

Knowledge Organization Skills as Moderator on Self-Concept and Self-Directed Learning of Students in Junior High School Division, Digos City

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Abstract. The study determines the extent of knowledge organization skills and self-concept and students' self-directed learning. The researcher selected 210 grade 9 students in the Junior High School Division of Digos City as the survey respondents in this study. A stratified random sampling technique was utilized in the selection of the respondents. A non-experimental quantitative research design using a descriptive-correlational method was employed. The data collected were subjected to the following statistical tools: Mean, Partial Correlation, and Hierarchical Regression Analysis. Descriptive analysis showed that students' self-concept and self-directed learning were rated as extensive, while teachers' knowledge organization skills in the Junior High School Division in Digos City. Further, partial correlation analysis demonstrated that there was a significant relationship between self-concept and self-directed learning of students in the Junior High School Division in Digos City when moderated by knowledge organization skills. Hierarchical regression analysis proved that knowledge organization skills significantly moderate the interaction between self-concept and self-directed learning of students. In other words, teachers' knowledge organization skills significantly moderate students' self-concept and self-directed learning in the Junior High School Division in Digos City. The study, therefore, was conducted further to utilize findings through publication in a reputable research journal.

KEY WORDS

1. Teaching home economics
2. attitude towards digital technology
3. knowledge organization skills

1. Introduction

The self-concept is the information we have about ourselves—what we think we are like. Self-concept is a person's perceptions of himself formed through experience and interpretations of the environment. Self-concept generally refers to the composite of people's ideas, feelings, and attitudes about themselves. Our self-perceptions vary from situation to situation and from one phase of our lives to another. These perceptions are influenced by several factors, such as evaluations of significant others, reinforcements, and attributions of behavior. It further refers to the set of perceptions or reference points that the subject has about him: the set of characteristics, attributes, qualities and deficiencies, capacities and limits, values and relationships that the subject knows to be descriptive about its own and which

he perceives as data concerning his identity. Therefore, analyzing the extent of students' self-concept can play an essential role in understanding the students' self-directed learning inside the classroom. As described by Laryea et al. (2014), self-concept was the perception every human has of himself or herself. As viewed by Igbo et al. (2015), one of the most significant factors responsible for students' academic performance is their self-concept. Successful students feel a higher sense of personal worth and somewhat feel better about themselves (Palomino, 2017). As highlighted by Gerardi (2012), developing a positive self-concept helps students view their academic ability when compared with other students. Also, Spaight et al. (2013) explained that when students perceive themselves as the best in class, they tend to hold a positive self-concept of themselves. Previous studies indicate that students' self-concept is linked to self-directedness in learning. For instance, Lawrence and Vimala (2013) reported that students with high self-concept know their strengths and weaknesses and know about their capabilities. Therefore, they can rectify their weaknesses and develop their strengths to achieve higher in this competitive world. Likewise, Kalaivani and Rajeswari (2016) concluded that the academic self-concept is linked with students' learning motivation. The authors pointed out that it is not just a desire only to achieve, but it makes every student excel in every action. In addition, Arefi and Naghebzadeh (2014) made clear that there exists a significant relationship between self-concept in terms of academic self-concept and students' self-directed learning. On a different view, Francis et al. (2018) pointed out that self-directed learning students have higher academic achievement. According to Attard (2013), students who are independent learners are involved in the lesson in meaningful ways through participation in classroom activities, collaboration with teachers and students, and individual reflection about learning. Similarly, Ayub et al. (2016) concluded that independent learners would seek out activities either inside or outside the classroom that would lead them to be successful in their learning. The more independent the learners are, the more they will learn, retain and store knowledge in their brain than those who lack independence in learning (Kim et al., 2015). Despite the importance of self-directed in learning of the students, Otoo et al. (2018) reported that lack of self-directed in learning among students in different levels remains an increasing problem for educators in elementary school level worldwide. The report of White (2015) reveals that globally majority of students in schools ignored modular activities as well as the subjects due to lack of interest and motivation that leads to low academic achievement in different learning area. Adding more, McGlynn and Kozlowski (2016) asserted that in a class where students are not self-directed, misconceptions on basic concepts emerge that resulted to their difficulties in learning, and lowers their interest to persist in stressful and long-lasting activity. Taking things if Philippine setting, Prudente (2011) reported that the deteriorating performance of the Filipino students in the National Achievement Test (NAT) is already a proof that there exists a problem on the students to learn by their selves. In a study that look into the learning independence and the performance in the test, result indicates that those students who showed less interest and lack of independence in learning which is indicated by their avoidance to comply on homework exhibit low performance in different learning areas. The cited problem brought the necessity of the researcher to conduct this study. The intent of this study was to evaluate the influence of self-concept on the self-directed learning of the students as moderated by teachers' knowledge organization skills. Since it is known that students with high self-concept invest more efforts in their learning, persevere in the face of difficulties and act out of pleasure

and choice. The researcher thought that this research would be helpful in educational processes. Also, to the knowledge of the researcher, most of the studies on the self-concept and self-directed learning of the students are conducted on the foreign setting. While research on the impact of self-concept on self-directed learning moderated by teachers' knowledge organization skills is valuable, several research gaps remain that warrant further exploration. Many studies have been conducted in Western educational settings. Research should explore how cultural and contextual factors influence the relationship between self-concept, teacher skills, and

self-directed learning in diverse cultural and educational contexts. Thus, it is on this context that the researcher felt the need to fill-in the research gap of conducting a study in the Philippine context, particularly in Junior High School Division, Digos City using a quantitative research design. Specifically, the researcher made use of hierarchical regression analysis to have a better understanding on the moderating effect of knowledge organization skills on the relationship between self-concept and self-directed learning of the students I junior high school level which is found to be scarce.

2. Methodology

This section contains the research design, research respondents, research instrument, data gathering procedure, and data analysis.

2.1. Research Design—The study employed a non-experimental design utilizing the descriptive correlation technique of research, which is designed to gather data, ideas, facts, and information related to the study. Quantitative research deals with numbers, logic, and objective stances. It focuses on numeric and unchanging data detailed, convergent reasoning, and the generation of a variety of ideas about a research problem (Babbie et al. 2010). According to Myers and Well (2013), correlated design examines how the independent variable influences the dependent variable and establishes cause-and-effect relationships between variables. It enabled the researcher to observe two variables at a point in time and was useful in describing the relationship of the factors of both variables. Moreover, the study also looked into the relationship among three variables— self-concept, self-directed learning, and knowledge organization skills. The interest of the study is to investigate whether knowledge organization skills significantly moderated the interaction between self-concept and self-directed learning of

students in Junior High School Division, Digos City.

2.2. Research Respondents—The respondents of the study were the Grade 9 students in the Junior High School Division, Digos City, Philippines. In this study, the 210 respondents were selected through stratified random sampling technique. Stratified random sampling is a method of sampling that involves the division of a population into smaller sub-groups known as strata. According to Shi (2015), in stratified random sampling, or stratification, the strata are formed based on members' shared attributes or characteristics, such as income or educational attainment. Stratified random sampling is appropriate in this study because there is heterogeneity in a population that can be classified with ancillary information. In this study, specific inclusion criteria were implemented to determine the respondents. The primary consideration of this study is to select respondents who can provide information to achieve its purpose. Hence, only those bonafide Grade 9 students in the Junior High School Division in Digos

City who voluntarily signed the ICF were given the survey questionnaire. Moreover, the study was delimited only to the nature of the problem based on the research questions, and thus, it did not consider the students' socio-economic status.

2.3. *Research Instrument*—The study employed questionnaires adapted from different studies, which will be modified to fit the context of the respondents. The instrument was divided into three parts. The first tool is about the self-concept of the students in the Junior High School Division in Digos City. This questionnaire was adapted from García-Grau et al. (2014) and distributed among the five indicators, namely academic self-concept, social self-

concept, emotional self-concept, family self-concept, and physical self-concept. The Cronbach coefficient value for this instrument is 0.951 described as excellent, indicating high reliability and consistency among the items. More so, this questionnaire was subjected to content validity by a panel of experts to test its validity. The researcher modified the questionnaire by grouping all the items in each dimension under each domain. In the manner of answering the questionnaire, the items the respondents made used of the 5-Likert scale. As a guide in determining the extent of self-concept, the researcher made use of the range of means, descriptions, and interpretations as presented below.

Range of Mean	Descriptive Level	Interpretation
4.20 - 5.00	Very Extensive	The self-concept of students is always observed.
3.40 – 4.19	Extensive	The self-concept of students is oftentimes observed.
2.60 – 3.39	Moderately Extensive	The self-concept of students is sometimes observed.
1.80 – 2.59	Less Extensive	The self-concept of students is seldom observed.
1.00 – 1.79	Not Extensive	The self-concept of students is never observed.

The second part of the instrument is about self-directed learning of grade 9 students in Junior High School Division, Digos City. This questionnaire was adapted from the study of Ayyildiz and Tarhan (2015) and indicated the attitude towards learning, learning responsibility, motivation and self-confidence, and ability to plan learning. The reliability of the new scale was obtained a Chronbach's alpha value of 0.843. More so, this questionnaire was sub-

jected to content validity by a panel of experts to test its validity. The researcher modified the questionnaire by grouping all the items in each dimension under each domain. In the manner of answering the questionnaire, the items the respondents made used the 5-Likert scale. As a guide in determining the extent of self-directed learning, the researcher made use of the range of means, descriptions, and interpretations as presented below.

The third part is about the knowledge organization skills in Junior High School Division, Digos City which was adopted from the study of

Yildirim (2014). The Cronbach coefficient value for this instrument is 0.914 described as excellent, indicating high reliability and consistency

Range of Mean	Descriptive Level	Interpretation
4.20 - 5.00	Very Extensive	Self-directed learning of the students is always manifested.
3.40 – 4.19	Extensive	Self-directed learning of the students is oftentimes manifested.
2.60 – 3.39	Moderately Extensive	Self-directed learning of the students is sometimes manifested.
1.80 – 2.59	Less Extensive	Self-directed learning of the students is rarely manifested.
1.00 – 1.79	Not Extensive	Self-directed learning of the students is never manifested.

among the items. More so, this questionnaire was subjected to content validity by a panel of experts to test its validity. The researcher modified the questionnaire by grouping all the items in each dimension under each domain. In the manner of answering the questionnaire, the

items the respondents made used the 5-Likert scale. As a guide in determining the extent of knowledge organization skills, the researcher made use of the range of means, descriptions and interpretations as presented below:

Range of Mean	Descriptive Level	Interpretation
4.20 - 5.00	Very Extensive	The knowledge organization skills of teachers are always evident.
3.40 – 4.19	Extensive	The knowledge organization skills of teachers are oftentimes evident.
2.60 – 3.39	Moderately Extensive	The knowledge organization skills of teachers are sometimes evident.
1.80 – 2.59	Less Extensive	The knowledge organization skills of teachers are seldom evident.
1.00 – 1.79	Not Extensive	The knowledge organization skills of teachers are never evident.

The questionnaire was pilot-tested in a nearby school and obtained a Cronbach’s alpha value greater than 0.700, which ensured that the questionnaires had a high level of internal consistency. The scaling was done by having one-half of the value of 5 as an average

cut-off point or the fair level, with a uniform interval of 0.80. Before the administration of the instrument, it was subject to validation by three experts and was revised according to their expert comments.

2.4. Data Gathering Procedure—

The researcher undertook the steps in conducting the study after the validation of the research questionnaire. Permission to Conduct the Study. The researcher secured the permission to conduct the study. The researcher secured the endorsement from the Dean of the Graduate School in Rizal Memorial Colleges, Inc., Davao City. The endorsement letter from the Dean of the Graduate School in Rizal Memorial Colleges, Inc., Davao City, was attached to the permission letters to be endorsed to the school division superintendent and then to the school principals of the selected public secondary schools in Junior High School Division, Digos City. Distribution and Retrieval of the Questionnaire. The researcher proceeded to distribute the research instrument to the respondents after the approval to conduct the study. The study was

conducted in the first quarter of S.Y. 2023-2-024. Upon the distribution of the questionnaires, the benefits of the survey were briefly discussed and explained to the identified respondents of the study. For the questionnaire administration, the researcher complies with the division protocol. The questionnaire was distributed following protocols such as wearing face masks and face shields and following social distancing. The study respondents were given enough testing time to finish the questionnaires. After this, the data collected were subjected to quantitative analysis. Collation and Statistical Treatment of Data. After the questionnaire was retrieved, the scores of each respondent were tallied to organize the data per indicator. Then, each score was subjected to descriptive and inferential analysis using SPSS.

2.5. *Data Analysis*—The following were the statistical tools utilized by the researcher in processing the gathered data: Mean. This was useful in characterizing the self-concept, self-directed learning, and knowledge organization skills. This was used to supply the answer for objectives 1, 2, and 3. Pearson Product Moment Correlation was utilized to determine the significance of the relationship among the three variables—self-concept, self-directed learning,

and knowledge organization skills—in the Junior High School Division, Digos City. It is a statistical measure of the strength of a linear relationship between paired data. In a sample, it is usually denoted by r . Hierarchical Regression Analysis. It was applied to evaluate the moderating effect of knowledge organization skills on the interaction between self-concept and self-directed learning of students in the Junior High School Division, Digos City.

3. Results and Discussion

This chapter presents the results generated from the data gathered. It is sequenced based on the study's objectives, as explained in the first chapter. Thus, it presents the extent of self-concepts, self-directed learning of students, and knowledge organization skills of teachers in junior high school division in Digos City; the significant relationship between self-concepts and self-directed learning of students in junior high school division in Digos City when moderated by knowledge organization skills; and the moderating effect of knowledge organization skills on the interaction between self-concepts and self-directed learning of students in junior high school division in Digos City.

Table 1 summarizes the extent of students' self-concept in the Junior High School Division in Digos City. It shows that the overall mean of students' self-concept is 3.63, which is described as extensive and interpreted as often observed by the respondents. The table's results indicate that students' academic, social, emotional, family and physical self-concepts acquired mean scores of 3.61, 3.59, 3.77, 3.60, and 3.58, respectively. This suggests that students' perceptions, beliefs, and evaluations of themselves in various life aspects are often observed. This finding supports the study of Caproni (2019), which states that students with high levels of self-concept are typically more

confident in their abilities and are motivated to set and achieve challenging goals in their respective dimensions. Likewise, this finding agrees with Rashid et al. (2015) that a solid self-concept contributes to positive self-esteem. Students with positive self-esteem have a greater sense of self-worth and tend to have a more optimistic outlook on life. Moreover, the result supports the idea of Igbo et al. (2015) that extensive self-concept can foster healthy, supportive relationships with peers and adults. Students who have a positive self-concept may be more open, communicative, and empathetic in their interactions.

Table 1. Summary on Self-Concept of Students in Junior High School Division, Digos City

Indicators	Mean	Descriptive Rating
Academic Self-Concept	3.61	Extensive
Social Self-Concept	3.59	Extensive
Emotional Self-Concept	3.77	Extensive
Family Self-Concept	3.60	Extensive
Physical Self-Concept	3.58	Extensive
Overall Mean	3.63	Extensive

Table 2 summarizes the extent of self-directed learning of students in Junior High School Division in Digos City. The overall mean of students' self-directed learning is 3.50, described as extensive and often interpreted as manifested. Moreover, the results in the table

indicate that self-directed learning of students in terms of attitude towards learning, learning responsibility, motivation and self-confidence, and ability to plan learning acquired mean scores of 3.30, 3.58, 3.64, and 3.49, respectively.

This suggests that students are encouraged to identify their learning needs, set goals, choose resources and strategies, and assess their progress independently. This finding aligns with Hall's (2011) findings that extensive self-directed learning implies that students are autonomous in their learning. They can decide what, how, and when they learn. They view themselves as active participants in the learn-

ing process. This is also congruent with Tang and Tseng's (2013) assertion that highly self-directed learners are often intrinsically motivated. They find joy and satisfaction in learning, motivating them to pursue knowledge and skills. Moreover, the findings support Izuchi and Onyekuru's (2017) proposition that highly self-directed learners are resourceful in seeking out learning materials, information sources,

Table 2. Summary on Self-Directed Learning of Students in Junior High School Division, Digos City

Indicators	Mean	Descriptive Rating
Attitude Towards Learning	3.30	Moderately Extensive
Learning Responsibility	3.58	Extensive
Motivation and Self-Confidence	3.64	Extensive
Ability to Plan Learning	3.49	Extensive
Overall Mean	3.50	Extensive

and opportunities for skill development independently. They can identify and access appropriate resources.

Teachers’ Knowledge Organization Skills

Table 3 summarizes teachers’ knowledge organization skills in the junior high school division in Digos City. The overall mean of the teachers’ knowledge organization skills is 3.35, moderately extensive and sometimes interpreted as evident. Notably, the mean ratings of the different items range from 3.28 to 3.43. The table further reveals that the item Presenting real-life problems or unsolved incidents to the students has a mean rating of 3.28, described as moderately extensive and interpreted as sometimes evident. Meanwhile, using various real materials and primary sources to support the participation reflects a mean rating of 3.43, which is described as comprehensive and oftentimes evident. The result implies that teachers’ ability to efficiently and effectively structure and

manage the information, content, and instructional materials they use in their teaching is sometimes evident. This result supports the findings of Tomlinson and Jarvis (2014) that teachers with moderate knowledge and organization skills may deliver content in a somewhat structured manner. Still, there may be occasional disorganization or inconsistencies in presenting information. Adding more, the result supports the idea of Blazar (2016) that moderate-level organization may result in variable levels of student engagement. Some students may find it easier to follow the instructions, while others may struggle with comprehension. Likewise, the findings are congruent to Mutlu and Güler’s (2017) assertion that teachers with moderate skills may spend more time organizing and planning their lessons than those with high-level skills. This can affect time management and result in less interactive teaching time.

Relationship Between Self-Concept and Self-Directed Learning of Students in Junior High School Division, Digos City when Moderated by Knowledge Organization Skills

The results of the analysis of the relationship between self-concept and self-directed learning of students in the junior high school division in Digos City when moderated by knowledge organization skills are presented. Bivariate correlation analysis using Partial Correlation Anal-

ysis was used to determine the relationship between the mentioned variables. Table 4 shows that self-concept has a significant positive relationship with the self-directed learning of students in the junior high school division in Digos City when moderated by knowledge organization skills with a p-value of .000 that is less than .05 level of significance (two-tailed) ($r = .888, p < 0.05$). It means that as the self-concept level changes, students’ self-directed learning also

Table 3. Teachers’ Knowledge Organization Skills in Junior High School Division, Digos City

Statement	Mean	Descriptive Rating
Presenting real-life problems or unsolved incidents to the students	3.28	Moderately Extensive
Making learning possible outside of the school and in it	3.35	Moderately Extensive
Using various real materials and primary sources to support the participation	3.43	Extensive
Preparing an order of seating facilitates communication and interaction among the students	3.34	Moderately Extensive
Overall Mean	3.35	Moderately Extensive

significantly changes. Moreover, the table also shows that the self-concept in terms of academic self-concept, social self-concept, emotional self-concept, and family self-concept physical self-concept obtained are significantly correlated with self-directed learning of students in junior high school division in Digos City when moderated by knowledge organization skills as evident on the correlation coefficient values of 0.757, 0.815, 0.627, 0.850, and 0.789.

Table 4. Relationship Between Self-Concept and Self-Directed Learning of Students in Junior High School Division, Digos City when Moderated by Knowledge Organization Skills

Variables	Self-Directed Learning	Knowledge Organization Skills	R-value	P-value
Academic Self-Concept			0.757*	0.000
Social Self-Concept			0.815*	0.000
Emotional Self-Concept			0.627*	0.000
Family Self-Concept			0.850*	0.000
Physical Self-Concept			0.789*	0.000
Overall Self-Concept			0.888*	0.000

*Significant at $p < 0.05$.

This leads to rejecting the null hypothesis of no significant relationship between self-concept and self-directed learning of students in junior high school division in Digos City when moderated by knowledge organization skills. The result implies that teachers with strong knowledge and organization skills support students with positive self-concepts, which can amplify students’ confidence in their ability to learn independently. This finding supports the assertion of Lawrence and Vimala (2013) that when teachers possess strong knowledge and organization skills, they can present information in a clear, structured, and comprehensible manner. This

organized presentation can boost students' confidence in their understanding and engagement with the material, enhancing their self-concept as capable learners. Adding more, the result agrees with Arefi and Naghebzadeh (2014) that students with a strong self-concept may excel in setting clear and achievable learning goals when provided with organized learning materials and teacher guidance. Moderating Effect of Knowledge Organization Skills on the Interaction Between Self-Concept and Self-Directed Learning of Students in Junior High School Division, Digos City

The moderating effect of knowledge organization skills (KOS) on the interaction between self-concept (SC) and self-directed learning of students (SDL) in the Junior High School Division, Digos City, was tested using hierarchical regression analysis. Results in Table 14 show that the Beta coefficients for the Step 1 analysis of self-concept (SC) and self-directed learning of students (SDL) were = 0.105, S.E.

= 0.056, $p < 0.05$; and knowledge organization skills (KOS) and self-directed learning of students (SDL) were =0.211, S.E.=0.049, $p < 0.05$. When self-concept (SC) and teachers' knowledge organization skills (KOS) were included as the only independent variables (without including an interaction term), the regression model explained 63.80%. Moreover, Beta coefficients for the Step 2 analysis of self-concept (SC) and self-directed learning of students (SDL) were = 0.384, S.E. = .031, $p < 0.05$; knowledge organization skills (KOS) and self-directed learning of students (SDL) were =0.177, S.E. = 0.048, $p < 0.05$; and moderator (SC*KOS) and self-directed learning of students (SDL) were =0.224, S.E.= 0.052, $p < 0.05$. Also, it was indicated that when an interaction between self-concept (SC) and knowledge organization skills (KOS) was added, the percentage of variance in self-directed learning of students (SDL) was 72.20%

Table 5. Moderating Effect of Knowledge Organization Skills on the Interaction Between Self-Concept and Self-Directed Learning of Students in Junior High School Division, Digos City

Step	Variable	B	Beta	S.E.	p-value	Decision
Step 1						
1	Self-Concept (SC)	.105	.131	.056	.000	Reject H0
	Knowledge Organization Skills (KOS)	.211	.078	.049	.000	Reject H0
	R ²	= 0.638	F-value	= 117.884**	p-value	= 0.000
Step 2						
2	Self-Concept (SC)	.384**	.576	.031	.000	Reject H0
	Knowledge Organization Skills (KOS)	.177**	.126	.048	.000	Reject H0
	Moderator (SC*KOS)	.224**	.089	.052	.000	Reject H0
	R ²	= 0.722	F-value	= 132.087**	p-value	= 0.000

**Significant at $p < 0.05$.

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his finding corroborates Beheshtifar and Rahimi-Nezhad's (2012) idea that positive self-concept and well-organized teaching can jointly influence students' motivation and persistence

in self-directed learning. When students believe in their learning abilities (self-concept) and perceive the learning materials as manageable and accessible (organization), they are

more likely to stay motivated and persist in their learning endeavors. Lastly, the findings agree with Knowles's Self-Directed Learning Theory (1975), which posits that the impact of self-concept on self-directed learning outcomes is moderated by teachers' knowledge and organization skills. It is anticipated that well-organized teaching and a positive self-concept will enhance students' motivation, autonomy, and effectiveness in self-directed learning.

4. Conclusions and Recommendations

This part of the paper presents the conclusion and recommendation of the researcher. The discussion is supported by the literature presented in the first chapters and the conclusion is in accordance with statements of the problem presented in this study.

4.1. Findings—The primary objective of this study was to evaluate the moderating effect of knowledge organization skills on the interaction between self-concept and self-directed learning of students utilizing a non-experimental quantitative design using a descriptive-correlational technique. The researcher selected the 210 grade 9 students in the Junior High School Division in Digos City as the respondents through a stratified random sampling method. The researcher made use of modified and enhanced adapted survey questionnaires, which were pilot-tested in a nearby school to ensure high reliability and internal consistency of the items in the instrument. Based on the results, the summary of the findings was the following: The self-concept of students in the Junior High School Division in Digos City has an overall mean of 3.63 and an extensive descriptive rating. Meanwhile, self-concept in terms of academic self-concept, social self-concept, emotional self-concept, family self-concept, and physical self-concept acquired mean scores of 3.61, 3.59, 3.77, 3.60, and 3.58, respectively. The self-directed learning of students in the Junior High School Division in Digos City has an overall mean of 3.50 and a descriptive rating of extensive. Also, self-directed learning in terms of attitude towards learning, learning responsibility, motivation and self-confidence, and ability to plan learning obtained mean scores of 3.30, 3.58, 3.64, and 3.49, respectively. Teachers' knowledge organization skills in the Junior High School Division in Digos City acquired a mean score of 3.35, which was described as moderately extensive and interpreted as sometimes evident. Self-concept has a significant positive relationship with the self-directed learning of students in the Junior High School Division in Digos City when moderated by knowledge organization skills with a p-value of .000 that is less than .05 level of significance (two-tailed) ($r = .888, p < .05$). In addition, findings reflected that knowledge organization skills is a significant moderator on the interaction between self-directed learning of students in Junior High School Division in Digos City. The analysis showed that when an interaction between self-concept (SC) and knowledge organization skills (KOS) was added, the percentage of variance in self-directed learning of students (SDL) was 72.20

4.2. Conclusions—Based on the findings of this study, several conclusions were generated: Students' self-concept in the junior high school Division in Digos City was extensive. The table results indicate that students' self-concepts in terms of academic self-concept, social self-concept, emotional self-concept, family self-concept, and physical self-concept were rated as extensive. This means that students' perceptions, beliefs, and evaluations of themselves in various life aspects were often observed. Students with high levels of

self-concept were typically more confident in their abilities and were motivated to set and achieve challenging goals in the respective dimension. The self-directed learning of students in the Junior High School Division in Digos City was extensive. Students' self-directed learning in terms of learning responsibility, motivation and self-confidence, and ability to plan learning were also rated as extensive, while students' self-directed learning in terms of attitude towards learning was rated as moderately extensive. This suggests that students were encouraged to identify their learning needs, set goals, choose resources and strategies, and assess their progress independently. Teachers' knowledge organization skills in the junior high school division in Digos City were moderately extensive. Teachers' ability to efficiently and effectively structure and manage the information, content, and instructional materials they use in their teaching was sometimes extensive. Self-concept has a significant positive relationship with students' self-directed learning in the Junior High School Division in Digos City. This means that as the extent of the self-concept changes, self-directed learning also significantly changes. The result implies that teachers with solid knowledge and organization skills support students with positive self-concepts, which can amplify students' confidence in their ability to learn independently. On the other hand, knowledge organization skills had a significant moderating effect on the interaction between self-concept and self-directed learning of students in the Junior High School Division in Digos City. This study emphasizes that knowledge organization skills are an undeniable factor intervening in the interaction between self-concept and self-directed learning of students.

4.3. Recommendations—Based on the findings and conclusions generated from the

study, the researcher recommends the following: The Department of Education may integrate self-directed learning principles into curriculum design and standards, emphasizing the development of students' self-concept and teachers' abilities to facilitate self-directed learning. Also, DepEd should allocate resources and incentives for continuous teacher professional development, focusing on enhancing knowledge organization skills and strategies that support self-directed learning. School heads may establish professional learning communities to facilitate sharing best practices in knowledge organization and self-directed learning support. They should also foster a school culture that values and promotes self-directed learning by providing resources, time, and recognition for teachers who enhance their knowledge and organizational skills. Teachers may implement student-centered teaching approaches that encourage self-directed learning while fostering a positive and inclusive classroom environment. They may reflect on teaching practices and their impact on students' self-concept and self-directed learning. They may seek feedback from colleagues and students to continually improve instructional strategies. Students may embrace the idea of self-directed learning and recognize the importance of self-concept in their learning journey. They should believe in their ability to set goals and pursue knowledge independently. They may set clear and achievable learning goals and actively seek resources and strategies aligning with their objectives. Future researchers may collaborate with psychology, education, and instructional design experts to develop comprehensive frameworks and theories related to self-directed learning and self-concept.

5. References

- Abdi, S., Taban, S., & Ghaemian, A. (2012). Cognitive emotion regulation questionnaire: Validity and reliability of persian translation of cerq-36 item. *Procedia-Social and Behavioral Sciences*, 32, 2–7.
- Abdullah, B., & Singh, K. (2019). Social support as predictor of student engagement among secondary school students. *International Journal of Innovative Technology and Exploring Engineering*, 8(7), 3037–4042.
- Abramovich, S., Grishpan, A., & Milligan, D. (2019). Teaching mathematics through concept motivation and action learning. <https://www.hindawi.com/journals/edri/2019/3745406/>
- Albeshtawi, A. E. M. (2017). Learning styles preferences of efl learners at al-ghad international college for health science-saudi arabia- dammam. *International Journal of English Language Literature in Humanities*, 5(4), 215–220.
- Allameh, S. M., Alinajimi, S., & Kazemi, A. (2013). The effect of self-concept and organizational identity on organizational citizenship behavior (a case study in social security organization of isfahan city). *International Journal of Human Resource Studies*, 2(1), 175–187.
- Archana, K., & Chamundeswari, S. (2013a). Self-concept and academic achievement of students at the high school. *Journal of Sociological Research*, 4, 105–113.
- Archana, K., & Chamundeswari, S. (2013b). Self-concept and academic achievement of students at the higher secondary level. *Journal of Sociological Research*, 4(2), 105–113.
- Aye, E. N., Agbangwu, R., Oforka, T. O., Onumonu, J. A., Chinweuba, N. H., Ohia, N. C., Eze, C. O., Eze, N. E., & Akaneme, I. N. (2019). Family variables as predictors of self-concept and academic achievement of secondary school students in benue state, nigeria. *Global Journal of Health Science*, 11(8), 86–95.
- Ayyildiz, Y., & Tarhan, L. (2015). Development of the self-directed learning skills scale. *International Journal of Lifelong Education*, 34(6), 663–679.
- Beers, J. C. (2012). Teacher stress and coping: Does the process differ according to years of teaching experience? <https://core.ac.uk/download/pdf/37772292.pdf>
- Beheshtifar, M., & Rahimi-Nezhad, Z. (2012). Role of self-concept in organizations. *European Journal of Economics, Finance and Administrative Sciences*, 44, 159–164.
- Blazar, D. (2016). Teacher and teaching effects on students' academic performance, attitudes, and behaviors. <https://dash.harvard.edu/bitstream/handle/1/27112692/BLAZARDISSERTATION-2016.pdf?sequence=1>
- Blazar, D., Litke, E., & Barmore, J. (2016). What does it mean to be ranked a high or low value-added teacher? observing differences in instructional quality across districts. *American Educational Research Journal*, 53(2), 324–359. <https://journals.sagepub.com/doi/abs/10.3102/0002831216630407>
- Bukhari, S. R., & Afzal, F. (2017). Perceived social support predicts psychological problems among university student. *The International Journal of Indian Psychology*, 4(2), 18–27. <https://ijip.in/articles/perceived-social-support-predicts-psychological-problems-among-university-students/>
- Cakici, Y., Aricak, O. T., & Ilgaz, G. (2012). Can attitudes toward biology course and learning strategies simultaneously predict achievement in biology. *Eurasian Journal of Educational Research*, 45, 31–48. <http://www.sciepub.com/reference/51580>

- Francois, J. (2016). The impact of teacher prompting and questioning on third grade students' comprehension. *Honors Program Theses*. <http://scholarworks.uni.edu/hpt/216>
- Freire, C., Ferrada, M., & Valle, A. (2016). Profiles of psychological well-being and coping strategies among university students. *Frontiers in Psychology*, 7. <https://www-lib-uwo-ca.proxy1.lib.uwo.ca/cgi-bin/ezpauthn.cgi?url=http://search.proquest.com.proxy1.lib.uwo.ca/docview/1857840004?accountid=15115>
- Fullmer, M. O. (2016). *Physical activity rates and motivational profiles of adolescents while keeping a daily leisure-time physical activity record*. <https://scholarsarchive.byu.edu/cgi/viewcontent.cgi?article=6692&context=etd>
- Garcia-Grau, P., Perez, D. A., Moreno, F. C., & Prado-Gasco, V. J. (2014). Self-concept in preadolescence: A brief version of af5 scale. *Motriz, Rio Claro*, 20(2), 151–157. <https://www.scielo.br/pdf/motriz/v20n2/1980-6574-motriz-20-02-00151.pdf>
- Gerardi, S. (2012). Academic self-concept as a predictor of academic success among minority and low-socioeconomic status students. *Journal of College Student Development*, 31, 402–407. <https://eric.ed.gov/?id=EJ419675>
- Ghazvini, S. D. (2012). Relationships between academic self-concept and academic performance in high school students. *Procedia Social and Behavioral Sciences*, 15, 1034–1039. <https://core.ac.uk/download/pdf/82473831.pdf>
- Halder, S., & Datta, P. (2013). An exploration into self-concept: A comparative analysis between the adolescents who are sighted and blind in india. *British Journal of Visual Impairment*, 30, 31–41. <https://journals.sagepub.com/doi/10.1177/0264619611428202>
- Hall, J. D. (2011). *Self-directed learning characteristics of first-generation, first-year college students participating in a summer bridge program*. <https://digitalcommons.usf.edu/etd/3140>
- Hamzeh, M. A. (2014). Teaching strategies used by mathematics teachers in Jordan public schools and their relationship with some variables. *American Journal of Educational Research*, 2(6), 331–340. <http://pubs.sciepub.com/education/2/6/1/index.html#>
- Harris, M., & Orth, U. (2019). The link between self-esteem and social relationships: A meta-analysis of longitudinal studies. *Journal of Personality and Social Psychology*, 1, 1–19. <https://www.apa.org/pubs/journals/releases/psp-pspp0000265.pdf>
- Hossain, M. Q. (2015). *Teaching productive skills to the students: A secondary level scenario*. <https://core.ac.uk/download/pdf/74352632.pdf>
- Igbo, J. N., Onu, V. C., & Obiyo, N. O. (2015). Impact of gender stereotype on secondary school students' self-concept and academic achievement. *SAGE Open*, 5, 1–10. <https://journals.sagepub.com/doi/full/10.1177/2158244015573934>
- Izuchi, M. R., & Onyekuru, B. (2017). Relationships among academic self-concept, academic motivation, and academic achievement among college students. *European Journal of Research and Reflection in Educational Sciences*, 5(2), 93–102. <http://www.idpublications.org/wp-content/uploads/2017/02/Full-Paper-RELATIONSHIPS-AMONG-ACADEMIC-SELF-CONCEPT-ACADEMIC-MOTIVATION-AND-ACADEMIC.pdf>
- Jennings, L. (2017). Physical health and physical self-description: A comparison of physical activity electives at middle school level. <https://digitalcommons.humboldt.edu/cgi/viewcontent.cgi?article=1039&context=etd>

- Kalaivani, M., & Rajeswar, V. (2016). The role of academic motivation and academic self-concept in student's academic achievement. *International Journal of Research Granthaalayah*, 4(9), 37–49.
- Khalid, R., Mokhtar Ahmad, A., Omar-Fauzee Mohd, S., Kasim Abd, L., Don, Y., Abdussyukur Nurul, F., Ponajan Fatin, A., & Geok Soh, K. (2013). The learning styles and academic achievements among arts and science streams student. *International Journal of Academic Research in Progressive Education and Development*, 2(2), 68–85. <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.955.1401&rep=rep1&type=pdf>
- Kirkpatrick, Y. (2012). *Teacher perceptions of their science teaching and student learning for diverse learners*. https://trace.tennessee.edu/cgi/viewcontent.cgi?article=2564&context=utk_graddiss
- Kristiansen, S. D., Burner, T., & Johnsen, B. H. (2019). Face-to-face promotive interaction leading to successful cooperative learning: A review study. *Cogent Education*, 6, 1–19. <https://www.duo.uio.no/bitstream/handle/10852/74487/Face%2Bto%2Bface%2Bpromotive%2Binteraction%2Bleading%2Bto%2Bsuccessful%2Bcooperative%2Blearning%2BA%2Breview%2Bstudy.pdf?sequence=1&isAllowed=y>
- Kurniawan, I. N. (2013). Social self-concept and life satisfaction: A preliminary study on Indonesian college students. <https://www.researchgate.net/publication/303763162>
- Lannem, A. M. (2012). *The role of physical exercise as a stress-coping resource for persons with functionally incomplete spinal cord injury*. <https://nih.brage.unit.no/nih-xmlui/handle/11250/171328>
- Lawrence, A., & Vimala, A. (2013). Self-concept and achievement motivation of high school students. *Conflux Journal of Education*, 1(1), 141–146. <https://files.eric.ed.gov/fulltext/ED543974.pdf>
- Le, H., Janssen, J., & Wubbels, T. (2017). Collaborative learning practices: Teacher and student perceived obstacles to effective student collaboration. *International Journal of Educational Research*, 86, 37–49. <https://www.tandfonline.com/doi/full/10.1080/0305764X.2016.1259389>
- Lee, T. (2016). *Competition and motivation*. <http://merl.nie.edu.sg/documents/Competition%20and%20Motivation.pdf>
- Leng, K. B. (2012). The relationship between self-concept, intrinsic motivation, self-determination and academic achievement among Chinese primary school students. *International Journal of Psychological Studies*, 3(1), 90–98. <http://doi:10.5539/ijps.v3n1p90>
- Lerner, J., Li, Y., Valdesolo, P., & Kassam, K. (2014). Emotion and decision making. https://scholar.harvard.edu/files/jenniferlerner/files/annual_review_manuscript_june_16_final_final_.pdf
- Lloyd, H. (2013). The impact of racial identity, masculinity, and academic self-concept of African male high school students. https://uknowledge.uky.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1016&context=edp_etds
- Mahumoud, A., & Usama, G. (2014). Family predictors of self-concept and self-esteem in children at risk for learning disabilities. *Oman International Education Studies*, 7, 89–92. <https://doi.org/10.5539/ies.v7n10p89>

- Marsh, H. W., & Martin, A. J. (2012). Academic self-concept and academic achievement: Relations and causal ordering. *British Journal of Educational Psychology*, *81*, 59–77. <https://onlinelibrary.wiley.com/doi/abs/10.1348/000709910X503501>
- Maulding, J. (2013). *Associations between family relationships and self-concept*. http://csusd-space.calstate.edu/bitstream/handle/10211.9/2001/Jennifer%20Maulding%20Thesis_Final.pdf?sequence=1
- Mbuva, J. (2016). Exploring teachers' self-esteem and its effects on teaching, students' learning and self-esteem. *Journal of Higher Education Theory and Practice*, *16*, 32–40. http://www.na-businesspress.com/JHETP/MbuvaJ_Web16_5_.pdf
- Nguyen, M. P., Terlouw, C., & Pilot, A. (2012). Cooperative learning in vietnam and the west-east educational transfer. *Asia Pacific Journal of Education*, *32*, 137–152. <https://www.tandfonline.com/doi/abs/10.1080/02188791.2012.685233>
- Omeh, G. (2012). *Self-concept, academic performance and behavioral evaluation of the children of alcoholic parents* [Master's thesis]. Revista Brasileira de Psiquiatria. <https://doi.org/10.1590/S1516-44462005000300014>
- Palomino, M. (2017). An analysis of self-concept in students with compensatory education needs for developing a mindfulness-based psycho-educational program. *SAGE Open*, *7*, 1–15. <https://journals.sagepub.com/doi/full/10.1177/2158244017708818>
- Pineda, R., Bender, J., Hall, B., Shabosky, L., Annecca, A., & Smith, J. (2018). Parent participation in the neonatal intensive care unit: Predictors and relationships to neurobehavior and developmental outcomes. *Early Human Development*, *117*, 32–38. <https://pubmed.ncbi.nlm.nih.gov/29275070/>
- Psaltou-Joycey, A., & Kantaridou, Z. (2011). Major, minor, and negative learning style preferences of university students. *System*, *39*, 103–112. <https://blogs.ubc.ca/maritzamontano/archives/389>
- Raba, A. A. A. M. (2017). *The impact of effective teaching strategies on producing fast and good learning outcomes* [Doctoral dissertation]. International Journal Research Granthaalayah. <https://doi.org/10.5281/zenodo.259563>
- Rady, H., Kabeer, S., & El-Nady, M. T. (2016). Relationship between academic self-concept and students' performance among school age children. *American Journal of Nursing Science*, *5*, 295–302. <http://article.sciencepublishinggroup.com/html/10.11648.j.ajns.20160506.19.html>
- Rashid, K., Iqbal, M. Z., & Khalid, N. (2015). Development of self as a concept in the university students. *Bulletin of Education and Research*, *37*, 43–58. <https://files.eric.ed.gov/fulltext/EJ1210431.pdf>
- Rath, S., & Nanda, S. (2013). Adolescent's self-concept: Understanding the role of gender and academic competence. *International Journal of Research Studies in Psychology*, *1*, 63–71. <http://consortiacademia.org/wp-content/uploads/2014/09/82-283-1-PB.pdf>
- Rogers, B. (2012). *Teacher leadership and behaviour management*. Sage publications company.
- Saputra, J. B., & Aziz, M. S. A. (2014). Teaching strategies. <https://sinta.ristekbrin.go.id/authors/detail?id=259906&view=documentsgs>
- Skipper, Y., & Douglas, K. (2015). The influence of teacher feedback on children's perceptions of student-teacher relationships. *British Journal of Educational Psychology*, *85*(3), 276.

- <https://goucher.idm.oclc.org/login?url=http://search.proquest.com.goucher.idm.oclc.org/docview/1705485710?accountid=11164>
- Subramanian, A. (2016). Time management and academic achievement of the higher secondary school students. *International Journal of Research Granthaalayah*, 4, 6–15. <https://doi.org/10.5281/zenodo.230852>
- Sun, R. C. F. (2013). Student classroom misbehavior: An exploratory study based on teachers' perceptions. <https://www.hindawi.com/journals/tswj/2012/208907/>
- Tang, Y., & Tseng, H.-L. (2013). Distance learners' self-efficacy and information literacy skills. *The Journal of Academic Librarianship*, 39, 517–521. <https://doi.org/10.1016/j.acalib.2013.08.008>
- Tofade, T., Elsner, J., & Haines, S. (2013). Best practice strategies for effective use of questions as a teaching tool. *American Journal of Pharmaceutical Education*, 77(7), 1–9. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3776909/>