

Parental Involvement, Classroom Climate, and Social Support: A Path Model Analysis on Academic Self-Concept Among Senior High School Students

¹, Anamae B. Delloso, ², Eugenio S. Guhao Jr
^{1,2}University of Mindanao, Davao City, Philippines

ABSTRACT: The study determined the best-fit path model on academic self-concept as influenced by parental involvement, classroom climate, and social support using descriptive-correlational technique through path model analysis and a stratified random sampling of 400 Senior high school students in Region XI, Mindanao, Philippines. Findings revealed high levels of all variables namely: parental involvement, classroom climate, social support, and academic self-concept. Significant correlations were shown between the following: parental involvement and academic self-concept; classroom climate and academic self-concept, and social support and academic self-concept. Further, the result showed that the generated Model 3, the Best Fit Path Model, exhibited a significant relationship between parental involvement and social support. Furthermore, it also displayed that parental involvement and classroom climate were predictive factors of students' academic self-concept. In summary, senior high school students' motivation, career goals, mental health, and lifelong learning habits are significantly influenced by their academic self-concept. Therefore, interventions that foster a positive academic self-concept can have a significant positive impact on individuals' academic and personal life.

KEYWORDS: education, parental involvement, classroom climate, social support, academic self-concept, path model, students, Philippines.

I. INTRODUCTION

Academic self-concept is one's perception of one's own abilities in each academic subject (e.g., statistics, ecology, physiology), and it is formed by one's experiences in a learning environment, including interactions with peers and instructors. In the US, after the school closures during 2020, teachers and students' connection reported to dropped from 43% to 30% in fall 2020, 28% in spring 2021, and 22 % in fall 2022. In the Philippines, between primary and secondary school, academic self-concept drastically decreases, and the students' educational path had the greatest impact. (Postigo, Fernández-Alonso, Fonseca-Pedrero, González-Nuevo, & Muñiz, 2022). Student success is frequently viewed in the context of modern education as a complex construct influenced by a range of social, psychological, and environmental elements. Academic achievement, motivation, and general educational well-being have all been found to be significantly influenced by a student's academic self-concept, which is defined as their assessment of their own academic ability. Students' self-concept evolves as they work through the challenges of senior high school, influenced by external and internal factors.

Numerous research had examined the relationship between parental involvement and academic achievement, as well as variables pertaining to academic self-concept. Significant positive connections are shown, indicating that parental participation improves students' perceptions of their academic self-concept. (Wang, Sheikh-Khalil, 2020). Similarly, another review supported this idea which stated that active parental engagement is positively correlated with improved academic self-concept. (Li & Lee, 2021). Furthermore, a study examined the connection between academic self-concept and parent involvement among Vietnamese high school students. The findings revealed an important positive correlation and indicated that parental support is an essential aspect in establishing kids' academic self-concept. (Nguyen & Nguyen, 2023). Moreover, the impact of parental involvement in educational activities on middle school kids' academic self-concept was examined in a study. According to the findings, students' perceptions of their academic confidence are much improved by good parental engagement. (Kim & Schneider, 2023). Finally, study has examined the impact of different types of parental involvement on kids' academic motivation and academic self-concept. Parental involvement is associated with academic self-concept. In college students, there are links between perceived parental participation, academic self-concept, and academic accomplishment. Previous studies suggest that, as a mediator, self-concept is important for students' participation with family support. Student involvement is strongly and favorably influenced by one's self-concept, and the emergence of student engagement behavior can be moderated by family support. (Adelia, Hasanuddin, & Surbakti, 2024). Parental behaviors that encourage their child's academic success, academic engagement, and academic self-concept,

As well as educational expectations in the kids, all partially moderated associations between expectations and achievement. In summary, we advise parents to convey to their kids' high standards for schooling. (Goodall, & Montgomery, 2023). Further studies showed that this association was highest when parents' aspirations for their children's academic success were included in the definition of parental involvement. (Wilder, 2023). In addition, the results of a study conducted by Silinskas and Kikas (2019) revealed that low math self-concept predicted increased parental control, which was linked to low math performance, task persistence, and math self-concept. Additionally, improved task persistence during schoolwork was linked to perceived parental support. The findings demonstrated that the academic attitude dimensions have significant effects on the mediational and dependent variables at both the within and between levels. Furthermore, Sharma & Sharma (2021) found that several factors, including parental participation, guidance requirements, educational objectives, stress, and self-concept, greatly influence the variation in students' academic achievement

On the other hand, a study by Qi (2021) found a direct positive relationship between family environment and Learning System (LS) in previous research. Parents can help their children's education by joining school boards, caring about their children's academic accomplishment, and attending parent meetings to learn more about their children's performance. Parents can help their children by following up with their subject instructors to discover areas of difficulty. After a child fails, parents must have conversation with the child's teacher, establishing and deepening the teacher-parent relationship. Parental involvement can take place at home, such as listening to the child read and helping with homework, or at school, such as attending parents' meetings and education workshops. The same results were found in the earlier study by Berkowitz et al. (2021), which showed that parental involvement is crucial for adolescents' social and educational achievement. The study also supported the idea that in order to improve students' perceived academic self-efficacy and school engagement, educators and families must collaborate to provide social support.

In Philippine public elementary education, parents' involvement is studied qualitatively. This study has two goals. Its initial purpose is to show how Filipino parents influence their children's education. Second, it investigates Filipino parents' unique involvement strategies. Because some Filipino families are struggling financially, the study found that certain parental participation strategies are unique to the Philippines. Making ends meet and feeding the family were deemed parental participation techniques, notwithstanding their lack of educational relevance. Instead of directly assisting in schooling, Filipino parents explored alternate ways to help their children thrive, such as avoiding vices and preserving healthy family ties. (Jabar 2021).

On the other hand, classroom climate is correlated to academic self-concept. Classroom climate is defined as the social environment based on academic engagement, peer relationships, and teacher interactions. Thus, the subjective views of students and teachers concerning school and classroom features are essential. A pleasant classroom climate is one in which students feel accepted and respected, may freely express themselves, and participate in class activities. In addition to promoting Self learning and self-concept, a favorable classroom climate supports kids' emotional, social, and psychological adjustment. (Povedano-Diaz, 2020). Previous research revealed that teachers with favorable dispositions toward students and those who uphold the significance of education provide and encourage participation from students in the classroom climate. (Cabayag & Guhao Jr., 2024). Additional studies tackled the intricate query of what constitutes an inspiring learning environment in a classroom. The primary ideas that will be covered include group dynamics and cohesiveness, student roles and group norms, instructor leadership approaches and facilitation techniques, and the stages of a proactive, inspiring teaching approach. (Dörnyei & Muir, 2019). Further, results from the previous studies of Wang (2020), showed that fostering student engagement and interactions in the classroom enables students establish a positive self-concept by boosting their confidence and decreasing their anxiety levels.

Furthermore, mostly students with a low level of academic self-concept benefit from competence-based learning because this student-centered learning environment reduces the association between academic self-concept and achievement motivation through a high level of perceived competence support. (Kulakow, 2020). Further, at both levels of analysis, academic self-concept was an important mediator for all academic attitude components. These findings emphasize the importance of early adolescent academic self-concept and show that academic attitudes are critical for educational model formation in the future. The model's structural invariance in both sexes is supported by multigroup analysis; thus, the expected relationships are the same for boys and girls, making the model more generalizable and relevant. (Coelho, Bear, & Brás, 2020) conducted research on the influence of students' views of classroom social climate on academic self-concept in middle school social studies classes. Statistically significant ($p < .05$) relationships were found between students' perceptions of classroom social climate and academic self-concept.

Evidence of consistent positive relationships between students' perceptions of classroom social climate and academic self-concept was increased. These findings have important implications for promoting academic motivation in secondary social studies classes. Recent research has shed light on the relationship between academic self-concept and various types of social support, emphasizing the role that social support in academic achievement and self-perception. The study of Apostol & Santos's (2023) demonstrated that the correlation between academic self-concept and student engagement was somewhat mediated by school the environment. It suggests that student engagement and a positive academic self-concept are communicated by the school climate. Moreover, college students' academic self-concept is examined in relation to their perceptions of social support from classmates, family, and teachers. A stronger academic self-concept is linked to strong social support, according to the data, which demonstrates a significant positive correlation. (Fang & Li, 2021). Additionally, another study looks at the impact of three different forms of social support on high school students' academic self-concept: instrumental, emotional, and informational. The results indicate that enhanced academic self-concept correlates positively with all types of social support. (Bowers & Griffiths, 2022).

Similarly, a long-term study investigates the ways in which family and peer support affect learners' perceptions of their own abilities. According to the study, there is a considerable positive correlation between academic self-concept and both forms of support, with peer support having a slightly stronger effect. (Chen & Lu, 2022). Moreover, another study examines the relationship between academic self-concept and social support networks, such as friends, family, and teachers, with an emphasis on middle school children. Higher academic self-concept is positively correlated with stronger social support networks, according to studies. (Miller & Phillips, 2023). Furthermore, in cross-cultural study, academic experts, friends, and family are some examples of the social support networks that university students from many cultural backgrounds use to shape their academic self-concept. The results of the study show a strong positive association, with variations based on cultural settings. (Zhao & Yang, 2023). Moreover, classroom climate, school identity, and general self-worth were found to be weakly linked to living group environment whereas academic self-concept was found to be slightly stronger. For integrated care and education, group workers and instructors in residential juvenile care institutions should collaborate. (Beld, 2021). Lack of resources is cited as a key barrier to adopting inclusive education. Previous study on resource perception in inclusive education has mostly focused on instructors (Goldan & Schwab, 2021). Perceptions of resources predict academic self-concept, social inclusion, and school well-being. Finally, the findings are applied. (Goldan, et al 2021). Students were driven by extrinsic factors such as goal setting (e.g., future education and profession, excellent grades), developing a learning routine, creating a designated school environment, and interactions with others. (Zhu,Berri, Huang & Masoud, 2024).

Social support had a significant relationship to academic self-concept. The effect of social skills on the academic self-concept of students with special needs in inclusive primary schools was investigated using the theoretical paradigm of peer social support mediation. Peer social support influences the effect of social skills on the academic self-concept of students with special needs in inclusive primary schools, according to the findings. Peer social support, on the other hand, is only a partial mediator, implying that social skills remain robust and have a major and direct impact on students with special needs' academic self-concept in inclusive primary schools. These findings suggest that school employees should prioritize kids' social skills and peer social support when working to improve the academic self-concept of children with special needs in inclusive primary schools. (Pratiwi & Mangunsong, 2020). The findings were corroborated by preceding studies by Karaman et al. (2021), which showed that academic self-concept was statistically predicted by social support, academic adjustment, and attachment. The perception or reality of being cared for, receiving help from others, and being a part of a supportive network is referred to as social support. A study investigated undergraduate boys' perceptions of social support. As a result of this effort, there is a clearer understanding of the relationship between academic self-concept and social support.

The findings also highlighted the need for additional discussion about the forms of social support that may influence young men's academic self-concept. Another research discovered that students who replied to classmates, resulted in displaying stronger feelings of student interaction. Edwards, C. R., & Lane, P. N. (2021), Furthermore, Shao and Kang's (2022) findings gave plausibility to the notion that self-efficacy, a mediating aspect of academic self-concept, is directly impacted by perceived social support. Moreover, Baria and Gomez's (2022) previous studies revealed a strong favorable correlation between student learning and growth and social support. Correspondingly, investigations about the relationships between teacher and parent support, students' academic self-efficacy, and academic engagement among a sample of reconnected youth who have returned to academic pursuit after dropping out, using motivational theories of engagement and a multidimensional perspective of academic engagement.

They discovered that academic self-efficacy of kids is a mediator between parental and teacher support and youth academic engagement. Moreover, unpleasant life events affect the relationships between perceived parental support, academic self-efficacy, and academic engagement. A sizable body of research has revealed variations in kids' academic attainment across school sectors, both internationally and in Australia, driven by the emphasis on standardized assessment and performance-driven accountability. It was found out that distinct aspects of the school climate and student participation that are linked to increased accomplishment in each of these areas using multivariable regression analysis, providing crucial guidance for educational policies. (Petridis, Ourda, Dinas & Barkoukis, 2024). Additionally, previous research findings suggested that social support from friends, family, and significant others, but not from peers in the classroom, is favorably correlated with life satisfaction through self-efficacy and self-esteem and adversely correlated with perceived stress. While the psychological effects of societal lockdown were not statistically significant, the findings underscore the significance of social support for students during and after lockdown. (Ozer, 2024). Student who enjoys their classes, believe their teachers are supportive and fair, have positive peer relationships, and accept their school's mission, values, and standards are more likely to feel a sense of belonging. (Akaneme, et al 2020).

Again, based on a systematic analysis of the literature, the essay demonstrates how student networks, such as those with their family, friends, teachers, and members of their ethnic and religious communities, influence their academic performance. The article outlines a paradigm that explains how network members from underrepresented groups support one another's access to resources and help them succeed academically. (Mishra, 2020). Psychological capital acted as a mediator between the influence of social support on wellbeing and the subsequent investigation of engagement and problem-focused coping. Psychological capital and study involvement acted as a mediating factor in the relationship between social support and academic success. The design of upcoming psychological capital treatments is informed by these findings, which also deconstruct the mechanisms behind the relationships between psychological capital and social support and student outcomes. (Siu, Lo, Ng, & Wang, 2023). Additionally, Sudirman & Yuharnida's (2024) study indicated a significant correlation between students' academic progress in English and the social support they receive from their parents.

These findings' practical implications emphasize how important it is to give students tangible help and emotional support throughout their English language learning process. To improve students' academic performance in English, parents and educators can take an active role in motivating students, encouraging them, and establishing a supportive environment. Furthermore, positive self-concept in a topic increases engagement, which supports adaptive, focused behavior in accomplishment situations. Academic self-concept is important for students as it affects academic achievement (R.V., 2022). Self-concept is an important aspect in human development, especially in school contexts and related activities. (Akaneme, et al 2020). Previous studies revealed that social circles have an impact as well as introducing new activities. Given that they lack knowledge of what is appropriate or inappropriate and require advice in this regard, the behavior of their peer company may or may not be advantageous to them. (Mathur & Sethi, 2023). As in other psychological constructs, the formation and development of academic self-concept are affected by both personal and contextual variables. In the case of academic self-concept, socio-cultural factors become significant given that it is constructed through a process of social comparison of one's academic competence with others' or with the class-group. (Postigo, A. et al, 2022). Peer social support, on the other hand, mediates the influence of social skills on the academic self-concept of students with special needs in inclusive primary schools. Social skills have a favorable impact on the academic self-concept of kids with special needs in inclusive primary schools, according to these findings. (Dwi, Pratiwi, and Mangunsong, 2020)

The study is anchored from sociocultural theory which discussed that human development and learning originate in social and cultural interaction. In other words, the ways people interact with others and the culture in which they live shape their mental abilities. (Vygotsky, 1978). Additionally, the theory of Ecological Systems supported this study, which was formulated by Urie Bronfenbrenner in 1979, it provides a thorough framework for comprehending the ways in which many environmental influences impact a person's development. In the context of education, Ecological Systems Theory emphasizes how social support, classroom environment, and parental involvement interact across many different systems to affect a student's academic achievement and self-concept. To comprehend students' academic measures and outcomes, it emphasizes the significance of considering the various, overlapping impacts on their development, from the immediate classroom environment to societal expectations. Furthermore, the theory of Classroom Climate also supported this study which highlighted the significance of the social and emotional environment in a classroom and how it affects the growth and learning of students.

The general atmosphere that is produced by teacher-student interactions and the physical learning space is referred to as the "classroom climate". A supportive teacher-student connection, mutual respect among peers, and a sense of safety and belonging are characteristics of a pleasant classroom atmosphere, according to thinkers. (Moos, 1979 and Fraser 2012). Students feel more motivated, engaged, and have a positive academic self-concept in this setting. The instructional approaches used, the promotion of student participation, and the equity of evaluation are further elements that contribute to the classroom climate. Higher levels of academic motivation and engagement are more likely to occur when students feel that their classroom is welcoming and encouraging. Further, this study also supported by Social Support Theory. Social support could enhance students' academic self-concept and provide a buffer against the negative impacts of stress, according to Cohen and Wills (1985). According to results, children who feel they have a strong support system are more likely to be more self-assured, persistent, and academically successful. This is because perception of support is just as significant as actual assistance received. Social support comes in a variety of forms, such as guidance, emotional support, problem-solving collaboration and encouragement. Students who experience social support are more capable of achieving success in the classroom, developing resilience, and upholding a good self-concept—all of which are essential for their performance in school.

Finally, this study also supported by previous theory established by Albert Bandura in 1977, the Self-Efficacy Theory is based on the conviction that an individual can organize in carrying out the actions necessary to accomplish a certain goal. When a student feels confident in their capacity to complete tasks, overcome obstacles, and accomplish well in their studies, they are exhibiting self-efficacy in an academic setting. Perseverance in the face of adversity is influenced by students' self-efficacy, according to Bandura, as well as their thoughts, feelings, and motivation. Higher academic success can be attained by students who have strong academic self-efficacy because they are more inclined to take on challenges work hard over time and bounce back from failures promptly. This theory is fundamental to our knowledge of how belief systems influence behavior, and it emphasizes how crucial it is to help kids develop a good self-concept and academic success by giving them confidence in their abilities. This study has four variables: the exogenous and endogenous variables. As shown, the endogenous variable is Academic Self-concept, and the exogenous variables are Parental Involvement, School Climate, and Social Support.

The first latent variable is *parental involvement* Muller (2018) which is measured by five indicators, *responsibilities and attendance*, *communication and support*, *literacy and tutorial assistance*, *volunteer and mentoring*, and *leadership and partnership*. Accordingly, *responsibilities and attendance* assessed how the parents attend to their responsibilities in the student's schooling, *communication and support* emphasized parent's actions toward student's needs, *literacy and tutorial assistance* considers the encouragement for remedial, reading and reviewing of lessons, *volunteer and mentoring* refers to parent's participation in school activities and *leadership and partnership* looks at the extent to which parents support school organization. The second latent variable is *classroom climate* (Yonker, Hebreard & Cawley, 2019) which has seven indicators, namely: *personalization* emphasizes opportunities for students to interact with the instructor and the instructor's concern for student's personal welfare, *involvement* assesses extent to which students participate actively and attentively in class discussions and activities, *student cohesiveness* looks at the extent to which students know, help and are friendly toward each other, *satisfaction* measures the degree of enjoyment of classes, *task orientation* considers the extent to which class activities are clear and well organized, *innovation* to what extent does the instructor plan new and unusual class activities, teaching techniques, and assignments, and *individualization* asks to what extent students are allowed to make decisions and are treated differentially according to ability, interest and rate of working.

Moreover, the third exogenous variable is the social support (Calderón, C. et al, 2021) which has three indicators particularly: *significant other* refers to support coming from a special person of the student's life, *family* refers to the support coming from family members, and *friend* refers to persons in the community whom the student can lean on. Additionally, for decades, social scientists have been interested in the impact of home movement on children. Residential mobility was linked to school phobias, classroom behavior issues, academic failure, and bad peer connections in early studies. The findings suggest that social support mitigates the negative effects of mobility on various academic self-concept measures. (Katz, Mercer & Skinner 2020). The latent endogenous variable is *academic self-concept* which has two indicators, namely: *academic self-confidence* and *academic effort*. Academic self-confidence refers to the student's responds in the lessons, schoolwork, and attention towards teachers and classmates. Moreover, academic effort focuses on the student's behavior towards the given tasks.

This study has three alternative models. Shown in figure 1 is the conceptual framework of the study, the figure shows the relationships of parental involvement, classroom climate, social support, and academic self-concept. This is illustrated by the single headed arrow pointing from three exogenous variables towards the endogenous academic self-concept.

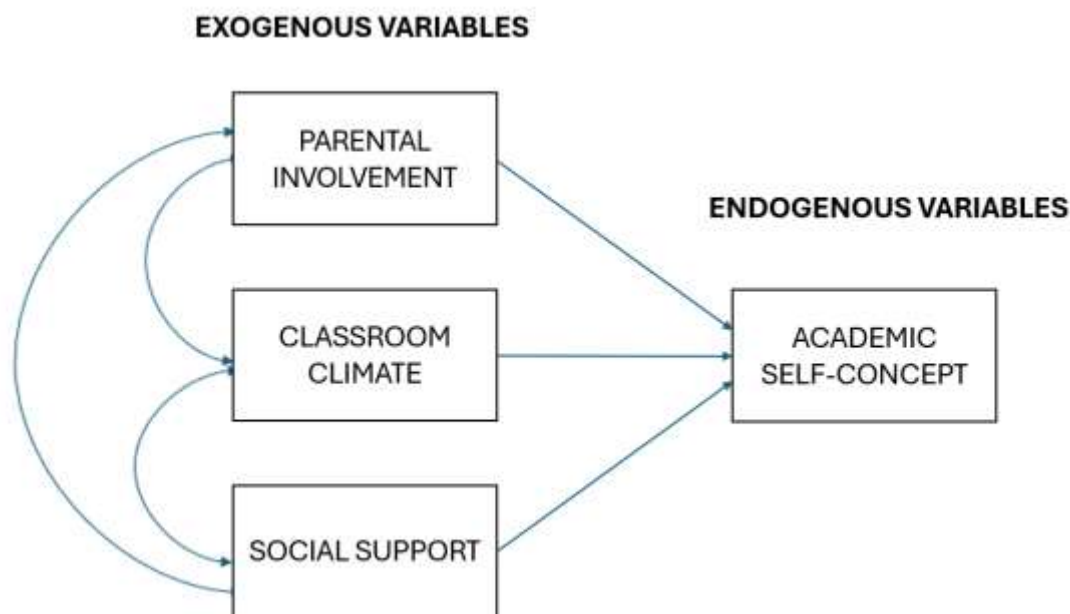


Figure 1. The Interrelationship among Parental Involvement, Classroom Climate, and Social Support and their Direct Causal Relationship towards Academic Self – Concept.

The scope of the study is on the relationship of academic self-concept with parental involvement, classroom climate and social support among public senior high schools located in Davao region only. Specifically, was administered to public Grade 12 students in Davao Region in particular. This review of selected resources is intended to develop a logical argument to justify the purpose of this study. The following discussions on related theories and studies starts with an extensive analysis that highlights the impact of academic self- concept with the following indicators: *academic confidence and academic efforts*, parental involvement with *responsibilities and attendance, communication and support, literacy and tutorial assistance, volunteer and mentoring and leadership and partnership*, classroom climate with the following indicators: *personalization, involvement, student cohesiveness, satisfaction, task orientation, innovation and individualization*, social support with the following indicators: *significant other, family and friend*.

This study aimed to determine the best fit path model analysis on academic self-concept among the Grade 12 senior high school students in Davao Region. Specifically, this study aimed to determine the levels of student's academic self-concept in terms of academic confidence and academic effort. Second to assess the levels of parental involvement in terms of responsibilities and attendance, communication and support, literacy and tutorial assistance, volunteer and mentoring, leadership, and partnership. Third is to evaluate the level of classroom climate in terms of personalization, involvement, student cohesiveness, satisfaction, task orientation, innovation, and individualization. Fourth is to ascertain the level of social support in terms of significant other, family, and friends. Fifth is to determine the significant relationship between parental involvement and academic-self-concept of senior high school students; classroom climate and academic self-concept of senior high school students; social support and academic self-concept of senior high school students. Finally, is to recognize the best fit model that predicts academic self-concept relationship among senior high school students that could be beneficial to all Senior High School students in other Regions and all over the world. The null hypothesis was tested at 0.05 level of significance which stated that there is no significant relationship between: parental involvement and academic self-concept, classroom climate and academic self-concept and social support and academic self-concept. Furthermore, there is no model that best fits the academic self-concept of senior high school students.

Due to some negative effects in the field of education brought about by pandemic times, there were three gaps arise. First, there were lacking factors and the level of parental involvement to students' academic self-concept. Previous study showed that school adjustment was positively related to family adaptability/cohesion, social acceptability, school engagement, and academic self-concept. (Basharpoor, Heidari, Narimani & Barahmand , 2022). Second, the level of school climate towards student's academic self-concept was also lacking. And third, the level of social support congruent to decreasing academic self-concept after the school's closures, most of the prior research investigated this research topic in the other country with limited empirical evidence in the Philippines.

Acknowledging the importance of academic self-concept in the educational field, the researcher thoroughly analyzed the literature to identify potential factors that could influence it. Thus, prediction models of academic self-concept were conceptualized to determine what factors influence academic self-concept among senior high school students. The researcher has not found a study in the field that looks at the relationship between parental involvement, classroom climate, social support, and students' academic self-concept using path model. The researcher chose to analyze the three variables as a construct of academic self-concept in the manner described above. This study's findings were used to assist parents, instructors, and senior high school students in improving their academic self-concept. This study is significant from the aspect of education in various countries, as it will serve as the foundation for system implementation and enhancement, and to changes in educational curriculum. Parents, teachers, and classmates must all support students for them to be driven to study more.

In this context and considering the paucity of research that examines the level of parental involvement, level of classroom climate and the level of social support among senior high school students. Further, this study investigated the significant relationship between parental involvement, classroom climate, social support, and academic self-concept in senior high school students. Furthermore, the goal of this research was to find the best fit model on the relationship between parental involvement, classroom climate and social support to academic self-concept among senior high school students. On the other hand, by examining the best fit model created by this study, this research may provide a substantial basis for recommendation to higher officials of the Department of Education (DepEd) in Southern Mindanao, Region XI, in strengthening students' academic self-concept in each division.

Furthermore, this research is beneficial to school administrators in that it raises awareness of students' academic self-concept, which should be enhanced with parents, teachers, peers, and other people in the senior high school community to promote their academic efforts and confidence, allowing them to feel motivated, acquire quality education, and be successful as learners. Additionally, as one of the professionals in the Department of Education concerned with developing teaching strategies for the learners and the entire institution where I work, the study's findings are valuable to the researcher herself. It might serve as the foundation for the researcher's trustworthiness in recommending to DepEd Region XI that the developed best fit model be used to improve the quality of students' academic self-concept among public senior high school students in the department. Moreover, this study may also serve as a foundation for future researchers to investigate additional characteristics that may be potential predictors of academic self-concept and to use a different approach/method of research to solve the problem of other learners' academic self-concept. Also, this study supported the urgency of the 4th Sustainable Development Goal which is to "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Students in their senior year of high school need to be prepared with the knowledge, abilities, and mindset that will help them succeed in the future. To have kids believe that they can do more sooner, teachers must shape them in the classroom environment with the help of their parents, friends, and peers. If students receive an exceptional education within the framework of a ladder educational system, they will have access to numerous opportunities.

II. METHOD

This chapter explains the methodology and research strategy used to investigate into the connections between senior high school students' academic self-concept, social support, classroom environment, and parental participation. It includes the respondents, research design, research location, demographic and sample, research instrument, data collecting, ethical considerations, and statistical treatment/tools of data utilized in the study.

Respondents : The study's respondents have been chosen using scientific method. This study surveyed 400 out of 190,582 public Grade 12 senior high school students from various schools in DepEd Region XI divisions of Southern Mindanao. The number of respondents per division was determined via stratified random sampling.

Stratified random sampling was used in the study to guarantee that the sample fairly reflected the varied population of senior high school students (Creswell, 2014). Using this method, the population was separated into discrete subgroups, or strata, according to important demographic traits like gender, socioeconomic status, or grade level (Fowler, 2013). Subsequently, individuals were chosen at random from every stratum based on its size within the population. The study's objectives were to increase the accuracy and generalizability of the findings, lessen sampling bias, and capture population diversity (Cochran, 1977). A statistical method called path model analysis is used for arriving at both direct and indirect relationships between several variables in a proposed model. This methodology makes it possible for researchers to evaluate the direction and intensity of causal pathways, which is especially helpful for investigations into intricate relationships between predictors and outcomes. Path analysis allows numerous dependent variables and mediating effects to be examined in a single model, extending the capabilities of regression models. Path analysis, a type of structural equation modeling (SEM), offers a methodology for evaluating theoretical models against actual data and assessing how well the model matches the data (Kline, 2016). Using this method, the study aims to comprehend the connections between academic self-concept, social support, classroom climate, and parental involvement.

In addition, criteria were established for the respondents to meet to qualify as study respondents (inclusion). They must be a grade 12 senior high school student enrolled in one of the Department of Education's institutions. They can also be of any gender and from any senior high school department if they can answer the questions on the form. The respondents have requested to provide accurate information about parental involvement, school climate, social support, and academic self-concept as part of the study. Those senior high school students from private schools, on the other hand, are not allowed to participate as respondents. This study was conducted in Davao Region, also known as Region XI, one of the Philippines' regions in Mindanao's southern region. Specifically, this study was done in Davao de Oro, Davao del Norte, and Davao Occidental which were the three provinces of the Davao Region, Public Grade 12 senior high school students from the three divisions of Region XI on the location are the study's respondents. In the aforementioned areas, questionnaires were distributed. The researcher was interested in performing the study at the Department of Education (DepEd), Region XI, Southern Mindanao, because she is currently engaged as a DepEd Public Schools Teacher in the Region, in the Division of Davao de Oro to be specific. In addition, the researcher spent eighteen years as a classroom teacher and is now the school's Grade 10 level head. The researcher set out to find the best fit model of academic self-concept among Davao de Oro grade 12 senior high school students and accomplished these goals.

III. MATERIALS/INSTRUMENTS

In this study, four instruments are employed, each of which is developed to address the research problem. Primary data is used to collect information for the study, which is divided into four sections: academic self-concept, parental participation, classroom climate, and social support. The survey questionnaires used in the study were gathered from a variety of similar studies. The instrument will be restructured to make it more appropriate to current and local settings. The instrument was validated by five professional validators to make it more applicable and credible, and it received a good overall grade of 3.88. Pilot testing was carried out after validation. Cronbach alpha was used to test the surveys' validity. The closer Cronbach's alpha coefficient is to 1.0, the stronger the internal consistency of the scale's items, according to Gliem (2003).

The adapted the questionnaire on parental engagement of senior high school students' parents from his study Muller, 2018. Responsibilities, communication, and support, literacy and tutorial assistance, volunteer and mentorship, and leadership and collaboration were all included in the tool. The classroom climate questionnaire was developed from Yonker, et al (2019). Personalization, involvement, student cohesiveness, satisfaction, task orientation, innovation, and individualization are the seven metrics employed in their tool. The questionnaire on social support for senior high school students is adapted from the study of Calderón, et al, (2021). He conducted a detailed analysis on the determinants of appropriate supervisory relationships and then developed a robust classification system for acceptable supervisory relationships. Significant others, family, and friend were among the indicators included. The academic self-concept questionnaire was adapted from Matovu, 2014. It was made up of two components: academic confidence and academic effort. The scales used to interpret parental participation, classroom climate, social support and academic self-concept among senior high school students are as follows: For the range of 4.20 – 5.00 it means *very high* with an interpretation that the measure is always evident among Senior High School students. For the range of 3.40 – 4.19 it means *high* with an interpretation that the measure is oftentimes evident among Senior High School students. For the range of 2.60 – 3.39 it means *moderate* with an interpretation that the measure is occasionally evident among Senior High School students. For the range of 1.80 – 2.59 it means *low* with an interpretation that the measure is seldom evident among

Senior High School students and finally with the range of 1.00 – 1.79 means very *low* with an interpretation that the measure is never evident among Senior High School students. Cronbach's alpha was used to test the scales' reliability, and the results are presented in the tool description. Cronbach's alpha was computed to be 0.77, indicating that the instruments are dependable. The four sets of questionnaires were validated by a team of examiners before being approved. The construct validity of the instruments had an overall score of 0.85, indicating that the tools were well-liked. Before it was administered, the final version was created, considering the experts' errors, comments, and suggestions.

IV. DESIGN AND PROCEDURE

The descriptive-correlational strategy was adopted in this investigation. A descriptive correlational study (Quaranta, 2017) is one in which the researcher is primarily interested in documenting connections between variables rather than attempting to establish a causal link. Because described the level of parental participation, classroom climate, and social support received by senior high school students, it is descriptive. Meanwhile, because it examined the degree of link between exogenous and endogenous factors, it is correlational. The path analysis model technique was used in this quantitative descriptive-correlational research design. Quantitative studies analyzed data using mathematical models and statistics, resulting in numerical results that were more objective. Quantitative studies are concerned in figuring out how and why things change (Moore, 2016). The goal of this study was to find the most appropriate model of academic self-concept among public senior high school students.

The best fit model was created using path model analysis. It was also used to investigate postulated relationships, starting with a theoretically based model, and then transforming it into a path diagram. In a path analysis model from the correlation matrix, two or more casual models are compared. The path of the model is shown by a square and an arrow, which shows the causation. Regression weight is predicated by the model. It revealed relationships among hidden structures that are not directly measured, possible errors in the measurements of the observed variables were considered, and it is a very useful method to analyze highly complex multiple variable models and to reveal direct and indirect relationships between relationships, to name a few features that outperform path model analysis. It is also a preferred way of analysis in doctoral dissertations and academic research (Civelek, 2018). The initial step in gathering data for the study was obtaining permission to conduct it from the University of Mindanao Ethics Review Committee. Next was the production of google formed - questionnaires were made possible. The adviser's request letter was delivered to the DepEd Regional Director, and the authorized letter was appended to letters addressed to the three DepEd division superintendents in Region XI. After all of these were complied, a schedule for the floating and retrieval of questionnaires followed. In June 2023, the researcher began administering in the Divisions of DepEd Davao de Oro, DepEd Davao del Norte and DepEd Davao Occidental. The researcher forwarded the google-formed surveys to the participating schools in each DepEd Division stated above during the questionnaire retrieval process. The researcher's friends, coworkers, and acquaintances assisted her in retrieving the questionnaires and data collection.

As indicated below, the data will be examined and interpreted using the proper statistical tools: The first statistical tool is the Mean. The level of parental involvement, classroom climate and social support were determined using the mean. Further, Pearson *r*, also known as Pearson Product–Moment Correlation, is a statistical method for calculating the correlation between two variables. For naturally distributed joint data with a normal bivariate distribution, the Pearson correlation coefficient is usually utilized (Schober, Boer & Schwarte, 2018). It was utilized in this study to see how the exogenous variable of parental involvement, classroom climate and social support interacted with the endogenous variable of academic self-concept. Finally, the Path Model Analysis. Path Analysis is a precursor to and subset of structural equation modeling. This method is used to discern and assess the effects of a set of variables acting on a specified outcome via multiple causal pathways (Loehlin, 2004). Specifically, it was used to test the hypothesized model and to determine the best fit model of job performance of teachers.

Statistical Tools : To evaluate the goodness of fit of the hypothesized models, the following indices were considered: Chi-square/degrees of freedom (χ^2/df) which is $0 < \text{value} < 2$, Goodness of Fit Index (GFI) is $> .95$, Normed Fit Index (NFI) which is $> .95$, Tucker-Lewis Index (TLI) which is $> .95$, Comparative Fit Index (CFI) which is $> .95$, and Root Mean Square Error of Approximation $< .05$, the P-value is $> .05$ and the P of Close Fit (Pelose) is $> .05$. All of these were used to assess the goodness of fit of the hypothesized models.

V. RESULT AND DISCUSSION

Presented in this chapter were the data and the results of the study. Tables were arranged in the following subheadings: level of parental involvement, level of classroom climate, level of social support and level of academic self-concept among senior high school students, goodness of fit measures of path analysis model 1, goodness of fit measures of path analysis model 2, goodness of fit measures of path analysis model 3, and summary of goodness of fit measures of the three path analysis models. The statistical tables indicated that the standard deviation ranged from 0.489 to 0.991. These were less than 1.0 which is the typical standard deviation for 5 – point like scale according to Wittink and Bayer (1994). This means that the ratings obtained in this study are close to the mean, indicating consistency of responses of the respondent.

Level of Parental Involvement

Table 1
Level of Parental Involvement

Indicator	SD	Mean	D.E.
Responsibilities and Attendance	0.560	4.49	Very High
Communication and Support	0.793	3.75	High
Literacy and Tutorial Assistance	0.892	3.74	High
Volunteer and Mentoring	0.844	3.25	Moderate
Leadership and Partnership	0.991	2.98	Moderate
Overall	0.676	3.64	High

Shown in Table 1 were the results of the study regarding the level of parental involvement with the overall mean of 3.64 which indicates *high* level. Indicators were the following: responsibilities and attendance with a mean of 4.49 indicates high level, next is communication and support with a mean of 3.75 also indicates high level, next is literacy and tutorial assistance with a mean of 3.74 also indicates a high level. This suggests that parents make sure that students attend school on time and regularly, moreover, parents must be supporting the school in developing discipline for the students’ benefit, encouraging their students to study or review at home. This finding is supported by the study of Nguyen et al, 2023 which showed that parental involvement has an important positive correlation and indicated that parental support is an essential aspect in establishing kids' academic self-concept. Another study supported about parental involvement stated that student involvement is strongly and favorably influenced by one's self-concept, and the emergence of student engagement behavior can be moderated by family support. (Adelia, Hasanuddin, & Surbakti, 2024).

Table 2
Level of Classroom Climate

Indicators	SD	Mean	D.E.
Personalization	0.643	4.08	High
Involvement	0.537	4.01	High
Student Cohesiveness	0.669	4.21	Very High
Satisfaction	0.639	4.00	High
Task Orientation	0.622	4.07	High
Innovation	0.644	4.08	High
Individualization	0.688	3.96	High
Overall	0.505	4.06	High

Table 2 shows the level of classroom climate with an overall mean of 4.06 indicating a *high level*. Indicators resulted to a high level which were as follows: personalization & innovation both with a mean of 4.08, task orientation with a mean of 4.07, involvement with a mean of 4.01, satisfaction with a mean of 4.00 and finally individualization with a mean of 3.96. The high level of classroom climate is supported by indicators that teaching approaches are allowing students to proceed at their own pace, Interact in the class, students’ building friendships among each other, Considering classes are enjoying, students are being given activities that are clearly and carefully planned, In teaching, approaches are being characterized by innovation and variety and having varied opportunities to pursue their particular interest in the class.

Previous research revealed that teachers with favorable dispositions toward students and those who uphold the significance of education provide and encourage participation from students in the classroom climate (Cabayag & Guhao, 2024). The results of this study were confirmed by earlier research, which showed that participants were driven by extrinsic factors such as goal setting (e.g., future education and profession, excellent grades), developing a learning routine, creating a designated school environment, and interactions with others. (Zhu, et al 2024).

Table 3
Level of Social Support

Indicators	SD	Mean	D.E.
Significant Other	0.944	4.13	High
Family	0.803	4.17	High
Friends	0.802	4.07	High
Overall	0.668	4.12	High

Table 3 shows the level of social support among senior high students with an overall mean of 4.12 indicating *high level*. All indicators resulted to a high level which were: family with a mean of 4.12, followed by significant other with a mean of 4.13 and friends with a mean of 4.07. The level of social support which is high is supported by indicators such as having a significant other who is around when they need to, a family giving emotional help and support. And friends that can be counted on when things go wrong. Additionally, social circle has an impact as well as introducing new activities. Results supported the findings that social skills have a favorable impact on the academic self-concept of kids with special needs in inclusive primary schools, according to these findings (Dwi Pratiwi, et al 2020). Given that they lack knowledge of what is appropriate or inappropriate and require advice in this regard, the behavior of their peer company may or may not be advantageous to them. (Mathur et al, 2023).

Table 4
Level of Academic Self-Concept

Indicators	SD	Mean	D.E.
Academic Confidence	0.489	4.06	High
Academic Effort	0.499	4.08	High
Overall	0.470	4.07	High

Table 4 shows the level of academic concepts which resulted in an overall mean of 4.07 indicating a *high level*. Indicators were academic effort with a mean of 4.08 and academic confidence with a mean of 4.06. Both academic effort and academic confidence indicate a high level. Table 4 shows the level of academic concepts which resulted in an overall mean of 4.07 indicating a *high level*. Indicators were academic effort with a mean of 4.08 and academic confidence with a mean of 4.06. Both academic effort and academic confidence indicate a high level. Students' academic confidence implied that students could follow the lessons quickly, could help their classmates with their homework if permitted, they are willing to do their best to pass all the subjects and they are good in most of their school subjects. While students' academic effort can be observed if students were working on tasks with the collaboration of their classmates, they performed well in their schoolwork, and they always done good in tests. Findings were supported by previous research that a stronger academic self-concept is linked to strong social support, according to the data, which demonstrates a significant positive correlation. (Fang & Li, 2021). Further, previous research stated that student who enjoys their classes, believe their teachers are supportive and fair, have positive peer relationships, and accept their school's mission, values, and standards are more likely to feel a sense of belonging. (Akaneme, et al 2020).

Table 5
Significance on the Relationship between Levels of Parental Involvement and Academic Self-Concept

*Significant at 0.05 significance level.

Table 5 showed the significance of the relationship between levels of parental involvement and

Parental Involvement	Academic Self-Concept		
	Academic Confidence	Academic Effort	Overall
Responsibilities and Attendance	.244* (0.000)	.221* (0.000)	.244* (0.000)
Communication and Support	.396* (0.000)	.363* (0.000)	.398* (0.000)
Literacy and Tutorial Assistance	.377* (0.000)	.315* (0.000)	.362* (0.000)
Volunteer and Mentoring	.501* (0.000)	.399* (0.000)	.472* (0.000)
Leadership and Partnership	.453* (0.000)	.400* (0.000)	.447* (0.000)
Overall	.490* (0.000)	.422* (0.000)	.478* (0.000)

academic self-concept with an overall result of *p value of .478*. It ranges from .244 to .478 with different indicators. The indicators volunteer and mentoring have a *r value of .472*, leadership and partnership have .447, communication and support with .398, literacy and tutorial assistance with .362 and responsibilities and attendance with .244. Further the *r value* of academic confidence is .490 while the *r value* for academic effort is .422. Results showed a significant relationship between parental involvement and academic-self-concept since it fitted into the criterion of 0.05 significance level. Similarly, this was supported by the previous research findings that student involvement is strongly and favorably influenced by one's self-concept, and the emergence of student engagement behavior can be moderated by family support. (Adelia, Hasanuddin, & Surbakti, et al 2024). Additionally, another research indicated that parental participation improves students' perceptions of their academic self-concept. (Wang, Sheikh-Khalil, 2020).

Table 6
Significance on the Relationship between Levels of Classroom Climate and Academic Self-Concept

Classroom Climate	Academic Self-Concept		
	Academic Confidence	Academic Effort	Overall
Personalization	.445* (0.000)	.478* (0.000)	.485* (0.000)
Involvement	.366* (0.000)	.325* (0.000)	.363* (0.000)
Student Cohesiveness	.328* (0.000)	.267* (0.000)	.313* (0.000)

Satisfaction	.210* (0.000)	.240* (0.000)	.236* (0.000)
Task Orientation	.314* (0.000)	.277* (0.000)	.309* (0.000)
Innovation	.225* (0.000)	.176* (0.000)	.210* (0.000)
Individualization	.300* (0.000)	.215* (0.000)	.269* (0.000)
Overall	.391* (0.000)	.353* (0.000)	.390* (0.000)

*Significant at 0.05 significance level

Table 6 shows the significance of the relationship between levels of classroom climate and academic self-concept with an overall result of *p value* of .390. It ranges from .210 to .485. Indicators which were personalization resulted to the *r value* of .485, involvement with .363, student cohesiveness with .313, task orientation with .309, individualization with .269, satisfaction with .236 and innovation with .210. Results show a significant relationship since it fits the criterion of at 0.05 significance level. Therefore, classroom climate is correlated with academic self-concept. Results showed the same idea of the previous research that mostly students with a low level of academic self-concept benefit from competence-based learning because this student-centered learning environment reduces the association between academic self-concept and achievement motivation through a high level of perceived competence support. (Kulakow, S. 2020). Moreover, previous research stated that students were driven by extrinsic factors such as goal setting (e.g., future education and profession, excellent grades), developing a learning routine, creating a designated school environment, and interactions with others. (Zhu,Berri, Huang & Masoud, 2024).

Table 7

Significance on the Relationship between Levels of Social Support and Academic Self-Concept

*Significant at 0.05 significance level.

Table 7 showed a significant correlation between social support and academic self-concept with an

Social Support	Academic Self-Concept		
	Academic Confidence	Academic Effort	Overall
Significant Other	.178* (0.000)	.176* (0.000)	.186* (0.000)
Family	.247* (0.000)	.220* (0.000)	.244* (0.000)
Friends	.164* (0.000)	.138* (0.000)	.159* (0.000)
Overall	.248* (0.000)	.226* (0.000)	.249* (0.000)

overall result of *p value* of .249. The result ranges from .156 to .249 *p value*. Indicators resulted in a significant relationship since it fits to the criterion at 0.05 significance level. Indicators which were family with a *p value* of .244, significant other with .186 and friends with .159. Therefore, social support is correlated with academic self-concept.

Results have similar concept with previous research wherein social skills have a favorable impact on the academic self-concept of kids with special needs in inclusive primary schools, according to these findings. (Dwi Pratiwi, F., et al, 2020). Additionally, previous research revealed that in the case of academic self-concept, socio-cultural factors become significant given that it is constructed through a process of social comparison of one's academic competence with others' or with the class-group. (Postigo, A. et al, 2022)

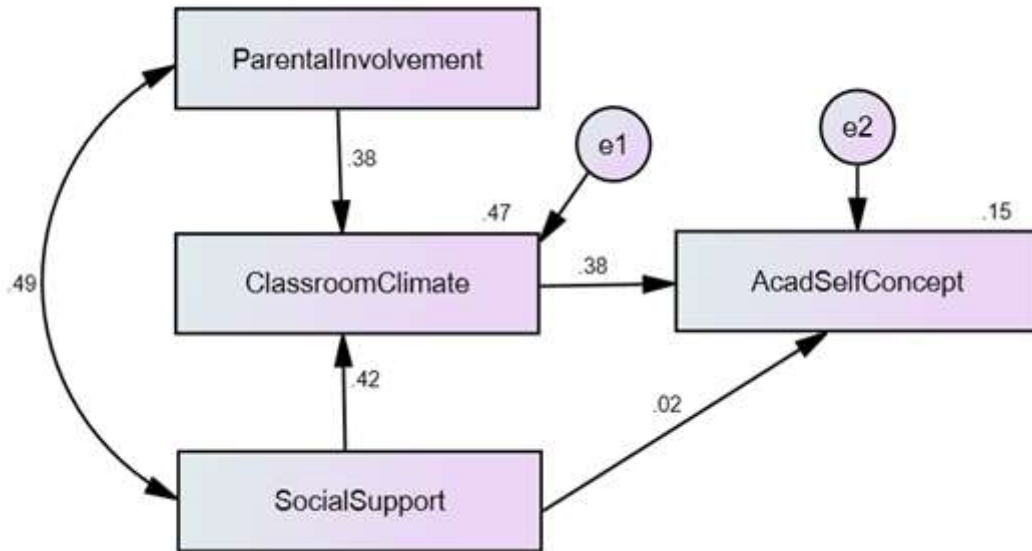


Figure 2. Path Analysis Model 1 in Standardized Solution

Legend: ParentalInvolvement – Parental Involvement
 ClassroomClimate – Classroom Climate
 SocialSupport – Social Support
 AcadSelfConcept – Academic Self-Concept

The generated Path Analysis Model 1 in Standardized Solution was displayed in Figure 2. The single arrow indicated that there is a direct influence of classroom climate and social support to academic self-concept. However, the double-headed arrow showed a significant relationship between parental involvement and social support. Additionally, both parental involvement and social support have a direct impact to classroom climate which had a direct influence on academic self-concept. These results were corroborated by Wang et al (2020), which showed that fostering student engagement and interactions in the classroom enables students establish a positive self-concept by boosting their confidence and decreasing their anxiety levels. Furthermore, Shao and Kang's (2022) findings gave plausibility to the notion that self-efficacy, a mediating aspect of academic self-concept, is directly impacted by perceived social support.

Table 8
 Goodness of Fit Measures of Path Analysis Model 1

INDEX	CRITERION	MODEL FIT VALUE
P-Close	> 0.05	.000
CMIN/DF	0 < value < 2	48.460
P-value	> 0.05	.000
		.946

GFI	> 0.95	
CFI	> 0.95	.899
NFI	> 0.95	.899
TLI	> 0.95	.397
RMSEA	< 0.05	.345

Legend:

- CMIN/DF** - Chi-Square/Degrees of Freedom
- NFI** - Normed Fit Index
- TLI** - Tucker-Lewis Index
- CFI** - Comparative Fit Index
- GFI** - Goodness of Fit Index
- RMSEA** - Root Means Square of Error Approximation
- Pclose** - P of Close Fit
- P-value** - Probability Level

Reflected in Table 8 is the Goodness of Fit Measures of Path Analysis Model 1, results showed a poor fit model since all did not fit on all of the criterion measures which were as follows: *P-Close* must be > 0.05 but the result is .000, *CMIN/DF* must be $0 < \text{value} < 2$ but it resulted to 48.460, *P-value* must be > 0.05 which resulted to .000, *GFI* must be > 0.95 but resulted to .946 which is < 0.95. *NFI* must be > 0.95 but resulted to .899, *TLI* should be > 0.95 but resulted to .397 and finally, the *RMSEA* criterion is < 0.05 which resulted to .345 which does not fit at all.

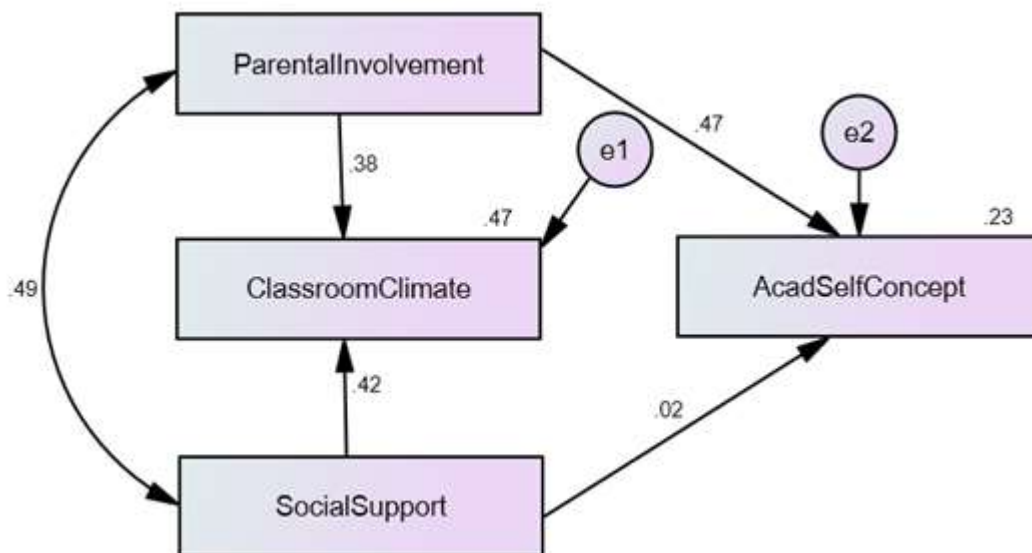


Figure 3. Path Analysis Model 2 in Standardized Solution

- Legend: ParentalInvolvement – Parental Involvement
- ClassroomClimate – Classroom Climate
- SocialSupport – Social Support
- AcadSelfConcept – Academic Self-Concept

The generated Path Analysis Model 2 in Standardized Solution was displayed in Figure 3. The single-headed arrow showed that parental involvement and social support were correlated with each other, and they have a direct influence on academic self-concept. Further, parental involvement and social support have a direct impact to classroom climate. The same results were found in the earlier study by Berkowitz et al. (2021), which showed that parental involvement is crucial for adolescents' social and educational achievement. The study also supported up the idea that to improve students perceived academic self-efficacy and school engagement, educators and families must collaborate to provide social support. Additionally, Sudirman & Yuharnida's (2024) study indicated a significant correlation between students' academic progress in English and the social support they receive from their parents. These findings' practical implications emphasize how important it is to give students tangible help and emotional support throughout their English language learning process. To improve students' academic performance in English, parents and educators can take an active role in motivating students, encouraging them, and establishing a supportive environment.

Table 10
Goodness of Fit Measures of Path Analysis Model 2

INDEX	CRITERION	MODEL FIT VALUE
P-Close	> 0.05	.011
CMIN/DF	0 < value < 2	10.827
P-value	> 0.05	.001
GFI	> 0.95	.987
CFI	> 0.95	.979
NFI	> 0.95	.977
TLI	> 0.95	.875
RMSEA	< 0.05	.157

Legend:

- CMIN/DF** - Chi-Square/Degrees of Freedom
- NFI** - Normed Fit Index
- TLI** - Tucker-Lewis Index
- CFI** - Comparative Fit Index
- GFI** - Goodness of Fit Index
- RMSEA** - Root Means Square of Error Approximation
- Pclose** - P of Close Fit
- P-value** - Probability Level

Table 10 is the Goodness of Fit Measures of Path Analysis Model 2, results showed a poor fit model since not all the results fitted on all of the criterion measures which were as follows: in *P-Close* the result increases from .000 to .011 but it did not fit in the criterion of > 0.05 , in *CMIN/DF* the result decreases from 48.460 to 10.827 but it did not fit in the criterion of $0 < \text{value} < 2$, in *P-value* result increases from .000 to .001 but it did not fit in the criterion of > 0.05 . However, in GFI the result increases from .946 to .987 which fitted in the criterion of > 0.95 .

Additionally, in the NFI the result increases from .899 to .977 which also fitted in the criterion of > 0.95, in TLI the result increases from .397 to .977 which also fitted in the criterion of > 0.95 and finally, in RMSEA the result increases from .345 to .875 which did fit in the criterion of < 0.05. Though there were results that fit in the given criterion, most of the results did not fit to some criterion therefore, I can conclude that generated Model 2 is not the best fit model of my study

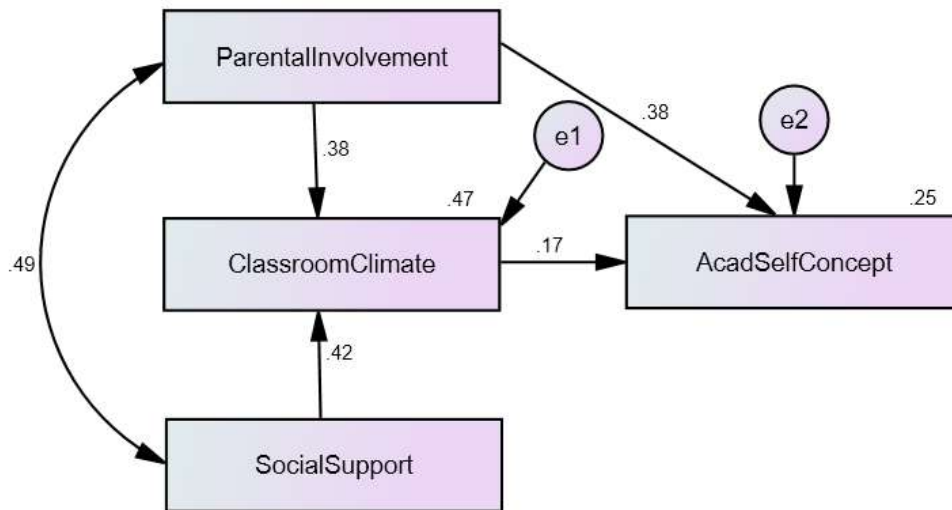


Figure 4. Path Analysis Model 3 in Standardized Solution

Legend: ParentalInvolvement – Parental Involvement
 ClassroomClimate – Classroom Climate
 SocialSupport – Social Support
 AcadSelfConcept – Academic Self-Concept

Figure 4 showed the generated Path Analysis Model 3 in Standardized solution. It is the Best Fit Path Model, exhibited that parental involvement had a direct impact on classroom climate and both parental involvement and classroom climate had a direct influence on academic self-concept. Additionally, social support and parental involvement is correlated with each other. However, social support has a direct impact on classroom climate. The findings were corroborated by preceding studies by Karaman et al. (2021), which showed that academic self-concept was statistically predicted by social support, academic adjustment, and attachment. Additionally, Apostol & Santos's (2023) study demonstrated that the correlation between academic self-concept and student engagement was somewhat mediated by school the environment. It suggests that student engagement and a positive academic self-concept are communicated by the school climate. Furthermore, Baria and Gomez's (2022) previous studies revealed a strong favorable correlation between student learning and growth and social support. Furthermore, Sharma & Sharma (2021) found that several factors, including parental participation, guidance requirements, educational objectives, stress, and self-concept, greatly influence the variation in students' academic achievement

Table 12
 Goodness of Fit Measures of Path Analysis Model 3

INDEX	CRITERION	MODEL FIT VALUE
P-Close	> 0.05	.478
CMIN/DF	0 < value < 2	1.208

P-value	> 0.05	.272
GFI	> 0.95	.988
CFI	> 0.95	1.000
NFI	> 0.95	.997
TLI	> 0.95	.997
RMSEA	< 0.05	.023

Legend:

- CMIN/DF** - Chi-Square/Degrees of Freedom
- NFI** - Normed Fit Index
- TLI** - Tucker-Lewis Index
- CFI** - Comparative Fit Index
- GFI** - Goodness of Fit Index
- RMSEA** - Root Means Square of Error Approximation
- Pclose** - P of Close Fit
- P-value** - Probability Level

Table 12 showed the generated Path Analysis Model 3 in standardized solution which fit into the goodness of fit measures in all the different criterion measures. For the chi-square/degrees of freedom it resulted to 1.208 which fitted to the criterion that $0 > 1.208 > 2$, for the probability level or p-value, it resulted to .272 which fits in the criterion of $> .05$. For the normed fit index, it was .997 which is $> .95$. In the Tucker-Lewis index, it was .977 which fits in the criterion of $> .95$. For the comparative fit index, the result is 1.000 which was $> .95$. For the goodness of fit index is .998 which is $> .95$, additionally, for the root means square of error, the result was .023 which is $< .05$ and finally the p of close fit result was .478 which is $> .05$. Considering all the fit measures, i can conclude that the best fit model is model 3.

VI. CONCLUSION AND RECOMMENDATION

Results of the study revealed that there are high levels of parental involvement, classroom climate and social support among senior high school students. It is evident to the survey conducted to students randomly selected in Davao region. Additionally, parental involvement, classroom climate and social support correlates with the academic self-concept among senior high school students. The best fit model 3 exhibited a significant relationship between academic self-concept with parental involvement and classroom climate. However, parental involvement and social support were correlated with each other and have a direct influence on classroom climate.

Furthermore, results of the study supported the sociocultural theory of (Lev Vygotsky 1978) which stated that the ways people interact with others and the culture in which they live shape their mental abilities. Further, the study also proved that Ecological system theory which emphasizes how social support, classroom environment, and parental involvement interact across many different systems to affect a student's academic achievement and self-concept. Additionally, another anchored theory is proven which is the classroom climate theory in which revealed that a supportive teacher-student connection, mutual respect among peers, and a sense of safety and belonging are characteristics of a pleasant classroom atmosphere, according to thinkers. (Moos, 1979 and Fraser 2012), Finally with the Self-Efficacy theory of Albert Bandura revealed that it is fundamental to our knowledge of how belief systems influence behavior, and it emphasizes how crucial it is to help kids develop a good self-concept and academic success by giving them confidence in their abilities. Therefore, senior high school students' academic self-concept can be enhanced or strengthened with parental involvement, with teachers in a classroom climate, family, friends, peers and significant other as their social support system.

Effective communication between teachers and parents is essential to establishing their trust and sharing accountability for the academic self-concept of their kids. Every grading period, there should be a regular parent-teacher conference to enhance the rapport between the two parties. Obtaining a distinctive contact number and writing letters to parents as needed should also be undertaken. An open-door policy must be considered most of the time. It is a communication strategy that allows the administration, teachers, parents, and other relevant parties to visit the office at any time to discuss concerns, ask questions, offer or receive feedback, speak up problems, or share ideas. Educators may enhance the social, emotional, and intellectual growth of every student by attending to their developmental needs, creating a safe learning environment, and integrating methods from other classrooms, schools, families, and communities. Teachers and parents should work collaboratively to address the needs and challenges of their students. It is essential to have open and honest conversations regarding issues with parents as soon as they arise, be it behavioral issues, trouble interacting with others, or a drop in academic achievement. If the teacher follows their suggestions and incorporates their ideas into the solution, they will be able to tackle the challenge with greater skill. For the duration of the school year, it makes parents more involved learners and grants them greater authority. Positive relationships, teamwork, and mutual respect emerge via cooperative problem-solving, which also strengthens the parent-teacher relationship.

On the other hand, students' receptivity to education is increased when teachers and students have positive interactions. Open communication is characterized by teachers who actively listen to their students and then supportively offer advice and comments and extend help when they need to. Academic self-concept is promoted by the interactions that exist between teachers and students. Good relationships between teachers and students have significant effects on students' motivation, engagement, and general well-being, all of which can help them perform better academically. Further, all kids' education, regardless of grade level, must include social and emotional learning (SEL). To develop healthy identities, control emotions and accomplish individual and group objectives, feel and demonstrate empathy for others, build and sustain supportive relationships, and make thoughtful and responsible decisions, all young people and adults must go through the SEL process. The Department of Education and Division Offices may consider enhancing students' academic self-concept to its highest level by improving parental involvement in school programs, classroom environment, and social support services.

REFERENCES

1. Adelia, T., Hasanuddin, H., & Surbakti, A. (2024). The role of self-concept in student engagement among Muslim students with family support as a mediating variable. *INSPIRA: Indonesian Journal of Psychological Research*, 5(1), 62-69.
2. Alvi, M. (2016). A manual for selecting sampling techniques in research.
3. Apostol, R. L., & Santos, L. S. P. D. (2023). THE MEDIATING EFFECT OF SCHOOL CLIMATE ON THE RELATIONSHIP BETWEEN ACADEMIC SELF-CONCEPT AND STUDENT ENGAGEMENT. *European Journal of Education Studies*, 10(11).
4. Baria, K., & Gomez, D. (2022). Influence of social support to student learning and development. *International Journal of Research Studies in Education*, 11(2), 69-97.
5. Basharpour, S., Heidari, F., Narimani, M., & Barahmand, U. (2020). School adjustment, engagement and academic self-concept: Family, child, and school factors. *Journal of Psychologists and Counsellors in Schools*, 32(1), 23-38. <https://doi.org/10.1017/jgc.2020.6>
6. Beld, M. H. M., Kuiper, C. H. Z., Van Der Helm, G. H. P., De Swart, J. J. W., Stams, G. J. J. M., & Roest, J. J. (2021). Classroom Climate, Identification with School, and General Self-worth Predict Academic Self-Concept in Students Attending Residential Schools for Special Education. *Residential Treatment for Children & Youth*, 38(2), 137-152
7. Berkowitz, R., Astor, R. A., Pineda, D., DePedro, K. T., Weiss, E. L., & Benbenishty, R. (2021). Parental involvement and perceptions of school climate in California. *Urban Education*, 56(3), 393-423.
8. Bonett, D., & Wright, T. (2014). Sample size planning for multiple correlation: reply to Shieh (2013). *Psicothema*, 391-394.
9. Bowers, A. J., & Griffiths, G. (2022). "The Role of Social Support in Shaping Academic Self-Concept Among High School Students." *High School Journal*, 105(2), 150- 167.
10. Cabayag, S. J. L., & Guhao Jr, E. S. (2024). SELF-EFFICACY, JOB PERFORMANCE, AND TRANSFORMATIONAL LEADERSHIP: A STRUCTURAL EQUATION MODEL ON ORGANIZATIONAL COMMITMENT
11. AMONG PUBLIC SCHOOL TEACHERS. *European Journal of Education Studies*, 11(1). <https://doi.org/10.46827/ejes.v11i1.5168>

12. Calderón, M. T., Salazar, T. M., Calderón, C. T., Calderón, Y. T., & Calderón, A. T. (2021). Pedagogical and managerial leadership in teaching performance: A systematic review. *Asean Journal of Psychiatry*, 22(10). <https://doi.org/10.54615/2231-7805.47230>
13. Calderón, C., Ferrando, P. J., Lorenzo-Seva, U., Gómez-Sánchez, D., Fernández- Montes, A., Palacín-Lois, M., ... & Jiménez-Fonseca, P. (2021). Multidimensional Scale of Perceived Social Support (MSPSS) in cancer patients: Psychometric properties and measurement invariance. *Psicothema*, 33(1), 131-138.
14. Chen, X., & Lu, X. (2022). "Examining the Impact of Peer and Family Support on Academic Self-Concept: A Longitudinal Study." *Journal of Adolescence*, 90, 115-127.
15. Civelek, M. E. (2018). *Essentials of structural equation modeling*. Zea Books. <https://doi.org/10.13014/k2sj1hr5>
16. Coelho, V. A., Bear, G. G., & Brás, P. (2020). A multilevel analysis of the importance of school climate for the trajectories of students' self-concept and self-esteem throughout the middle school transition. *Journal of youth and adolescence*, 49(9), 1793-1804. Cochran, W. G. (1977). *Sampling techniques*. John Wiley & Sons.
17. Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE.
18. Dörnyei, Z., & Muir, C. (2019). Creating a motivating classroom environment. *Second Handbook of English Language Teaching*, 719-736. https://doi.org/10.1007/978-3-030-02899-2_36
19. Dumont, H., & Pellerin, L. (2022). "The Role of Parental Involvement in Developing Academic Self-Concept and Motivation among Adolescents." *Journal of Adolescence*, 90, 104-115.
20. Dunn, D. S., Dunn, D. S., Hammer, E. Y., & Weiten, W. (2015). *Psychology of adjustment*. The Oxford Handbook of Undergraduate Psychology Education. <https://doi.org/10.1093/oxfordhb/9780199933815.013.031>
21. Edwards, C. R., & Lane, P. N. (2021). Facilitating student interaction: The role of Flipgrid in blended language classrooms. *Computer Assisted Language Learning Electronic Journal*, 22(2), 26-39. Erikson, E. (1995). *Dialogue with Erik Erikson*. Jason Aronson.
22. Fang, X., & Li, S. (2021). "Social Support and Academic Self-Concept: A Study of College Students' Perceptions and Outcomes." *Journal of Educational Psychology*, 113(4), 645-660.
23. Farahani, R. Z., & Hekmatfar, M. (2009). *Facility location: Concepts, models, algorithms and case studies*. Springer Science & Business Media. Floyd J Fowler, J. (2013). *Survey research methods*. SAGE Publications.
24. George, D., & Mallery, P. (2024). *IBM SPSS statistics 29 step by step*. <https://doi.org/10.4324/9781032622156>
25. Gliem, J. A., & Gliem, R. R. (2003). Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales. *Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education*.
26. Goodall, J., & Montgomery, C. (2023). Parental involvement to parental engagement: A continuum. *Mapping the Field*, 158-169.
27. Goldan, J., Hoffmann, L., & Schwab, S. (2021). A Matter of Resources?— Students' Academic Self-Concept, Social Inclusion and School Well-being in Inclusive Education. *In Resourcing Inclusive Education*. Emerald Publishing Limited.
28. Jabar, M. A. (2021). Qualitative inquiry on parental involvement in children's education: perspectives of parents, children, and teachers in select elementary schools in the Philippines. *Asia Pacific Journal of Education*, 41(3), 488-502.
29. Katz, J., Mercer, S. H., & Skinner, S. (2020). Developing self-concept, coping skills, and social support in grades 3–12: A cluster-randomized trial of a combined mental health literacy and dialectical behavior therapy skills program. *School Mental Health*, 12(2), 323-335.
30. Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice-Hall.
31. Karaman, M. A., Watson, J., Freeman, P., & Haktanir, A. (2021). First-year college students at a Hispanic serving institution: academic self-concept, social support, and adjustment. *International Journal for the Advancement of Counselling*, 43(3), 356-371.
32. Kim, J., & Schneider, B. (2023). "Parental Involvement and Its Impact on Students' Academic Self-Concept: An Analysis of Middle School Students." *Educational Psychology*, 43(1), 54-73.
33. Kulakow, S. (2020). Academic self-concept and achievement motivation among adolescent students in different learning environments: Does competence-support matter?. *Learning and Motivation*, 70, 101632.

34. Leeflang, P. S., & Wittink, D. R. (1994). Diagnosing competition: Developments and findings. *International Series in Quantitative Marketing*, 133-168. https://doi.org/10.1007/978-94-011-1402-8_4
35. Li, Y., & Lee, J. (2021). "Parental Involvement and Students' Academic Self-Concept: A Longitudinal Study." *Journal of Educational Psychology*, 113(2), 342-358.
36. Li, S., Xu, Q., & Xia, R. (2020). Relationship between SES and academic achievement of junior high school students in China: The mediating effect of self-concept. *Frontiers in psychology*, 10, 2513.
37. Llego, M. A. (2022, September 4). Why Schools Should Encourage Parental Involvement in Education. TeacherPH. Retrieved September 4, 2022 from, <https://www.teacherph.com/schools-encourage-parental-involvement-education/>
38. Loehlin, J. C. (2004). *Latent variable models*. <https://doi.org/10.4324/9781410609823>
39. Matovu, M. (2014). A structural equation modelling of the academic self-concept scale. Marsh, H. W., Pekrun, R., Murayama, K., Arens, A. K., Parker, P. D., Guo, J., & Dicke, T. (2018). An integrated model of academic self-concept development: Academic self-concept, grades, test scores, and tracking over 6 years. *Developmental psychology*, 54(2), 263.
40. Miller, A., & Phillips, S. (2023). "Social Support Networks and Academic Self-Concept: Evidence from Middle School Students." *Middle Grades Research Journal*, 19(1), 34-47.
41. Mishra, S. (2020). Social networks, social capital, social support and academic success in higher education: A systematic review with a special focus on 'underrepresented' students. *Educational Research Review*, 29, 100307.
42. Moore, E. R., Bergman, N., Anderson, G. C., & Medley, N. (2016). Early skin-to-skin contact for mothers and their healthy newborn infants. *Cochrane database of systematic Reviews*, (11).
43. Nguyen, T., & Nguyen, T. (2023). "Impact of Parental Involvement on Academic Self-Concept: Evidence from High School Students in Vietnam." *International Journal of Educational Research*, 116, 103-117.
44. Oke, A. E., Ogunsamí, D. R., & Ogunlana, S. (2012). Establishing a common ground for the use of structural equation modelling for construction related research studies. *Australasian Journal of Construction Economics and Building*, The, 12(3), 89-94.
45. Ozer, S. (2024). Social support, self-efficacy, self-esteem, and well-being during COVID-19 lockdown: A two-wave study of Danish students. *Scandinavian Journal of Psychology*, 65(1), 42-52.
46. Pan, J., Zaff, J. F., & Donlan, A. E. (2017). Social support and academic engagement among reconnected youth: Adverse life experiences as a moderator. *Journal of Research on Adolescence*, 27(4), 890-906.
47. Petridis, S., Ourda, D., Dinas, G., & Barkoukis, V. (2024). THE ASSOCIATION OF SELF-CONCEPT AND MOTIVATIONAL CLIMATE WITH COGNITIVE AND EMOTIONAL RESPONSES IN PHYSICAL EDUCATION. *European Journal of Physical Education and Sport Science*, 11(3).
48. Postigo, Á., Fernández-Alonso, R., Fonseca-Pedrero, E., González-Nuevo, C., & Muñiz, J. (2022). Academic self-concept dramatically declines in secondary school: Personal and contextual determinants. *International Journal of Environmental Research and Public Health*, 19(5), 3010. <https://doi.org/10.3390/ijerph19053010>
49. Povedano-Díaz, A., Muñiz-Rivas, M., & Vera-Perea, M. (2020). Adolescents' life satisfaction: The role of classroom, family, self-concept and gender. *International journal of environmental research and public health*, 17(1), 19.
50. Pratiwi, F. D., & Mangunsong, F. M. (2020). Social Support Impact on Academic Self-Concept of Students with Special Needs. *Electronic Journal of Research in Education Psychology*, 18(50), 143-158.
51. Psychology of adjustment. (2015). *The Oxford Handbook of Undergraduate Psychology Education*. <https://doi.org/10.1093/oxfordhb/9780199933815.013.031>
52. Quaranta, N., Orellano, P., Reynoso, J., Balbi, B., & Vasquez, J. (2017). Effect of outdoor air pollution on asthma exacerbations in children and adults: systematic review and multilevel meta-analysis. *PLoS one*, 12(3), e0174050.
53. Qi, X. (2021). Effects of Self-Regulated Learning on Student's Reading Literacy: Evidence From Shanghai. *Frontiers in Psychology*, 11, 3590.

55. R, V. (2022). Academic self -concept (ASC) and well-being of students in Hongkong: An exploratory study. *Journal of Psychological Science and Research*, 2(1). <https://doi.org/10.53902/jpssr.2022.02.000527>
56. Santos, D. (1999). Machine Translation, 14(2), 83-112. <https://doi.org/10.1023/a:1008169917741>
57. Schober, P., Boer, C., & Schwarte, L. A. (2018). Correlation coefficients: appropriate use and interpretation. *Anesthesia & Analgesia*, 126(5), 1763- 1768.
58. Schutte, V. (2018). Edwards, Mary I: The daughter of time (Allen lane, 2016). *Royal Studies Journal*, 5(2), 162. <https://doi.org/10.21039/rsj.170>
59. Sharma, P., & Sharma, D. (2021). Predictors of Scholastic Achievement of Secondary School Students. *MIER Journal of Educational Studies Trends and Practices*, 67- 84.
60. Shao, Y., & Kang, S. (2022). The link between parent–child relationship and learning engagement among adolescents: The chain mediating roles of learning motivation and academic self-efficacy. *Frontiers in Education*, 7. <https://doi.org/10.3389/feduc.2022.854549>
61. Silinskas, G., & Kikas, E. (2019). Parental involvement in math homework: Links to children’s performance and motivation. *Scandinavian Journal of Educational Research*, 63(1), 17-37.
62. Siu, O. L., Lo, B. C. Y., Ng, T. K., & Wang, H. (2023). Social support and studentoutcomes: The mediating roles of psychological capital, study engagement, and problem-focused coping. *Current Psychology*, 42(4), 2670-2679.
63. Sudirman, S. A., & Yuharnida, Y. (2024). Optimism, parental social support, and academic achievement in english language learning: Exploring the interconnections. *Al-Qalb:Jurnal Psikologi Islam*, 15(2).
64. Vygotsky, L. (1997). *Educational psychology*. CRC Press. Wang, M. T., & Sheikh-Khalil, S. (2020). "Does Parental Involvement Promote Children’s Academic Achievement? A Meta-Analysis of the Literature." *Educational Psychology Review*, 32(4), 695-718.
65. Wang, M. T., Degol, J. L., Amemiya, J., Parr, A., & Guo, J. (2020). Classroom climate and children’s academic and psychological wellbeing: A systematic review and meta-analysis. *Developmental Review*, 57, 100912.
66. Wilder, S. Effects of parental involvement on academic achievement: A meta- synthesis. *Educ. Rev.* **2014**, 66, 377–397. [Google Scholar] [CrossRef]
67. Wilder, S. (2023). Effects of parental involvement on academic achievement: a meta-synthesis. In *Mapping the field* (pp. 137-157). Routledge.
68. Yonker, J. E., Hebreard, D., & Cawley, B. D. (2019). Validating faculty advising through assessment. *NACADA Journal*, 39(1), 34-49.
69. Zhu, M., Berri, S., Huang, Y., & Masoud, S. (2024). Computer science and engineering students’ self-directed learning strategies and satisfaction with online learning. *Computers and Education Open*, 6, 100168. <https://doi.org/10.1016/j.caeo.2024.100168>