

B.F. SKINNER'S LEARNING THEORY AND TEACHING STRATEGIES FOR SPECIAL EDUCATION STUDENTS

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ABSTRACT

One of the main issues in teaching students with special educational needs is the lack of effective teaching methods that are tailored to individual needs. B.F. Skinner's learning principles emphasize reinforcement and behaviour shaping, offering methods that can be used to improve learning outcomes and behaviour in special education students. The purpose of this article is to evaluate Skinner's theory in the context of special education and to examine various teaching approaches based on this theory. The methodology used involves a literature review, analysing recent articles on the application of Skinner's theory in teaching special education students. This study explores how positive reinforcement, negative reinforcement, and behaviour shaping are utilized in special education teaching strategies. The findings indicate that special education students can achieve higher motivation, reduce negative behaviours, and complete difficult tasks more easily. The implications of this study highlight the importance of teachers planning and implementing teaching approaches that are adapted to the needs of students.

Keywords: behaviorist learning, special education students, learning disabilities, B.F. Skinner's theory, teaching strategies in special need students

1. INTRODUCTION

In B.F. Skinner's theory, rewards and punishments given after certain actions influence human behaviour. This theory emphasizes the role of the environment in shaping behaviour and the learning process. Skinner introduced the concepts of positive and negative reinforcement. Desired behaviours are encouraged through rewards, while unpleasant stimuli are removed to produce similar effects. This methodology allows desirable behaviours to be reinforced and repeated, while undesirable behaviours are reduced. Skinner's theory provides a structured and focused approach to teaching special education students. This approach guides students who face various learning difficulties. The use of positive reinforcement, such as praise, appreciation, or small rewards, can increase motivation and help students succeed academically. For instance, a student who struggles to concentrate may improve their focus if they receive a reward each time they exhibit the desired behaviour, such as paying attention during a lesson. As a student's behaviour or performance improves, teachers can use negative reinforcement by reducing assignments or stressful situations.

The objective of this article is to explore how teaching strategies based on Skinner's theory can be adapted according to individual capabilities. Special education students require a more flexible

approach, and teaching methods based on reinforcement principles and behaviour shaping allow teachers to monitor student progress more effectively. Each student has their own challenges. Therefore, teaching strategies must be adjusted based on each student's response to the given stimuli.

Additionally, the implications of this article will foster a deeper understanding of Skinner's theory, which can assist in improving the teaching of special education students. By continuously applying reinforcement techniques, teachers can not only help their students overcome learning challenges but also enhance their social skills and self-confidence. When used correctly in special education classrooms, Skinner's theory can have a significant impact on academic learning, behavioural changes, and students' social interactions.

2. LITERATURE REVIEW

2.1. B.F. Skinner's Learning Theory

One of the most effective behaviourist methods in education and psychology is the learning theory developed by B.F. Skinner, also known as operant conditioning. In his theory, Skinner introduced two fundamental concepts: reinforcement (positive and negative) and punishment (positive and negative). Positive reinforcement involves providing rewards to encourage desired behaviour, while negative reinforcement involves removing unpleasant stimuli to reinforce the same behaviour. People are more likely to repeat a behaviour if it is followed by a positive outcome. Conversely, they will avoid repeating a behaviour if it is followed by a negative consequence. Skinner's research on reinforcement, punishment, and behaviour modification shows that using reinforcement or punishment can change a person's behaviour (Cassidy et al., 2016). McLeod found that operant conditioning emphasizes the consequences of a response, which determine the likelihood of a behaviour recurring, as stated in Ortega (2022). For example, food pellets were given to rats when they pressed a lever with a green light. Conversely, the rats received a mild electric shock when they pressed the lever with a red light. As a result, the rats learned to avoid the red light and only press the lever for the green light. Skinner suggested that only observable external elements influencing human behaviour should be considered. He used the word "operant" to refer to any "active action that operates on the environment to produce consequences." Skinner's theory explains how we learn various behaviours displayed daily. In operant conditioning, actions followed by reinforcement are strengthened and more likely to occur again in the future. The way individuals respond and the effects of conditioning can be influenced by the type of reinforcement or punishment used. Groom et al. (2016) found that Skinner suggested that if a behaviour has reinforcing consequences, it is more likely to occur and recur. Operant conditioning consists of four principles: positive reinforcement, negative reinforcement, positive punishment, and negative punishment. All of these can be used to modify a person's behaviour. Any event that causes a person to act better afterward is considered reinforcement.

Reinforcement includes positive and negative forms. Positive reinforcement is a favourable event or outcome that occurs after an action. In situations that provide positive reinforcement, direct praise or rewards are used to encourage better responses or behaviours. For example, parents may give a reward or praise if their child completes their homework. Negative reinforcement is a term

used to describe an unfavourable event or consequence that occurs after a specific action. In these situations, the required response is to remove something perceived as unpleasant. For example, if a child starts screaming in a restaurant but stops as soon as their mother gives them a treat, the mother's action removes the unpleasant situation and negatively reinforces her behaviour rather than the child's.

Positive punishment involves providing an unpleasant stimulus after a specific behaviour to reduce the likelihood of that behaviour occurring again in the future. For example, a teacher gives extra assignments to a student who arrives late to class, applying positive punishment. Negative punishment involves reducing or removing a desired stimulus after a specific behaviour, intending to decrease the likelihood of that behaviour recurring. For example, a mother enforces negative punishment by preventing her child from playing with gadgets as a consequence of unwanted behaviour.

By applying Skinner's operant learning theory in education, teachers have a useful tool to systematically control and modify student behaviour. In this theory, positive reinforcement and punishment play important roles in influencing behaviour. This method allows teachers to create a well-structured and conducive classroom environment, especially for special education students, who often require a more structured approach. Positive reinforcement, such as praise, appreciation, or tangible rewards like tokens or star stickers, helps them stay motivated and maintain desired behaviour. For example, a teacher can praise a student who completes an assignment on time by saying, "Great job!" or "Keep up the excellent work!" This praise encourages students to maintain positive behaviour and boosts their confidence in the classroom.

A study by Yanti (in Ortega et al., 2022) found that rewards serve as a strong motivating factor for students to stay engaged and actively participate in learning activities. Conversely, in Skinner's theory, punishment is used to reduce or eliminate unwanted behaviour. However, punishment must be implemented carefully and thoughtfully so that it does not negatively impact students' emotional development or self-confidence. For example, a teacher can take a more cautious approach, such as giving a firm reprimand or reducing a student's playtime if they frequently disrupt lessons by playing without permission. However, punishment should not be too severe, as it may cause students to feel stressed or lose interest in learning.

In special education, operant conditioning is highly relevant as it often requires a structured learning environment and individualized adjustments. For example, students with autism spectrum disorder (ASD) may require more frequent and systematic training to ensure they stay focused and understand basic learning concepts. Teachers can use a token economy system, where students earn tokens as rewards for good behaviour. Good behaviour can be exchanged for larger rewards, such as playing a game they enjoy. Thus, Skinner's theory not only helps teachers manage classrooms more effectively, but it also provides students with a clearer structure, especially for special education students. This structured learning enhances their confidence and facilitates classroom management.

2.2. Application of Skinner's Theory in Research

The study by Rosales and Sanchez (2021) provides an in-depth perspective on the effectiveness of positive reinforcement in helping students with autism develop their communication skills. In this study, praise and symbolic rewards such as stickers were used as reinforcement tools to motivate students to interact with their peers. The findings indicate that this reinforcement strategy successfully increased the use of sign language and verbal communication among students. The students involved in this study showed significant improvement in social communication aspects. This includes an increase in the initiative to communicate, better responses to social interactions, and more complex language use. The use of praise and symbolic rewards has proven to be effective in creating a positive and supportive learning environment. Students became more eager to interact and display desired behaviours when they knew their efforts would be recognized and appreciated. This not only helps in communication skill development but also enhances students' self-confidence and motivation. Overall, this study proves that positive reinforcement plays a crucial role in the social development of special education students. With the right approach, these students can reach their full potential in communication and social interaction, thus creating a more inclusive and conducive learning environment.

Additionally, the study by Miller et al. (2022) provides an in-depth analysis of the effectiveness of shaping techniques in students with attention deficit hyperactivity disorder (ADHD). In this study, researchers found that a consistent and structured reward system was able to shape the desired behaviours among ADHD students. This technique not only helped students improve their focus in the classroom but also reduced disruptive behaviours. Shaping involves gradually rewarding behaviours that progressively approaches the target behaviours. For example, students may receive praise or small rewards each time they show improvement in focus or a reduction in disruptive behaviours. In this way, students gradually learn to associate positive behaviours with rewards, which in turn reinforces the behaviours.

The findings of this study confirm that the principles of operant learning introduced by B.F. Skinner are highly effective in modifying the behaviours of students facing learning challenges such as ADHD. By using shaping techniques, students can learn to adapt better to their academic environment. This not only improves their academic performance but also helps in their social and emotional development. Overall, this study shows that with the right approach, ADHD students can achieve their full potential in a learning environment. The shaping technique, which employs consistent and structured rewards, has proven effective in helping students overcome behavioural challenges, thus creating a more positive and conducive learning atmosphere.

3. CHALLENGES IN APPLYING B.F. SKINNER'S THEORY IN TEACHING SPECIAL EDUCATION STUDENTS

3.1. Challenges of Positive Reinforcement

Identifying appropriate rewards for each student is a major challenge. Every special education student has unique needs and interests, meaning that a reward effective for one student may not be effective for another. To ensure that the reinforcement provided truly encourages the desired

behaviours, teachers must understand the needs of each special education student. Additionally, over-reliance on rewards can create issues. If rewards are given too frequently or excessively, students may become entirely dependent on external reinforcement to exhibit positive behaviours. This reliance can undermine the long-term effectiveness of positive reinforcement.

A study by Ryan & Deci (2020) found that rewards can reduce the intrinsic motivation of special education students, which may negatively impact their academic achievement and behaviours in the long run. Therefore, teachers must carefully balance the use of rewards so that students recognize the inherent value of positive behaviours rather than merely seeking material incentives.

3.2. Challenges of Negative Reinforcement

Although negative reinforcement has been proven effective, several challenges may arise in its implementation. One of the main challenges is determining the appropriate negative stimulus for each student. Not all special education students will respond similarly to task reduction or the removal of stress-inducing factors. Some students may require a more individualized approach, such as reducing their participation in activities they find boring or allowing them to withdraw from uncomfortable situations. There is also the risk of misinterpreting the purpose of negative reinforcement. If the concept is not clearly explained to students, they may perceive the reduction of workload or removal of stress as a reward rather than a consequence of good behaviours. This could lead students to engage in positive behaviours solely to avoid tasks or undesirable situations, rather than developing intrinsic motivation to behave appropriately.

Another challenge is preventing over-reliance on negative reinforcement. If students become too accustomed to the removal of negative stimuli, they may only display the desired behaviours when there is a promise of reduced workload or stress. This could hinder their ability to develop self-regulation without relying entirely on external factors. A study by Martínez-Torres, Gonzalvez, and Anton (2024) highlighted that the use of negative reinforcement can diminish students' intrinsic motivation and pose difficulties in determining the appropriate negative stimuli for each student. Additionally, it can lead to dependency on stress reduction or task reduction as the primary motivator for positive behaviours.

3.3. Challenges in Using the Shaping Strategy

Although this technique is effective, there are several challenges in its implementation. One of the main challenges is maintaining consistency in reinforcement at each stage of achievement. Teachers must always be attentive to the progress made by special education students and ensure that rewards are given at the right time and in an appropriate manner. If reinforcement is provided too early or too late, it can cause the students to become confused, lose motivation, or feel directionless. A study by Seriyuna binti Sa'don Zubir (2019) found that special education teachers in Malaysia face difficulties in maintaining consistent reinforcement at each stage of special education need students' progress due to a lack of adequate training and support. As a result, teachers may become less sensitive to students' progress and the effects of rewards that are not given at the appropriate time.

Additionally, there are challenges in determining the appropriate level of progress for reinforcement to be given. Special education needs students have varying abilities, and defining task segments that are too large or too small can have negative effects. If tasks are broken down into segments that are too small, the students may become bored due to the slow pace of progress. On the other hand, if the task segments are too large, the students may feel overwhelmed and lose confidence in continuing. Zubir (2019) found that to ensure effective learning, teachers need to adjust their teaching techniques to accommodate the needs of each student.

3.4. Challenges in Individualizing Instruction

Although this approach is essential, teachers face several challenges in its implementation. One of the main challenges is balancing individual needs with the overall needs of the class. Providing personalized instruction for each special education student requires more time, effort, and resources. Additionally, teachers must have a deep understanding of each special education student to identify the most effective reinforcement methods. The appropriate reinforcement may vary depending on the student's background, personality, and developmental challenges.

Furthermore, continuous adjustments are necessary when the techniques used do not yield the expected results. If reinforcement or punishment does not lead to positive behavioural changes, teachers must promptly modify their strategies. This becomes even more challenging when dealing with special education students with diverse needs within the same classroom. The situation is further complicated when essential resources, such as specialized teaching materials, are insufficient, limiting teachers' ability to implement flexible instructional strategies (Nawi et al., 2021).

4. TEACHING STRATEGIES FOR SPECIAL EDUCATION STUDENTS BY APPLYING B. F. SKINNER'S THEORY

In supporting special education students' academic and social development, tailored strategies based on Skinner's theory play a crucial role. If applied correctly, this theory can be used to address various challenges faced by special education students. It also helps create a more inclusive and supportive learning environment.

4.1. Positive Reinforcement Strategy

Positive reinforcement is a primary method in B. F. Skinner's operant learning theory, involving the provision of rewards to encourage desired behaviours. This approach is highly effective for special education students as it enhances their motivation and enthusiasm for learning. Rewards such as verbal praise, stickers, small gifts, additional playtime, or opportunities to engage in preferred activities are given after demonstrating positive behaviours. Nawi et al. (2021) found that rewards, such as verbal praise and small gifts, can increase student engagement and performance. For example, students with attention deficit hyperactivity disorder (ADHD) may receive verbal praise and star rewards when successfully following rules, such as not disturbing peers during group activities. This recognition can be followed by incentives like extra playtime, which further encourages continuous positive behaviours. Additionally, a student with cerebral

palsy who successfully completes a fine motor task, such as tying shoelaces, may be rewarded with colourful stationery. This not only boosts motivation but also enhances their self-confidence.

In implementing positive reinforcement, teachers play a crucial role in ensuring its effectiveness. Once the desired behaviours are identified, teachers must choose appropriate rewards that align with students' interests and motivations. For instance, a student with autism may be more motivated by stickers featuring their favourite characters, while a student with ADHD might prefer earning extra playtime for their favourite games. Teachers must also remain attentive to changes in students' interests over time to ensure rewards remain effective. Another key aspect of positive reinforcement is ensuring that rewards are provided consistently and immediately. Consistency is essential in establishing a clear link between the expected behaviours and the reward. For instance, if a student successfully sits attentively throughout a lesson, rewards such as verbal praise or small gifts should be given immediately after the session. This immediate reinforcement helps students understand that their behaviours is valued. Conversely, delays in providing rewards may cause confusion and prevent students from associating the incentive with the positive behaviours.

Azmi et al. (2021) found that rewards can encourage students to achieve better performance, increase motivation during the learning process, and enhance their willingness to engage with tasks when reinforcement is used consistently. Furthermore, teachers should gradually increase the level of challenge. As students begin to show progress, the criteria for receiving rewards can be adjusted incrementally. For example, if a student with autism initially receives a reward for maintaining focus for five minutes, the teacher can extend the duration to ten minutes before providing the next reward. This approach not only helps students enhance their abilities but also motivates them to achieve higher levels. It is crucial to ensure that this gradual increase in challenges is realistic and aligned with the capacities of special education students to prevent them from feeling overwhelmed or losing motivation.

Positive reinforcement not only supports the academic progress of special education students but also plays a vital role in shaping their social skills. Through rewards, students are more encouraged to adopt socially desirable behaviours, such as politeness, teamwork, and rule compliance. For example, a student who receives praise for lending stationery to a peer may be more inclined to repeat these behaviours outside the classroom. With continuous guidance, students can internalize these positive values and apply them in their daily lives. Overall, the implementation of positive reinforcement requires careful planning and a deep understanding of each student's needs. Teachers must be patient, flexible, and creative in identifying the most effective strategies for every student. With the right approach, positive reinforcement can help special education students develop holistically, encompassing academic, emotional, and social aspects.

4.2. Effects of Positive Reinforcement

The increased motivation of special education students demonstrates the positive impact of using reinforcement. When students receive rewards, they are more likely to participate in learning activities and perform better. This enhances their academic engagement, making them more focused and enthusiastic about completing tasks to earn rewards. This strategy also boosts student's self-confidence. When students receive praise or rewards for good behaviours, they feel

valued and recognized. This can strengthen their self-esteem and encourage them to put in more effort in their learning process.

4.3. Negative Reinforcement Strategy

Negative reinforcement is an effective approach in educating special education students. This method involves reducing or eliminating unpleasant elements to encourage the desired behaviours. Although often misunderstood as punishment, negative reinforcement aims to create a more comfortable and conducive learning environment. The unpleasant elements removed may include heavy assignments, complex demands, or stressful situations. When these elements are reduced after demonstrating positive behaviours, special education students are more likely to repeat the behaviour, making this approach relevant in addressing their learning challenges. A study by Zulkifli and Mohamed (2019) found that both positive and negative reinforcement play crucial roles in helping special education students transform negative behaviours into positive ones.

For example, when teaching students with autism, teachers can reduce the length of written assignments if they successfully complete the first two sentences. This encourages them to start the task without feeling overwhelmed. For students with ADHD, teachers can offer extra break time if they successfully maintain focus for five consecutive minutes. This strategy not only allows students to learn in a more controlled environment but also reduces the stress of having to remain seated for extended periods. Another example involves students with dyslexia, where teachers can replace lengthy texts with shorter reading materials when they show effort in reading the original text. This provides students with opportunities for small successes, which in turn enhances their confidence. For students with emotional and behavioural disorders, reducing elements such as the number of difficult questions in an assignment can help them regulate their emotions and focus on learning.

The effectiveness of negative reinforcement depends on its structured implementation and its adaptation to students' needs. Teachers must identify elements that students perceive as unpleasant, such as excessive workload, long learning sessions, or an unfavourable classroom environment. The reduction of these elements must be meaningful and should not compromise the primary learning objectives. As students' progress, the level of challenge can be gradually increased to build their resilience in handling more complex tasks. This approach can also be combined with positive reinforcement, such as providing additional rewards for outstanding behaviours or achievements, to ensure that special education students remain motivated and strive harder.

Negative reinforcement not only helps shape the desired behaviours but also contributes to students' emotional and social development. For example, a special education student who is allowed to skip a challenging task after demonstrating effort is more likely to work harder on future assignments. With careful implementation by teachers, negative reinforcement can create a more supportive learning environment, boost students' confidence, and build their motivation to progress. When applied correctly, this strategy becomes an effective tool in supporting the holistic development of special education students.

In implementing negative reinforcement, teachers need to follow a structured approach to ensure its effectiveness. The first step is to identify aspects that students perceive as unpleasant. These may include overly challenging tasks, long learning sessions, or noisy classroom conditions. This identification process requires teachers to have a deep understanding of each student's unique needs, as disruptive elements may vary among individuals. For example, for a student with autism, loud noises in the classroom may be the primary source of discomfort, whereas for a student with ADHD, prolonged learning sessions without breaks may pose the greatest challenge.

Once the disruptive elements are identified, the next step is to ensure that their reduction aligns with the students' learning needs and objectives. This reduction must be implemented in a meaningful way without compromising the desired learning outcomes. For instance, if a special education student finds written assignments too difficult, the teacher may reduce the number of questions or arrange them in increasing levels of difficulty. However, this reduction must be carefully planned to ensure that the student can still achieve the intended learning objectives. This approach ensures that students feel more comfortable and are encouraged to continue learning without excessive pressure.

Additionally, teachers must ensure that challenges are gradually increased as students demonstrate progress. This approach helps them develop resilience and the ability to complete more complex tasks over time. For example, if a student successfully completes two simple questions after an assignment reduction, the teacher can add one or two more questions to the next assignment. This gradual increase in challenge should be carefully managed to prevent students from feeling overwhelmed while allowing them the opportunity to continue growing.

Finally, the effectiveness of negative reinforcement can be enhanced by integrating it with positive reinforcement. For instance, in addition to reducing disruptive elements, teachers can also provide additional rewards when special education students exhibit exceptional behaviours or achievements. For example, a student who maintains focus for five consecutive minutes after the reduction of a disruptive element can receive verbal praise or a reward such as a sticker. The combination of these two strategies not only helps students shape the desired behaviours but also enhances their motivation to continue progressing. This balanced and comprehensive implementation ensures that negative reinforcement becomes an effective method in supporting students' academic, emotional, and social development.

4.4. Effects of Using Negative Reinforcement

The application of negative reinforcement can have a positive impact on managing the behaviour of special education students, particularly those with attention deficit hyperactivity disorder (ADHD). By providing them with flexible break times or reducing their workload upon successful task completion, students feel more relaxed and less stressed. This enables them to focus better on their assigned tasks, ultimately improving their performance in the classroom. Additionally, the removal of unpleasant stimuli can enhance students' motivation to continue displaying positive behaviours. For example, an ADHD student who is given extra free time after completing an assignment may be more motivated to complete future tasks more quickly, knowing that their effort is rewarded through the removal of pressure-inducing elements. This strategy is also

effective in reducing stress experienced by students. Heavy workloads or a stressful learning environment can lead to anxiety and nervousness among students. Through the use of negative reinforcement, teachers can minimize factors that trigger stress, thereby creating a more conducive and harmonious learning environment. A study by Tiong Siu Ing and Mohd Khairi (2022) found that behaviour is a crucial component of the learning process. While positive reinforcement can motivate students to improve their Malay vocabulary, improperly applied negative reinforcement may negatively affect students' confidence in the learning process.

4.5. Behaviour Shaping Strategy

The shaping approach, or behaviour shaping, is a highly effective technique in educating special education needs students, particularly those who face challenges in completing more complex tasks. This technique is based on the principle of positive reinforcement implemented gradually, where each small achievement made by the student is rewarded. In this way, students are encouraged to continue making gradual progress, which in turn builds their self-confidence. For example, for students with autism who may struggle with social interactions, the shaping approach can be used to break down complex social behaviours into smaller, more manageable steps. At the first stage, the teacher may encourage the student to greet a peer with a simple "Hi" and provide a reward such as praise every time the student successfully performs these behaviours. Subsequently, the teacher can increase the challenge by asking the student to engage in a short conversation about the weather or daily activities, offering additional rewards each time they successfully complete the step.

For students with ADHD, who may have difficulty maintaining focus for extended periods, shaping can be implemented similarly. Initially, teachers can ask students to focus on a task for five minutes and provide a reward once they successfully complete the task. Once they master the first level, the teacher can gradually increase the required focus duration, for example, adding one or two extra minutes per session. Each time the student successfully maintains focus, they receive reinforcement, such as verbal praise or stickers. This helps them build endurance for longer attention spans without feeling overwhelmed. Similarly, students with dyslexia, who face challenges in reading long texts, can benefit from shaping. Teachers may start by providing shorter, simpler reading materials. Once they successfully read these texts, they receive rewards, and the challenge is gradually increased by introducing longer and more complex texts. Praise or sticker rewards are given after each small achievement. Zulkifli and Mohamed (2019) found that shaping techniques are used in special education to modify and control behaviours such as tantrums by breaking down complex behaviours into smaller, more understandable parts.

Overall, implementing shaping techniques involves breaking tasks into smaller, more achievable parts for special education students. Each small step achieved is immediately reinforced to strengthen the desired behaviour. Teachers must first assess each student's readiness level before gradually increasing challenges to ensure they do not feel pressured. Additionally, positive reinforcement, such as verbal praise, stickers, or additional playtime, can be combined with shaping techniques to provide extra motivation. This approach ensures that students not only master skills gradually but also help them build self-confidence and a strong sense of achievement.

By doing so, special education students feel more confident and motivated to achieve greater goals consistently while reducing stress during their learning process.

4.6. Effects of Using the Shaping Strategy

The shaping strategy in teaching special education students has the potential to make a significant positive impact on their development. This approach allows them to gradually refine their skills without feeling pressured to achieve the entire goal at once. This not only helps reduce mental stress but also increases their intrinsic motivation to keep striving. Through regular reinforcement at each stage of achievement, students feel more appreciated and valued, fostering a deeper sense of accomplishment. They recognize that every small effort contributes to greater progress. This strategy is also effective in helping them develop positive and continuous learning habits, enabling them to maintain desirable behaviours in the long term. Furthermore, the shaping technique enables teachers to adjust the level of task difficulty based on individual abilities, ensuring that each special education student receives a personalized learning experience tailored to their needs. Ultimately, this enhances teaching effectiveness, helping students reach their full potential in a more controlled, comfortable, and supportive learning environment.

4.7. Individualized Teaching Approach Strategy

The individualized teaching approach is highly relevant to B.F. Skinner's learning theory, which emphasizes the importance of reinforcement in the learning process. Skinner argued that behaviour could be shaped through consistent reinforcement, providing rewards for desired behaviours. In the context of special education, this theory provides a foundation for designing customized teaching strategies tailored to the individual needs of students. Since every student has different needs, abilities, and learning styles, an individualized approach ensures that reinforcement techniques can be effectively applied to each student. Zulkifli and Mohamed (2019) stated that an effective teaching approach in inclusive education involves identifying and understanding student needs, implementing student-centred learning, and using teaching methods that match their abilities and requirements.

The implementation of this approach involves monitoring and adjusting reinforcement techniques according to the unique needs of students. For example, for autistic students who are more sensitive to visual stimuli, visual reinforcement such as stickers, pictures, or star charts can be used to strengthen positive behaviour. In Skinner's theory, positive reinforcement is applied by providing rewarding stimuli after the desired behaviour is performed. For autistic students, when they successfully demonstrate a desired behaviour, such as greeting others or sitting quietly, visual rewards such as stickers or stars on a chart reinforce the behaviour, motivating students to repeat it. This technique not only rewards positive behaviours but also encourages students to reinforce the behaviour through positive repetition.

For students with ADHD, physical reinforcement, such as additional break time or opportunities to engage in their favourite physical activities, may be more effective. ADHD students often face challenges in maintaining focus for extended periods. According to Skinner's theory, reinforcement occurs by providing an enjoyable reward when the desired behaviour is achieved.

In this case, if an ADHD student focuses on a task for a short period, they may receive a reward such as break time or the opportunity to participate in an activity they enjoy, such as playing soccer. This reinforcement encourages them to maintain focus while promoting active engagement in learning. This is an application of Skinner's positive reinforcement principle, where desired behaviour is rewarded to promote learning effectiveness.

Additionally, reinforcement techniques must be adjusted based on student responses. Skinner suggested that reinforcement should be adapted to the student's progress level, requiring more intensive reinforcement at the early stages of learning. For example, students with cognitive learning difficulties require frequent and explicit reinforcement to ensure the desired behaviour is strengthened. More advanced students, however, may require simpler but consistent reinforcement. This aligns with Skinner's theory, which encourages gradual reinforcement, where difficulty levels increase slowly so that students can achieve greater accomplishments without feeling overwhelmed. Effective communication between teachers, students, and parents is also crucial. Collaboration between school and home ensures that teaching approaches are consistent and aligned with the student's needs. Parents can provide feedback about their child's specific needs at home, allowing teachers to adjust reinforcement techniques accordingly. For example, if parents report that their child responds better to physical rewards such as additional playtime, teachers can incorporate these rewards in the classroom. A study by Iffah Mazlan (2019) showed that collaboration between teachers and parents is essential for supporting special education students through mutual consultation.

In summary, implementing an individualized teaching strategy based on Skinner's theory ensures that each special education student receives instruction that is relevant to their abilities. This approach not only helps shape desired behaviours but also boosts self-confidence, reduces stress, and improves learning outcomes. By adapting reinforcement techniques according to Skinner's principals, teachers can provide effective motivation and support for student development in an environment tailored to their needs.

5. CONCLUSION

B.F. Skinner's learning theory has significantly impacted special education by providing effective strategies to address learning difficulties through behaviour shaping, positive reinforcement, and negative reinforcement. Negative reinforcement reduces stress and workload by removing unpleasant stimuli, while positive reinforcement, which involves rewards and praise, plays a key role in motivating students to exhibit desired behaviours. Behaviour shaping allows students to develop skills gradually, boosting their self-confidence through small successes. The effectiveness of Skinner's theory in improving learning outcomes and behaviour in special education students is clear. Despite some challenges in implementation, such as maintaining consistent techniques and adapting strategies to each student's needs, individualized teaching approaches allow teachers to provide more tailored and effective support. B.F. Skinner's theory is highly beneficial in special education as it promotes academic achievement and positive behaviours among special education students when applied correctly and carefully.

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