

## **"Independent Curriculum and Behaviorism-Based Learning: Analysis of Reinforcement Effectiveness"**

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### **Abstract**

This study analyzes the effectiveness of reinforcement in behaviorist-based learning within the Merdeka Curriculum, aimed at enhancing student motivation and engagement for 21st-century learning. Using a quasi-experimental approach with mixed methods, the research involves classroom observations, student questionnaires, and teacher interviews. Findings indicate that positive reinforcement significantly boosts student motivation, particularly when tailored to individual characteristics. However, excessive positive reinforcement risks undermining intrinsic motivation. Negative reinforcement, such as task reduction, can improve student engagement, though it requires careful application to avoid fostering dependency on external support. In inclusive classrooms, reinforcement strategies need to accommodate diverse student needs and abilities. This study suggests that reinforcement within the Merdeka Curriculum should be personalized and balanced, supporting student-centered, independent learning aligned with long-term educational goals.

**Keyword:** Merdeka Curriculum, behaviorist, reinforcement

### **Introduction**

Education is one of the main pillars in national development, and curriculum reform is one of the strategic steps to improve the quality of learning in Indonesia. The Independent Curriculum introduced by the Ministry of Education and Culture aims to provide flexibility to educators and students, as well as encourage more independent and contextual learning. In this context, student-centered learning becomes increasingly important to facilitate the development of skills and knowledge that are relevant to the needs of the 21st century. One of the influential theories in the field of education is the theory of behaviorism, especially that proposed by B.F. Skinner. This theory emphasizes that human behavior can be modified through the process of reinforcement, both positive and negative. The application of behaviorist principles in learning can help increase student motivation, change behavior, and strengthen their involvement in the learning process. However, the implementation of reinforcement in the context of the Independent Curriculum still requires further research to understand its effectiveness.

In reality, many educators face challenges in implementing behaviorist principles effectively. Although there is a basic understanding of reinforcement, there has not been much research examining the concrete impact of implementing reinforcement strategies in this new curriculum. Therefore, this study aims to analyze the effectiveness of reinforcement in behaviorism-based learning within the Merdeka Curriculum framework, as well as provide recommendations for better educational practices. By understanding the relationship between the Merdeka Curriculum and behaviorism theory, it is hoped that the results of this study can provide a significant contribution to the development of more effective learning strategies, while improving the quality of education in Indonesia.

### **Research methodology**

This study aims to analyze the effectiveness of reinforcement in behaviorism-based learning in the Independent Curriculum. Using a quasi-experimental method with a mixed methods approach, this study involved classroom observations, student questionnaires, and in-depth interviews with teachers to understand the impact of reinforcement implementation on

student motivation and engagement.

The population of the study was educators and high school students who implemented the Independent Curriculum, with samples taken purposively from several classes. Data collection techniques included observation to see the form and frequency of reinforcement, questionnaires to measure student perceptions, and interviews with educators about their challenges and experiences.

Quantitative data were analyzed using descriptive and inferential statistics, while qualitative data were analyzed thematically. Triangulation was used to validate data from the three methods. Through this approach, the study is expected to contribute to developing effective reinforcement strategies to improve the quality of learning in the Independent Curriculum

## **Results and Discussion**

### **B.F Skinner's Behavioristic Theory**

BF Skinner is an American Behaviorist figure. Skinner believes that the relationship between stimulus and response that occurs through interaction in the environment will cause changes in behavior. As a behaviorist figure, BF Skinner believes that behavior is controlled by operant conditioning. Operant-conditioning or role conditioning is a process of reinforcing operant behavior that can cause the behavior to be repeated or disappear according to desire. Operant conditioning proposed by B.F. Skinner focuses on how a person's behavior is influenced by the consequences of their actions. In operant conditioning, there are three main components: stimulus, response, and consequence. This process operates in the following way:

1. Stimulus: A stimulus is anything that encourages an individual to take action. The stimulus can be social pressure, self-insecurity, or a desire to get attention.
2. Response: A response is an action taken by an individual in response to a stimulus.
3. Consequences: Consequences are the impact of the action taken. In operant conditioning, consequences can be positive reinforcement (rewards) or punishment (penalties)

Skinner in operant conditioning theory explains how to understand behavior by looking at the cause or source of an action and the consequences it brings. The most important element in Skinner's theory is the role of reinforcement and punishment and how both change behavior. In this theory, Skinner is interested in the role of reinforcement and punishment and how they can change behavior. Skinner argues that an observable response (for example a behavior), will change because of consequences, such as the use of reinforcement or punishment. Skinner further argues that if a behavior has reinforcing consequences, then the behavior is likely to be repeated.

Reinforcement in operant conditioning theory is divided into two types, namely positive reinforcement and negative reinforcement

1. Positive reinforcement is the provision or addition of a stimulus for a particular response that will be able to increase the probability of the response being repeated, meaning that if a stimulus is added it will make the expected response repeat.
2. While negative reinforcement is reinforcement based on the principle that the frequency of response will increase because it is followed by the removal of a stimulus that is considered unpleasant or detrimental, meaning that when the detrimental stimulus is removed, the expected response will repeat or increase.

So it can be interpreted that Reinforcement is a stimulus, stimulation, or encouragement given in order to strengthen or increase the chances of the emergence of expected or good behavior so that the response increases because it is followed by a supportive stimulus.

Skinner stated that one component of negative consequences in the form of punishment is an efficient and effective tool for managing behavior. Skinner emphasized that punishment is very different from negative reinforcement, because punishment aims to reduce the

likelihood of a behavior occurring, not increasing it. Although complicated, punishment can also have positive or negative impacts. Positive punishment involves the introduction of an unpleasant stimulus to reduce the likelihood of a behavior occurring. Conversely, negative punishment involves the removal of a pleasant stimulus to reduce the likelihood of a behavior occurring.

### **The Effectiveness of Positive Reinforcement in Increasing Student Motivation**

In the context of the Independent Curriculum, positive reinforcement has been shown to have a significant impact on student motivation. Observation results show that students who receive positive reinforcement—such as praise or awards for their achievements—are more likely to be actively involved in learning activities. This reinforcement gives students a sense of appreciation and increases their self-confidence, thus encouraging them to try harder. For example, awards given in the form of public recognition or the opportunity to choose the next learning topic give students a sense of control over their learning process.

However, the effectiveness of positive reinforcement is not always the same across all students. Some students respond better to personal and specific reinforcement, while others perceive the reinforcement as something mechanical and less meaningful. For example, students who tend to be more introverted or have social anxiety feel uncomfortable with awards given in front of the class. This shows that positive reinforcement needs to be personalized to suit the character and needs of individual students, which of course requires more attention from educators.

Furthermore, there is a challenge in maintaining the consistency of providing reinforcement that is not too frequent or too infrequent. Excessive reinforcement can cause students to become dependent on external rewards, which risks reducing their intrinsic motivation. On the other hand, infrequent reinforcement can make students feel unappreciated, and this can damage the bond between students and teachers and reduce their engagement in learning. Therefore, a balanced approach is needed in providing positive reinforcement, so that its impact can be maximized in encouraging student learning motivation.

### **Negative Reinforcement in Increasing Student Engagement**

Negative reinforcement in the context of the Independent Curriculum, which often takes the form of reducing excessive assignments or academic pressure, has shown encouraging results in creating a more supportive and stress-free environment. Many students have shown improvements in their concentration and quality of work after reducing the workload that was considered excessive or irrelevant to their learning. For example, students who initially felt overwhelmed by the amount of assignments were able to focus more on more important material after being given more space for exploration and in-depth understanding.

However, the use of negative reinforcement also has risks that need to be considered. Excessive reduction of assignments or reduction of academic pressure can lead to dependence on external assistance and a lack of independence in facing challenges. Some students may begin to rely on negative reinforcement as a form of escape from their responsibilities, which can actually hinder the development of their time management skills and critical thinking skills. Therefore, the use of negative reinforcement in the Independent Curriculum must be done carefully, considering providing challenges that remain in line with the development of students' abilities without adding excessive burdens.

In addition, it is important to note that negative reinforcement can cause feelings of frustration in some students. Reducing workload or reducing pressure is sometimes not always perceived as a form of support, but rather as a form of injustice, especially for students who feel that they can still cope with the task if given the opportunity. Therefore, negative reinforcement must be applied with transparency and clear communication to students, so that they understand the reasons and goals behind the reduction, and ensure that this action does not create a negative perception of learning itself.

### **The Influence of Reinforcement on Independence-Based Learning in the Independent Curriculum**

One of the biggest challenges in integrating behaviorism principles into the Independent Curriculum is the balance between reinforcement and student independence. Although positive reinforcement can increase initial motivation, it can risk reducing students' intrinsic drive to learn independently if used too often. In the Independent Curriculum, which prioritizes independence-based learning and the development of the Pancasila student profile, the ultimate goal is to produce students who are not only engaged in learning, but also have the ability to take the initiative and regulate their own learning process. Therefore, the use of reinforcement should function to support, not replace, students' intrinsic motivation.

However, in practice, many teachers feel burdened by the pressure to get quick and visible results in the short term. This causes them to tend to rely on external reinforcement (such as rewards or punishments) that can provide instant results but are not sustainable. This has the potential to damage the basic philosophy of the Independent Curriculum which emphasizes long-term learning that builds critical and independent thinking skills.

One solution that can be implemented is to integrate positive reinforcement in the form of feedback that is reflective and leads to problem solving. For example, instead of simply praising a correct answer, teachers can provide positive reinforcement in the form of open-ended questions that encourage students to further explore the topic they are learning. This not only provides reinforcement for their accomplishments, but also strengthens students' metacognitive skills and ability to think more deeply and independently.

### **The Effect of Reinforcement on Student Diversity in Inclusive Classrooms**

Applying behaviorist principles, especially reinforcement, to inclusive classrooms with diverse students also presents additional challenges. Students with special needs, such as those with learning disabilities or developmental delays, may require a more structured and consistent reinforcement approach. In inclusive classrooms, the biggest challenge is how to create an equitable and effective approach for students with widely varying abilities or needs. The reinforcement used must take these differences into account and provide appropriate support according to each student's needs. For example, students with attention deficit disorder (ADHD) may respond better to quick, direct reinforcement, while students with autism spectrum disorder (ASD) may require more concrete and predictable reinforcement. Therefore, educators must be prepared to adjust reinforcement strategies based on individual needs, while ensuring that reinforcement does not create inequity or a sense of unfairness in the classroom. A major challenge in this regard is the limited time and resources that schools have, which often make it difficult for teachers to provide individualized attention to each student optimally.

### **Conclusion**

Overall, the implementation of reinforcement in the context of the Independent Curriculum shows that positive and negative reinforcement can play an important role in increasing student motivation and engagement. However, reinforcement must be used very carefully and adjusted to the characteristics of individual students, and must not reduce their independence in the learning process. Positive reinforcement should be considered as a tool to strengthen students' intrinsic motivation, not to replace it, while negative reinforcement should be used as a way to reduce barriers to learning without creating dependency. The biggest challenge in implementing reinforcement in the Independent Curriculum is how to create the right balance between external and internal motivation, and how to adjust reinforcement to the diversity of student characteristics, especially in inclusive classes. Recommendations for further research are to further explore the relationship between reinforcement and the development of metacognitive skills and student independence, with a focus on problem-based learning and more contextual learning.

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