The Relationship between Perceptual Learning Style and Social Relationship to Student's Academic Self-Regulation

[1]Pagado, Angel, M., [1]Balantucas, Ronil, G., [1]Belacho, Diomer Jr, I., [1]Cuasito, Kylle, P., [1]Dionisio, Almae Rose., [1]Gamarcha, Krizylle Sofea, G., [1]Gervacio, Vince Kydee., [1]Monjas, Lyca Mie, B., [1]Penpeña, Angelie Grace., [1]Polinar, Fieby Grace., [1]Ringcunada, Roberto Jr, V., [2]Krystal Joy M. Clamares*, PhD., [2]Anna Marie O. Pelandas, PhD (CAR)

[1]Department of Education, Senior High School Students, Philippines

[2]Department of Education, Senior High School Teachers, Division of Davao de Oro, Philippines

DOI: https://dx.doi.org/10.47772/IJRISS.2025.90300150

Received: 18 March 2025; Accepted: 22 March 2025; Published: 04 April 2025

ABSTRACT

This study examined the relationship between perceptual learning style and social relationships with students' academic self-regulation. The study's primary objective was to ascertain the levels of perceptual learning style, social relationships, and academic self-regulation in terms of their respective indicators. It also aimed to identify significant differences between perceptual learning style, social relationships, and academic self-regulation and determine which domains of perceptual learning style and social relationships significantly influenced academic self-regulation. The study employed a correlational design and involved 251 respondents from the junior high school students at Lorenzo S. Sarmiento Sr. National High School. The statistical tools used in this study included the average weighted mean, Spearman's rho, and multiple regression analysis. The results indicated that junior high school students exhibited a high level of perceptual learning style in their different styles: visual, auditory, kinesthetic, tactile, group learning, and individual learning. The study also revealed high social relationships among junior high school students, particularly in respect for themselves, respect for others, the ability to put themselves in someone else's shoes, and respect for problem-solving. The study found that junior high school students demonstrated a high level of academic self-regulation, particularly in self-planning, self-monitoring, self-instruction, self-evaluation, and self-reaction. Moreover, there was a high correlation and a significant relationship between perceptual learning style, social relationships, and academic self-regulation, leading to the rejection of the null hypothesis. Furthermore, all domains of perceptual learning style and social relationships received high ratings as perceived by academic self-regulation.

Keywords: GAS, Perceptual Learning Style, Social Relationship, Academic Self-Regulation, Philippines

INTRODUCTION

In the global context, students' capacity to regulate their own learning is a critical factor in achieving success within global education systems, as it enables learners to take an active role in their academic development, influencing learning processes and outcomes (Ejubovic & Puska, 2019). However, with rapid advancements in technology, recent studies indicated that students often struggle to adapt to new learning environments and strategies that require the active engagement of perceptual learning sensory channels (Cao, 2023). A study in China found inconsistencies in students' ability to integrate these sensory learning methods into their academic routines. Similarly, research in New York City revealed that international students faced difficulties with academic self-regulation due to language barriers and unfamiliar academic conventions (Magdelene, 2024). In South Africa, socioeconomic factors, particularly limited access to updated digital learning tools, significantly impacted students' perceptual learning, resulting in disparities in academic self-regulation (Chomonurwa et al., 2023). A study in the United States found that students frequently encountered challenges in implementing academic self-regulation strategies, particularly in online learning environments (Imhof et al., 2024).

In the Philippines, the role of perceptual learning was widely recognized for its ability to enhance student engagement and comprehension across various disciplines (Magulod, 2019). Research by Guevarra and Guevara (2019) on visual-spatial learning strategies in elementary science education demonstrated that such methods improved students' performance and attitudes toward learning, particularly when integrated with inquiry-based approaches. The effectiveness of these strategies in fostering an interactive and hands-on learning experience was emphasized, particularly in science education, where visualization aids conceptual understanding (Lubrica et al., 2020). Further studies suggested that enhancing perceptual learning styles within educational institutions improves inclusivity in the national education system and strengthens students' academic self-regulation (Laput & Teves, 2023).

Supportive relationships, including leading to improved self-regulation practices such as goal-setting, time management, and sustained academic focus (Brenner, 2022). These social support systems contributed to a learning environment where students developed confidence in encouragement from peers and mentors and showed to significantly enhance student motivation, managing their own learning behaviors, ultimately resulting in improved academic performance (Simon & Matthew, 2024).

Studies in the Davao Region highlighted key academic self-regulation challenges, particularly during the shift to online learning. Caraig et al. (2020) identified significant difficulties faced by students in adapting to independent learning structures, while research by Gonzaga and Oblianda (2022) emphasized the need for enhanced institutional support systems to foster self-regulation skills. Similarly, findings from Puntilanao National High School in Davao Oriental revealed that the transition caused by the pandemic hindered students' ability to adopt effective self-regulation strategies (Bantilan & Melchor, 2023). In Mawab, Davao de Oro, students were found to Mawab, Davao de Oro, students were found to experience substantial challenges related to self-regulation, largely due to a lack of awareness, skills, and adequate support systems. These difficulties might be compounded by issues associated with perceptual learning and social relationships.

Despite the extensive research on perceptual learning, social relationships, and academic self-regulation, no prior study had specifically examined these variables within the local context of the Mawab District. This study aimed to address this gap by investigating the relationship between perceptual learning and social relationships in relation to students' academic self-regulation. Moreover, the findings of this research served as a foundation for providing recommendations that might benefit educational institutions, policymakers, and other relevant stakeholders. Ultimately, the study sought to contribute to the ongoing efforts to enhance learning experiences and promote effective academic self-regulation among students.

Research Objectives

1. To assess the level of perceptual learning style among junior high school students in terms of:

1.1 visual style;

1.2 auditory style;

1.3 kinesthetic style;

1.4 tactile style;

1.5 group learning style and;

1.6 individual learning style

2. To evaluate the level of social relationship among junior high school students in terms of:

2.1 respect to myself;

2.2 respect to others;

2.3 respect to put yourself in somebody shoes and;

2.4 respect to solving problem

3. To find out the level of academic self-regulation junior high school in terms of:

3.1 self-planning;

3.2 self-monitoring;

3.3 self-instructions;

3.4 self-evaluation and;

3.5 self-reaction

4. To determine the significant relationship between the perceptual learning style and academic self-regulation of junior high school students

5. To determine the significant relationship between the social relationship and academic self-regulation of junior high school students.
6. To determine which of the domains in perceptual learning style would significantly influence academic self-regulation junior high school students.

7. To determine which of the domains in a social relationships would significantly influence the academic self-regulation of junior high school students.

METHODOLOGY

This study employed a quantitative, non-experimental research design utilizing a descriptive correlational approach to examine the potential relationship between two defined variables and determine the relationship's strength and direction. A descriptive correlational design was appropriate when the objective was to depict the existing conditions at the time of the study and explore the underlying causes of a particular phenomenon. Correlational research investigated associations between variables without researcher intervention or manipulation.

A correlation measured the strength and direction of relationships between two or more variables (Cohen et al., 2023). Correlational research was widely used quantitative method that involved the analysis of two or more numerical variables within a defined group (Pearson, 1900).

This study aimed to collect quantitative data regarding the phenomenon under investigation. A structured data collection instrument was utilized to ensure consistency and reliability in gathering responses from the target population. The primary method of data collection involved the administration of standardized questionnaires. The central focus of the study was to explore the relationship between students' perceptual learning styles and their social relationships in relation to academic self-regulation among Grade 8 and 9 students of Lorenzo S, Sarmiento Sr. National High School.

Population and Sample

This study utilized simple random sampling in selecting respondents. The participants were 251 Grade 8 and Grade 9 students, both male and female, who were officially enrolled at Lorenzo S. Sarmiento Sr. National High School for the school year 2024-2025. These grade levels were chosen as students in this stage of adolescence experience significant influences from their learning styles and social interactions on their academic behavior. Students from Grade 7, Grade 10, and Senior High School were not included as they did not meet the study’s criteria. Participation was voluntary, and respondents had the right to withdraw from the study at any time if they felt uncomfortable.

To ensure a representative sample, stratified random sampling was also applied, ensuring that each subgroup within the population was proportionally represented. As noted by Lynos and Hearne (2014), a sample size ranging from 200 to 300 respondents typically provides an acceptable margin of error while avoiding diminishing returns. Using the Raosoft sample size calculator (Raosoft, 2004), 251 students were randomly selected from a total population of 719.

Table 1. Population and Sample size of Respondents

Section	Population	Respondents
A	28	11
B	48	17
C	40	14
D	50	17
E	43	15
F	41	14
G	43	15
H	31	11
I	38	13
J	43	15
K	48	17
L	41	14
M	49	17
N	44	15
O	46	16
P	45	16
Q	41	14
TOTAL	**719**	**251**

Statistical Tool

The statistical tools used for data analysis and interpretation were the following.

Mean. This statistical tool was used to determine the level of perceptual learning style, social relationships, and students' academic self-regulation.

Spearman's rho. This statistical tool was used to determine the significance of the relationship between perceptual learning style and social relationships in academic self-regulation.

Multiple Regression Analysis This statistical tool was used to determine the influence of the relationship between perceptual learning style and social relationships to students' academic self-regulation.

RESULTS

Level of Perceptual Learning Style

Table 2 shows the level of perceptual learning style in terms of visual style, auditory style, kinesthetic style, tactile style, group learning style, and individual learning style. The overall mean is 4.09, which is described as high, with a standard deviation of 0.53. The high level could be attributed to the high ratings the respondents gave in all indicators. This entails that the respondents' responses to the level of perceptual learning style are much positive in terms of auditory style, individual learning style, kinesthetic style, group learning style, visual style, and tactile style.

The cited overall mean score was the result obtained from the following computed mean scores from highest to lowest: 4.20 or very high for auditory style with a standard deviation of 0.62; 4.14 or high for individual learning style with a standard deviation of 0.72; 4.11 or high for kinesthetic style with a standard deviation of 0.69; 4.08 or high for group learning style with a standard deviation of 0.70; 4.08 or high for visual style with a standard deviation of 0.65; and 3.91 or high for tactile style with a standard deviation of 0.67.

Table 2. Level of Perceptual Learning Style

Indicator	Mean	SD	Descriptive Equivalent
Visual Style	4.08	0.65	High
Auditory style	4.20	0.62	Very High
Kinesthetic Style	4.11	0.69	High
Tactile Style	3.91	0.67	High
Group Learning Style	4.08	0.70	High
Individual Learning Style	4.14	0.72	High
Overall	**4.09**	**0.53**	**High**

Level of Social Relationship

Presented in Table 3 are the mean scores for the indicator of social relationship, with an overall mean score of 4.13, which is described as high with a standard deviation of 0.58. The high level was attributed to the high rating that was given by the respondents on most indicators in the item of respect to myself, respect to solving problem, respect to others, and respect to put yourself in somebody shoes.

The cited overall mean score was the results obtained from the following computed mean scores from highest to lowest: 4.15 or high for respect to myself with a standard deviation of 0.70; 4.14 or high for respect to solving problem with a standard deviation of 0.65; 4.12 or high for respect to others with a standard deviation of 0.71; and 4.09 or high for respect to put yourself in somebody shoes with a standard deviation of 0.69.

Table 3. Level of Social Relationship

Indicator	Mean	SD	Descriptive Equivalent
Respect to Myself	4.15	0.70	High

Respect to Others	4.12	0.71	High
Respect to put yourself in somebody shoes	4.09	0.69	High
Respect to Solving Problem	4.14	0.65	High
Overall	**4.13**	**0.58**	**High**

Level of Academic Self-Regulation

Table 4 shows the level of academic self-regulation in terms of self-planning, self-monitoring, self-instruction, self-evaluation, and self-reaction. The overall mean is 4.20, described as very high, with a standard deviation of 0.57. The high level could be attributed to the high ratings the respondents gave in all indicators. This entails that the respondents' responses to the level of academic self-regulation are much positive in terms of self-planning, self-monitoring, self-instruction, self-evaluation, and self-reaction.

The cited overall mean score was the result obtained from the following computed mean scores from highest to lowest: 4.24 or very high for self-reaction with a standard deviation of 0.68; 4.24 or very high for self-evaluation with a standard deviation of 0.70; 4.23 or very high for self-monitoring with a standard deviation of 0.63; 4.19 or high for self-planning with a standard deviation of 0.69; and 4.09 or high for self-instructions with a standard deviation of 0.71.

Table 4. Level of Academic Self-Regulation

Indicator	Mean	SD	Descriptive Equivalent
Self-Planning	4.19	0.69	High
Self-Monitoring	4.23	0.63	Very High
Self-Instructions	4.09	0.71	High
Self-Evaluation	4.24	0.70	Very High
Self-Reaction	4.24	0.68	Very High
Overall	**4.20**	**0.57**	**Very High**

Significance on the Relationship Between Perceptual Learning Style and Academic Self-Regulation

Table 5 shows that perceptual learning style and academic self-regulation have a Spearman's rho-value of 0.825*, indicating a high correlation. Moreover, p-value of <.001, less than the 0.05 p-value, means a significant relationship between perceptual learning and academic self-regulation. Thus, the null hypothesis, which states no significant relationship between perceptual learning style and academic self-regulation, is rejected. This further implies that academic self-regulation tends to be observed when the perceptual learning style is observed.

Table 5. Significance on the Relationship Between Perceptual Learning Style and Academic Self-Regulation

		Perceptual Learning Style
Academic Self-Regulation	Spearman's rho	0.825*
	p-value	< .001

Significance on the Relationship Between Social Relationships and Academic Self-Regulation

Table 6 shows that social relationships and academic self-regulation have a Spearman's rho-value of 0.842*, indicating a high correlation. Moreover, p-value of <.001, less than the 0.05 p-value, means a significant relationship between social relationships and academic self-regulation. Thus, the null hypothesis, which states no significant relationship between social relationships and academic self-regulation, is rejected. This further implies that academic self-regulation tends to be observed when the social relationships are observed.

Table 6. Significance on the Relationship Between Social Relationships and Academic Self-Regulation

		Social Relationships
Academic Self-Regulation	Spearman's rho	0.842*
	p-value	< .001

Multiple Regression Analysis on the Influence of the Domain of Perceptual Learning Style on Academic Self-Regulation

To determine the extent to which perceptual learning styles influence academic self-regulation, a multiple regression analysis was conducted. The results, presented in Table 7, indicate a significant relationship between perceptual learning styles and academic self-regulation, as evidenced by an F-value of 89.804 and a p-value of <0.001. Since the p-value is below the 0.05 significance threshold, the null hypothesis is rejected, confirming that perceptual learning styles play a crucial role in shaping students' academic self-regulation.

The coefficient of determination (R^2) is 0.688, suggesting that 68.8% of the variance in academic self-regulation is explained by the independent variables: visual style, auditory style, kinesthetic style, tactile style, group learning style, and individual learning style. The remaining 31.2% is attributed to factors not included in the study.

Table 7. Multiple Regression Analysis on the Influence of the Domain of Perceptual Learning Style on Academic Self-Regulation

Perceptual Learning Style	**Coefficient**	**t-value**	**p-value**	**Decision α= 0.05**
Visual Style	0.116*	2.227	0.027	H_o is rejected
Auditory Style	0.126*	2.316	0.021	H_o is rejected
Kinesthetic Style	0.197*	3.592	<.001	H_o is rejected
Tactile Style	0.126*	2.809	0.005	H_o is rejected
Group Learning Style	0.208*	3.824	<.001	H_o is rejected
Individual Learning Style	0.270*	5.983	<.001	H_o is rejected
Dependent Variable: Academic Self-Regulation				

p < 0.05 R= 0.830 R^2 = 0.688 F-value=89.804 p<0.001

Therefore, as presented in the table, the hypothesis that there is no domain in the perceptual learning style that significantly influences the academic self-regulation is rejected on all indicators.

Multiple Regression Analysis on the Influence of the Domain of a Social Relationship on Academic Self-Regulation

To examine the extent to which social relationships influence academic self-regulation, a multiple regression analysis was conducted. The results, as presented in Table 8, indicate a significant relationship between social relationships and academic self-regulation, with an F-value of 155.865 and a p-value of <0.001. Since the p-value is below the 0.05 significance threshold, the null hypothesis is rejected, confirming that social relationships play a critical role in shaping students' academic self-regulation.

The coefficient of determination (R^2) is 0.717, signifying that 71.7% of the variance in academic self-regulation is explained by the independent variables: respect for oneself, respect for others, perspective-taking (empathy), and respect in problem-solving. The remaining 28.3% is attributed to factors not included in the study.

Table 8. Multiple Regression Analysis on the Influence of the Domain of a Social Relationship on Academic Self-Regulation

Social Relationships	Coefficient	t-value	p-value	Decision α= 0.05
Respect to Myself	0.216*	4.564	<.001	H_o is rejected
Respect to Others	0.230*	4.489	<.001	H_o is rejected
Respect to put yourself in somebody shoes	0.216*	4.425	<.001	H_o is rejected
Respect to Solving Problem	0.353*	7.959	<.001	H_o is rejected
Dependent Variable: Academic Self-Regulation				

p <0.05 R= 0.847 R^2= 0.717 F-value= 155.865 p<.001

Therefore, as presented in the table, the hypothesis that there is no domain in the social relationships that significantly influences academic self-regulation is rejected on all indicators.

DISCUSSION

Level of Perceptual Learning Style

The previous chapter presented the findings on the perceptual learning styles of students at Lorenzo S. Sarmiento Sr. National High School. The results indicated that the level of perceptual learning style was high, reflecting the significant influence of various factors on students and their learning approaches.

To further understand these findings, it is essential to examine how different learning styles contribute to students' perceptual learning preferences Reid (2021) underscores the pivotal role of auditory learning in enhancing students' comprehension through listening, emphasizing its impact on knowledge acquisition and cognitive processing. This perspective aligns with Peacock's (2022) assertion that integrating auditory-based instructional methods significantly improves information retention and overall learning effectiveness. The synergy between these findings highlights the importance of tailoring educational strategies to accommodate auditory learners, as doing so fosters deeper engagement and improved academic performance. Consistent with these insights, the present study further reinforces the crucial role of perceptual learning styles particularly auditory learning in shaping students' academic self-regulation and overall learning outcomes. These findings suggest that optimizing auditory learning strategies within the educational framework could lead to more effective knowledge assimilation and long-term academic success.

Building on Roomy's (2023) emphasis on the influence of individual learning styles on perceptual learning preferences, the correlation between students' preferred perceptual modalities and their unique learning approaches underscores the necessity of personalized education. Roomy highlights that certain students excel in solitary learning environments, where they can focus without the distractions of group settings. This insight reinforces the significance of adaptive instructional strategies that cater to individual learning preferences, ultimately fostering greater academic engagement and performance. Consistent with these findings, the present study further affirms that recognizing and accommodating individual learning styles plays a crucial role in enhancing students' self-regulation and overall academic success. By integrating tailored learning strategies into educational frameworks, institutions can create more inclusive and effective learning experiences, optimizing student outcomes across diverse educational settings.

Kolb (2020) underscores the fundamental role of kinesthetic learning in perceptual learning styles, emphasizing how experiential methods such as hands-on activities, simulations, and interactive tasks significantly shape students' learning experiences. This perspective is reinforced by Coffield et al. (2019), who highlight that incorporating kinesthetic approaches benefits not only kinesthetic learners but also enhances overall student engagement by promoting active participation and deeper cognitive processing. The dynamic nature of kinesthetic learning fosters stronger knowledge retention, problem-solving skills, and real-world application of concepts, making it a vital component of effective education. Consistent with these insights, the findings of this study confirm that integrating kinesthetic strategies into diverse learning environments plays a crucial role in improving academic performance and self-regulation. By embracing kinesthetic methods, educators can create immersive, student-centered learning experiences that cater to a wider range of learning preferences, ultimately fostering a more inclusive and effective educational system.

Kaniya et al. (2023) identified a strong correlation between group learning styles and academic self-regulation, suggesting that collaborative learning is often more effective than individual study for many students. Their findings align with observations from educators, who note that students engaged in group discussions tend to grasp concepts more easily, benefiting from shared insights, peer support, and diverse perspectives. This connection underscores the vital role of group learning in enhancing perceptual learning styles, as it fosters deeper engagement, critical thinking, and social interaction all of which contribute to improved academic self-regulation. Consistent with these insights, the present study further affirms that group-based learning environments provide a structured framework that supports student motivation, knowledge retention, and active participation. By integrating collaborative learning strategies into educational settings, institutions can create a more dynamic and interactive learning experience that accommodates diverse learning preferences, ultimately leading to better academic outcomes.

Furthermore, extensive research highlights a strong correlation between visual learning styles and perceptual learning, particularly in their connection to metacognitive strategies such as planning, monitoring, and self-regulation, all of which enhance student learning outcomes. Naserieh (2019) emphasizes the importance of aligning educational environments with students' preferred learning modalities, underscoring how visual learners benefit from structured, image-rich instructional methods. Additionally, studies indicate that visual learners respond particularly well to computer-assisted instruction, excelling in digital and technology-driven learning environments where visual aids, infographics, and interactive media play a significant role in information retention. This finding is consistent with the results of our study, which explored learning style adaptability and confirmed that integrating visually oriented teaching strategies enhances students' engagement, comprehension, and overall academic performance. By tailoring educational approaches to accommodate visual learners, institutions can optimize instructional effectiveness, fostering a more inclusive and adaptive learning experience.

Research underscores the vital role of tactile learning in shaping perceptual preferences, particularly through hands-on activities and physical interaction, which enhance cognitive engagement and deepen understanding. Montessori (2020) highlights that experiential learning methods, such as manipulating objects and engaging in sensory-based tasks, allow students to internalize concepts more effectively than passive learning approaches. Similarly, Milad and Davoudi (2024) found that tactile learners excel when actively involved in the learning process, as direct engagement strengthens memory retention and knowledge application. Furthermore, the integration of specialized tactile materials, such as textured learning aids and interactive tools, has been shown to significantly enhance comprehension by making abstract concepts more tangible and accessible. By

incorporating tactile strategies into educational practices, educators can create a more dynamic and inclusive learning environment that accommodates diverse learner needs. This strong connection between tactile learning and perceptual styles reinforces the importance of active participation in academic success, fostering deeper engagement, improved retention, and more meaningful learning experiences.

Level of Social Relationship

The previous chapter presented the findings on the social relationships of students at Lorenzo S. Sarmiento Sr. National High School. It revealed that the students' social relationships were rated as high. Moreover, all four indicators of this variable were also rated as high, highlighting a notably strong presence of this quality among the students. To further analyze these findings, it is important to examine how different aspects of social relationships contribute to students' interactions and overall well-being.

The respondents' level of social relationships at Lorenzo S. Sarmiento Sr. National High School indicates positive perceptions and strong capabilities in dealing with challenges related to self-respect, respect for others, empathy (putting oneself in somebody else's shoes), and respect for problem-solving. This highly positive level of social relationships reflects a conducive environment for overcoming obstacles and fostering a culture of adaptability among students.

Self-respect plays a pivotal role in shaping social connections, as evidenced by the strong relationship observed in our findings. This aligns with Lucas and Orth's (2021) assertion that self-worth significantly influences interpersonal interactions, particularly among students. Moreover, Cooley (2019) highlights that self-respect is developed through perceived social feedback, reinforcing its crucial role in fostering meaningful relationships. Consistently, our study confirms that individuals with strong self-respect engage more positively with others, leading to healthier social interactions and enhanced emotional well-being. When individuals feel valued and confident in their self-worth,they contribute to supportive and constructive social environments. Thus, nurturing self-respect is essential not only for personal identity but also for building strong, positive interpersonal relationships.

In addition to self-respect, problem-solving plays a vital role in fostering strong social connections, as evidenced by the significant relationship in our findings. Research consistently demonstrates that effective problem-solving skills enhance the quality of social interactions by promoting constructive communication and conflict resolution. For instance, Atilgan (2019) found that individuals who navigate interpersonal challenges with confidence develop stronger social bonds and greater emotional resilience. Similarly, Trauma (2019) emphasizes that improving problem-solving abilities not only reduces negative behaviors but also fosters positive communication, particularly among students coping with stress. Aligned with these insights, our study confirms that patience, empathy, and collaboration in resolving conflicts build trust and deepen relationships. Therefore, integrating problem-solving strategies into education can further cultivate resilience, strengthen social cohesion, and equip individuals with essential life skills for navigating complex social dynamics.

Beyond self-respect and problem-solving, respect for others is a fundamental factor in fostering strong social connections, as reflected in the significant relationship observed in our results. Extensive research supports the idea that valuing and acknowledging others strengthens interpersonal bonds and promotes harmony within social groups. For instance, Homans (1950) and Thibaut & Kelley (2018) propose that individuals evaluate relationships based on perceived costs and benefits, influencing their level of commitment and satisfaction. Likewise, Bowlby and Ainsworth (2019) emphasize that mutual respect nurtures trust, emotional security, and deeper social connections. Aligned with these perspectives, our findings confirm that fostering respect enhances relationship quality, encourages positive social interactions, and contributes to a supportive and cohesive community. Thus, integrating respect-based practices into educational and social settings can cultivate healthier relationships and promote long-term interpersonal well-being.

In addition to respect for others, empathy the ability to understand and share another person's emotions is a cornerstone of meaningful social connections, as evidenced by the strong relationship in our findings. Extensive research underscores its critical role in fostering deeper interpersonal bonds and enhancing overall social

harmony. For example, Stupacher et al. (2021) found that empathy strengthens relationships by improving emotional understanding, facilitating clearer communication, and reducing conflicts. Similarly, Davis (2019) highlights that acknowledging and validating others' emotions cultivates mutual respect and fosters positive social interactions. Consistent with these insights, our study confirms that empathy enhances relationship quality, encourages trust, and promotes healthier social dynamics. Thus, integrating empathy-based approaches in education and social development programs can significantly contribute to more supportive and emotionally intelligent communities.

Level of Academic Self-Regulation

The previous chapter presented the findings on the level of academic self-regulation as perceived by the students. The results indicated that academic self-regulation was generally rated as high. Among the five indicators, three received a very high rating and were classified under Self-Evaluation, Self-Reaction, and Self-Monitoring. The remaining indicators were rated high and fell under Self-Planning and Self-Instructions. This suggests that academic self-regulation is strongly evident among the students.

The respondents exhibited a highly positive outlook in the study, underscoring the vital role of self-evaluation in academic self-regulation. Schunk (2021) highlights that self-evaluation enables students to assess their abilities, monitor progress, and build confidence, ultimately fostering greater autonomy in learning. Similarly, Boekaerts (2019) emphasizes that positive self-assessments drive mastery-oriented goals and skill development, whereas negative evaluations can lead to avoidance behaviors and decreased motivation. Aligned with these perspectives, our findings confirm that self-evaluation empowers students to take ownership of their learning process, enhancing motivation, engagement, and overall academic self-regulation. By cultivating self-reflective practices, students develop resilience, adaptability, and a proactive approach to learning, leading to improved academic outcomes.

The indicator exhibited a very high mean, underscoring self-reaction as a crucial element of academic self-regulation. Baumeister (2022) describes self-reaction as a dynamic process within the monitoring phase, where students evaluate their progress and adjust their strategies or effort accordingly to stay on track. This adaptive approach is vital for continuous improvement and goal achievement. Similarly, Weiner (2023) highlights that reflecting on successes and setbacks enables learners to refine their methods, maintain motivation, and foster academic growth. Aligned with these perspectives, our findings confirm that self-assessment strengthens self-reaction, empowering students to make informed adjustments that enhance their learning outcomes and overall academic success.

The findings underscore the critical role of self-monitoring in academic self-regulation, aligning with Carver and Scheier's (2019) feedback loop theory. This theory highlights how continuous self-monitoring enables students to track progress, recognize strengths, and refine learning strategies. By regularly assessing their performance, students can make informed adjustments, enhancing both motivation and academic achievement. Moreover, effective self-monitoring fosters self-regulation, allowing learners to stay focused, adapt to challenges, and optimize their study approaches. As a result, students become more independent, proactive, and resilient in managing their academic success, reinforcing the long-term benefits of self-directed learning.

Self-planning emerged as a crucial component of academic self-regulation, as reflected in its high mean. According to Locke and Latham's (2019) goal-setting theory, self-planning involves setting clear, challenging goals, breaking them into actionable steps, and establishing timelines to enhance focus and performance. This structured approach not only improves goal attainment but also fosters discipline and adaptability in learning. Our study reinforces this connection, demonstrating that students who engage in effective self-planning exhibit stronger self-regulation, greater motivation, and improved academic outcomes. By continuously refining their strategies, they develop resilience, overcome obstacles, and sustain long-term academic success.

The final indicator underscores self-instruction as a vital component of academic self-regulation, reinforcing our study's findings. Pintrich's (2020) motivational theory defines self-instruction as the deliberate use of internal dialogue to direct actions, sustain motivation, and enhance learning. This cognitive strategy enables students to set goals, stay focused, and regulate their behavior effectively. Our results align with this perspective,

demonstrating that self-instruction complements self-planning by helping students organize tasks, monitor progress, and refine strategies when necessary. By integrating these techniques, learners cultivate stronger self-regulation skills, fostering greater academic resilience, adaptability, and overall performance.

Significance on the Relationship Between Perceptual Learning Style and Academic Self-Regulation

The study's findings revealed a strong link between perceptual learning style and academic self-regulation. The p-value confirmed a correlation between these two variables, indicating that as perceptual learning style improves, academic self-regulation also tends to increase.

Our study aligns with Malik et al. (2024), who emphasize that students who apply their preferred learning styles exhibit stronger academic self-regulation. By leveraging their dominant learning modalities, students enhance their ability to plan, monitor progress, and adjust strategies, reinforcing the value of personalized education in academic success. Moreover, Rani (2019) found that diverse learning preferences ncluding visual, auditory, kinesthetic, tactile, group, and individual approaches positively impact academic performance, with visual and auditory learners benefiting significantly from structured and interactive instruction. Consistently, our findings confirm that engaging with preferred learning styles fosters deeper understanding and strengthens self-regulation. By aligning learning strategies with individual preferences, students enhance their ability to set goals, track progress, and adapt approaches, ultimately improving their academic outcomes.

Our study aligns with Nikoopour and Khoshroud aligns i (2021), who emphasize the strong link between perceptual learning styles and academic self-regulation. Students who favor visual, auditory, or kinesthetic learning demonstrate greater ability to regulate their learning behaviors, reinforcing the importance of aligning instructional approaches with individual preferences. Furthermore, Weng et al. (2018) found that students who are aware of their dominant perceptual learning style implement more effective self-regulation strategies, such as goal setting, progress monitoring, and adaptive learning techniques. Consistently, our findings confirm that integrating teaching methods that cater to students' preferred learning styles enhances self-regulation. By enabling students to plan, track progress, and refine strategies, this alignment fosters deeper engagement, strengthens autonomy in learning, and ultimately improves academic performance.

Our study reinforces the strong link between perceptual learning styles and academic self-regulation, emphasizing that students who recognize and apply their preferred learning styles develop more effective self-regulation strategies. Specifically,goal-setting and self-monitoring enable learners to track progress, make necessary adjustments, and enhance overall academic performance. Supporting this, Malik et al. (2024) emphasize the role of personalized learning in strengthening self-regulation and improving academic success. Moreover, Salehiniya et al. (2019) found that kinesthetic learners benefit significantly from aligning their study methods with their learning preferences, leading to greater self-regulation and better academic outcomes. These findings confirm that fostering awareness of learning styles and integrating them into educational strategies can optimize student engagement, autonomy, and long-term academic achievement.

Significance on the Relationship betweenSocial Relationship and Academic Self-Regulation

The study's results revealed a significant connection between social relationships and academic self-regulation. The correlation indicates that as social relationships improve, academic self-regulation also increases, thereby rejecting the null hypothesis and confirming a meaningful relationship between the two variables. This finding deepens our understanding of how aspects of social relationships such as respect to myself, respect to others, respect to "put yourself in somebody shoes", and respect to solving problem affect academic self-regulation.

Our study aligns with the findings of Pitzer and Skinner (2019), who highlight the critical role of social support from peers, teachers, and family in strengthening emotional and behavioral self-regulation in academics. Such support systems help students manage stress, maintain focus, and refine their learning strategies through effective goal-setting and progress monitoring. Similarly, Miri et al. (2019) found that strong social connections enable students to tailor their study methods to their preferred learning styles, leading to enhanced self-regulation and academic success. These relationships foster open communication, collaboration, and intrinsic motivation, empowering students to navigate academic challenges more effectively. By reinforcing adaptive learning

behaviors and providing emotional encouragement, social support plays a vital role in promoting resilience, self-discipline, and overall academic achievement.

Our findings support the claims of Candia et al. (2019) and Pulgar et al. (2022) that strong social ties and long-term collaboration play a crucial role in enhancing academic performance by fostering self-regulation, motivation, and accountability. Consistent with Candia et al., our study confirms that students engaged in peer-supported learning demonstrate stronger goal-setting, progress monitoring, and adaptive learning strategies, ultimately leading to improved academic outcomes. Similarly, our results align with Pulgar et al.'s findings, highlighting that sustained collaboration particularly in remote and hybrid learning environments helps students maintain focus, stay accountable, and mitigate feelings of isolation. While both studies emphasize the benefits of friendships in learning, our research further underscores that the quality of these interactions such as constructive feedback, shared academic goals, and mutual encouragement determines their overall effectiveness in promoting academic self-regulation and success.

Multiple Regression Analysis on the Influence of the

Domain of Perceptual Learning Style on Academic Self-Regulation

The regression analysis examining the effect of perceptual learning styles on academic self-regulation reveals that all six domains have a significant influence on academic self-regulation, namely visual style, auditory style, kinesthetic style, tactile style, group learning style, and individual learning style.

Regression analysis confirms that all six perceptual learning styles visual, auditory, kinesthetic, tactile, group learning, and individual learning significantly influence academic self-regulation, underscoring their critical role in educational psychology. Among these, visual learning emerges as particularly impactful, as Raiyn (2019) highlights that techniques such as diagrams, concept maps, and graphical representations enhance higher-order thinking skills. These strategies enable students to set clear learning objectives, monitor their progress, and refine their approaches effectively. By facilitating the organization of study materials and promoting reflective thinking, visualization fosters deeper comprehension, encourages adaptive learning behaviors, and ultimately strengthens academic self-regulation, leading to improved educational outcomes.

Regression analysis reveals a strong relationship between perceptual learning styles particularly visual learning and academic self-regulation, highlighting their role in progress monitoring, goal-setting, and adaptive learning strategies. Visual tools such as concept maps and diagrams help students structure information, track their learning, and enhance higher-order thinking skills (Raiyn, 2019). While debates continue regarding the efficacy of learning styles, the widespread use of visual aids in education underscores their practical benefits in organizing content, fostering reflective thinking, and reinforcing self-regulation. Ultimately, these strategies contribute to more effective learning habits, greater autonomy, and improved academic performance.

Beyond visual learning, other perceptual styles play a distinct role in fostering academic self-regulation. Auditory learners enhance comprehension through lectures, discussions, and verbal explanations, reinforcing retention and critical thinking. Meanwhile, kinesthetic and tactile learners develop self-regulation skills through hands-on activities and experiential learning, which promote engagement and adaptive problem-solving. Group learning cultivates motivation and accountability by encouraging collaboration and peer support, while individual learning strengthens autonomy and self-direction both essential for effective self-regulation. Together, these diverse learning styles contribute to a more personalized and self-regulated approach to academic success.

Multiple Regression on Analysis on the Influence of the Domain of a Social Relationship on Academic Self-Regulation

The regression analysis examining the impact of social relationships on academic self-regulation reveals that all four dimensions self-respect, respect for others, empathy (putting oneself in another's shoes), and respect for problem-solving significantly influence students' ability to regulate their academic behaviors.

Research on self-esteem further reinforces the positive relationship between perceptual learning styles and academic self-regulation identified in our regression analysis. Zhao et al. (2021) emphasize that students with high self-esteem exhibit greater academic self-efficacy, allowing them to manage learning resources effectively,

set achievable goals, and persist through challenges. Likewise, Algharaibeh (2019) highlights that self-respect a fundamental component of self-esteem positively influences self-regulation by fostering confidence, resilience, and strategic learning behaviors. These perspectives align with our findings, demonstrating that engaging with preferred learning styles, particularly visual methods, enhances self-regulation. Moreover, they underscore the pivotal role of self-esteem in academic success, as it cultivates a proactive mindset, encourages adaptive learning strategies, and strengthens students' ability to navigate complex educational demands.

Respect for others plays a crucial role in academic self-regulation, further reinforcing the positive relationship identified in our regression analysis. Samuel (2024) emphasizes that individuals who cultivate respect develop stronger emotional intelligence and social discipline, both of which are essential for self-control, goal-setting, and academic perseverance. Similarly, Thompson et al. (2019) highlight that educational programs promoting respect enhance interpersonal relationships and self-regulation skills, enabling students to navigate academic challenges more effectively. By recognizing and valuing others' perspectives, students improve their ability to manage emotions, regulate behavior, and sustain motivation in their studies. These findings suggest that fostering respect not only strengthens emotional and social competencies but also directly contributes to more disciplined, adaptive, and self-regulated learning behaviors.

Empathy plays a vital role in academic self-regulation, further reinforcing the positive relationship identified in our regression analysis. Hui (2024) emphasizes that empathy enhances emotional awareness and fosters meaningful social interactions, both of which are essential for managing emotions, sustaining motivation, and maintaining focus in academic settings. Similarly, Lizarraga et al. (2019) highlight that educational programs incorporating empathy training strengthen self-regulation by improving emotional control, goal-setting, and perseverance. These findings align with our results, suggesting that as students engage with their preferred learning styles particularly in collaborative or social learning environments empathy enhances their ability to navigate academic challenges, adapt to feedback, and sustain long-term engagement. By fostering a deeper understanding of others' perspectives, students develop resilience, self-discipline, and the adaptive learning strategies necessary for academic success.

Respect for problem-solving plays a crucial role in academic self-regulation, further reinforcing the positive relationship identified in our regression analysis. Maksumet al. (2021) emphasize that strong problem-solving skills empower students to manage their learning more effectively, set meaningful goals, and persist through academic challenges. By approaching problems with patience, critical thinking, and collaboration, students develop discipline and resilience both essential for academic success. Similarly, Olesegon and Matthew (2022) highlight that integrating structured problem-solving strategies into educational programs enhances students' focus, adaptability, and teamwork, further strengthening their self-regulation abilities. These findings align with our results, indicating that fostering a mindset that values problem-solving equips students with strategic approaches to overcoming academic obstacles. When students view challenges as opportunities for growth rather than setbacks, they develop stronger emotional and cognitive skills, including perseverance, self-discipline, and adaptive thinking. As a result, respect for the problem-solving process not only enhances academic self-regulation but also cultivates a proactive and resilient approach to lifelong learning.

Overall, the findings of this study align with contemporary research, reaffirming that fostering respect in various social domains whether through self-respect, respect for others, empathy, or problem-solving plays a pivotal role in enhancing students' academic self-regulation. These insights underscore the importance of social relationships in shaping students' ability to manage their learning, set goals, and persist in the face of challenges, ultimately leading to greater academic success.

CONCLUSION

The study found that perceptual learning styles were highly developed among participants, including visual, auditory, kinesthetic, tactile, group, and individual learning styles. Social relationships were also strong, encompassing self-respect, respect for others, empathy, and problem-solving. Academic self-regulation was high, with participants demonstrating strong self-planning, self-monitoring, self-evaluation, and self-reaction skills. A positive relationship was found between perceptual learning styles and academic self-regulation, indicating that understanding one's learning preferences enhances self-regulatory abilities. Social relationships

also positively influenced academic self-regulation, highlighting the role of respect and empathy in learning. Both perceptual learning styles and social relationships significantly impacted students' ability to regulate their academic behaviors, underscoring their importance in education.

REFERENCES

1. Atilgan, E. (2019). The effect of communication skills and interpersonal problem-solving skills on social self-efficacy. ERIC. https://eric.ed.gov/?id=EJ1017303&utm_source
2. Algharaibeh, S., A. (2019). The relationship between self esteem and some self Regulated Learning Strategies among Qassim University Students in Light of Some Variables. https://www.researchgate.net/publication/
3. Bantilan, J. L., & Melchor, M. B. (2023). Rectifying feedback in online class: Through the lenses of students' views. E-Journals Philippines. https://ejournals.ph/article.php?id=20019
4. Baumeister, R. (2022). Self-regulation from the sociocultural perspective—A literature review. Taylor & Francis Online. https://www.tandfonline.com/doi/full/10.1080/2331186X.2023.2243763
5. Brenner, C. A. (2022). Self-regulated learning, self- determination theory, and teacher candidates' development of competency-based teaching practices. Springer Open. https://slejournal.springeropen.com/articles/10.1186/s40561-021-00184-5
6. Candia, C., & Sickert, C. R. (2019). The universal decay of collective memory and attention. PubMed. https://pubmed.ncbi.nlm.nih.gov/30932052/
7. Carver, C. S., & Scheier, M. F. (2019). Self-monitoring as a motivator during instruction with elementary school students. ERIC. https://files.eric.ed.gov/fulltext/ED404035.pdf
8. Cerezo, R., Bogarin, A., & Esteban, M., (2024). Process mining for self-regulated learning assessment in e-learning.https://arxiv.org/abs/2403.12068?utm
9. Coffield, F., Moseley, D., Hall, E., & Ecclestone, K. (2019). Kinesthetic learning. SERC Carleton. https://serc.carleton.edu/NAGTWorkshops/mineralogy/xtlsymmetry/kinesthetics.html
10. Cooley, C. H. (2019). The link between self-esteem and social relationships: A meta-analysis of longitudinal studies. PubMed. https://pubmed.ncbi.nlm.nih.gov/31556680/
11. Crandall, E. (2019) Liberty. https://digitalcommons.liberty.edu
12. Craig, K., Hale, D., Grainger, C., & Stewart, M. E. (2020). Evaluating metacognitive self-reports: Systematic reviews of the value of self-report in metacognitive research. Springer. https://link.springer.com/article/10.1007/s11409-020-09222-y
13. Davis, M. H. (2019). Empathy, compassion, and social relationships. Oxford Handbooks Online. https://doi.org/10.1093/oxfordhb/978019046468 4.013.23
14. Ejubovic, A., & Puska, A. (2019). Impact of self- regulated learning on academic performance and satisfaction of students in the online environment. ERIC. https://eric.ed.gov/?id=EJ1245731
15. Erozkan, A. (2019). The effect of communication skills and interpersonal problem solving skills on social self-efficacy. Educational Sciences: Theory and Practice. https://eric.ed.gov/?id=EJ1017303&utm_
16. Fauzia, M., Anjum, A., & Abbasi, N. (2024). The communication barriers and their impacts on the academic performance of the graduate students. file:///C:/Users/Admin/Downloads/PRJ-V4I220244.pdf
17. Gonzaga, M., & Oblianda, L. R. (2022). Mediating effect of academic self-efficacy on the relationship between academic stress and academic burnout of online class students during the COVID-19 pandemic in Davao Region. ResearchGate. https://www.researchgate.net/publication/36157 6705 Mediating Effect of Academic Self- efficacy on the relationship between Academ ic Stress and Academic Burnout of Online Class Students during the COVID-19 pandemic in Davao Region
18. Hamid, S., Sara, S., & Mohamad, R. M. (2019). The relationship between self-regulation and educational performance in students. PubMed Central. https://pmc.ncbi.nlm.nih.gov/articles/PMC6332646/
19. Hui, A. (2024). How empathetic are you? New study shows trait is rising among young Americans. Health.com. https://www.health.com/empathy-young-americans-grow-8706392?utm
20. Jahanbakhsh, N., & Mohammad, S. K. (2021). EFL learners' learning styles and self-regulated learning: Do gender and proficiency level matter? Journal of Language Teaching and Research. https://jltr.academypublication.com/index.php/jltr/article/view/1114?utm_source
21. Kaninya V.R Trisna, Syarifuddin Dollah, Mahmud Murni (2023). Identifying Perceptual Learning Styles preferences on students' vocabulary mastery.https://www.researchgate.net/publication

22. Kolb, D. A. (2020). Kinesthetic learning. SERC Carleton.https://serc.carleton.edu/NAGTWorkshops/mineralogy/xtlsymmetry/kinesthetics.html
23. Lizarraga, L. S., Ugarte, M. D., & Elawar, M. C., (2019). Enhancement of self-regulation, assertiveness, and empathy. https://www.researchgate.net/publication/229388083 Enhancement of self-regulation assertiveness and empathy.
24. Locke, E., & Latham, G. (2019). What is Locke's goal-setting theory of motivation? Positive Psychology. https://positivepsychology.com/goal-setting- theory/
25. Lucas, M. A., & Orth, U. (2021). Get self-esteem with a little help from your friends (and vice versa). Society for Personality and Social Psychology. https://spsp.org/search?keyword=Michelle%20A.%20Lucas%20and%20Ulrich%20Orth#main-content
26. Lyons, K., & Hearne, L. (2014). Sample size: The requirements for a reliable study. Trone Research Consulting. https://www.troneresearch.com/blog/sample- size-requirements-reliable-study#:~:text=As%20a%20general%20rule%2C %20sample,(Kevin%20Lyons%2C%20Lipman%20Hearne)
27. Maksum, A., Widiana, I. W., & Marini, A. (2021). Path analysis of self-regulation, social skills, critical thinking, and problem-solving ability on social studies learning outcomes. International Journal of Instruction. https://www.e-iji.net/dosyalar/iji 20213 36.pdf?utm source
28. Matthew, B. T. (2022). Self-regulation as a correlate of problem-solving skills among university undergraduates in Southwestern Nigeria. IJIRME. https://ijirme.com/v1i4/Doc/2.pdf
29. Montessori, M. (2020). Tactile learning: Definition and examples. Helpful Professor. https://helpfulprofessor.com/tactile-learning/
30. Milad, C., & Mohammad, D. (2024). On the relationship between gender and Perceptual Language Learning Styles: The case of iranian academic EFL learners. Nikoopour, J., & Khoshroudi, M. S., (2021). https://www.researchgate.net/publication EFL Learners' Learning Styles and Self- regulated Learning. https://www.researchgate.net/publication/352928953_EFL_Learners%27_Learning_Styles_and_Self-regulated_Learning_Do_Gender_and_Proficiency_Level_Matter?
31. Naserieh, F. (2019). The world's leading refereed and indexed journals for Second language research. https://www.asian-efl-journal.com/index.htm
32. Olusegun, A. , & Matthew, B., T. (2022). International Journal of Innovative Research in multidisciplinary. http://ijirme.com/v1i4/Doc/1.pdf
33. Peacock, M. (2022). Students' perceptual learning styles and attitudes toward communicative language teaching. ERIC. https://files.eric.ed.gov/fulltext/EJ1244108.pdf
34. Pintrich, P. R. (2020). About Paul Pintrich's work: Self- regulation of motivational and cognitive processes in educational settings. ResearchGate. https://www.researchgate.net/publication/266466119_About_Paul_Pintrich's_work_self-regulation_of_motivational_and_cognitive_proc esses in educational_settings
35. Pitzer, J., & Skinner, E. (2019). Predictors of changes in students' motivational resilience over the school year: The roles of teacher support, self-appraisals, and emotional reactivity. APA PsycNet. https://psycnet.apa.org/record/2016- 62192-003
36. Raiyn, J. (2019). The Role of Visual Learning in Improving Students' High-Order Thinking Skills. https://files.eric.ed.gov/fulltext/EJ1112894.p df?utm
37. Reid, M. (2021). The student learning style used in learning English at Man Morowali. file:///C:/Users/Admin/Downloads/401-778-1-SM%20(1).pdf
38. Rani, K. V. (2019). Relationship of perceptual learning styles and academic achievement among high school students. ResearchGate. https://www.researchgate.net/publication/32276_0736_Relationship_of_Perceptual_Learning_Styles_and_Academic_Achievement_among_Hig_h_School_Students?utm_source=chatgpt.com
39. Rio, J. F., Cecchini, J. A., & Gimenez, M. A., (2019). Self-Regulation, Cooperative Learning, and Academic Self-Efficacy: Interactions to Prevent School Failure. https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2017.00022/full
40. Rhouma, W. B. (2019). Perceptual learning styles preferences and academic achievement. Academia.edu. https://www.academia.edu
41. Roomy, M. A. (2023). The relationship among students' learning styles, health sciences colleges, and Grade Point Average (GPA). Advances in medical education and practice. https://pmc.ncbi.nlm.nih.gov

42. Weiner, B. (2023). Self-regulation theory: Overview, components & strategies. Study.com. https://study.com/learn/lesson/self-regulation-theory-overview-components-strategies.html
43. Weng, X., Lin, Q., & Wang, Z., (2019).Effects of Hunger on Visual Perception in Binocular Rivalry. https://www.researchgate.net/publication/331685191 Effects of Hunger on Visual Perception in Binocular Rivalry
44. Salehiniya H., Sahranavard S., & Miri M. R., (2019). The relationship between self-regulation and educational performance in students.https://pmc.ncbi.nlm.nih.gov/articles/PMC6332646/
45. Safari, E., & Hejazi M. (2019). Learning Styles and Self-regulation: An Associational Study on High School Students in Iran. https://www.researchgate.net/publication/313784082 Learning Styles and Self-regulation An Associational Study on High School Students in Iran?
46. Samuel, J. (2024).Can you teach empathy? as a psychotherapist I'd say yes. The Times & The Sunday Times. https://www.thetimes.com/life-style
47. Sauro, K. (2022) Cortland. https://digitalcommons.cortland.edu
48. Stupacher, J., Mikkelsen, J., & Vuust, P. (2022). Higher empathy is associated with stronger social bonding when moving together with music. Psychology of music. https://pmc.ncbi.nlm.nih.gov/articles/PMC9459360/?utm
49. Thibaut, J., & Kelley, H. (2018). What is social exchange theory? Tulane University. https://socialwork.tulane.edu/blog/social- exchange-theory
50. Thompson, N., M., Uusberg., G., Gross J., & Chakrabarti., B. Empathy and emotion regulation: An integrative account. Progress in brain research. https://pubmed.ncbi.nlm.nih.gov
51. Trauma, J., (2019). The effect of social problem solving skills in the relationship between traumatic stress and moral disengagement among inner-city African American high school students. Journal of child & adolescent trauma. https://pmc.ncbi.nlm.nih.gov/articles/PMC4111263/?utm_
52. Zhao, Y., Zheng, Z., Pan, C., & Zhou, L. (2021). Self-esteem and academic engagement among adolescents: A moderated mediation model. Frontiers. https://www.frontiersin.org/ journals/ psychology/articles