

Grade 7 Students' Parenting Styles, Self – Efficacy Levels, and Problem Solving Performance in Elementary Algebra

Analyn P. Guro

Mindanao State University
Main Campus, Marawi City

Abstract

The present study aimed to determine the parents' parenting styles of the 115 Grade 7 students of MSU-Marantao and how these affect their self- efficacy and problem solving performances in Elementary Algebra. Qualitative and quantitative research designs were used in the study using achievement test in math and survey questionnaires adapted from Bandura's and Schunk's Self-Efficacy Theory, Bandura's Social-Cognitive Theory, and on Weiner's academic achievement concept. Findings of the study revealed that parenting styles of the parents were authoritative, authoritarian, and permissive. Students that have authoritative parents have high self-esteem, confidence, social competence, and good academic performance. Achievement test showed that students' problem solving performances were minimally low in mental math, addition, and subtraction operations. Majority of them did not know appropriate approach in solving the problem. It was found that, between the students' academic self-efficacy and the parents' parenting styles, there was significant relationship; a significant relationship was also found between the student's social self-efficacy and parent's authoritarian parenting style, students' emotional self-efficacy vis-à-vis the parents' authoritative and authoritarian parenting styles, the students' performances in Elementary Algebra and the parents' authoritarian parenting style and students' problem solving performances in Elementary Algebra and self-efficacy. Thus, the school should regularly hold activities that could enhance and challenge students' mathematical ability and proficiency, to boost their ego to keep and do well in their studies.

Keywords: parenting styles, self – efficacy levels, problem solving performance, elementary algebra.

Introduction

In many studies in psychology, there has been a focus on how parenting styles and parenting practices affect child and adolescent development. It is worthy to note that there is a close relationship between parenting styles and parenting practices. Petrill (2012) believed that parents need a defined techniques and strategies utilized in guiding the behaviour of children. On the other hand, parenting styles are a result of parenting practices that can shape children's behavior, whether pro-social or anti-social, and this will depend on the frequency and intensity. In the study of parenting style, child rearing is approached in an objective manner, and the range of parental behaviors that shape the emotional backdrop or milieu in which parent-child interactions are expressed, are investigated. These are based on parents' influence on the intellectual, emotional, and behavioral aspects of child development.

As an activity that encompasses specific behaviours that work both individually and together to influence how a child grows up, parenting is complex. Parents have a participatory influence in school matters and hence, they are considered agents for change. Nonetheless, there are some notions that a change in how the family is structured has adversely affected parental involvement in children's education, e.g. increasing percentages of single-parent families, number of mothers who are married with young children and so on. These issues may result that parents may lack the needed time and energy to pay adequate attention to their children's basic education. It can be argued that family structure and parenting is the greatest cause for the decline in student achievement (Erden & Uredi, 2008).

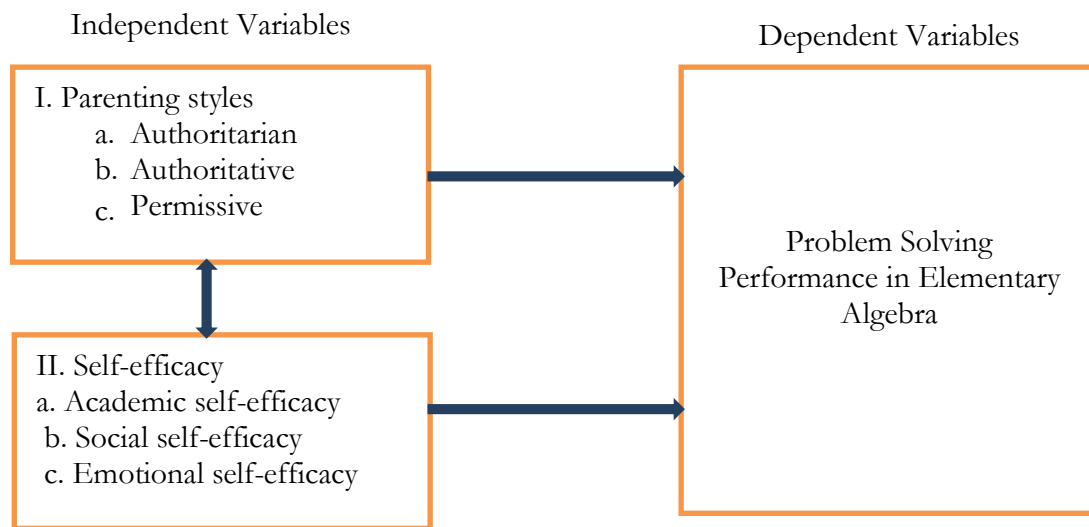
Ellis (2003) mentioned that young generations must be trained to create a work of their own for them to become an independent learners and develop their self-confidence. In addition, the cultural mindset of parents in the Philippines that it is not respectful for minors to have a voice in social and political affairs even if it does concern them is a barrier in conversation to make. Abesha (2012) pointed out in their research findings that parenting styles influence the children motivation to learn. Sisanti (2012) research findings also confirmed that parents who experienced negative or disadvantaged backgrounds during their adolescent age are likely to have autocratic parenting style however; they tend to prefer to send their children to schools that practice traditional ways of teaching and disciplining. They also tend to prefer teachers who are tough and structured. Afolabi (2010) concluded that students in urban public schools were more likely to be susceptible to disadvantaged conditions such as poverty, drug abuse, early sexual activity, single parenthood, dropping out of school, or being left alone at home after school. Hill, Castellino, et al., (2004) found that highly educated parents, who were academically involved, not only increased aspiration but also improved behavior and increased achievement of their children. Academic involvement by parents with little education increased aspiration but did not affect school behavior or achievement.

Self-efficacy may affect other facets of development like various personal, social and contextual variables. It may be attributed to parenting style of children's parents (Erden & Uredi, 2008). Dornyei (2001) said that self-efficacy, which is a process of self-persuasion based on the processing diverse sources of information cognitively, is indirectly related to actual competence and abilities. Other people's opinions, evaluation, feedback, past experiences and encouragement, information about strategies done to accomplish tasks and peer observations are among the many sources where information about self-efficacy is obtained. As such, this study aimed to determine the parents' parenting styles to the Grade 7 students of MSU-Marantao and how these affect their self-efficacy and problem solving performances in high school algebra (Elementary Algebra) specifically establishing answers on the following: 1) What are the parenting styles of the parents of Grade 7 students? 2) What is the Grade 7 students' self-efficacy? 3) What is the problem solving performance of Grade 7 students in Elementary Algebra? 4) What are the performances of Grade 7 students in Elementary Algebra? And 5) What kind of relationship can be found between the parents' styles of parenting and the students' self-efficacy, parents' parenting style and the students' performance in Elementary Algebra and students' problem solving performance in Elementary Algebra and their self-efficacy levels.

Framework of the Study

Changes and developments in recent years in the field of family and parenting studies yielded renewed interest in the connection between academic achievement of children and the parenting styles of parents. Children's understanding, attitude and school achievements are influenced by parenting styles, since a child's exposure to the outside world begins with the family. As soon as

a child is born, parental responsibilities begin (Kordi & Baharudin, 2010). The conceptual framework of the study is shown on Figure 1.



Literature Review

In recent years in educational circles, parents' involvement in children's education has become one of the most researched and most debated topics. Researchers have been able to show that parental involvement and its effects on specific points of parenting has a great impact on how children perform in school (Jeynes, 2003).

Studies that dealt with stereotyping by Bakker, Denessen, & Brus-Leven (2007) who focused on stereotypes of parental involvement, Sheehan and Sites (1989) who focused on diverse cultures, and Ford and Smith (2002) who focused on race, by teachers show that these affect students' academic achievement negatively. Study conducted by Xitao and Michael (2001) revealed that parental involvement is positively related with student achievement. In line with this, parental involvement is considered by society and by the education community at large to be a potent ingredient that, when not present, accounts for many student problems in school and beyond. In addition, students' negative behaviors were more likely to have parents who yell, shout, slap, or hit. Adolescents who had to follow more house rules or who had parents who constantly monitored them displayed low levels of behavioral problems (Patock-Peckham & Morgan-Lopez, 2006).

In the study of Kaisa, Hakan, & Jari-Erik (2000) about the extent to which adolescent achievement were related to parenting styles, revealed that adolescents who come from families with authoritative parents practiced adaptive strategies characterized by low failure expectations, passivity, task- irrelevant behaviours and self- enhancing attributions. Those who come from negligent families, on the other hand, practiced maladaptive strategies, characterized by increased levels of task irrelevant behaviours, a lack of self-enhancing attributes and passivity. They concluded that parenting styles do influence student achievement. Based on the adolescent report of another study conducted by Turner & Heffer (2005) revealed that students who come from families who display more involvement, more nurturing, and more encouraging of autonomy, which are characteristics of authoritative parents, tend to be more successful academically. In addition, Ryttonen, Kaisa, & Jari-Erik (2005), found that at least during the preschool years, parents were more likely to point to teaching and ability as factors in their children's success in school. As for failure, parents were more likely to point out the lack of

effort as the cause. Parents were also more likely to credit ability and not teaching as the cause for a child's higher scores on reading or mathematics achievement tests or assessments.

Bradley & Corwyn (2001) asserted that the family atmosphere established by the parents' parenting styles will either encourage or hinder the development of specific behaviors (e.g., self-efficacy beliefs) of the children. Bandura (2008) found that a decrease in self-regulatory efficacy, which also meant better academic achievement and retention. It was also found that socioeconomic status and grades in junior high school had an influence on high school grades and dropping out of school altogether. How adolescents managed their relationships with their parents, or filial self-efficacy, can actually predict their satisfaction with family life. Adolescents who are satisfied with their family life were more likely to accept parental monitoring and are more likely to be open in communicating with their parents.

Developmental mathematics course had two objectives. First is to help takers comply with college math requirements and second, to keep out students not qualified for further studies (NADE, 2005). According to Kiamanesh (2005) and Betz & Hackett (2006) self-efficacy in mathematics is a situational assessment or evaluation of a person's confidence in his or her ability to solve particular mathematical tasks or problems. Kordi & Baharudin (2010) found out that confidence in mathematics contribute to leadership confidence, which is an important factor in making career decisions. However, Betz & Hackett (2006) warn that researchers tend to overlook specific behavioral domains must be linked to self-efficacy so that it will have meaning, which implies that measures of self-efficacy must be formulated with specific domains in mind. Bong (2008) found that all relations between academic behaviour and contextual perceptions were mediated by self-efficacy. This was also found by Coyle & Thorson (2001) who studied the connection between self-efficacy and women's choice of careers in math related fields.

Vanderwood (2009) in another study of elementary school students revealed that reading comprehension significantly predicted performance in applied mathematics skills assessments; however there was a stronger relationship between mathematical computation and applied mathematics skills. Garduro (2001) found that there was no difference on achievement of self-efficacy between cooperative learning in single gender and mixed gender groupings. Byars-Winston & Fouad (2008) found out that parental involvement directly and indirectly predict goals through strong relationships with expectations on outcomes. Their findings imply that the relationship between perceived career barriers and goals were mediated by coping efficiency. In addition, self-efficacy increased efficacy in problem solving through strategic performance rather than faster solution times. These were consistent with the hypothesis on motivational efficiency that problem solving efficacy increased through focused effort and strategy use, as predicted by motivational beliefs.

Methods

Research Design

This study utilized both the qualitative and quantitative methods. Quantitatively, students' grades in Elementary Algebra and students' scores in the Problem Solving Performance Test (PSPT) were used. Qualitatively, students' responses in the Self-efficacy Questionnaire, their answers during the interview, as well as their parents' answers in the Parenting Style Questionnaire were utilized.

Locale and Participants

This study was conducted at MSU-Marantao Community High School, Inudaran, Marantao, Lanao del Sur in which the researcher is presently teaching. Marantao, one of the densely

populated towns of the Province of Lanao del Sur, is said to be the second largest municipalities of the province. It is about 11 kilometers on the south wing of the City of Marawi. The subject participants of the study were the Grade 7 students in MSU–Marantao Community High School enrolled in school year 2013-2014 and their parents. Initially, there were 153 Grade 7 students, but since only 115 Self-Efficacy questionnaires were retrieved afterwards from the students, then only 115 parents were considered and administered with Parenting Style Questionnaire.

Research Instruments

Parenting Style Questionnaire

This instrument was adopted from Robinson and King (1995). Permission to use this instrument was done via email correspondence. This would determine how parents rate their parenting style or behavior in relation to their sons' and daughters' academic performance in school. Parenting style could either be authoritative, authoritarian, and permissive.

Self-efficacy Questionnaire

This instrument was adopted from Muris (2001). Self-efficacy questionnaire for students is a 24-item scale designed to assess self- efficacy. The questionnaire is divided into 3 categories; Academic Self-efficacy, Social Self-efficacy, and Emotional Self-efficacy. The scale score for each question ranges from 1 to 5. Higher scores indicate stronger belief in self-efficacy. The guidance counselor at the DSA Office in MSU, Marawi City, also validated self-efficacy instrument.

Problem Solving Performance Test (PSPT)

This is a self-made test questionnaire. This was given at the end of the second grading period. The test was composed of 34-item word problem solving multiple choices. The coverage of the test questions was based on the lesson of the second grading period. This PSPT will further measure the students' performance in mathematics/algebra and their problem solving ability. The content validation of the PSPT was made through consultation with three experts in math.

Data Gathering Procedure

In the pre-data gathering, a letter was first drafted to secure an official permission from the MSU-Marantao Principal, which was noted by the OAVCAA, to allow the researcher conduct a pilot test of the researcher-made Problem Solving Performance Test (PSPT). The pilot testing was done at MSU-Balindong. However, since the PSPT was not yet achieved, another pilot testing was done at MSU-Saguiaran. Similar thing happened. Finally, it was only at MSU-Baloi that the test reliability was achieved (7.0+). The next thing done was the validation of the Parenting Style and Self-Efficacy Questionnaires by the guidance counselor of DSA, MSU-Marawi City. In the data-gathering phase, another permit was asked from the School Principal of MSU-Marantao to conduct the study in her school. After securing the permit, the Grade 7 math teachers were informed that the PSPT would be administered to their classes. After the PSPT the students were given the Self-Efficacy questionnaires for them to answer and another questionnaire, Parenting Style, was given them for them to give it to their parents. When the Parenting Style Questionnaires were returned and the data were now tabulated, the students were interviewed about their parents parenting styles. Finally, in the post-data gathering, the data were collated and analyzed to obtain appropriate interpretations.

Statistical Treatment of the Data

In the quantitative analysis of data, frequency and percentage distribution were used to tabulate the respondent responses in the questionnaire. Pearson product moment correlation was used to determine the relationship between variables being correlated. Quantitative analysis of data was done through the Statistical Package for Social Sciences (SPSS) for Microsoft Windows. In the

case of qualitative data analysis, descriptive and narrative methods were used capturing the verbatim response of the respondents from interview.

Statistical Results

Table 1: The mean score and rank of the parenting style

Parenting Styles	N	Sum	Mean	Std. Deviation	Rank
Authoritative	115	869.70	7.56	0.951	1
Permissive	115	439.37	3.82	0.504	2
Authoritarian	115	354.00	3.08	0.962	3

Table 2: Mean score and ranks of each statement in authoritative parenting style questionnaire

Statement (N=115)	Sum	Mean	Statement # in the Questionnaire	Rank
I respond to the feelings and needs of my child	550	4.783	(1)	1
My child knows how I feel about his/her bad/good behaviour because I explain it to him or her	534	4.644	(3)	2
My child is treated as an equal member of the family	508	4.417	(11)	3
Reasons for my expectations are explained by me	498	4.330	(6)	4
With my child I have happy and intimate times together	497	4.322	(13)	5
Before I ask my child to do something I take his or her feelings into consideration	490	4.261	(2)	6
I encourage my child to express opinions and I respect them	489	4.252	(10)	7
Even if my child disagrees with me I encourage him or her to express himself/herself freely	487	4.235	(5)	8
My child is encouraged to talk about his/her feelings and problems	486	4.226	(4)	9
I give my child the reasons behind my expectations I have for him/her	475	4.130	(12)	10
I compliment my child	457	3.974	(8)	11
When I make plans for the family I consider my child's preferences	450	3.913	(9)	12
When my child is upset I provide comfort and understanding	448	3.896	(7)	13
Average	4.260			

Legend: Never 1, 2, 3, 4, 5 Always

Table 3: Mean score and ranks of each statement in the authoritarian parenting style questionnaire

<i>Statement (N=115)</i>	Sum	Mean	Statement # in the Questionnaire	Rank
My child is reminded that I am his/her parent	528	4.591	(12)	1
My child is reminded of the things I do or have done for him/her	455	3.957	(13)	2
To make sure that my child does not make the same mistakes again I feel the need to point them out to him/her	448	3.896	(11)	3
I tell my child that she/he has to do something because I said so, I am his/her parent, or this is what I want whenever he/she asks why he/she asks to do something	428	3.722	(1)	4
When I try to change how my child feels about things, I struggle	412	3.583	(10)	5
I criticize to improve my child's behaviour	406	3.530	(6)	6
I yell when I disapprove of my child's behaviour	384	3.339	(3)	7
I withhold emotional expressions to punish my child	359	3.122	(8)	8
I take privileges away to punish my child	356	3.096	(2)	9
When I don't like what my child says or does I spank him/her	322	2.800	(5)	10
When my child's behaviour does not meet my expectations I criticize	284	2.470	(9)	11
I threaten as a form of punishment with little or no justification	279	2.426	(7)	12
I can get very furious towards my child	276	2.400	(4)	13
Average	3.302			

Legend: Never 1, 2, 3, 4, 5 Always

Table 4: Mean score and ranks of each statement in permissive parenting style questionnaire

<i>Statement (N=115)</i>	Sum	Mean	Statement # in the Questionnaire	Rank
I spoil my child	395	3.435	(3)	1
When my child causes a commotion I give in to him/her	391	3.400	(2)	2
It is difficult to discipline my child	354	3.078	(1)	3
My child's bad behaviour goes ignored	276	2.400	(4)	4
Average	3.078			

Legend: Never 1, 2, 3, 4, 5 Always

Table 5: Problem solving performance level of the students in Elementary Algebra

Score Interval	Number and Percentage of students	Performance Level
29-34	1(0.89%)	Extremely High
22 – 28	0 (0%)	High
15 – 21	22 (19. 13%)	Moderate
8 - 14	69 (60%)	Low
1 - 7	23 (20%)	Extremely Low
Total	100	

Legend: Never 1, 2, 3, 4, 5 Always

Table 6: Mean score and ranks of each statement in the academic self-efficacy questionnaire

<i>Statement (N=115)</i>	Sum	Mean	Statement # in the questionnaire	Rank
How well do you satisfy your parent with your schoolwork?	490	4.261	(7)	1
How well do you pay attention in a class?	486	4.226	(5)	2
How well do you study a chapter for a test?	485	4.217	(3)	3
How well do you finish all your homework every day?	482	4.191	(4)	4
How well do you understand your subjects in school?	480	4.17	(6)	5
How well do you pass a test?	451	3.922	(8)	6
How well do you study even with distractions going on?	431	3.748	(2)	7
How well do you have your teachers help you when you need help with schoolwork?	430	3.739	(1)	8
Average				

Legend: Never 1, 2, 3, 4, 5 Always

Table 7: Mean score and ranks of each statement in the social self-efficacy questionnaire

<i>Statement (N=115)</i>	Sum	Mean	Statement # in the questionnaire	Rank
How well can you become friends with other children?	452	3.930	(2)	1
How well do you work harmoniously with your classmates?	439	3.817	(4)	2
How well do you prevent quarrels with other children?	437	3.800	(8)	3
How well do you express your opinions even when your classmates do not agree with you?	418	3.635	(1)	4
How well do you stay friends with other children?	414	3.600	(7)	5
How well do you express your dislike when other children do things you do not like?	412	3.583	(5)	6
How well do you tell a funny event to a group of children?	403	3.504	(6)	7
How well do you chat with a stranger?	392	3.409	(3)	8
Average		3.660		

Legend: Never 1, 2, 3, 4, 5 Always

Table 8: Mean score and ranks of each statement in the emotional self-efficacy questionnaire

<i>Statement (N=115)</i>	Sum	Mean	Statement # in the questionnaire	Rank
How well do you cheer yourself up when something unpleasant has happened?	463	4.026	(2)	1
How well do you keep yourself from being nervous?	460	4.000	(4)	2
How well do you keep yourself from worrying about things that could happen?	433	3.765	(8)	3

How well can you control your feelings?	432	3.757	(1)	4
How well do you give yourself a pep-talk when you feel down?	431	3.748	(7)	5
How well do you calm yourself after you have been scared?	428	3.722	(5)	6
How well do you tell a friend that you are not feeling well?	403	3.504	(6)	7
How well do you suppress unpleasant thoughts?	393	3.417	(3)	8
Average	3.742			

Legend: Never 1, 2, 3, 4, 5 Always

Table 9: Elementary Algebra second grading grade

Grade	No. and Percentage of students		Performance level
90 – above	1	(0.87%)	Extremely High
85 – 89	1	(0.87%)	High
80 – 84	9	(7.83%)	Moderate
75 – 79	87	(75.65%)	Low
74 below	17	(14.78%)	Extremely Low
Total	115		

Table 10: Students' self-efficacy and parents' parenting styles

Correlated Variables	Mean	Pearson's (r) value	Two-tailed (p) value
Academic Self-efficacy Authoritative Parenting Style	4.1612	0.226	0.015 (s)
Academic Self-efficacy Authoritarian Parenting Style	3.6822	0.329	0.000 (s)
Academic self-efficacy Permissive Parenting Style	3.5702	0.223	0.017 (s)
Social self-efficacy Authoritative Parenting Style	3.9613	0.095	0.313 (ns)
Social self-efficacy Authoritarian Parenting Style	3.4823	0.299	0.001 (s)
Social self-efficacy Permissive Parenting Style	3.3703	0.150	0.109 (ns)
Emotional self-efficacy Authoritative Parenting Style	4.0026	0.220	0.018 (s)
Emotional self-efficacy Authoritarian Parenting Style	3.5235	0.215	0.021 (s)
Emotional self-efficacy Permissive Parenting Style	3.4116	0.122	0.195 (ns)

Discussion

The parenting styles of the parents were authoritative, authoritarian, and permissive. Majority of the parent-respondents were authoritative, that is, they had an authoritative parenting style; some, however, were authoritarian and permissive. When parents are authoritative, according to LeFevre (2004) children would have high self-esteem, confidence, social competence, respect, responsibility and, hence; have good academic performance. When parents are authoritarian, their children would have low social competence, self-esteem, confidence, and moderate on respect and responsibility, hence, they have average academic performance. When parents are

permissive, their children have high self-esteem and social competence; however, they have a lot of problem behavior, hence, they underachieve academically.

The results in the achievement test show that the students' problem solving performances were minimally low in terms of the following operations: mental math (3 correct answers out of 7), addition (4 out of 9), and subtraction (2 out of 8). They got the right process or solution, but arrived at a wrong answer. In terms of addition-subtraction, multiplication, and division operations, the students' problem solving performances got worse—very low. Majority of them got the wrong since they did not know how to approach the problem. They do not know what operation to use, what process or solution to follow. So, wrong answer. This implies then that student's problem solving performances in mental math, addition, and subtraction need some enhancement and help since they already possess minimum knowledge, skills, and core understanding in Elementary Algebra. More importantly, they need close supervision, if not, individualized instruction on problem solving performances in addition-subtraction, multiplication, and division operations.

In as much as a great number of parents who practice authoritative parenting style, the students' level of academic self-efficacy was very high. In terms of the students' level social self-efficacy, it was, more or less, very high. In terms of their emotional self-efficacy, it was equally very high with self-efficacy in academics. In general, the level of self-efficacy of the students is very high. This implies that academically, they have the capability to do homework, schoolwork, and pass a test in Elementary Algebra; socially, they are calm, tactful in dealing with other students, classmates, teachers without being angry, rebellious, and unfriendly; emotionally, they could resist classmates' and peer pressure to engage in high risk activities like drug use and alcoholism. Basing on their second grading grades in Elementary Algebra, the student's performances in this subject were varied. One of them got a grade of 90—above; another one got 85—89; 9 got 80—84. Most of them (87), however, got 75-79. Finally, 17 of them failed. They, in short, need some follow-up instruction and assistance, not only by their teachers but also by their parents.

In terms of self-efficacy, it was revealed that a significant relationship exists between the students' academic self-efficacy and parents' authoritative, authoritarian and permissive styles. There was a significant relationship only between the students' social self-efficacy and the parents' authoritarian parenting style. There was a significant relationship between the students' emotional self-efficacy vis-à-vis the parents' authoritative and authoritarian parenting styles. There was a significant relationship only between the students' performances in Elementary Algebra and the parents' authoritarian parenting style. There was no significant relationship between the students' performances in Elementary Algebra vis-à-vis authoritative and permissive parenting styles. There was also a significant relationship between the students' problem solving performances in Elementary Algebra vis-à-vis all the three components of self-efficacy: academic, social, and emotional. This means that the students' self-efficacy, in general, has some bearing and is very important in their Elementary Algebra performance.

Conclusions

The parents were supportive in terms of the students' academics and emotions, less supportive on social aspect. The parenting styles of parents, i.e., authoritarian and, more specially, authoritative had some bearing and significant relationship with students' problem solving performances, as well as with their performances in Elementary Algebra. Since most or majority of the student-respondents had an average rating in their high school algebra, their proficiency level based on DepEd's Standard-Based Assessment, K-12 Basic Education Curriculum (2012) is Developing, which implies that the students had a minimum knowledge and skills and core

understandings, but they need help throughout their performance. On the one hand, the student problem solving performances as shown in the results of the Achievement test were minimally low in mental math, addition, and subtraction operations. Therefore, they need some enhancement and help in this area. On the other hand, in terms of addition- subtraction, multiplication, and division operations, the student's problem solving performances were very low. Thus, they need close supervision, if not, individualized instruction on this aspect.

Moreover, the student's levels of self-efficacy were broken down into three: academic, social, and emotional. The students' academic self-efficacy, social self- efficacy, and emotional self-efficacy were almost equally Very High. Hence, having a very high self-efficacy makes the students capable in making homework, schoolwork, and passes a test in Elementary Algebra. They are also capable in dealing with social challenges and in dealing with other students in a calm and tactful way. They have a strong emotional stability to control their personal feelings and to resist classmates or peer's pressure to engage in high risk activities like drug use and alcoholism.

References

- Abesha, A. G. (2012). *Effects of parenting styles, academic self – efficacy, and achievement motivation on The academic achievement of university students in Ethiopia*. (Doctoral Thesis). Pert Western Australia, Retrieved from <http://ro.ecu.edu.au/theses/461/>.
- Adewunmi, A. A. (2012). Factors associated with acceptability of child adoption as a management option for infertility among women in a developing country. *International Journal of Women's Health*, 4 (1), 365-372.
- Afolabi, O. E. (2010). Parents' involvement and psycho-educational development of learners with special education needs. An empirical review. *Romanian Journal of School Psychology*, 7(14), 7-31.
- Bandura, A. (2008). Toward an agentic theory of the self. In H.W. Marsh, R.G. Craven, & D.M. McNerey (Eds.). *In Self-processes, learning, and enabling human potential*, (pp. 15-49). International advances in self research. Greenwich, CT.: Information Age Publishing.
- Betz, N., & Hackett, G. (2006). Career self-efficacy: Back to the future. *Journal of Career Assessment*, 14 (1), 3-11.
- Bong, M. (2008). Effects of parent–child relationships and classroom goal structures on motivation, help-seeking avoid ance and cheating. *The Journal of Experimental Education*, 76(2), 191–217.
- Bradley R. H., & Corwyn, R. (2001). The home environments of children in the United States. *Child Development*, 72(6), 1868-1886.
- Byars-Winston, A. M., & Fouad, N. A. (2008). Math and science social cognitive variables in college students: Contributions of contextual factors in predicting goals. *Journal of Career Assessment*, 16, 425-440.
- Coyle, J. R., & Thorson, E. (2001). The Effects of Progressive Levels of Interactivity and Vividness. *Journal of Advertising*, 30 (3), 65-77
- Dornyei, Z. (2001) Motivation in action: Towards a process-oriented conceptualization of student motivation. *British Journal of Educational Psychology*, 70 (1), 519-538.
- Ellis, R. M. (2003). *Relationship between parenting styles and children's motivational style: The development of learned helplessness*. (Doctoral Thesis). NY: Wichita State University.
- Erden, M. & Uredi, I. (2008). The effect of perceived parenting styles on self-regulated learning strategies and motivational beliefs. *International Journal about Parents in Education*, 2(1), 25-34.
- Ford, J., & Smit, B. (2002). A framework for assessing the vulnerability of communities in the Canadian Arctic to risks associated with climate change. *Arctic*, 57, 389–400.
- Garduro (2001). Gender differences in mathematics performance: A metaanalysis. *Psychological Bulletin*, 107, 139-155
- Hill, N. E., Castellino, D. R., Lansford, J. E., Nowlin, P., Dodge, K. A., Bates, J. E., & Pettit, G. S. (2004). Parents' Academic Achievement as Related to School Behavior, Achievement, and aspirations: Demographic Variations Across Adolescence. *Child Development*, 75 (1), 1491-1509.

- Jeynes, W. H. (2003). A Meta Analysis: The Effects of Parental Involvement on Minority Children's Academic Achievement. *Education and Society*, 35 (2), 202-218.
- Kaisa, A., Hakan, S., & Jari-Erik, N. (2000). Parenting styles and students' achievement strategies. *Journal of Adolescence*, 23(2), 205-222.
- Kiamanesh, A. R. (2005). *The findings of the Third International Mathematics and Science Study: Mathematics achievement in primary school years*. Tehran: Institute for Educational Research Publications.
- Kordi, A. and Baharudin, R. (2010). Parenting attitude and style and its effect on children's school achievements. *International Journal of Psychological Studies. Canadian Center of Science Education*, 2(2), 212-222.
- LeFevre, J. (2004). Home numeracy experiences and children's math performance in the early school years. *Canadian Journal of Behavioural Science/Revue Canadienne Des Sciences Du Comportement*, 41(2), 55.
- Muris, P. (2001). A brief questionnaire for measuring self-efficacy in youths. *Journal of Psychopathology and Behavioral Assessment*, 23, 145-149.
- NADE (2005). *Presentation: Arendale, Boylan, Saxon and Stahl - 'Developmental Education Reform Movement and Self-Fulfilling Prophecy'*. Retrieved from <https://ncde.appstate.edu/reports-research>.
- Patock-Peckham, J., & Morgan-Lopez, A. (2006). Mediatonal links among parenting styles, perceptions of parents' confidence, self-esteem and depression on alcohol related problems in emerging adulthood. *Journal of Studies on Alcohol and Drugs*, 70(2), 215-226.
- Petrill, S. A. (2012). Editorial: Identifying the cognitive and physiological underpinning of child psychiatric conditions. *Journal of Child Psychology and Psychiatry*, 53(2), 109-110.
- Robinson, C., & King, S. (1995). Introducing electronic voting systems into the teaching of mathematics. *MSOR Connections*, 9(1), 29-33.
- Rutherford-Becker, K. J., & Vanderwood, M. L. (2009). Evaluation of the Relationship between Literacy and Mathematics Skills as Assessed by Curriculum-Based Measures. *California School Psychologist*, 14, 23-34.
- Rytönen, K., Kaisa, A., & Jari-Erik, N. (2005). Parents' causal attributions concerning their children's school achievement: A longitudinal study. *Merill-Palmer Quarterly*, 51 (4).
- Sisanti, J. (2012). *DepEd to detail K-12 education plan on Oct. 5*. Retrieved from <http://www.gmanetwork.com>.
- Turner, E., & Heffer, R. (2005). The influence of parenting styles, achievement motivation, and self-efficacy on academic performance of college students. *Journal of College Student Development*, 60 (3), 337-346.
- Xitao, F., & Michael, C. (2001). Parental involvement and students' academic achievement.: a Meta-analysis. *Educational Psychology Review*, 13, 1-22.