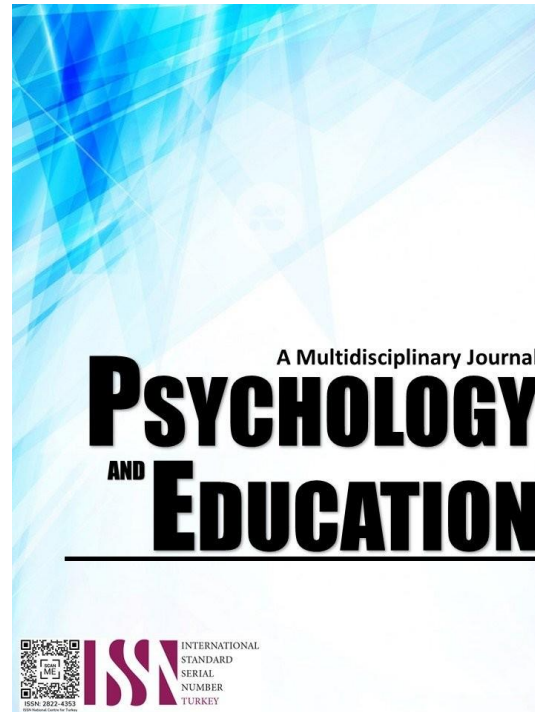


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The Power of Discipline: Unveiling its Impact on Students' Problem-Solving Skills

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Abstract

The impact of teacher discipline on student outcomes is a critical area in educational research. However, limited studies have explored how specific discipline styles affect students' problem-solving abilities, particularly in Grade Six classrooms. This study investigates the relationship between classroom discipline styles of Grade Six teachers and students' problem-solving skills in schools within District III and IV of Kabankalan City, Negros Occidental Philippines. Using a descriptive-correlational design, the study involved 34 Grade Six teachers and 170 students selected through purposive and quota sampling methods, respectively. Teachers' discipline styles were assessed using a standardized questionnaire while students' problem-solving skills were evaluated using a 50-item test comprising logical thinking and abstract reasoning sections sourced from online resources. Statistical analyses included mean calculations for identifying predominant discipline styles among teachers, revealing that Autocratic or Authoritarian styles ($M = 3.63$) were most frequently employed. Significant correlations ($p < 0.05$) were found between the Democratic Discipline style ($M = 3.29$) and students' problem-solving skills, suggesting that participatory classroom practices enhance student outcomes in this regard. Recommendations include promoting participatory learning environments to strengthen problem-solving skills, providing professional development for teachers in democratic classroom management, and integrating technology for collaborative learning experiences. These findings contribute to understanding the impact of teacher discipline styles on student competencies and inform strategies for fostering effective educational practices.

Keywords: *teacher discipline, discipline styles, impact on students, problem-solving skills*

Introduction

Classroom discipline plays a crucial role in shaping the learning environment and students' overall development. Traditionally, discipline is understood as adherence to rules, teachers' directives, and societal expectations. However, while the immediate focus of discipline is often on controlling classroom behavior, its broader implications extend to cognitive development, particularly in the development of problem-solving skills. Problem-solving is a critical skill that allows students to navigate academic tasks and life challenges, and is increasingly recognized as essential for their future success (Van Merriënboer, 2013). However, despite its importance, there is limited research exploring the specific impact of discipline styles on problem-solving abilities in students.

Existing literature primarily addresses the short-term effects of discipline, such as classroom behavior and academic performance, often neglecting its influence on cognitive processes like problem-solving. Furthermore, many studies fail to account for the diverse contexts in which discipline is applied, such as variations in student age, cultural backgrounds, and socio-economic status. These gaps highlight the need for a more nuanced understanding of how different discipline styles affect students' cognitive skills, particularly problem-solving.

The need for this study becomes evident when considering the various ways discipline styles can influence students' engagement, creativity, and autonomy. Positive discipline approaches, which encourage mutual respect and student autonomy, are thought to foster critical thinking and independent decision-making, ultimately enhancing problem-solving abilities. In contrast, more authoritarian or punitive methods may create an environment of fear and compliance, potentially stifling creativity and hindering cognitive development (Warren, 2019).

Research Questions

This study aims to address these gaps by examining the relationship between different classroom discipline styles and students' problem-solving skills, focusing on how these relationships vary across demographic groups. Specifically, it sought to answer the following research questions:

1. What is the level of perceived classroom discipline styles of the teachers?
2. What is the level of problem-solving skills of the students?
3. Is there a significant relationship between the level of perceived classroom discipline styles of the teachers and problem-solving skills of the students?

Methodology

Research Design

This study employed a descriptive-correlational method to evaluate the socio-demographic characteristics of both teachers and students. A descriptive-correlational design was chosen because it allows for the identification and examination of patterns or relationships

between variables without manipulating the environment or behaviors of the participants (Seeram, 2019). Specifically, this design was selected to investigate how different classroom discipline styles, as independent variables, are related to students' problem-solving skills, the dependent variable.

The descriptive aspect of the design allows for a detailed account of the socio-demographic characteristics of both teachers and students, providing context for understanding how these characteristics might influence the main variables under study. The correlational component facilitates the analysis of the strength and direction of the relationship (Chiang, Jhangiani, & Price, 2015) between the teachers' discipline styles and students' problem-solving skills, making it particularly suitable for identifying potential patterns and associations in a natural educational setting.

Respondents

The respondents of this study included 34 Grade Six teachers and 170 selected Grade Six students from various schools in the Districts of Kabankalan III and IV. These schools were Tabugon, Tagoc, Pinaguinpinan, Inapoy, Bantayan, Locotan Elementary School, Pacao, Dacongogon, Magballo, and Baras-Duitay Elementary School during the school year 2017–2018.

The purposive sampling method was employed to select the teacher respondents for this study. The total population of Grade Six teachers from various schools in the Districts of Kabankalan III and IV, including Tabugon, Tagoc, Pinaguinpinan, Inapoy, Bantayan, Locotan Elementary School, Pacao, Dacongogon, Magballo, and Baras-Duitay Elementary School, was determined beforehand.

For the student respondents, the quota sampling method was used. Five students were selected per teacher, resulting in a total number of student respondents.

Instrument

A standardized questionnaire was used to gather information about the discipline styles of teachers. The researcher adopted a questionnaire based on the study by Bangoy et al. (2014) regarding classroom discipline styles and their relation to students' learning attitudes. This questionnaire underwent a series of validity and reliability tests.

The first part of the research instrument collected data on the teachers' socio-demographic profiles. The second part assessed the teachers' classroom discipline styles.

For the student assessment, the first part of the questionnaire collected their socio-demographic profiles. To evaluate the students' problem-solving skills, a 50-item test on logical thinking and abstract reasoning was administered. This test comprised two sections: a 25-item logical thinking skills test and a 25-item abstract reasoning test. The researcher gathered these instruments from various online sources. The abstract reasoning test was sourced from www.psychometricinstitute.com, and the logical thinking skills test was sourced from www.my.edugain.com.

Procedure

Before conducting the survey, a request letter seeking approval was sent to the Schools Division Superintendent, Public District Supervisors, and the school heads of the various schools included in the study within the Division of Kabankalan City. This letter outlined the purpose, date, and procedures of the survey.

Upon receiving the necessary approvals, the researcher, with the assistance of the teachers, administered the questionnaires to the respondents. The collected data was then thoroughly reviewed and assessed to ensure accuracy and completeness.

Once the data was verified, it was processed and prepared for statistical analysis and interpretation. This step was crucial to ensure that the findings would be reliable and valid, providing meaningful insights into the relationship between teachers' classroom discipline styles and students' problem-solving skills.

Data Analysis

For Problem 1, the mean was used to determine the perceived levels of classroom discipline styles among teachers, categorized as autocratic, democratic, laissez-faire, and indifferent. For Problem 2, the mean was utilized to describe the students' problem-solving skills. For Problem 3, Spearman Rank Correlation at a 0.05 level of significance was employed to identify the significant relationship between the teachers' classroom discipline styles and the students' problem-solving skills.

Results and Discussion

This section presents the findings of the study, focusing on the level of perceived classroom discipline styles employed by teachers, the problem-solving skills of students, and the relationship between the two variables.

The results are organized into three key areas: the discipline styles used by teachers, the problem-solving abilities of students, and the correlation between the two. The findings are discussed in relation to existing literature and theories on classroom discipline and cognitive development.

Level of Perceived Classroom Discipline Styles of Teachers

Table 1. *Level of Perceived Classroom Discipline Styles of Teachers*

<i>Test Statistics</i>	<i>Autocratic</i>	<i>Democratic</i>	<i>Laissez-Faire</i>	<i>Indifferent</i>
Mean	3.63	3.29	2.03	1.52
Interpretation	Often	Sometimes	Seldom	Never

The mean score for the Autocratic or Authoritarian Discipline Style was 3.63, indicating that this style was frequently employed by teachers. This finding aligns with M'muyuri's (2021) assertion that autocratic discipline is more commonly observed in classrooms where teachers adopt a task-oriented, directive approach. In this style, teachers strictly enforce rules, such as assigned seating and the rigorous enforcement of classroom regulations. The frequent use of this style suggests that teachers may be prioritizing control over autonomy, aiming to maintain a structured and predictable environment. Such an approach can limit student agency and may hinder opportunities for students to develop independent thinking and decision-making skills (M'muyuri, 2021).

In contrast, the Democratic Discipline Style had a mean score of 3.29, which indicates that teachers employed this style moderately. Democratic discipline styles are characterized by fostering interpersonal relationships, involving students in decision-making processes, and creating an environment of mutual respect (Turabik & Gun, 2016). Teachers who utilize this approach tend to encourage dialogue, provide guidance on classwork, and offer students the chance to contribute to the development of classroom rules. By doing so, they aim to foster student engagement and intrinsic motivation, which has been shown to enhance academic and cognitive outcomes.

The Laissez-Faire Discipline Style was seldom used, with a mean score of 2.03. This suggests that teachers offered limited opportunities for students to exercise independence and express opinions freely. According to Astuti, Aunnurahman & Wahyudi (2019), laissez-faire discipline styles are less structured and can lead to ambiguity in student behavior. The infrequent use of this style in the study may indicate that teachers prefer more structured methods that help maintain order and provide clear expectations for students.

The Indifferent Discipline Style, with a mean score of 1.52, indicates that teachers did not adopt this style at all. Indifferent discipline refers to a lack of involvement or attention from the teacher, allowing students to take full responsibility for their own learning. The absence of this style suggests that teachers in this study maintained high expectations for students and took an active role in guiding learning, contrary to the passive nature of an indifferent approach.

Level of Problem Solving Skills of the Students

Table 2. *Level of Problem Solving Skills of the Students*

<i>Test Statistics</i>	<i>Problem Solving Skills</i>
Mean	23.60
Interpretation	Poor

Note: 0-8 "Very Poor"; 9-16 "Poor"; 17-24 "Average"; 25-32 "Good"; 33-40 "Excellent"

The students' problem-solving skills were assessed based on their performance in logical thinking and abstract reasoning tests, yielding a mean score of 23.6. This score falls within the "Poor" category, indicating that students had difficulty applying logical operations and abstract reasoning to problem-solving tasks. The results suggest that students in this sample struggled with basic cognitive skills such as recognizing patterns, drawing conclusions, and understanding abstract concepts.

This finding supports Jala's (2020) study, which also reported that students exhibited poor problem-solving abilities. Piaget's theory of cognitive development emphasizes that abstract thinking does not emerge naturally but is a product of experiences and structured teaching (Padmanabha, 2018). Without adequate instruction and opportunities to practice critical thinking skills, students may struggle to develop the cognitive foundation necessary for effective problem-solving. As such, the low problem-solving scores in this study reflect the challenges faced by students in applying logical and abstract reasoning to academic tasks.

Relationship between the Discipline Style of Teachers and Problem Solving Skills of the Students

The Authoritarian Discipline Style showed no significant correlation with students' problem-solving skills ($r = 0.004$, $p = 0.969$), meaning that the use of this style did not impact students' ability to solve problems. This is consistent with findings in previous research, which suggest that authoritarian approaches tend to focus more on obedience and rule-following rather than on fostering critical thinking and problem-solving skills (Prakong, 2024). In this study, teachers who used authoritarian methods did not significantly influence the development of students' cognitive abilities, such as problem-solving.

Similarly, the Laissez-Faire and Indifferent Discipline Styles also showed no significant relationships with problem-solving skills (p -values of 0.148 and 0.293, respectively). These results suggest that when teachers adopt less structured or passive approaches, students are not likely to benefit in terms of cognitive development. Previous studies have suggested that while laissez-faire discipline might provide more freedom, it often lacks the guidance needed to foster critical thinking and problem-solving (Liu, Liu, Bo, & Yang, 2023). Likewise, an indifferent discipline style, which minimizes teacher involvement, provides little structure or support for the development of these skills.

In contrast, the Democratic Discipline Style demonstrated a significant relationship with students' problem-solving skills ($r = -0.0378$,

$p = 0.027$). This finding is in line with the literature that suggests democratic classrooms, where students are encouraged to engage in decision-making and where teachers foster a participatory learning environment, can enhance cognitive skills such as problem-solving (Adedigba & Sulaiman, 2020). The p -value of 0.027, which is less than the 0.05 alpha level, indicates that the use of democratic discipline strategies positively influences students' problem-solving abilities. Teachers who foster an inclusive and supportive environment contribute to the development of critical thinking skills, as students feel valued and are more likely to engage in independent thought processes (Adedigba & Sulaiman, 2020; Grandmont, 2002).

Table 3. *Relationship between the Discipline Style of Teachers and Problem Solving Skills of the Students*

<i>Classroom Discipline Styles</i>	<i>Test Statistics</i>	<i>Problem Solving Skills</i>
Authoritarian Discipline Style	r-value	0.004
	p-value	0.969
	Interpretation	Not Significant
Democratic Discipline Style	r-value	-.0378
	p-value	0.027
	Interpretation	Significant
Laissez-Faire Discipline Style	r-value	-0.250
	p-value	0.148
	Interpretation	Not Significant
Indifferent Discipline Style	r-value	-0.182
	p-value	0.293
	Interpretation	Not Significant
	Decision	Accept Ho

$P > 0.05$, no significant level at 0.05 level

This finding supports Urdan and Schoenfelder's (2006) assertion that positive classroom management strategies—such as those used by democratic teachers—can significantly improve students' academic performance and problem-solving abilities. Additionally, Du Peerz and Roux (2010) found that positive behavior management leads to improvements in students' academic outcomes, further corroborating the positive effects of democratic discipline on problem-solving skills.

Conclusions

This study aimed to investigate the relationship between classroom discipline styles and students' problem-solving skills. The findings provide valuable insights into the research questions addressed in this study.

First, regarding the level of perceived classroom discipline styles of teachers, the results revealed that Autocratic (Authoritarian) discipline was the most frequently used style among teachers, with a mean score of 3.63. This indicates that teachers typically adopted a task-oriented, directive approach to managing the classroom. The Democratic discipline style, with a mean of 3.29, was used to a moderate extent, suggesting that some teachers incorporated more participatory strategies, allowing students to engage in rule-setting and class activities. Meanwhile, the Laissez-Faire and Indifferent discipline styles were rarely or never employed, with mean scores of 2.03 and 1.52, respectively, indicating that teachers did not often adopt passive or disengaged approaches to classroom management.

Regarding on the level of students' problem-solving skills, the analysis showed that the students' problem-solving abilities were categorized as "Poor," with a mean score of 23.60. This indicates that students exhibited significant challenges in logical thinking and abstract reasoning, which suggests the need for instructional methods that can better develop these critical thinking skills and enhance their cognitive performance.

Moreover, results showed no significant relationship between the Autocratic, Laissez-Faire, or Indifferent discipline styles and students' problem-solving abilities, indicating that these approaches did not significantly influence students' cognitive development in problem-solving. However, a significant relationship was found between the Democratic discipline style and students' problem-solving skills. This style, which emphasizes student participation in decision-making and class activities, was associated with better problem-solving performance. The findings suggest that a democratic classroom environment, where students feel valued and engaged, positively contributes to the development of critical thinking and problem-solving skills.

In conclusion, the study highlights the importance of democratic discipline strategies in fostering problem-solving skills in students.

The findings suggest that teachers who use participatory approaches, such as involving students in rule-setting and classroom activities, can positively impact students' cognitive development. To support this, it is recommended that educators incorporate more democratic practices in their classrooms and that professional development programs focus on equipping teachers with the skills needed to implement these strategies effectively. By creating an environment that encourages collaboration and independent thinking, teachers

can better support the growth of students' problem-solving abilities and prepare them for future challenges.

Based on the finding that a significant relationship exists between the Democratic Discipline style and students' problem-solving skills, several recommendations may be proposed to enhance classroom practices. First, educators should actively promote participatory learning environments where students are encouraged to contribute to decision-making and problem-solving activities. This approach fosters student engagement and ownership of their learning process. Students learn best with teacher's love, dedication and strong passion towards them, therefore teachers must have a strong foundation for their character and values. Teachers must show that they are willing to help, teach, give guidance, exhibit motivation, and shape positive attitudes for the learner, serves as an example and reinforce pupil's behaviour for their holistic development. It is important for learners to be guided by their teachers. Children appreciate those teachers who are helpful and collaborative than teachers who neglect them.

Second, classrooms should be designed to support flexible learning environments, including adaptable seating arrangements and interactive technologies that facilitate teamwork and brainstorming sessions. Additionally, in order for the students to develop their problem-solving skills, they should be attentive, well organized, flexible and motivated to find the solution. Problem solving skills doesn't just deal with numbers of complex issues but it requires complex critical thinking of such inquiry. That is why students should open themselves in further experiences by working with their peers, sharing their opinions and ideas and engage in critical thinking activities. Also, students need to evaluate their own potentials and structured themselves in approaching the problem solving. Teachers should also give encouraging, stimulating and varied activities to develop student's logical and abstract thinking. Teachers must provide activity that measures students logical and abstract thinking to train their minds. They can integrate this activities or games in their lesson that can make the lesson interactive. They can have simple logic and abstract test appropriate to their student's level to increase their students' problem-solving ability.

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