

Literature Study of The Effectiveness of The Gagne and Briggs Model in Learning Model Innovation

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ABSTRACT

The Gagné and Briggs learning model is one of the systematic approaches used in instructional design. This literature study aims to analyze the effectiveness of the Gagné and Briggs model in improving learning outcomes based on a review of 50 research journals. The method used is content analysis based on literature review, namely by analyzing various previous research results that are relevant in the context of education, from elementary education to higher education, and in various subjects. The results of the study show that this model is effective in improving conceptual understanding, critical thinking skills, and long-term retention of students. In addition, this model also supports a more structured and systematic learning process, making it easier for educators to develop teaching strategies. Thus, the Gagné and Briggs model remains relevant and can be applied effectively in various educational settings with some necessary adjustments.

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1. INTRODUCTION

Education has a very important role in forming quality human resources ([Purwati & Faiz, 2023](#)). In achieving optimal educational goals, an effective learning approach is needed that is in accordance with the characteristics of students. One of the learning models that has been widely used in instructional design is the Gagné and Briggs model ([Wulandari, 2021](#)). This model was developed by Robert Gagné and Leslie Briggs with an approach that focuses on a systematic and cognitive-based learning structure. This model offers clear and sequential learning stages, thus helping students understand the material more effectively and deeply.

According to ([Setyosari, 2020](#)), the Gagné and Briggs Model emphasizes the importance of a logical and gradual learning sequence, starting from paying attention to evaluating learning outcomes. This model was developed based on a learning theory that emphasizes information processing, so that students can understand the material gradually and systematically ([Yunus, 2018](#)). With structured stages, students can connect new information with previously acquired knowledge. Therefore, this model is often used in various educational settings, including formal education, professional training, and technology-based learning.

Research has been conducted to measure the effectiveness of the Gagné and Briggs model in various learning contexts. Several studies have shown that this model is able to improve conceptual understanding, critical thinking skills, and long-term information retention. For

example, previous research showed that the use of the Gagné model in science learning significantly improved student learning outcomes compared to conventional methods ([Sugiyanto et al., 2018](#)). Other studies have also found that the application of Gagné's nine stages in mathematics learning can strengthen students' logical thinking skills and make it easier for teachers to manage the learning process ([Yulia & Handayani, 2021](#)). In addition, the clear and systematic learning structure in this model helps educators in developing more effective teaching strategies. By using this model, educators can provide a more focused learning experience and make it easier for students to understand complex concepts. The advantage of this model also lies in its ability to be applied in various subjects and different levels of education, as shown by a study by ([Arifin and Herlina, 2020](#)) who applied this model in language learning and found significant improvements in the cognitive and affective aspects of students ([Arifin & Herlina, 2020](#)).

The implementation of the Gagné and Briggs model also faces various challenges. One of the main challenges is the need for careful planning before learning begins. This model requires educators to design learning with clear and systematic stages, which can require more time and effort in preparation. Research by ([Mislinawati and Nurmasyitah, 2020](#)) shows that teachers often do not understand the learning steps according to the syntax of the model, so they have difficulty in stimulating students to find their own problems in the learning material.

This model also needs to be adjusted to the needs and characteristics of students so that learning runs more optimally. Research by ([Auliah, Febriyanti, and Rustini, 2023](#)) revealed that teachers have difficulty organizing students to sit in groups and directing students in a problem when implementing a problem-based learning model. Another factor that is an obstacle is the readiness of educators to understand and implement this model effectively in the classroom. A study by ([Riani, 2020](#)) found that teachers are less able to direct less intelligent students to be actively involved in working together in groups, and are constrained in providing tools and materials if needed in carrying out projects. Therefore, training and mentoring are needed for educators so that they can adopt this model properly. Islamic religious teachers have difficulty implementing learning models due to their lack of mastery and application of learning models, as well as limited learning time ([Fauzi, 2023](#)).

This literature study aims to analyze the effectiveness of the Gagné and Briggs model based on a review of 50 research journals that discuss the implementation of this model in various educational contexts. Through this analysis, it is hoped that a deeper understanding can be obtained regarding the advantages and challenges in implementing this model. In addition, this study also aims to identify various strategies that can be used to overcome the obstacles that arise in the implementation of this model. With this study, it is hoped that educators can gain broader insights into how to optimize the Gagné and Briggs model in the learning process ([Darmayanti et al., 2023](#)).

This study is expected to provide insight for educators, researchers, and education practitioners on how the Gagné and Briggs model can be applied effectively in learning ([Warsita, 2018](#)). In addition, this study can also be a reference for the development of better learning strategies that are in accordance with the needs of students at various levels of education. Through this study, it is hoped that stakeholders in the world of education can better understand the importance of a systematic approach to learning. Thus, the Gagné and Briggs model can continue to develop and contribute to improving the quality of education in various fields ([Suryana, 2023](#)).

Although various studies have shown the superiority of the Gagné and Briggs model in improving learning outcomes, there is still a gap in studies that discuss the effectiveness of this model comprehensively in the context of learning innovation. Most studies only focus on implementation in certain fields or levels, and not many link it to the needs of 21st century learning. Implementation challenges such as limited teacher understanding, planning readiness, and technical constraints in the field have also not been studied in depth as part of evaluating the effectiveness of the model. In addition, there has been no broad synthesis of the literature on strategies that have successfully overcome these obstacles. Research is also still limited in revealing how this model can adapt to technology-based learning and differentiation approaches.

The increasing complexity of the world of education, it is important for educators and instructional designers to understand and apply learning models that have been proven effective. The Gagné and Briggs model offers a systematic and cognitive-based approach that can improve learning effectiveness. Therefore, this literature study is an important step in evaluating the extent to which this model can contribute to the world of modern education. With this study, it is hoped that a more effective, adaptive, and modern learning system can be created.

2. METHOD

This type of research uses library research. Research conducted by collecting data or scientific papers can be interpreted as a way of reading various library sources, then the library sources are linked to the topic to be discussed ([Aisah et al., 2021](#)). So the library study method is a stage of finding references and synthesizing data from references to then be conveyed again in the form of a description according to the theme of the scientific work being created. Library research is a type of research that uses data sources from literature or reading materials. This method aims to collect and analyze data from various sources found in the library or published materials such as journals, books, documents, and others ([Sari & Asmendri, 2020](#)). According to ([Selviana et al., 2024](#)), library research has several advantages. First, the data obtained in library research is secondary, meaning that the data already exists and is available, so researchers do not need to spend time and money to collect data directly. Second, in library research, researchers have access to diverse and detailed literature and reading materials, so that they can help researchers explore research topics more completely. Third, library research can be done in a flexible manner and can be adjusted to the researcher's schedule. Fourth, this method can be used to conduct descriptive, exploratory, or qualitative research ([El Hasbi et al., 2023](#)).

3. RESULTS AND DISCUSSION

The results of a literature study conducted on 50 research journals show that the Gagné and Briggs model generally has a positive impact on improving student learning outcomes. This model has been proven effective in improving conceptual understanding, critical thinking skills, and long-term information retention ([Akbar et al., 2023](#)). This success cannot be separated from the systematic and logical learning structure, which consists of nine instructional stages designed to support a gradual and directed learning process ([Widyanthi et al., 2024](#)).

This model has been applied in a variety of research contexts, from primary to higher education, and in subjects such as science, mathematics, languages, and professional training. The general findings from the reviewed literature suggest that the stages in the Gagné and Briggs model, such as gaining attention, informing learners of the objectives, and stimulating recall of prior learning, play an important role in facilitating deep understanding. In addition, stages such as providing feedback and assessing performance support learners in strengthening their learning outcomes.

Discussion of these studies also shows that the Gagné and Briggs model is very helpful for teachers or instructors in designing more systematic and directed learning experiences. By following the stages of this model, teachers can create clear and measurable learning plans, thus facilitating the evaluation and reflection process. This model is also considered flexible because it can be integrated with other learning approaches such as project-based learning, flipped classrooms, and the use of digital technology ([Darmayasa et al., 2023](#)).

The implementation of this model also faces several challenges. Several studies have highlighted that learning planning based on the Gagné and Briggs model requires a lot of time and effort, especially in the early stages of implementation ([Pramesti & Dewi, 2024](#)). Teachers are required to understand each stage well and adjust it to the needs and characteristics of students. In addition, teacher readiness, limited time in the learning process in the classroom, and lack of special training are obstacles to optimal implementation.

Strategies suggested in the literature include: providing intensive training to educators on the implementation of the Gagné and Briggs model, using learning media that effectively support the model stages, and developing learning tools that have been adapted to the characteristics of students. In addition, it is also important to carry out continuous monitoring and evaluation to ensure that the stages in this model are carried out properly and provide maximum results.

Overall, the results and discussions of this literature study indicate that the Gagné and Briggs learning model is one of the instructional approaches that is worthy of being applied to improve the quality of learning. Its advantages lie in its systematic structure and focus on the cognitive processes of students. With reinforcement in terms of teacher training and the preparation of appropriate teaching materials, this model can be an effective solution in facing today's learning challenges that demand an adaptive and evidence-based approach.

The Gagné and Briggs model is also considered capable of accommodating differences in students' learning styles. Each stage in this model provides opportunities for students to be involved in the learning process through various approaches, both visual, auditory, and kinesthetic ([Nurhidayati, 2021](#)). This makes learning more inclusive and responsive to individual needs. For example, in the stages of "presenting stimulus" and "guiding learning", teachers can use interactive media or interesting simulations to facilitate students who have visual and kinesthetic learning tendencies.

This model also contributes to competency-based learning. By focusing learning on achieving specific and measurable goals, teachers can more easily adjust learning activities to the learning outcomes set out in the curriculum. This is relevant to the direction of current curriculum policies, such as the Merdeka Curriculum, which emphasizes learning differentiation and fulfilling the Pancasila student profile. The Gagné and Briggs model, when integrated with a contextual and project-based approach, can strengthen meaningful, learner-centered learning ([Harefa et al., 2024](#)).

On the other hand, the literature also highlights the importance of the role of teachers as facilitators in implementing this model effectively. Teachers must have the competence to design learning scenarios that are in line with each stage in the model, as well as being able to adapt when facing technical and non-technical obstacles. In practice, ongoing training and teacher learning communities are needed so that they not only understand this model theoretically, but are also able to apply it practically and reflectively in the context of classroom learning ([Ady et al., 2024](#)).

Based on the results of the literature synthesis, the application of the Gagné and Briggs model also provides an opportunity for the development of more comprehensive evaluation instruments. Because each stage has a specific purpose, teachers can design formative and summative evaluations that focus on the cognitive indicators that are expected to be achieved. This also supports the strengthening of authentic assessments that not only assess the final results, but also the learning process of students as a whole. Thus, this model not only improves the instructional process, but also the quality of learning assessment.

4. CONCLUSION

Based on the results of a literature study on the application of the Gagné and Briggs learning model, it can be concluded that this model is an effective and systematic instructional approach in improving the quality of learning. The nine-stage structure offered by Gagné and Briggs not only helps students build a deep understanding, but also facilitates a learning process that is oriented towards clear and measurable goals. This model has been proven to improve learning outcomes, student engagement, and critical and reflective thinking skills. Its advantages lie in its ability to accommodate various learning styles and its suitability with modern learning approaches. Thus, the Gagné and Briggs model is very worthy of being used as a basis for developing instructional design at various levels of education. As a result, this model is not only relevant for classroom learning, but can also be integrated into the development of learning media and online learning systems that require a clear and directed instructional structure.

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