

# The Impact Of Classroom Management Skills On The Behavior Of Students With Autism Spectrum Disorder: Perspectives Of Teachers In Saudi Arabia

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## Abstract

The methods utilized by teachers and their interactions with students significantly influence knowledge transmission and classroom discipline. This study investigates the most effective classroom management strategies for improving the behavior of students with autism spectrum disorder (ASD), as perceived by their teachers in Saudi Arabia. A validated questionnaire, reviewed by a panel of five subject-matter experts, was used to gather data. Reliability was confirmed through Cronbach's Alpha (0.80–0.87). Hypotheses were tested using the Pearson Product-Moment Correlation Coefficient at a 0.05 significance level. The study targeted 400 male and female teachers, with 238 participants completing the survey. Data were analyzed using t-tests to evaluate the regression coefficients. Findings revealed that reinforcement-based classroom management strategies had a significantly greater impact on managing students with ASD compared to punitive approaches. Moreover, there were no statistically significant differences in teachers' perceptions based on gender, academic qualifications, or grade level. The study recommends raising teachers' awareness of effective classroom management strategies and offering professional development programs. Additionally, it suggests conducting experimental field studies to measure the strategies' efficacy in practice.

**Keywords:** Autism Spectrum Disorder, Classroom Management, Special Education.

## Introduction

Classroom teachers play a pivotal role in fostering a supportive educational environment that promotes effective learning and engagement. To create a stable and conducive classroom atmosphere, teachers must establish clear rules and implement effective management techniques to regulate behavior throughout the learning process (Wang & Eccles, 2012). Disruptive behaviors, such as talking loudly without permission, leaving seats, and wandering during lessons, can obstruct teaching and learning. When left unmanaged, these behaviors adversely affect not only the students exhibiting them but also their peers (Oyira, 2006).

The challenge of managing behavioral problems is magnified when working with students who have disabilities. Behavioral issues are particularly prevalent among students with autism spectrum disorder (ASD), hindering their academic, psychological, and social development. Teachers who lack the necessary

skills to manage such behaviors effectively may experience burnout, potentially leading to job dissatisfaction or resignation (Lord et al., 2018). Given the diverse characteristics and needs of students with ASD, individualized and evidence-based strategies are essential. Behavioral problems associated with ASD often demand innovative and scientifically validated classroom management methods to ensure educational success. This study aims to address these challenges by evaluating teachers' perspectives on the most effective classroom management strategies for students with ASD.

## Research Problem

Studies indicate that 70% of students with autism spectrum disorder exhibit problematic behaviors that hinder their ability to acquire information and build social relationships with peers (Mayes, Calhoun, & Crowell, 2000). Students with ASD represent a heterogeneous group, with characteristics and needs varying greatly in

nature and severity. This diversity necessitates individualized plans and targeted management strategies. Despite receiving adequate training, many teachers lack access to quantitative research identifying the most effective approaches for influencing the behavior of students with ASD.

### Research Goals

The primary aim of this study is to determine the effect of classroom management methods used by teachers of students with autism spectrum disorder on managing student behavior in Saudi Arabia. Specifically, the study seeks to:

- a) Identify the most effective classroom management methods for influencing the behavior of students with ASD.
- b) Examine whether demographic variables, such as gender, academic qualifications, and grade level, influence teachers' perceptions of these methods.
- c) Assess whether prior coursework and professional development in behavior management are associated with the perceived effectiveness of classroom management strategies.

### Definitions of Terms

1. **Classroom Management:** A set of techniques and strategies proven effective in shaping student behavior. These strategies include positive and negative reinforcement, as well as punishment methods such as response cost and isolation.
2. **Autism Spectrum Disorder (ASD):** A neurodevelopmental disorder characterized by challenges in social interaction, communication, and repetitive behaviors. ASD is a spectrum condition, with symptoms and severity varying widely among individuals.

### Theoretical framework and previous studies

#### Literature Review

##### First: Classroom Management

Classroom management is a crucial skill for all teachers, particularly special education teachers, as it enhances academic achievement, fosters students' social competence, promotes a positive classroom climate, and supports students with exceptional needs. It serves as a foundational element of a multi-tiered system of support (MTSS), where all students receive universal interventions, some benefit from targeted interventions, and a smaller group requires intensive, individualized support to address academic and behavioral challenges (Fuchs & Fuchs, 2006; Sugai & Horner, 2009). Sugai and Horner (2002) define classroom management as encompassing prevention and intervention strategies aimed at teaching socially appropriate behaviors, applying a continuum of consequence strategies, and consistently using data to monitor progress.

Classroom management involves non-instructional actions teachers use to teach social behavior and minimize inappropriate behavior. Teachers adopt strategies based on the educational and organizational goals established at the beginning of the academic year, as the educational process cannot succeed in a poorly managed classroom (Akalın & Sucuoglu, 2015).

Scrivener (2012) describe classroom management as organizing the classroom environment to meet the expectations of the educational system, curriculum, school, teacher, and students. This includes establishing rules and relationship patterns, managing systems, planning and evaluating activities, identifying students' strengths, motivating them, structuring communication, maintaining discipline, and ensuring efficient use of time, resources, and materials to minimize undesirable behaviors.

The process begins with setting classroom-wide behavioral expectations (e.g., be safe, respectful, responsible), explicitly teaching them, and reinforcing them through systems such as token economies. Effective practices include increasing specific praise, prompting expectations, and providing more opportunities for response (Scott, Anderson, & Alter, 2012). Teachers evaluate strategies' effectiveness and determine adjustments, such as changing or combining strategies. Strategies include reinforcement,

punishment, and contingency reinforcement. Research shows punishment may be necessary when reinforcement strategies fail, behavioral issues persist, or self-harm occurs (McIntosh, Frank, & Spaulding, 2010).

## **Second: Autism Spectrum Disorder (ASD)**

Students with autism spectrum disorder (ASD) face challenges in social interaction, communication, and exhibit repetitive behaviors and restricted interests. Some may have intellectual disabilities, while others demonstrate exceptional giftedness. According to the DSM-5, ASD symptoms typically appear before age three and present lifelong challenges. ASD occurs across all racial, ethnic, and socioeconomic groups and is four times more prevalent in males than females (Lindgren & Doobay, 2011).

The DSM-5 (2013) introduced changes, consolidating separate autism subtypes into a single diagnosis: autism spectrum disorder. This spectrum-based perspective recognizes autism as a continuum of conditions with varying severity levels (Wiggins et al., 2019).

While no definitive cause of ASD has been identified, research indicates a strong genetic component. Studies show ASD often runs in families; for example, if one identical twin has autism, the other is affected 75–90% of the time. Parents with one child with ASD have a 2–10% chance of having another child with the condition. Although some parents fear vaccines cause autism, scientific evidence disproves this theory. Autism is a brain-based disorder and is not caused by inadequate parenting. However, parents play a critical role in planning and implementing interventions (Lord, et al 2020).

The prevalence of ASD has risen in recent decades. WHO statistics estimate 1 in 100 children worldwide are diagnosed with ASD, though figures vary due to diagnostic and reporting differences. In 2023, the CDC reported that ASD prevalence in the U.S. had risen to 1 in 36 children (2.8%). A significant challenge in managing classroom behavior for students with ASD lies in the lack of consensus on effective, evidence-based classroom management techniques. The No Child Left Behind Act

defines "scientific research" as rigorous, systematic, and objective studies yielding valid, reliable findings. Scientific practices require rigorous validation through randomized controlled trials or well-controlled single-subject design studies. However, these strict standards pose challenges for ASD research in real-world settings.

## **Purpose and Research Questions**

This study aims to examine the impact of classroom management methods on the behaviors of students with ASD in Saudi Arabia from teachers' perspectives and explore the relationship between demographic data and student responses. Findings will inform special education practices and guide authorities in the General Education Administration.

1. What classroom management strategies are most effective in influencing the behaviors of students with ASD from teachers' perspectives?
2. Are teacher demographic variables, including (a) gender, (b) academic qualifications, and (c) years of experience, significantly associated with the impact of classroom management strategies?
3. Are undergraduate or graduate courses, such as (a) behavior management, (b) reinforcement strategies, and (c) professional development, significantly associated with the impact of classroom management strategies?

## **Materials and Methods**

### **Study Design**

A questionnaire was used to identify effective classroom management methods for controlling ASD students' behaviors in Saudi Arabia. Supervisors specializing in teaching ASD students distributed the questionnaire through electronic platforms (e.g., WhatsApp, Facebook, X) targeting the teachers.

Saudi Arabia has seven major cities (Riyadh, Jeddah, Makkah, Al-Madinah, Al-Dammam, Abha, and Hail), with 400 teachers employed in

40 ASD programs in public schools and Ministry of Education (MoE)-affiliated institutions (personal communication, MoE, 2022). Teachers must hold an educational certificate, training, and professional experience in special education to qualify as specialists. Supervisors shared the questionnaire and obtained consent from participating teachers.

The questionnaire targeted 400 educators working in special education centers for children aged 4–16 years (preschool to elementary levels). A purposive and diverse sampling approach was employed. Of the 400 targeted educators, 238 completed the questionnaire. Table 1 details participants' demographics, including gender, professional experience, specialization, educational stage, and academic qualifications.

### Study Population and Sampling

<b>Table 1 Demographic characteristics of participants (N = 238)</b>			
<b>Variables</b>	<b>Sub-variable</b>	<b>Numbers</b>	<b>Percentage (%)</b>
<b>Gender</b>	Female	123	51.90%
	Male	114	48.10%
<b>Years experience</b>	From 11 years to 15 years	95	40.08%
	From 6 years to 10 years	66	27.85%
	Less than 1 year to 5 years	61	25.74%
	More than 15 years	15	6.33%
<b>Educational level</b>	Elementary Level	197	83.12%
	Preschool Level	38	16.03%
	Middle Level	2	0.84%
<b>Academic qualifications</b>	Bachelor's degree	209	88.19%
	Master's degree	27	11.39%
	Doctor's degree	1	0.42%
<b>Academic major</b>	Special Education	210	88.61%
	General Education	26	10.97%
	Other	1	0.42%

Table 2 shows participants' educational experiences during their undergraduate or graduate studies and research-related educational courses (behavior management and reinforcement strategies), as well as professional development they received.

<b>Table 2 Educational experiences of participants (N = 238)</b>			
<b>Variables</b>	<b>Sub-variable</b>	<b>Numbers</b>	<b>Percentage (%)</b>
<b>Coursework include topics related to behavior management.</b>	Yes	211	89.03%
	Maybe	23	9.28%
	No	4	1.69%
<b>Coursework include topics related to behavioral reinforcement strategies</b>	Yes	192	80.51%
	Maybe	28	11.86%
	No	18	7.63%
<b>Professional development (e.g., training courses) in behavior management or behavior improvement strategies</b>	Yes	130	55.08%
	Maybe	41	17.37%
	No	65	27.54%

## **Study instrument**

### **Data Collection**

The researcher developed a tool to evaluate the influence of classroom management strategies on the behaviors of students with autism spectrum disorder (ASD) in Saudi Arabia from their teachers' viewpoints. This tool examines three key aspects of classroom management: reinforcement, punishment, and reinforcement contingencies. Initially, 13 statements were proposed and later refined to 11 items based on feedback from reviewers. The expert panel consisted of six faculty members from Arab and international universities with expertise in special education programs.

The research design in this study was a survey instrument. Teachers of students with ASD received notifications via social media platforms (WhatsApp, Facebook, Twitter, and email) containing a link to the survey and were asked to volunteer to participate. The survey consisted of three pages: the first page included an informed consent form detailing the title, purpose of the study, information, time required, potential risks, benefits to participants, and contact information. At the end of the page, there was a checkbox indicating consent to participate in the survey. The second page contained eight questions about demographic information. The third page included 11 items on classroom management styles.

To ensure precise responses, a five-point Likert scale was used to capture the perspectives of participating teachers. Teachers were asked to indicate their level of agreement by marking (✓): 5 - I use it, and it is highly effective; 4 - I use it, and it is moderately effective; 3 - I use it, and it is slightly effective; 2 - I use it, but it is not effective; and 1 - I do not use it.

### **Validity and Reliability**

The researcher verified the validity of the study by reviewing previous literature, presenting the questionnaire to teachers, and having it reviewed by six experts fluent in Arabic and English.

Additionally, the Rasch model was used to examine the validity of the questions. The researchers also confirmed the reliability of the scale, with findings indicating strong reliability coefficients supporting its application. The test-retest reliability of the scale was assessed with a sample of 27 special education teachers, yielding a reliability coefficient of 0.83, which indicated that the instrument was reliable.

### **Data Analysis**

The researcher used the Statistical Package for the Social Sciences (SPSS) program to calculate the means and standard deviations of the participants' scores. Additionally, frequency distributions were calculated for the different response categories: 5 - I use it, and it is highly effective; 4 - I use it, and it is moderately effective; 3 - I use it, and it is slightly effective; 2 - I use it, but it is not effective; and 1 - I do not use it. The t-test statistical method was applied to assess the effects of gender, academic qualifications, and years of experience on the participants' evaluations and to examine the hypotheses at a significance level of 0.05."

### **Ethical consideration**

The researcher stated in the informed consent that participation by the targeted teachers is voluntary and that there are no benefits or risks to the participants. Additionally, participants may choose not to complete the questionnaire if they wish. Teacher supervisors assisted in distributing the questionnaire to reach the largest possible number of the target group to ensure an appropriate sample size. The informed consent also assured participants that their responses would remain confidential and that any information provided would be used solely for the study.

### **Results and Discussion**

**The First question:** What classroom management strategies are most influential on the behaviors of students with autism spectrum disorder from the perspective of their teachers?

To answer this question and determine the most effective classroom management techniques from the perspective of teachers working with students with autism spectrum disorder, the researcher extracted the frequency ratio, arithmetic mean, and standard deviations presented in Table 3.

<b>Table 3</b>	<b>Percent</b>					Mean	SD
Classroom management strategies	I don't use it	I use it, but it is not effective	I use it and it works a little bit	I use it and it is moderately effective	I use it and it's highly effective		
Positive Reinforcement-Social	0.42		4.24	11.02	84.32	4.79	0.55
Positive Reinforcement- a preferred activity	5.49	2.95	3.80	24.05	63.71	4.37	1.0
Positive Reinforcement - Material	0.84	6.75	13.50	24.89	54.01	4.2	0.98
Positive Reinforcement - Token Economy	5.91	13.50	13.92	26.16	40.51	3.8	1.2
Positive Reinforcement - Food	10.21	11.91	18.30	21.28	38.30	3.48	1.4
Negative reinforcement	10.21	13.19	20.85	25.96	29.79	3.0	1.5
Positive punishment	22.55	32.34	13.62	12.77	18.72	2.7	1.4
Negative punishment	22.55	37.45	13.19	9.79	17.02	2.6	1.3
Dependent group contingencies	21.10	37.55	9.28	10.13	21.94	2.7	1.4
Interdependent group contingencies	21.10	25.32	7.17	10.55	35.86	3.1	1.6
Independent Group contingencies	4.64	1.69	5.91	10.13	77.64	4.5	1.0

The analysis of the table reveals that all questionnaire items had average scores, with standard deviations ranging from 0.55 to 1.6 and arithmetic means ranging between 4.79 and 2.6. The findings indicate that the most effective classroom management strategies for influencing the behaviors of students with autism spectrum disorder (ASD) were Positive Reinforcement-Social, which demonstrated a high and medium impact rate of 95.52% and an average score of 4.79. Independent Group Contingencies ranked

second, with a high and medium impact rate of 87.77% and a mean score of 4.5. Positive Reinforcement-A Preferred Activity was the third most effective method, with a high impact rate of 63.71%.

Positive Reinforcement-Material followed, with a high impact percentage of 54%, while Positive Reinforcement-Token Economy ranked fifth, achieving a high impact percentage of 40.51%. In contrast, Negative Punishment was ranked last,

with a high impact percentage of only 17.02%. Moreover, approximately 60% of participating teachers reported not using negative punishment, and those who did observed minimal or no effect on the behaviors of students with ASD. Positive Punishment was the second least effective method, with a high impact percentage of 18.7% and an average score of 2.7.

The results of this study underscore the superior effectiveness of positive reinforcement strategies in managing the behaviors of students with ASD, compared to punishment-based approaches. These findings are consistent with prior research (e.g., Syriopoulou-Delli et al., 2012; Igbinoba & Marvelous, 2015; Dicke et al., 2015; Cassady, 2011), which similarly identified Positive-Social Reinforcement as the most impactful method for influencing the behaviors of students with ASD. Furthermore, the data suggests that individual reinforcements requiring personal effort, such as Independent Group Contingencies, are more effective than group-based approaches, such as Dependent Group Contingencies. This observation aligns with the conclusions of previous studies (e.g., Pokorski, 2019; Mruzek et al., 2007).

**The second question:** Are teacher demographic variables, including (a) gender, (b) academic

qualification, and (c) years of experience, significantly associated with the impact of classroom management strategies?

This question was addressed by analyzing the correlation between different variables. The results indicated no statistically significant differences in the impact of classroom management strategies in Saudi Arabia on students with autism spectrum disorder based on teachers' gender ( $p = 6.17$ ), academic qualifications ( $p = 0.612$ ), or grade level ( $p = 8.85$ ). In other words, teachers' gender, academic qualifications, and teaching level did not influence the effectiveness of classroom management strategies on the behaviors of students with autism spectrum disorder. These findings align with Al-Shammari's (2018) study, which similarly found no relationship between teachers' gender and the impact of classroom management on student behavior. However, the results of this study differ from those of Igbinopa (2015), who observed statistically significant differences in grade level. Igbinopa's findings indicated that teachers in elementary schools reported a greater impact of classroom management on student behaviors compared to those teaching at the middle school level.

**Table 4 The result of T-test and way ANOVA for gender, employees' academic qualification, and grade level**

Source of variance	df	MS	F	Significance F	P-value	t Stat
Gender	11	0.702441	3.072635	0.000733	6.18	4.630062
Academic Qualification	11	2.155387	2.784542	0.002056	3.17	4.780361
Grade Level	11	0.244099	1.718175	0.070576	8.85	2.6E-16

**The third question:** Are the courses taken during undergraduate or graduate studies, including (a) behavior management, (b) reinforcement strategies, and (c) professional development, significantly associated with the impact of classroom management strategies?

"Table 5 shows no statistically significant differences between the variables of courses (behavior management, reinforcement interventions) and professional development in terms of their impact on classroom management methods and the behaviors of students with autism spectrum disorder. These findings contrast

with those of Kayıkçı (2009), who identified a significant relationship between the courses teachers completed during their studies and the

influence of classroom management skills on students' disciplinary behavior."

**Table 5 The result of T-test and way ANOVA for coursework behavior management, coursework reinforcement strategies, and professional development**

Source of variance	df	MS	F	Significance F	P-value	t Stat
coursework behavior management	11	0.637744	1.899105	0.040529	6.41	5.125488
coursework reinforcement strategies	11	2.155387	2.784542	0.002056	3.17	4.780361
professional development	11	1.943848	3.706554	0.000129	7.41	5.565279

### Limitations of the study

This study is limited by its reliance on self-reported data voluntarily provided by participants. One potential shortcoming is the absence of key details, such as student status, enrollment numbers, and class types. Including this information could have allowed for a more precise analysis of the impact, particularly since no significant relationships were identified in the quantitative findings.

### Conclusions and recommendations

Effective classroom management is pivotal in Saudi schools, particularly those serving students with disabilities, as maintaining high levels of student engagement is essential for fostering learning and regulating behavior. This research has emphasized the significance of various classroom management strategies, their impacts, and the importance of their implementation for educators and administrators in Saudi schools. Teachers must take into account individual differences, student preferences, and varying levels of need when selecting the most appropriate classroom management approach. The ultimate goal of these strategies is to establish a comfortable, interactive, and enriching learning environment. The researcher recommends disseminating the study's findings to school staff and educators and providing

training courses to ensure their comprehension and application of these strategies. Additionally, the researcher suggests conducting experimental studies to assess the effectiveness of these approaches when applied to students with autism spectrum disorders, thereby evaluating their outcomes and refining best practices.

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