a keyword or primary idea in the middle of the page. Branches: Related thoughts grow from the center. Visualization: Color, visuals, and symbols enhance knowledge retention. Mind mapping allows nonlinear and associative thinking, unlike typical note-taking. Benefits of mind mapping include: Better Comprehension: Breaks down difficult knowledge into simpler chunks. Visuals are memorable; therefore, they help you remember. Enhances creativity and innovation. Saving Time: Summarizes key facts quickly. Integrates Left and Right Brain Functions:Combines logic and imagination.

Discovery Method

By encouraging active, independent learning, the discovery method improves student comprehension. Students improve retention by asking their own questions. Students actively discover new knowledge and concepts through observation, investigation, and autonomous problem-solving with the teacher as a facilitator in the discovery learning method (Ozdem-Yilmaz & Bilican, 2025). Self-discovery over passive learning makes knowledge more relevant and memorable for students.

These steps are typical for discovery learning: Stimulation: The teacher sparks pupils' curiosity with a question or preliminary material. Problem statement: Students must identify a stimulus-related issue. Data collection: Students acquire necessary data to answer the problem. Data processing: Students analyze and study collected data. Data verification: Students verify processed data for accuracy. Generalization: Students develop conclusions or generalize after verification. Discovery learning's major focus: Student-centered: Students discover and learn actively (Hidayati et al., 2019). Students explore new facts and concepts freely, not merely accepting them. Scientific thinking: This method teaches students scientific thinking foundations. Teacher as facilitator: The teacher guides and facilitates learning rather than simply providing information.

Problem Solving Method

This problem-solving method resembles group discussion. Students discuss their study findings in groups. The strategy promotes critical thinking to address difficulties (Latif & Safitri, 2020). Problems are identified, analysed, and solved efficiently using

the problem-solving method. This process includes recognizing the problem, obtaining necessary information, finding and developing innovative solutions, implementing the chosen solution, and reviewing the results to ensure resolution (Wiana & Nuraeni, 2024).

These are Problem-Solving Method characteristics: Educational Activities: Students actively think critically, look for and interpret data, and draw conclusions. Organized: This strategy uses systematic phases to simplify complicated problems. The main purpose is to discover the best solution to current problems.

Problem-Solving Method steps: Problem Identification: Define the problem, including its causes and effects. Information gathering: Gather relevant data and information from diverse sources to comprehend the situation. Solution Development: Brainstorm to produce innovative solutions and assess options. Solution Implementation: Create an action plan and coordinate all parties to choose and implement the best solution. Review the solution's findings to see if it solved the problem and learn from it. Problem-Solving Method Benefits: Improves Critical Thinking: This strategy supports logical and analytical problem-solving. Encourages Creativity: Brainstorming and building solutions generates new ideas and innovations. Using an organized approach makes problem-solving more efficient and productive.

Function of Learning Methods

The function of learning methods is to achieve teaching objectives in an effective and efficient manner (Siagian et al., 2020), help students develop individual abilities and critical thinking, facilitate the delivery and understanding of material, create an active and interesting learning atmosphere, and serve as a guide for teachers in the teaching and learning process (Blyznyuk & Kachak, 2024). It's important to understand that learning methods have several specific functions. Some of the functions of methods in learning include:

1. Extrinsic Motivation Tool

   A learning method acts as an extrinsic motivation tool, or external motivation, for students. This allows students to effectively participate in teaching and learning activities. This motivation will encourage them to be more enthusiastic about participating in teaching and learning activities.

2. Learning Strategy

   The implementation of learning methods by teachers ensures that every student in the class can effectively absorb knowledge. Therefore, each teacher needs to know the most appropriate learning method to be applied in that class based on the students' characteristics.

3. Achieving Objectives

   Learning methods are a tool for students to achieve learning objectives. Delivering material without considering learning methods can diminish the value of the learning process. Furthermore, teachers may find it difficult to deliver the material, and students may become less motivated to learn.

Objectives of Learning Methods

The primary goal of learning methods is to help develop students' individual abilities so they can solve problems (Ponomariovienė & Jakavonytė-Staškuvienė, 2024). Additionally, the purpose of using learning methods is to make it easier for students to understand the material and achieve teaching objectives effectively, encourage individual student self-development, improve the quality of the teaching and learning process by creating a pleasant and motivating atmosphere, and help students develop critical and social thinking skills such as problem-solving and collaboration (Madani, 2019). More specifically, here are some of the objectives of learning methods:

a. Helping students develop their individual abilities so they can solve problems using innovative, alternative solutions.
b. Supporting teaching and learning activities so that they can be implemented using the best methods.
c. Facilitating the discovery, testing, and compilation of necessary data to develop a discipline.
d. Facilitating the learning process with optimal results so that teaching objectives can be achieved.
e. Guiding learning toward the ideal direction quickly, accurately, and according to expectations.
f. The learning process can take place in a more enjoyable and motivating atmosphere so that students easily understand the material.

4. CONCLUSION

The learning process is the core of formal education in schools, where interactions occur between various learning components. Learning itself is defined as an effort to educate an individual or group of people through various efforts and strategies, methods, and approaches toward achieving predetermined goals. Essentially, learning is a planned activity that conditions/stimulates individuals to learn effectively and aligns with learning objectives. Within the learning process, teachers have several key roles: planning, implementing, evaluating, and providing feedback. The most important aspect of the learning process is the learning itself and how a teacher effectively delivers the content and ensures it is well-received by students. Therefore, we require appropriate learning strategies that encompass the teacher's role, methods, and approaches suitable for every learning situation.

This research demonstrates that effective learning methods are crucial for improving the quality of learning and achieving educational goals. This research identifies various learning methods in education, including project-based learning, cooperative learning, and technology-based learning. This research demonstrates that each learning method has advantages and disadvantages, and therefore, it is important to select and use them appropriately according to the context and learning objectives. Many aspects related to learning methods still require further research, such as the development of more effective and contextual learning methods.

As a recommendation, this research can serve as a reference for educators in implementing effective learning methods to improve the quality of learning. This research can help improve the quality of education by emphasizing the importance of effective learning methods. Further research can be conducted to develop more effective and contextual learning methods to improve the quality of learning. Furthermore, further research can be conducted to develop more effective measurement tools for measuring the effectiveness of learning methods.

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