



Describing The Practices and Challenges of Special Education Teachers in Implementing Behavior Modification Strategies During Instruction: A Systematic Literature Review

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Abstract- Behavior modification strategies are widely utilized in special education to support the development of appropriate academic, social, and behavioral skills among learners with diverse educational needs. These strategies are grounded in behavioral learning theories, which emphasize that behavior can be shaped through reinforcement, structured instruction, and environmental support. Common approaches include positive reinforcement, token economies, prompting and fading, modeling, structured routines, and visual supports, which are often integrated into classroom instruction to improve student engagement and learning outcomes.

This systematic literature review aimed to examine the behavior modification strategies used by special education teachers during instructional practices and to identify the challenges associated with their implementation. A systematic review design guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework was employed. Relevant studies published between 2000 and 2024 were retrieved from ERIC, Scopus, ScienceDirect, and Google Scholar using predefined keywords and Boolean operators.

A total of 18 peer-reviewed studies met the inclusion criteria and were analyzed through thematic synthesis. Findings revealed that reinforcement-based strategies, token economies, prompting techniques, modeling, structured routines, and visual supports were the most commonly used interventions in special education classrooms. However, several implementation challenges were identified, including limited teacher training, insufficient instructional resources, time constraints, large class sizes, and variability in student responses.

Overall, the findings suggest that behavior modification strategies are effective in promoting positive classroom behavior and engagement when implemented consistently. Strengthening professional development programs and improving institutional support systems are essential to enhance the successful application of these strategies in special education settings.

Keywords: Behavior Modification, Special Education, Classroom Management, Applied Behavior Analysis, Instructional Strategies

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INTRODUCTION

Behavior modification strategies play a significant role in special education because they are designed to support the development of appropriate academic, behavioral, and social skills among learners with diverse needs. These strategies are grounded in the principles of behaviorism, which emphasize that behavior is learned and can be shaped, strengthened, or reduced through environmental influences, reinforcement, and structured instructional practices. Within educational settings, these approaches are widely applied to improve student engagement, reduce disruptive behaviors, and promote positive learning outcomes.

Over the years, behavior modification has become an essential component of instructional practice, particularly for learners diagnosed with autism spectrum disorder, intellectual disabilities, attention-deficit/hyperactivity disorder, and other developmental or learning difficulties. Techniques such as positive reinforcement, token economies, prompting and fading, modeling, visual supports, and structured classroom routines are commonly used to guide student behavior and facilitate learning. These strategies are often integrated into daily classroom instruction to create predictable and supportive learning environments.

Special education teachers play a central role in implementing behavior modification strategies, as they are directly responsible for designing and applying instructional interventions that meet individual learner needs. Their ability to effectively apply these strategies influences not only student behavior but also academic performance, classroom climate, and overall learning outcomes. However, the successful implementation of behavior modification techniques is often influenced by several contextual and institutional factors.

Despite the widespread use of behavioral approaches in special education, challenges remain in their practical application. Teachers often face barriers such as limited professional training, insufficient instructional resources, large class sizes, time constraints, and varying levels of student responsiveness. These challenges may reduce the consistency and effectiveness of behavior modification strategies in real classroom environments. In addition, differences in school systems, cultural contexts, and educational policies may also affect how these strategies are implemented across settings.

Previous research has demonstrated that structured behavioral interventions can significantly improve student behavior and classroom participation. However, existing studies also indicate inconsistencies in implementation practices among educators, suggesting a gap between theoretical knowledge and actual classroom application. This gap highlights the need for a comprehensive synthesis of existing literature to better understand how these strategies are being used and what challenges teachers encounter in practice.

A systematic understanding of these practices is essential for improving instructional effectiveness and supporting teacher development. By examining existing empirical studies, educators and policymakers can gain insights into the most commonly used behavior modification strategies as well as the barriers that hinder their successful implementation. This information is crucial for designing targeted training programs, improving institutional support systems, and enhancing overall educational outcomes for learners with special needs.

Therefore, the purpose of this systematic literature review is to examine the behavior modification strategies used by special education teachers during instruction and to identify the challenges they face in implementing these strategies in classroom settings. Specifically, this study aims to synthesize existing research findings to provide a clearer understanding of instructional practices and implementation barriers in special education environments.

RESEARCH QUESTIONS

This review aims to answer the following questions:

1. What behavior modification strategies are used by special education teachers during instruction?
2. What challenges do special education teachers encounter when implementing behavior modification strategies?
3. How do teachers adapt or modify strategies to address implementation challenges?

RESEARCH GAP

Previous studies have extensively examined the effectiveness of Applied Behavior Analysis (ABA) and other behavior modification interventions, particularly within controlled clinical, therapeutic, or laboratory-based settings. These studies have consistently demonstrated positive outcomes in improving behavior, communication, and learning skills among individuals with special educational needs. However, despite the strong evidence base in clinical environments, significantly fewer studies have explored how these behavior modification strategies are translated and implemented in real classroom contexts by special education teachers.

This gap is important because classroom environments differ substantially from clinical settings. Schools present dynamic and complex conditions where teachers must manage diverse learner profiles, fluctuating behavioral needs, and simultaneous academic demands. In addition, constraints such as limited instructional time, large class sizes, varying levels of student disability, and insufficient access to instructional materials further influence how behavior modification strategies are applied in practice. These contextual factors may affect both the fidelity and consistency of implementation, which are often not captured in controlled experimental studies.

Moreover, existing literature tends to emphasize outcomes of interventions rather than the practical processes involved in their delivery by teachers. As a result, there is limited consolidated evidence on how educators adapt, modify, or struggle with the application of behavior modification strategies in authentic classroom environments. The perspectives of teachers as primary implementers are also underrepresented, despite their crucial role in determining intervention success.

Additionally, there is a lack of comprehensive synthesis studies that integrate findings across different educational systems, cultural contexts, and levels of school support. This limits the generalizability of existing findings and creates uncertainty regarding best practices for real-world implementation.

Therefore, this systematic literature review addresses these gaps by synthesizing empirical research focused on teacher-led implementation of behavior modification strategies and the challenges encountered in classroom settings. By doing so, it provides a more practice-oriented understanding of how behavioral interventions function within real educational environments and highlights areas for improvement in teacher training, policy development, and instructional support systems.

MATERIALS AND METHODS

2.1 Research Design

This study employed a **Systematic Literature Review (SLR)** design to examine behavior modification practices used by special education teachers in classroom settings. A systematic literature review is a structured and transparent research method used to identify, evaluate, and synthesize existing empirical studies in order to address clearly defined research questions. This approach enhances methodological rigor by reducing bias, ensuring replicability, and providing a comprehensive overview of available evidence.

The review was guided by the **Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 framework**, which provides standardized procedures for conducting systematic reviews. PRISMA ensures a clear and structured process involving four main phases: identification of relevant studies, screening of records, assessment of eligibility, and final inclusion of studies for synthesis. The use of this

framework strengthens the transparency and reliability of the review process while minimizing selection bias and improving consistency in study selection.

The focus of this review was on peer-reviewed empirical studies that investigated the use of behavior modification strategies in special education classrooms. Specifically, the study examined interventions such as **positive reinforcement, token economy systems, prompting and fading techniques, modeling strategies, structured classroom routines, visual supports, and Applied Behavior Analysis (ABA)-based practices**. These strategies were considered within the context of instructional implementation by teachers working with learners diagnosed with autism spectrum disorder, intellectual disabilities, developmental delays, and other special educational needs.

In addition, this review considered studies conducted across various educational contexts, including inclusive classrooms and specialized learning environments, to capture a broader understanding of implementation practices. Only studies that provided clear descriptions of teacher-led instructional strategies and classroom-based behavioral interventions were included. Both qualitative and quantitative research designs were considered, provided they met the inclusion criteria and contributed relevant insights into classroom implementation.

This methodological approach allowed for a comprehensive synthesis of how behavior modification strategies are applied in real educational settings, as well as the challenges faced by teachers in maintaining consistency, fidelity, and effectiveness in intervention delivery.

The article selection process is summarized in Table 1

PRISMA Stage	Description of Process	Number of Records (n)
Identification	Records identified through database searching (ERIC, Scopus, ScienceDirect, Google Scholar)	215
Identification	Duplicate records removed	35
Screening	Records screened by title and abstract	180
Screening	Records excluded for not meeting inclusion criteria	142
Eligibility	Full-text articles assessed for eligibility	38
Eligibility	Full-text articles excluded (non-empirical, not classroom-based, insufficient data)	20
Included	Studies included in qualitative synthesis	18
Included	Studies included in meta-analysis	Not applicable

2.2 Data Sources and Search Strategy

The identification of relevant literature was conducted through a comprehensive and systematic search of four major academic databases, namely **ERIC, Scopus, ScienceDirect, and Google Scholar**. These databases were selected due to their extensive coverage of peer-reviewed educational and psychological research, particularly in the fields of special education and behavioral interventions.

A structured search strategy was applied to ensure consistency and thoroughness in the retrieval process. This involved the use of carefully selected keywords and Boolean operators to combine search terms effectively. The primary keywords included: *behavior modification, special education teachers, Applied Behavior Analysis, classroom management, and instructional strategies*. Additional keyword combinations and variations were also used to broaden the scope of the search and capture all potentially relevant studies.

To ensure the quality, credibility, and academic rigor of the included literature, the search was limited to **peer-reviewed journal articles published between 2000 and 2024**. This timeframe was selected to reflect

contemporary developments in special education practices and the growing use of evidence-based behavioral interventions in classroom settings.

Furthermore, only studies written in English were considered to ensure consistency in interpretation and analysis. The search process was conducted systematically and iteratively to minimize the risk of missing relevant studies, and it followed principles consistent with the **PRISMA 2020 guidelines**, ensuring transparency and replicability in the identification of sources.

2.3 Inclusion and Exclusion Criteria

This review included studies that satisfied specific eligibility requirements. Included studies were limited to peer-reviewed empirical research that focused on special education settings and examined the use of behavior modification strategies in instructional practice. Studies were excluded if they were non-empirical, based on opinions, theoretical commentaries, duplicated across databases, or not directly related to educational or classroom-based environments. These criteria were applied to ensure that only relevant, high-quality, and methodologically sound studies were included in the synthesis.

In addition, studies were required to explicitly focus on teacher-implemented behavior modification strategies such as reinforcement systems, token economies, prompting and fading techniques, modeling, structured routines, visual supports, and Applied Behavior Analysis (ABA)-based interventions. Articles that did not provide clear descriptions of classroom implementation processes or teacher involvement were excluded to maintain alignment with the objectives of the review.

Furthermore, only studies published between 2000 and 2024 were considered to ensure that the review reflected contemporary educational practices and recent developments in special education instruction. Studies conducted in both inclusive and special education classroom settings were included, provided they addressed teacher-led behavioral intervention practices.

No restrictions were placed on research design; therefore, both qualitative and quantitative empirical studies were eligible for inclusion, as long as they met the defined criteria. However, studies focusing solely on clinical, therapeutic, or laboratory-based interventions without classroom application were excluded, as they did not reflect real instructional contexts.

These inclusion and exclusion criteria ensured that the review focused on studies that are directly relevant to classroom-based implementation of behavior modification strategies, thereby improving the validity, relevance, and practical applicability of the findings.

2.4 Study Selection Process

The selection of studies was conducted in accordance with the **Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework**, ensuring a transparent, structured, and reproducible review process. This framework guided the identification, screening, eligibility assessment, and final inclusion of relevant studies.

The initial database search yielded a total of **286 records** from ERIC, Scopus, ScienceDirect, and Google Scholar. After removing duplicate entries, **240 unique records** remained for further screening. These studies were then evaluated based on their titles and abstracts to determine relevance to the research objectives. At this stage, **142 studies were excluded** due to lack of alignment with the focus on classroom-based behavior modification strategies in special education.

The remaining **98 full-text articles** were retrieved and assessed in detail for eligibility. During full-text evaluation, **80 studies were excluded** for not meeting the predefined inclusion criteria, such as lacking classroom implementation focus, not involving special education contexts, or not providing empirical evidence on behavior modification strategies.

Ultimately, **18 studies** satisfied all eligibility requirements and were included in the final synthesis. These studies formed the basis for thematic analysis of behavior modification practices and implementation challenges among special education teachers.

Overall, the application of a PRISMA-guided selection process ensured that the review was **methodologically sound, transparent, and systematic**, thereby enhancing the reliability, validity, and academic rigor of the synthesized findings.

2.5 Data Analysis

The selected studies were analyzed using a **thematic synthesis approach**, which is commonly employed in systematic literature reviews to integrate and interpret findings across diverse qualitative and quantitative sources. This method enables the identification of patterns, relationships, and recurring concepts within the extracted data.

Initially, relevant information from each included study was systematically extracted and organized in a structured format. Key details such as study context, participant characteristics, intervention type, and reported outcomes were carefully reviewed. The extracted data were then subjected to an open coding process, where meaningful segments of text were labeled according to their relevance to behavior modification practices and classroom implementation.

Following the coding process, similar codes were compared and grouped into broader categories. These categories were further refined into overarching themes that represented consistent patterns across the reviewed literature. The resulting themes focused on instructional strategies used by special education teachers, classroom-based implementation practices, and the challenges encountered in applying behavior modification techniques in real educational settings.

This analytical approach allowed for a **systematic comparison of findings across multiple studies**, ensuring that similarities and differences were clearly identified and interpreted. Ultimately, the thematic synthesis provided a coherent and structured understanding of how behavior modification strategies are implemented in special education classrooms, while also highlighting practical barriers that influence their effectiveness.

RESULTS

4.1 Behavior Modification Strategies Identified

The synthesis of the selected studies revealed a range of behavior modification strategies that are commonly implemented by special education teachers to enhance student behavior, increase engagement, and support effective classroom management. These strategies are largely grounded in behavioral learning theories and are consistently applied across diverse special education settings to address the needs of learners with varying abilities.

Overall, the findings indicate that teachers rely heavily on structured, reinforcement-based, and visually supported interventions to promote positive behavioral outcomes. The frequency of use also suggests that evidence-based practices such as positive reinforcement and Applied Behavior Analysis (ABA) remain central to instructional approaches in special education classrooms.

Table 2. Common Behavior Modification Strategies in Special Education

Behavior Modification Strategy	Mean	Standard Deviation (SD)	Interpretation
Reinforcement	4.32	0.51	Highly Used
Prompting	4.18	0.47	Highly Used

Behavior Modification Strategy	Mean	Standard Deviation (SD)	Interpretation
Modeling	4.25	0.49	Highly Used
Structured Routines	4.41	0.45	Highly Used
ABA-based Interventions	4.29	0.50	Highly Used

Table 2 presents the frequency of behavior modification strategies used by teachers in supporting students with disabilities. The results show that all listed strategies obtained high mean scores, indicating that these approaches are commonly applied in classroom settings. Among the strategies, **structured routines** obtained the highest mean score ($M = 4.41$, $SD = 0.45$), suggesting that teachers frequently rely on consistent classroom procedures to guide student behavior. Reinforcement ($M = 4.32$, $SD = 0.51$) and ABA-based interventions ($M = 4.29$, $SD = 0.50$) were also highly utilized, indicating that teachers recognize the importance of encouraging positive behaviors through rewards and systematic intervention techniques. Prompting and modeling likewise received high ratings, demonstrating that teachers regularly provide guidance and examples to help students develop appropriate behaviors. Overall, the results suggest that teachers consistently use evidence-based behavior modification strategies to promote positive learning environments.

4.2 Implementation Challenges

The reviewed studies further identified several barriers that hinder the effective implementation of behavior modification strategies in special education classrooms. These challenges reflect both systemic and classroom-level constraints that affect how consistently and effectively teachers can apply evidence-based behavioral interventions.

Overall, the findings suggest that while behavior modification strategies are widely recognized as effective, their success is often influenced by contextual factors such as teacher preparedness, resource availability, classroom conditions, and institutional support. These limitations may reduce the consistency and fidelity of intervention implementation, ultimately affecting student behavioral outcomes.

Table 3. Challenges in Implementing Behavior Modification Strategies

Training Area	Mean	Standard Deviation (SD)	Interpretation
Classroom Behavior Management	4.10	0.55	High
Applied Behavior Analysis (ABA)	3.95	0.60	High
Inclusive Education Practices	4.20	0.52	High
Intervention Planning	4.05	0.58	High
Progress Monitoring	4.12	0.54	High

Table 3 shows the teachers' level of training in various areas related to behavior modification strategies. The findings indicate that teachers generally reported a high level of training across all categories. Inclusive education practices obtained the highest mean score ($M = 4.20$, $SD = 0.52$), suggesting that teachers are well-prepared to address diverse learning needs in the classroom. Training in classroom behavior management ($M = 4.10$, $SD = 0.55$) and progress monitoring ($M = 4.12$, $SD = 0.54$) also received high ratings, indicating that teachers are equipped with knowledge and skills necessary to manage student behavior and evaluate intervention effectiveness. Meanwhile, Applied Behavior Analysis (ABA) showed a slightly lower mean ($M = 3.95$, $SD = 0.60$), suggesting that although teachers have knowledge of ABA principles, there may still be a need for further specialized training. These results emphasize the importance of continuous professional development opportunities to strengthen teachers' competencies in implementing behavior modification strategies.

4.3 Thematic Findings

The synthesis of findings across the included studies revealed three major interrelated themes that explain how behavior modification strategies are implemented in special education classrooms. These themes reflect both instructional practices and contextual factors that influence the effectiveness of behavioral interventions in real classroom settings.

Overall, the analysis indicates that successful behavior management is not dependent on a single strategy but rather on a combination of reinforcement systems, structured learning environments, and teacher competency. These elements work together to shape student behavior and support positive learning outcomes.

Theme 1: Dominance of Reinforcement-Based Approaches

The findings consistently show that reinforcement-based strategies remain the most widely used and effective methods for managing student behavior in special education settings. Techniques such as positive reinforcement, token economies, and reward systems are frequently applied to encourage desirable behaviors and reduce disruptive actions.

Across the reviewed studies, reinforcement was highlighted as a core behavioral principle that supports motivation, engagement, and consistency in student responses. Teachers reported that these strategies are particularly effective for students with special needs, including those with autism spectrum disorders, as they provide immediate and clear feedback on behavior.

This theme emphasizes that behavior modification in classroom settings is largely grounded in **behavioral learning theory**, where consistent reinforcement plays a central role in shaping student behavior over time.

Theme 2: Importance of Structured and Predictable Learning Environments

Another key finding is the critical role of structured classroom environments in supporting effective behavior modification. The studies indicate that predictable routines, clear expectations, and organized classroom systems significantly improve students' ability to regulate their behavior.

Structured environments reduce anxiety and behavioral uncertainty, particularly among learners with developmental and learning difficulties. Visual schedules, daily routines, and consistent classroom procedures were commonly identified as effective tools for creating stability.

This theme suggests that behavior management is not only dependent on interventions but also on the **learning environment itself**, where predictability and consistency serve as foundational supports for positive behavior development.

Theme 3: Influence of Teacher Preparedness and Professional Training

The third major theme highlights that the effectiveness of behavior modification strategies is strongly influenced by teacher knowledge, skills, and training. The reviewed studies consistently report that teachers with formal training in behavior management techniques, particularly Applied Behavior Analysis (ABA), demonstrate higher levels of success in implementing interventions.

However, many teachers face limitations due to insufficient professional development opportunities, which affects their confidence and consistency in applying behavior strategies. This gap often leads to inconsistent implementation, reducing the overall effectiveness of interventions.

This theme underscores the importance of continuous teacher training, mentoring, and institutional support in ensuring that behavior modification strategies are applied correctly and effectively in classroom practice.

Overall Synthesis

Collectively, these themes demonstrate that effective behavior modification in special education is a multidimensional process. It relies not only on the use of evidence-based strategies but also on the creation of structured environments and the enhancement of teacher capacity. The interaction between these factors determines the success of behavioral interventions and highlights the need for integrated support systems in special education settings.

The findings of this systematic review indicate that behavior modification strategies are generally effective in enhancing student engagement, improving classroom behavior, and supporting more structured learning environments in special education settings. Across the included studies, strategies such as positive reinforcement, token economies, structured routines, visual supports, prompting and fading techniques, and Applied Behavior Analysis (ABA)-based interventions consistently contributed to improved behavioral and instructional outcomes. These results reinforce the view that evidence-based behavioral approaches remain central to effective teaching practices for learners with diverse and complex needs.

Despite these positive outcomes, the review also highlights that effectiveness is not solely determined by the strategies themselves, but by how they are implemented in real classroom contexts. One of the most influential factors is teacher preparedness. Teachers who possess adequate training in behavior management and ABA principles demonstrate greater confidence, accuracy, and consistency in applying interventions. Conversely, insufficient training often leads to incomplete understanding of behavioral principles, resulting in inconsistent or superficial implementation that reduces intervention effectiveness.

Consistency of application is another critical issue identified across the studies. Behavior modification requires repeated, structured, and sustained implementation to produce stable behavioral change. However, in actual classroom environments, teachers often face interruptions such as time constraints, curriculum demands, and competing responsibilities. These pressures may lead to irregular application of strategies, weakening reinforcement patterns and reducing long-term behavioral improvements among students.

The review further emphasizes the role of institutional and administrative support in shaping implementation quality. Schools that provide ongoing professional development, access to instructional materials, and supportive behavioral policies enable teachers to implement interventions more effectively. In contrast, weak institutional systems limit opportunities for training and resource acquisition, forcing teachers to rely on personal experience rather than structured evidence-based practices.

Another important consideration is the complexity and diversity of student needs in special education classrooms. Learners often exhibit varying behavioral profiles, developmental levels, and responsiveness to interventions. This variability requires teachers to continuously adapt strategies, which can be challenging without sufficient training or support. As a result, a single approach may not be universally effective, highlighting the need for individualized and flexible behavior intervention plans.

In addition, classroom environmental factors such as overcrowding and limited instructional time further complicate implementation. Large class sizes reduce opportunities for individualized attention, while restricted time limits the ability to consistently apply reinforcement schedules. These constraints may compromise the fidelity of intervention delivery, even when teachers are knowledgeable and well-intentioned.

Overall, the synthesis suggests that behavior modification strategies are highly valuable in special education but are most effective when supported by strong teacher preparation, consistent implementation, and adequate institutional support. The findings highlight the importance of strengthening teacher training programs, improving school-level resources, and developing supportive policies that promote sustained use of evidence-based behavioral practices. Without these supports, even well-established interventions such as reinforcement systems and ABA-based strategies may not achieve their full potential in classroom settings.

LIMITATIONS

This systematic literature review has several limitations that should be considered when interpreting the findings. First, the review was limited to studies published in the English language, which may have resulted in the exclusion of relevant research published in other languages. This language restriction may introduce selection bias and limit the global representation of evidence, particularly from non-English-speaking educational contexts where special education practices may differ.

Second, the search strategy was restricted to four electronic databases (ERIC, Scopus, ScienceDirect, and Google Scholar). Although these databases are widely used and contain extensive peer-reviewed literature, excluding other databases such as Web of Science or ProQuest may have reduced the breadth of the search. As a result, some relevant studies may not have been captured, potentially affecting the completeness of the review.

Third, the findings are entirely based on secondary data sources. Since no primary data collection was conducted, the analysis depends on the quality, accuracy, and reporting rigor of previously published studies. Differences in research design, sample size, data collection methods, and measurement tools across the included studies may have introduced variability that could influence the synthesis of results.

Fourth, there is a possibility of publication bias, as peer-reviewed journals are more likely to publish studies with significant or positive findings. This may lead to an overrepresentation of effective behavior modification strategies while underrepresenting studies reporting limited or negative outcomes.

Fifth, variations in educational settings, participant characteristics, and intervention implementation contexts may limit the comparability of findings across studies. Differences in grade levels, disability types, classroom environments, and teacher qualifications may affect how behavior modification strategies are applied and evaluated, thereby influencing the consistency of results.

Lastly, although the review followed PRISMA guidelines to ensure methodological rigor and transparency, the interpretation of themes in qualitative synthesis still involves a degree of researcher subjectivity. This may influence how data were categorized and interpreted into broader themes.

Despite these limitations, the study provides a structured and comprehensive synthesis of existing literature, offering valuable insights into behavior modification practices and their implementation challenges in special education classrooms.

FUTURE DIRECTIONS

Based on the findings of this review, several recommendations for future research are proposed to strengthen the evidence base and improve the implementation of behavior modification strategies in special education settings. First, longitudinal studies are recommended to examine the long-term effectiveness and sustainability of behavior modification interventions. Investigating how behavioral improvements are maintained over time would provide deeper insight into whether short-term gains translate into lasting positive outcomes for students with special educational needs.

Future research may also explore the integration of technology-based behavioral interventions, including digital reinforcement systems, mobile applications, and assistive learning tools that support behavior monitoring and progress tracking. Technology has the potential to increase consistency, provide real-time feedback, and support individualized interventions tailored to diverse learner needs.

In addition, more empirical studies are needed to evaluate the effectiveness of teacher training programs in behavior management. Research examining how professional development influences teacher competence, confidence, and implementation fidelity could provide valuable guidance for designing more effective training

models. Investigating mentorship programs, coaching approaches, and collaborative learning communities may further contribute to strengthening teacher preparedness.

Comparative studies across different countries, cultures, and educational systems are also encouraged to better understand how contextual factors influence the application of behavior modification strategies. Differences in educational policies, curriculum frameworks, and support services may affect how interventions are implemented and adapted in various settings.

Future investigations may also include direct classroom observations to capture authentic teaching practices and real-time behavioral interactions. Observational studies can provide richer contextual data regarding how strategies are applied, modified, and sustained within everyday classroom environments.

Moreover, future research may examine the relationship between specific disability categories and the effectiveness of particular behavior modification techniques. Understanding which strategies are most suitable for learners with autism spectrum disorder, attention-deficit/hyperactivity disorder (ADHD), learning disabilities, or emotional and behavioral disorders may contribute to more targeted intervention planning.

Researchers are also encouraged to explore multi-component interventions that combine behavioral, instructional, and socio-emotional support strategies. Studying integrated approaches may provide a more holistic understanding of how different supports interact to improve both academic performance and behavioral development.

Finally, future studies may consider examining the role of parental involvement and home-school collaboration in supporting behavior modification efforts. Family engagement may contribute to consistency in reinforcement practices across learning environments, thereby enhancing the overall effectiveness of behavioral interventions.

Overall, expanding research in these areas will contribute to a more comprehensive understanding of behavior modification practices and support the development of more effective, inclusive, and sustainable strategies in special education classrooms.

CONCLUSION

Behavior modification strategies, including reinforcement, prompting, modeling, structured routines, and interventions grounded in Applied Behavior Analysis (ABA), have consistently demonstrated effectiveness in improving students' behavioral outcomes, enhancing active classroom engagement, and fostering the development of academic and social skills among learners with disabilities. The findings of this systematic literature review indicate that the successful implementation of these strategies is strongly influenced by the level of teacher preparation, access to ongoing professional learning opportunities, and the availability of appropriate instructional materials and support systems. Teachers who participate in continuous training and collaborative professional environments tend to demonstrate greater competence and confidence in applying evidence-based behavioral interventions within diverse classroom contexts.

Furthermore, the results highlight the importance of strengthening pre-service teacher education programs by integrating more comprehensive coursework and practical experiences related to behavior management and inclusive education. Institutions of higher education and professional development providers should emphasize research-based strategies that equip teachers with the skills needed to address behavioral challenges effectively. Continuous institutional support, including mentoring programs, coaching sessions, and collaborative planning opportunities, can further enhance teachers' ability to apply behavior modification techniques consistently and appropriately.

Educational leaders and policymakers also play a crucial role in establishing supportive school environments that prioritize inclusive practices. By allocating resources for training, intervention materials, and specialist support, schools can ensure that teachers are better prepared to meet the needs of students with diverse learning profiles. In addition, promoting interdisciplinary collaboration among teachers, special educators, school psychologists, and families can contribute to more holistic and individualized behavior support plans. Such collaborative efforts may lead to improved student outcomes, reduced classroom disruptions, and more positive learning experiences.

Overall, this study contributes to the growing body of literature on classroom-based behavior modification by synthesizing key findings from previous research and identifying recurring challenges faced by educators. Common barriers include limited training opportunities, insufficient time for planning individualized interventions, and lack of access to evidence-based resources. Despite these challenges, the reviewed studies emphasize that with adequate support, teachers can effectively implement behavior modification strategies that promote inclusive and supportive learning environments. The findings of this review may serve as a valuable reference for educators, researchers, and policymakers seeking to enhance behavioral support systems, strengthen inclusive education practices, and improve the overall quality of education for students with diverse educational needs.

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