Application of Direct Instructional Learning in High School Education

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A B S T R A C T

A direct teaching model is a teaching approach that can help students learn basic skills and acquire information that can be taught step by step. Direct instruction or direct teaching is based on behavioristic learning theory that focuses on the mastery of concepts and changes in behavior as a result of learning that can be observed. The approach used in this model is teacher-centered. The teacher presents material/transfers information directly and structured using a lecture, expository, question, and answer, presentation/demonstration model. This model is the leading choice applied to students due to its advantages, including the relatively large amount of material delivered, easy learning time to manage, and this model will be relatively easy to follow for procedural matters. In addition to some of its advantages, the direct teaching model also has drawbacks that, according to researchers, are vital to the learning process itself; namely, students tend to wait for raw answers from the material presented by the teacher.

1. Introduction

In general, the learning model commonly used by teachers today is the direct teaching model. Arends (2001) says that direct instruction or direct teaching can be interpreted as a learning model that aims to help students learn basic skills and acquire knowledge that can be taught gradually step by step. The learning approach used in the direct teaching model is the teacher-centered approach, where the teacher presents the material directly and structured by using the lecture, expository, question and answer model, presentation/demonstration conducted by the teacher[1].

This model is the leading choice applied to students due to its advantages, including the relatively large amount of material delivered, easy learning time to manage, and this model will be relatively easy to follow for procedural matters. In addition to some of its advantages, the direct teaching model also has drawbacks that, according to researchers, are vital to the learning process itself; namely, students tend to wait for raw answers from the material presented by the teacher. Students are not able to construct their answers. As a result, students become passive in the activities of the learning process.

Efforts to overcome these difficulties include the teacher being aware of the need to understand various approaches in learning. One of the teaching models that uses a student-centered approach is the discovery learning model. The discovery learning

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model is an inquiry-based learning technique and is considered a constructivist approach to education. This is supported by learning theorists and psychologists Jean Piaget, Jerome Bruner, and Seymour Papert. Although this form of instruction has a great popularity, there is some debate in the literature regarding its efficacy.

Arends (2001) argues that direct instruction is defined as a learning model that aims to help students learn basic skills and acquire knowledge that can be taught gradually step by step. Teachers in teaching often use the direct teaching model. With this learning model, students become more courageous, responsible, creative, and active and have significant responsibility for their lessons. With the steps in this learning, students have broad insight and can grow it, so it is expected to improve student achievement. In addition, the direct teaching model is specifically designed to develop student learning about declarative knowledge that is well structured and can be learned step by step[1].

Definition of Learning

According to Hilgard & Bower, learning is a process that allows the emergence or change of behavior through a reaction to the situation at hand. The characteristics of the change cannot be explained based on natural response tendencies, maturity, or rare circumstances. According to Sahabuddin, the definitions stated above were given by experts with different founders, with different starting points. However, if studied, it can also be concluded that learning brings changes in terms of changes in behavior, both actual and potential. This change occurs because of experience, both intentionally and unintentionally.

According to Hamalik (2003:27), learning is the modification or strengthening of behavior through experiencing). According to this understanding, learning is a process, an activity, or a result or goal.

Learning is not just remembering, but broader than that, namely experiencing. Learning is a process of the effort carried out by a person to obtain a new change in behavior as a whole due to his own experience in interaction with his environment[2].

Based on some of the understandings of learning above, in general, learning can be interpreted as a process of behavior change due to the interaction of individuals with the environment to be better than before. Changes that occur can be in the form of changes in habits, skills, knowledge, attitudes (affective), and basic skills (psychomotor).

Learning Principles

According to Komalasari (2010: 3), the principles considered in learning include readiness, association, practice, and effects. The level of success in learning depends on the learner's readiness, whether he can concentrate his mind or whether his physical condition is ready to learn. The principle of association is defined as the level of learning success depending on the ability of students to associate or connect what is being studied with what is already in his memory through the knowledge he already has, experience, upcoming assignments, problems he has faced[3].

Learning something that needs to be repeated or repeated, both to learn knowledge and skills, even in the affective area. The more often it is repeated, the better the learning outcomes. The emotional situation at the time of learning will affect the learning outcomes. The emotional situation can be summed up as a feeling of pleasure or displeasure during learning.

According to Bruner, the learning process can be divided into three phases, namely information, transformation, and evaluation. In each lesson, we get a certain amount of information, some that add to the knowledge we already have, some refine and

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deepen it, there is also information that contradicts what we already know. In the transformation phase, the information must be analyzed, changed, or transformed into a more abstract or conceptual form to be used for broader things. In this case, the teacher's support is very much needed. Then the teacher can assess the extent to which the knowledge gained and the transformation can be used to understand other phenomena.

Learning outcomes

Rusman (2014) defines learning outcomes as several student experiences or results, including the cognitive, affective, and psychomotor domains. Learning outcomes are specific competencies or abilities, cognitive, affective, and psychomotor, that are achieved or mastered by students after participating in the teaching and learning process. Furthermore, Arsyad (2014) argues that learning outcomes are students' abilities after receiving their learning experiences[4,5].

Learning outcomes are specific competencies or abilities, cognitive, affective, and psychomotor, that are achieved or mastered by students after participating in the teaching and learning process. Hamalik (Kunandar, 2013) explains that learning outcomes are patterns of students' actions, values, understandings, attitudes, and abilities. Furthermore[6], Sudjana (Arsyad, 2014) argues that learning outcomes are students' abilities after receiving their learning experience[5].

According to Hamalik (2003), learning outcomes in the classroom must be implemented into situations outside of school. In other words, students can transfer the learning outcomes into real situations in society. Memory, attitude, judgment, and imagination can be strengthened through academic exercises. Subjects such as geometry and Latin are essential in developing a person's thinking power. Likewise, critical thinking, memory, and observation can be developed through these academic exercises[7,8].

Transfer occurs when there are identical elements; training in one situation affects behavior in other situations between two activities. This theory is widely used in vocational training courses, where students provide responses that are expected to be applied in real-life situations. Psychologists put much emphasis on students' perceptions of these identical elements.

Direct teaching model

A direct teaching model is a teaching approach that can help students learn basic skills and acquire information that can be taught step by step. Direct instruction or direct teaching is based on behavioristic learning theory that focuses on the mastery of concepts and changes in behavior as a result of learning that can be observed. The approach used in this model is teacher-centered. The teacher presents material/transfers information directly and structured using a lecture, expository, question, and answer, presentation/demonstration model.

This direct teaching model demands that the teacher demonstrate each subject matter so that students can understand the material procedurally. The students were also actively involved; after that, the teacher checked to understand and provide feedback. Teachers must manage the class well because the learning process is well planned where declarative knowledge and procedural knowledge are taught in line.

Although teachers and students can jointly plan learning objectives, this model is primarily teacher-centered. The teacher's learning management system must ensure students' involvement, primarily through paying attention, listening, and planned recitation (question and answer). This learning model emphasizes teacher-dominated learning. So the

teacher plays an important and dominant role in the learning process. The teacher explains the competencies that students want to master and their learning objectives and information about learning exercises, the importance of lessons, and preparing students to learn. The teacher demonstrates knowledge/skills correctly or presents information step by step. Teachers prepare opportunities for advanced training, with particular attention to apply to more complex situations and everyday life[9,10].

By adequately organizing where structured learning experiences are most often observed, teachers can produce higher student engagement ratios and higher learning outcomes than teachers who use less formal and less structured approaches. Observations of successful teachers show that most of them use direct learning procedures well.

The learning material delivered can be in the form of procedural knowledge, namely knowledge about how to carry out something, or declarative knowledge, namely knowledge about something that can be in the form of facts, concepts, principles, or generalizations. The disadvantages of using this model include that this model cannot be used all the time and not for all learning purposes and students.

The direct teaching model can be applied to any field of study. However, this model is most suitable for performance-oriented subjects such as writing, reading, mathematics, music, and physical education. Hands-on teaching is also suitable for teaching the skill components of more information-oriented subjects such as history and science. If the information or skills to be taught are well structured and can be taught step by step, the direct teaching model is suitable.

The direct teaching model has the following characteristics: the existence of learning objectives and the influence of the model on students, including learning outcomes assessment procedures, syntax or overall pattern and flow of learning activities and management systems and model learning environments needed so that certain learning activities can take place successfully.

Advantages and disadvantages of direct teaching model

The direct teaching model has advantages and disadvantages. With the direct teaching model, the teacher controls the content of the material and the order in which the students receive the information to focus on what students have to achieve. This model can be applied effectively in both large and small classes. Moreover, it can emphasize important points or difficulties that students may face so that these things can be expressed. The direct teaching model is an effective way to teach highly structured factual information and knowledge and the most effective way to teach explicit concepts and skills to low achieving students.

Lectures are a helpful way of conveying information to students who do not like to read or do not have the skills to organize and interpret information. In general, lectures are the most likely way to create a non-threatening and stress-free environment for students. Students who are shy, insecure, and do not have sufficient knowledge do not feel coerced and participate and are humiliated. Lectures can help impart knowledge not directly available to students, including relevant examples and recent research results[11].

Direct teaching models can be used to build learning models in specific fields of study. Teachers can show how a problem can be approached, analyze information, and generate knowledge. Direct teaching models that emphasize listening (e.g., lecturing) and observing (e.g., demonstrations) can help students who are suited to learn in these ways.

Direct teaching models (especially demonstrations) can give students the challenge of

considering the gaps that exist between theory (what should happen) and observation (what they see). Demonstrations allow students to concentrate on the results of an assignment and not the techniques for producing them. This is especially important if the student does not have the confidence or skills to do the task. Students who cannot direct themselves can continue to excel if the direct teaching model is used effectively. The direct teaching model relies on the teacher's reflection ability to evaluate and improve it continuously[12].

While the shortcomings of the direct teaching model include the direct teaching model that relies on students' ability to assimilate information through listening, observing, and taking notes, since not all students have skills in these matters, teachers still have to teach them to students. In the direct teaching model, it is challenging to address differences in abilities, prior knowledge, levels of learning and understanding, learning styles, or student interests. Since students have few opportunities to be actively involved, developing their social and interpersonal skills is challenging.

The teacher plays a central role in this model, so the success of this learning strategy depends on the teacher's image. If teachers do not appear prepared, knowledgeable, confident, enthusiastic, and structured, students can become bored, distracted, and their learning will be hampered. There is some research evidence that a high level of teacher structure and control in learning activities, which is a characteristic of the direct teaching model, can harm problem-solving abilities, independence, and student curiosity. The direct teaching model is highly dependent on the teacher's communication style. Poor communicators result in poor learning, and direct teaching models limit teachers' opportunities to display many positive communication behaviors. If the material presented is complex, detailed, or abstract, the direct teaching model may not provide students with sufficient opportunities to process and understand the information presented[13].

The direct teaching model gives students a teacher's perspective on how the material is structured and synthesized, which is not always understood or mastered by students. Students have little opportunity to debate this point of view. If the direct teaching model does not involve students much, students will lose attention after 10-15 minutes and will only remember a little of the material presented. If overused, the direct teaching model will make students believe that the teacher will tell them all they need to know. This will eliminate the sense of responsibility regarding their learning.

The direct teaching model involves much one-way communication, making it difficult for teachers to get feedback on student understanding. This can make students not understand or misunderstand. Demonstrations are highly dependent on students' observation skills. Unfortunately, many students are not good observers and so may miss things the teacher intended.

2. Conclusion

The direct teaching model gives students a teacher's perspective on how the material is structured and synthesized, which is not always understood or mastered by students. Students have little opportunity to debate this point of view.

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