

Learning Models: A Literature Review

Hasyim Mahmud Wantu¹, Novianty Djafri², Nina Lamatenggo³, Masri Kudrat Umar⁴

¹Doctoral Student at State University of Gorontalo and Lecturer at the Faculty of Tarbiyah and Teacher Training, State Islamic University of Sultan Amai Gorontalo, Indonesia

^{2,3,4}Lecturer at State University of Gorontalo, Indonesia



ABSTRACT: In education, learning models are a topic that should be investigated because it is both relevant and intriguing. This research aims to conduct a literature review on learning models that have been created and implemented in various educational settings. A literature review is a process that is used, comprised of collecting related articles from the available database. According to the findings of this research project, numerous learning models have been established over time. Some examples of these models include social interaction models, information processing models, personal models, behavior modification models, problem-based models, and component display theory models. The findings of this research point to the conclusion that these learning models are adaptable and may be utilized in various educational settings. This adaptability is contingent on the learning goals as well as the characteristics of the learners. The contribution of this research is to offer guidance to educators and researchers about selecting the appropriate learning model which should be implemented in various learning environments.

KEYWORDS: social interaction model, information procession model, personal model, behavioral modification model, problem-based learning, component display theory learning model

I. INTRODUCTION

Throughout human existence, education is one of the most essential components. Education allows one to acquire the knowledge, skills, and attitudes necessary to navigate the many obstacles one will encounter in life successfully. A variety of strategies and procedures can be implemented during the learning process to assist students in accomplishing their educational objectives (Kolb, 2014; Rahmat, 2014).

The learning model is one approach that is becoming increasingly commonplace in the field of education today. A learning model is an approach or method in the learning process used to help students acquire information and skills through interaction between students and teachers, or between students and the environment they are studying. Learning models can also help students acquire knowledge and skills through interaction between students and the surrounding environment (Bransford et al., 2000; Darling-Hammond et al., 2019; Marzano et al., 2001).

Learning models such as social interaction, information processing, personal, behavior modification, problem-based, and component display theory models are some of the more frequent models used for education. However, each learning model has its benefits and drawbacks that must be weighed against one another before it can be utilized effectively in a particular educational setting (Hmelo-Silver, 2004).

A theoretical examination of learning models will be covered in this article to supply a comprehensive and in-depth foundation on the ideas, principles, and uses of learning models in learning. As a result, it is intended that readers will have a better understanding of the learning model and how implementing its principles might assist in enhancing the quality of learning.

II. RESEARCH METHODS

The strategy of studying existing literature is being utilized in this investigation. This approach entails conducting research and performing analysis of written texts that are associated with various learning models. Books, journals, essays, and reports from prior studies are some types of documents analyzed. In the process of analyzing the existing body of literature, we take into account a variety of perspectives and arrive at all-encompassing findings regarding various learning models. One of the research methods that is frequently utilized in scientific research, including research on learning models, is the method known as the literature study method. This approach entails conducting research and performing analysis on written materials, such as books, journals, papers, and previous research reports connected to the subject of the study (Booth, 2016; Galvan, 2017; Hart, 2018).

Researchers seek and select papers that are relevant to the research topic as part of the procedure known as the literature study. After that, the researchers study and assess the documents by considering various points of view, such as the theoretical

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elements, techniques, findings, and implications of the learning models that were researched. In order to carry out the process of literary analysis, analysts use analytical techniques such as Content Analysis or Thematic Analysis. It requires the researchers to discover the primary themes and underlying subthemes that emerge from the texts chosen for study. After that, the researcher will put these themes into order and come to various findings on the examined learning models (Krippendorff, 2013; Neuendorf, 2016; Braun, 2006; Guest, 2012).

Studying published works offers several benefits, including: 1) Saving time and money. This method saves both time and money because the required documents already exist. Thus, there is no need to generate any new instruments. Additionally, this method does not involve the creation of any new instruments. 2) Acquire a more all-encompassing comprehension. Using this methodology, researchers can gain access to a wide range of literature sources connected to the learning models investigated to acquire a more all-encompassing comprehension of the research issue. 3) Obtaining thorough Information. The documents employed in the literature review approach typically provide thorough and organized information regarding learning models, making it more straightforward for researchers to conduct analysis (Hart, 2018; Green et al., 2006; Grant & Booth, 2009). However, the literature review approach has some drawbacks, the most significant of which are the potential for bias in the selection of documents and the lack of precision in the information gained if the papers used are not authentic and accurate. Because of this, those conducting research ought to pay careful attention to the integrity and validity of the materials included in the literature review.

III. RESULTS AND DISCUSSION

A. Social Interaction Model

The Gestalt learning theory, often known as field theory, is the foundation for this paradigm. The social interaction model emphasizes the harmonious relationship that should exist between individuals and society (the process of learning to coexist). The primary tenet of the Gestalt perspective is that a specific thing or event will be regarded as an integrated whole when analyzing it, and it is not an object's or event's components but rather the totality that conveys its meaning. Learning will be more meaningful if the content is presented in its entirety, rather than in sections.

This model of social interaction incorporates the following learning strategies: a) group work, which is aimed at developing skills to participate in the community process by developing interpersonal relationships and discovery skills in the academic field; b) class meetings, which are aimed at developing an understanding of oneself as well as a sense of responsibility in the individual. Both toward oneself and toward the group; c) social problem-solving or social inquiry, which aims to develop the ability to solve social problems by thinking logically; d) role-playing, which aims to provide learners with opportunities to discover social and personal values through mock situations; e) social simulation, which aims to help students experience various social realities as well as test their reactions; and f) social simulation, which aims to provide learners with opportunities to discover social and personal values through role-playing. The categories that make up the clusters of the social interaction model are as follows: group determination models, social inquiry, laboratory methods, jurisprudence, role acting, and social simulation.

Information Processing Model

The cognitive learning theory developed by Piaget serves as the foundation for this model, which focuses on the student's capacity to process information that can help him improve his skills. According to Robert M. Gagne, the eight stages of the learning process are as follows: a) motivation, the initial phase of starting learning with the encouragement to take action in achieving specific goals (intrinsic and extrinsic motivation); b) understanding, the individual receives and understands the information obtained from learning; c) retention, the individual retains the information learned; d) consolidation, the individual consolidates the information learned; and e) application, the individual applies the information learned. Attention is the key to gaining understanding; c) acquisition, in which an individual gives meaning to and perceives all information that reaches him in order for it to become a process of storage in the memory of pupils; d). detention, which involves withholding information or learning results to ensure they can be used for the long-term recall process; e). Recall, reissuing information stored when there is a stimulus; f). Generalization, using learning outcomes for specific purposes; g). Treatment, treatment of changes in individual behavior as a result of learning; h). Feedback, individuals get feedback from the behavior they have done; i). Generalization, using learning outcomes for specific purposes; j). Feedback, individuals get feedback from the behavior they have done.

There are several different families of information processing models, including the inductive thinking model, the inquiry exercise model, the scientific inquiry model, the idea discovery model, the cognitive growth model, the advanced piata model, and the memory model.

B. Personal Models

This concept breaks from humanistic thought, which emphasizes the individual's growth and development. For the student to cultivate a fruitful relationship with his or her surroundings, the first concern is emotional. Students who can build harmonious relationships with one another and adequately assimilate knowledge are the students who benefit from this strategy.

This model of personalized education incorporates the following learning strategies: a). Non-directive learning focuses on shaping abilities and personal development (self-awareness, understanding, and self-concept); b). Mindfulness training aims to improve

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students' interpersonal or caring skills; c). Synthetic, which encourages the development of personal creativity and the creative solution of problems; d). Conceptual systems aim to increase the fundamental complexity of flexible people.

C. Behavioral Modification Model

This model departs from behaviorist learning theory, which seeks to establish an effective system for sequencing learning tasks and modifying behavior by adjusting reinforcement. The goal of this model is to achieve this. This approach places a greater emphasis on characteristics of psychological behavior change and conduct that is not observable. The elaboration of the activities that students are expected to learn in a manner that is both more effective and sequentially is a feature of this paradigm. The model for behavior modification is comprised of four stages, which are as follows: a). The machine learning phase (both CAI and CBI); b). The use of media; c). Programmatic teaching; and d). Operant conditioning and operant reinforcement.

Modifying the behavior of children with low learning ability by providing rewards, as supporting reinforcement and applying individual learning principles to classical learning are the goals of implementing this behavior modification model for children. Other goals include increasing the accuracy of children's pronunciation, ensuring that teachers are always attentive to the learning behavior of their students, and modifying the behavior of children with low learning ability. The following models comprise the family of behavioral models used for behavior modification: the contingency management model, the self-control model, the relaxation model (relaxing), the tension reduction model, the direct exercise model, and the assertive desensitization exercise model.

The behavioral approach considers the mind to be a "black box" that operates in reaction to quantitatively observable stimuli. It pays no attention at all to the mental processes that are taking place in the brain. According to this school of thought, learning may be deduced from observable and quantitative changes in behavior. The following is an example of how this approach can be put into practice while building a learning medium: a) Students should be explicitly informed of learning outcomes so that they can establish their expectations and assess whether or not they have achieved the outcome of online learning; b) Students should be able to demonstrate that they have achieved the outcome of online learning. It is essential to determine whether or not the learner has attained the learning outcomes through testing. It is necessary to provide tests to determine the degree of achievement of the learners and give them relevant feedback; c). The proper ordering of the learning elements is essential for optimal material retention. Sequences can progress from simple to complex forms, from known to uncharted territory, and from theoretical understanding to practical implementation; d). Learners should be given feedback to adjust their behavior appropriately if necessary.

D. Problem-Based Learning

Learning experts recommend implementing constructive learning paradigms into both teaching and learning activities to enhance the overall quality of education received by students. Because of this shift in the learning paradigm has shifted from concentrating on the teacher to being centered on the learner. They are learning by providing a more harmonic subtlety between teachers and students by offering the broadest possible possibility for students to play an active part and develop their learning concepts. They are learning by providing a more harmonious nuance between teachers and students. The goal of teaching in a method oriented on the student is to provide them with a high level of motivation, the ability to study independently, and the responsibility of continually expanding their knowledge, abilities, and attitudes. Problem-based learning is one example of student-centered learning that occurs in some classrooms.

One approach to education, problem-based learning, begins acquiring and assimilating new information by having students face a series of challenges. Students will acquire the necessary knowledge and abilities to solve these issues as part of the educational experience. According to Setyosari (2006), problem-based learning is a method or way of learning distinguished by the presence of genuine problems, a real-world problem as a backdrop for students to acquire knowledge and learn how to think critically and solve problems. According to Gardner (2007), problem-based learning is an intriguing alternative learning model that can be implemented in conventional classroom settings. Instead of giving students homework or delivering lectures, instructors in a problem-based learning environment first present students with a challenge to solve.

E. Component Display Theory

Teachers need to be skilled in organizing learning in a clear and precise way to facilitate the learning process. It may be accomplished by applying various learning theories and designs that inspire students to study and keep them motivated. Instructional design is another name for learning design, spelled out as instructional design. It improves teaching practices by analyzing students' educational requirements and systematically creating new educational resources. Learning design is the process of developing content and media for use in communication technologies in such a way as to facilitate the efficient transfer of knowledge from instructors to students. This method involves identifying the beginning status of student knowledge, defining learning objectives, and devising "treatments" based on various forms of media to assist in the transition from one state to another. This process can only occur in students, under the direction of teachers, or in community-based settings, and, ideally, it is based on information gleaned from learning theories that have been subjected to rigorous pedagogical scrutiny. (Amin, 2016)

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According to Uno (2010), planning is selecting and linking knowledge, facts, imaginations, and assumptions about the future to picture and articulate desired outcomes, required sequences of actions, and behaviors within accepted limitations to be used to accomplish a task. The second definition of planning states that it is the relationship between what is now (what is) and how it should be (what should be) concerning requirements, the establishment of goals, the order of priorities, programs, and the distribution of resources. (Steller, 1983).

Based on the two perspectives presented above, one can conclude that planning is a method for ensuring that a task is carried out consistently to accomplish one's objectives. According to Amin (2016), the primary elements of effective learning design are as follows: (a) Learners (the parties who are the focus) that need to be known include, their qualities, initial skills, and pre-requisites; (b) Content that is relevant to the learner's context; and (c) Assessment of the learner's progress. (b) Learning Objectives (both general and specialized) are the elaboration of competencies that learners will master. Learning Objectives are broken down into two categories: (c) Learning Analysis is the process of analyzing the topic or material that is going to be studied, (d) Learning Strategy can be done macro within one year or micro in one teaching and learning activity, (e) Teaching Materials is the format of the material that is going to be given to learners, and (f) Learning Assessment is about measuring abilities or competencies that have been mastered or not, and (g) Teaching Materials is the format of the material that is going to be given to learners.

It is possible to conclude that learning is a process that involves interaction between educators and learners, often frequently referred to as students, in addition to the interaction that they will see with learning resources. This conclusion may be drawn based on some of the opinions shown above. In this study, the learning paradigm known as Component Display Theory (CDT) will be investigated. According to Merrill (2018), the CDT model's learning design theory incorporates information about learning and learning from the perspective of three primary theories: behavioral, cognitive, and humanistic. These theories are listed in the order in which they were developed. According to Oka (2017), CDT is a learning or instructional design theory incorporating certain instructional information from a behavioral and cognitive standpoint.

According to Badiran (2004), CDT is a collection of viewpoint relationships involved in learning activities to obtain relationships to increase goal achievement. Participation in learning activities obtains these relationships. According to Cahyanto et al.'s research from 2020, one method that mixes behavioral and cognitive learning theories is called Component Display Theory, or CDT for short. According to Merrill (2018), CDT demonstrates the existence of a multi-perspective approach to building perspective theory, which is required in evaluating knowledge concerning learning. The prescription, or micro aspect, provided by CDT is quite exhaustive, one of the theory's many benefits. According to Reigeluth et al. (1974), the prescription of the CDT is more comprehensive compared to other theories, particularly in contrast to the theory of Gagne, which does not provide complete instructions for applying its principles. Another advantage of CDT is that it is more trustworthy for producing effective educational materials (Oka, 2017).

Merrill's CDT is a learning theory based on behavioristic, humanistic, and cognitive theories. CDT was named after Merrill, who invented the theory. The behaviorist theory emphasizes learning from one's surroundings through habituation. (Snelbecker. 1984). In Oka's (2017) CDT, there are three components, one of which is a taxonomy that relates performance and content. Another component is a display of the components. The taxonomy of the CDT is a taxonomy that can be effective in identifying learning objectives through the use of two dimensions. These dimensions are the ability dimension and the content dimension.

The ability dimension demonstrates in a straightforward manner what kind of performance will be accomplished by establishing learning goals. This aspect will immediately affect the verb defined in the learning objectives, which are 1) remember, 2) use, and 3) find. While the content dimension explains the features of the many types of subject matter that students are expected to master, the pedagogical dimension 1) Actualities, the actualities discussed here are real-life occurrences, and 2). The term "concept" refers to an understanding that can take the shape of definitions or an overall comprehension, and this latter type of concept is being discussed here. 3). procedure, sometimes known as a process, is a set of methodical processes utilized in carrying out actions. 4). In this context, the terms "principles" and "principles" refer to the primary activities that are carried out that are connected to the idea that is being conveyed.

CONCLUSIONS

This article explores a variety of learning models that can be implemented to improve the efficiency of the learning process. Many different learning models have been established over the years, and each model comes with its unique set of benefits and drawbacks. Models such as social interaction, information processing, personal models, behavior modification, problem-based, and component display theory models are all included in this category. As a result, educators need to select the model most appropriate for their requirements and desired levels of knowledge acquisition. Each of these learning models has the potential to encourage students to take a more active role in their education and deepen their comprehension level. The capacity of educators to put the model into practice efficiently is an essential component of utilizing learning models. The ability to effectively produce and present educational materials and to offer appropriate support and direction to pupils are both necessary skills for those who work in education. The ability to regularly test and analyze learning outcomes is another skill that educators need to possess to

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determine whether the learning models being implemented are successful. It can make it easier for individuals to alter their learning tactics and attain their learning goals more effectively. Educators need to continue their education and develop their skills to become more proficient in using a variety of educational approaches. It will allow for improved academic outcomes. They can assist students in realizing their full potential and achieving success in their future occupations if they continue to study and adapt throughout their careers.

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