Filipino Students' Perceptions of Factors Affecting Their Academic Performance in School: A Qualitative Study

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Abstract

Most of what students learn is acquired in school. However, some pupils encounter learning difficulties which are not properly addressed by the teachers. This study aims to identify and examine the factors affecting the academic performance of ten (10) Grade Five pupils in Leyte Normal University-Integrated Laboratory School. The study used qualitative single-case study design, and participants were selected through purposive sampling. The top five (5) pupils in the high performing group and five (5) pupils in the low performing group were selected in that process. Data was collected using semi-structured interviews and direct observation of the participants. As a result, six major themes were derived from the findings after data analysis was conducted, namely: Self-Driven Activities in Learning, Challenges in Learning, Styles in Learning, References used in Learning, Scaffolds in Learning and Coping Mechanisms in Learning. This study could provide ways and awareness to all stakeholders in education on how to improve pupils' academic performance in school.

Keywords: education, learning styles, qualitative single case study, Social Cognitive Learning Theory, academic performance

Introduction

Acquisition of learning mostly transpires in schools. Schools impart the necessary knowledge to the young minds through the help of teachers and other stakeholders. Siemens (2005) emphasizes that learning must not be detached from the outputs of pupils. When there is learning, the academic performance of pupils is possibly high. Thus, teachers and educators must take a look at the factors that differentiate between the high and low academic performers so that an intervention in class could be made, bearing in mind that the academic performance of pupils is one of the indicators of school effectiveness (Ogunsola et. al, 2014).

Previous studies suggest that factors affecting pupils' academic performance are social,

psychological, economic, environmental, and personal. These factors have a high impact on the said performance but they also differ from person to person (Ogunsola et.al, 2014). Individual differences, then, must also be considered for its significant role in the academic performance of

the pupils (JilardiDamavandi et al., 2011). Every child has a particular way to grasp the lessons given by the teacher. Barmeyer (2005) claims that each individual has his own way to learn and to find solutions to problems encountered. This implies that children have different levels of understanding about a lesson discussed. Pashler et al. (2009) bbelieve that learning refers to individual differences in which a child decides in order to understand a certain topic of discussion.

The classroom is one of the essential settings where learning takes place. It is where the teacher-pupil interaction of learning occurs because teachers transfer their own knowledge and curriculum goals during that learning process. Teachers must have the skills to facilitate learning through the use of different strategies or approaches in the delivery of the lesson. Pupils learn in different ways and therefore teachers must be ready to deal with their difficulties and improvement (Bushanan, 1992).

There are also external factors that could limit or hinder learning. That is why classrooms must be conducive to learning, free from potential distractions such as excessive noise so that pupils will learn better and think inquisitively about the lessons during the discussions or class activities. Noise can be considered one of the factors affecting the academic performance of pupils. Hence, it must be lessened in order to maintain an atmosphere that enables learners to listen attentively and to think critically as they tackle the lessons given by the teacher.

Classmates and parents also have a great influence on the academic performance of students. They could serve as motivation for learning in the sense that they can lend a hand to pupils who have difficulty understanding a certain lesson. They can also be a source of strength every time the pupils face issues or problems in the classroom. But then again, they can also be the reason to have a low academic performance of pupils because of the lack of support given to them.

In a study conducted w in the secondary level in Pakistan, Farooq et al., (2011) found that the socio-economic status and parent's education have a significant effect to the academic performance of pupils. Similarly, a study conducted by Wenglinsky (2002) in the U.S. revealed that classroom practices, strategies and approaches used by the teachers affect pupils' academic performance. Later, Frufonga et al., (2016) conducted a study in the Philippines, and found that the academic performance of pupils is also influenced by the social and financial stability.

Society must assure the welfare of every pupil by securing a comfortable and conducive classroom environment. In the Philippines, the typical classroom setting is that, a class usually consists of more than 40 pupils or students with only one teacher to facilitate learning activities for the entire class hours. Due to the big class size, pupils experienced many challenges that hinder them in learning. Based on literature previously discussed, it is empirical to explore and understand the varied factors that influence learner's academic performance and other issues relative to the phenomenon under study.

Literature Review

Pupils are at the center of the learning process and the most significant in any educational organization (Frufonga et al., 2016). They complete the learning environment, most especially when they achieve an exemplary academic performance which is one of the goals of the academy—to let pupils be the best of what they can be depending on the level of their knowledge. A task given to the pupils in the classroom can make them think inquisitively and sharpen their mind to make learning easier.

Learners need a healthy environment which is free from any distraction so they can have full attention to the learning process. Schneider (2002) describes successful teaching and learning is a quiet, comfortable, and safe learning environment. Learners spend longer hours in school just to learn and engaged to the different school events because learning is considered as the first step of every activity that a person does (Farooq et al., 2011), and it is an avenue to be successful in life (Battle & Lewis, 2002).

In the United States, teachers emphasize on assessing the pupils' performance based on the No-Child-Left-Behind (Dee & Jacob, 2011) legislation. This implies that teachers must exert much effort in making sure the pupils achieve high academic performance. This is possible if teachers can give their best during the delivery of the lessons. In a study conducted by Wenglinsky (2002), the research suggest that to improve the pupils' academic performance, teachers must be approachable and knowledgeable in the different teaching standards that can help them in learning. Goddard (2003) explains that social assistance has a vital role in achieving the goals toward pupils' academic performance at school. Social assistance

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given by their teachers, classmates, peers and parents strengthen and motivate pupils' learning styles. Classmates or peers also give support and cheers in which they provide inside or outside the classroom can influence the performance of pupils in school. One of these instances is a tap on the shoulder which it can boost their confidence that they are doing a great job.

On the other hand, negative treatments shown to students can also draw a negative response. A common scenario is bullying. Once the pupils feel that they are being bullied, their confidence diminishes so their performance in school also goes down. According to Wentzel (1998), a specific concern is when a child, who does not enjoy positive and supportive interactions with grown-ups and friends, are often at risk of having academic problems, which is also supported by the study of Goodenow (1993), Midgley et al., (1989) and Phelan et al., (1991).

The same is true when parents do not support their children academically that make them feel to be left behind and will not perform well in school. Ogunsola et al., (2004) argues that the preparation and growth of a child are logically in the hands of the parents. He further says that parents' attitudes and involvement concerning the education of their children significantly increases the level of their academic performance.

Furthermore, the pupils' learning styles can also influence their academic achievement. That achievement may even differ among countries globally. For example, JilardiDamavandi et al., (2011) in exploring cognitive styles found differences in academic achievement in countries such as the United States, Spain, Hong Kong, mainland China, Korea, Norway, Malaysia, and the Philippines.

According to P ashler et al., (2009), learning styles are the individuals' way of learning effectively, and are used in gathering, organizing, and thinking of different ideas. It was also agreed by Fleming (2012) and Felder et al., (2005) that positive and motivated cognitive, affective, and psychological behaviors are learners' indicators used so that they can recognize and solve a certain problem encountered in a school setting. The Executive Director of NASSP, Scott Thomson, has this to say: "the ability to map learning styles is the most promising development in curriculum and instruction in a generation. It is the most scientific way to know to individualize instruction" (Dunn, et.al. 2009).

Pupils, classmates, educators, and school facilities must be more flexible in effecting learning (Fleming & Baume, 2005). A study conducted by Zin, Zaman and Noah (2002) reveals that academic materials must be used to facilitate learning, and to help those low and average learners since there are individual differences in learning style. In order for pupils to get greater impact from instruction and assessment, teachers and stakeholders must have a counterpart and cater the factors affecting their academic performance in learning.

Singh et al., (2016) stated that a lot of research experts focus to the quantitative studies on the factors affecting academic performance of students, little is known about the qualitative aspect of students' perceptions with regard to factors affecting their academic performance in school. Hence, this study sought to discern the different point of views of Filipino students about the factors affecting their academic performance in school. Moreover, this study aimed to answer the following questions:

- 1. What factors contribute to the academic performance of the participants?
- 2. What issues do the participants encounter in their Academic Performance?
- 3. How do the participants deal with the issues that they encounter in their Academic Performance?

Theoretical Framework

Academic performance of students depends on multiple factors, like physical activity, social environment and their learning style preference. This study is anchored on Visual, Aural, Read/ write and Kinesthetic learning modalities and social cognitive theory. VARK learning modalities is utilized to coordinate the instructional methodologies and approaches to the student's learning styles in school. In VARK learning

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modalities, Fleming and Mills (1992) suggested four modalities that seemed to reflect the experiences of the students and teachers. For this case, the study was focused only to the experiences of students with regard to their academic performance. VARK stands for Visual, Aural, Read/write and Kinesthetic under the category of instructional preference and sensory modalities used in discussing and gathering information.

Flemming and Mills (1992) as cited in Katsioloudis and Fantz (2012) stated that visual modality includes the representation of information in charts, graphs, and all the symbolic arrows, circles, hierarchies and other devices that teachers use to represent what might have been presented in words. Layout, whitespace, headings, patterns, designs and color are important in establishing meaning. Aural modality describes a preference for information that is spoken or heard. This modality can be supported from discussion, oral feedback, email, phone chat, discussion boards, oral presentations, classes, tutorials, and talking with others. Read/write modality is for information displayed as words either read or written. Learners place importance on the precision in language and are keen to use quotes, lists, texts, books and manuals. Many educators and learners have a strong preference for this modality. Lastly, Kinesthetic modality refers to the perceptual preference related to the use of experience and practice. This mode uses many senses (sight, touch, taste, and smell) to take in the environment to experience and learn new things. Moreover, this study is supported on social cognitive theory by Albert Bandura. Bandura (1989) as cited in Ogonsola et al., (2014) stated that the development of human focused on the psychosocial changes from childhood to adulthood of the person. Furthermore, learning is a cognitive process happening through observation or instruction even without motor reproduction or direct reinforcement. Giving vicarious reinforcement (rewards and punishments) can attain learning and the behavior of an individual is emphasized exclusively by reinforcements in engaging on the important roles of several internal processes

in learning.

Research Questions

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Methodology

This study employed qualitative case study and the methodology utilized to explore Filipino students' perceptions of factors affecting their academic performance in school. Moreover, it provided information on how participants were selected, and the setting of the research. The instrument that was used for data collection was described and the procedures that were followed to carry out the study were also included.

Research Design

This study employed a qualitative case study as research design. Baxter and Jack (2008) stated that a qualitative case study is a methodical approach to research that explores certain phenomena which can be used as a framework from the different sources of data. It was used to gain the opinions and insights of the participants towards the study.

Vishnevsky and Beanlands (2004) as cited in Starman (2013) stated that a qualitative approach can be used to define the perspective, experiences, and feelings of the participants towards some given situations. Moreover, qualitative research is defined through individual interpretation of their own experiences that they give meaning to.

Moreover, this qualitative case study utilized a semi-structured interview. Richard and Morse (2012) stressed out that single-case descriptive research method was opted because the analyses

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of the result used a small number of participants and the interpretation of the data are on the descriptive level.

Sampling

The researchers used the purposive sampling technique to identify and selected the ten (10) participants from the fifth graders of the Integrated Laboratory School. The inclusion criteria in choosing the participants of this study are the following:

- The participants were officially enrolled at LNU-ILS, Grade 5 Class, School Year 2018 – 2019.
- 2. The participants were selected from the top five (5) who performed well in the class, and top five (5) who needed monitoring in their academic performance.
- 3. The participants were recommended for interview and observation by the class adviser inside their class.

Data Collection and Instruments

The main purpose of this study was to uncover how participants learn best, what issues they encounter in learning, and how they deal with the issues they encounter in learning.

This study engaged the following gathering tools, namely: (1) semi-structured interview which helped generate pertinent information about how pupils learn best, what issues they encounter in learning, and how they deal with the issues encountered in learning; (2) audio- recordings, which helped record the interview with accuracy; (3) semi-structured guides or questionnaire which were used to validate the responses and information given by the participants during the interview; (4) participant observation like photos taken during class observations necessary for this study. The researchers explained the purpose of the interview and their approval was sought to record the flow of the conversations. Participants were encouraged to talk and tell stories freely using their comfortable languages. The researchers likewise interviewed the class adviser for further information regarding their academic performance, and took some photos as support files for this study. Moreover, this interview was voice recorded. The purpose of the audio recording was to assist the process of transcription and ensure that what participants said were captured completely. The audio recording was sufficient as researchers were seeking for students' perceptions of factors affecting their academic performance. No video was captured because researchers did not conduct any experiment to see how students performed inside the classroom. Classroom observation was not used in this study because this study was focused only to the points of view of students with regard to factors affecting their academic performance in school.

Data Analysis

The researchers analyzed the collected data through the use of bracketing exercise that follows the Wa-Mbaleka (2018) method of data analysis. Specifically, they followed the ten (10) steps, which are as follows:

- 1. Prepare and organize your data
- 2. Read your transcript (or go over your data) once or twice
- 3. Develop your coding manual
- 4. Code all your data
- 5. Find recurring ideas
- 6. Abstract your ideas
- 7. Write the interpretation of all your data
- 8. Write your report
- 9. Verify your finding and conclude
- 10. Make final revisions

Ethical Considerations

The researchers followed the appropriate guidelines for issues such as human rights and compliance with the law conflict of interest, safety, and health standard. The researchers personally asked permission from ten participants to have a one-on-one interview with accordance of their availability and willingness to be interviewed. Furthermore, the researchers acknowledged all the authors used in any of this study and the

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participants were aware that their answers and individuality would remain confidential. Since the participants were 5th graders, researchers had a parents' consent to allow their children to be interviewed.

Reflexivity

The researchers are instructors in a university. Hence, they are aware of the common struggles of students as observed in in a day-to-day class setting. Moreover, researchers are teaching in an integrated laboratory school in a university. The researchers did their best to follow the systematic process in conducting, collecting, and analyzing the data to avoid biases.

Results and Discussion

A descriptive analysis of the data gathered revealed six (6) major themes on understanding the factors affecting the learning of the fifth graders in the Leyte Normal University-Integrated Laboratory School. Each of the six (6) major themes was "labeled" based on their own language describing specific meanings. The six major themes are self-driven activities, challenges, learning styles, references used, scaffolds, and coping mechanisms in learning.

Theme 1: Self-Driven Activities in Learning

In the studies of Cooper (1989) and Walberg et al., (1985), as cited in Clark (1993), the pupils' good study habit at home affects their academic performance effectively. They also emphasized that activities given at home promote learnings' retention.

Home activities and School activities are examples of Self-Driven Activities in Learning. Home activities refer to studying, self-practice of words/stories, reviewing the lessons learned in school that happens at home. While School activities refer to listening in school and listening and at the same time studying inside the classroom. Below are some examples uttered by the participants; "nag-aaram ha balay" ["studying at home"] [P1, L2, P1],(Page number 1, Line Number 2, Participant number 1),

"Ginsasanay ko tak kalugaringon pamati didto ha balay hit mga madagmit nga mga kayakan o istorya." ["I am practicing myself to listen to the fast words or stories at home."] [P9, L9, P9]

"namamati ako ha eskwelahan" ["I am listening in school."] [P1, L2, P1]

"Samtang nagtututdo hi Ma'am nag-aaram gihap ako ha sulod hit classroom." ["While our teacher is teaching, I am also studying inside the classroom."] [P1, L3, P1]

Theme 2: Challenges in Learning

Challenges encountered in this study by the pupils in learning are in the teachers' factor, classmates' factor, and Personal factor. Thus, the performance of pupils is mostly seen in their academic grades. There are particular factors to consider in achieving higher grades such as personal, social, psychological, economic and environmental factors (Mushtaq & Khan, 2012). Teachers' factor is influenced by the delivery of the lesson and voice quality. Noise disturbances and unsatisfactory manners by the classmates are under the classmates' factors. Personal factors are inclined by their emotional instability, blocks in learning and diversion of learning preferences.

"Malaksi hi maam na nagyayakan tas magkuri it mga buruhaton na guin hahatag ni maam sanglit madagmit ako nawawarayan hin gana." ["Our teacher talks fast and gives us hard activities that's why I easily get upset."] [P2, L17, P2]

"Gutiaay it tingog hit mga maestra ngan maaringasa ha klasrum."

["The teachers' voices are soft and it's very noisy in the classroom."] [P2, L27, P2]

"It akun mga klasmet mag- aringasa, diri ako nakakabati kan teacher." ["My classmates are noisy; I can't hear our teacher."] [P2, L6, P2]

"Damo nga na-bully ha akon. Gintatawag ako nga special. Sugad ginbabanyakan ako

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tapos ginhahapilan ako hit papel hit akon mga lalaki nga mga klasmet. Danay baga ako hit nalulurong."

["I am bullied by many. They are calling me special. Like they kick me then my male classmates throw papers at me. Sometimes I feel like am crazy."] [P2, L1, P2]

"Dik nakakaintindi hit Math labi na it Multiplication ngan Division." ["I can't understand Math especially Multiplication and Division."] [P7, L13, P7]

Nakadto nala ako ha gawas hit classroom tas nagkikita nala hin mga salida diri ngani youtube." ["I just go out of the classroom to watch movies or youtube."] [P3, L10, P3]

Theme 3: Styles in Learning

According to Demirbas and Demirken (2007), it is necessary to have in-depth understanding of the learning styles of learners since they play a vital role in education particularly in their academic performance. The type of learning styles that the Integrated Laboratory School pupils possess are Visual, Read/Write, Kinesthetic, Aural and Read/ Write, Aural and Kinesthetic, Read/Write and Aural and Visual. The pupils uttered the following statements;

"Danay kun nagtututdo hi maam nag babasa ako hin libro mahiunong ha subject nga Science." ["Sometimes while our teacher is teaching, I am also reading the book about our Science subject."] [P7, L2, L4]

"Ginbabasa ko gihapon ha libro para makaintindi." ["I also read the book for better understanding."] [P2, L2, P2]

"Nag- iisip ako kun ano it answer tas nagdodrowing." ["I think on what the answer is then I draw."] [P1, L38, P1]

"Samtang nagtututdo hi Ma'am nag-aaram gihap ako ha sulod hit classroom." ["While our teacher is teaching, I am also studying inside the classroom."] [P1, L3, P1]

Nagdodrowing ako samtang namamati." ["I draw while listening."] [P1, L18, P1] "Nagsusurat gihap ako samtang namamati hit leksiyon ngan nakita ako ha libro." ["I am *writing also while listening to our lesson and I look at the book.*"] [P1, L26, P1]

Theme 4: References used in Learning

The references used in learning are in needs to motivate learners into engaging positive teachinglearning processes. As what Nsa et al., (2013) said printed materials and realia are some of the learning materials that can make learning more interesting, helping teachers impart the lessons more easily. Some of the references used by the pupils are printed materials, chalkboard and internet.

"Danay kun nagtututdo hi maam nag babasa ako hin libro mahiunong ha subject nga Science." ["Sometimes while our teacher is teaching, I am also reading the book about our Science subject."] [P4, L2, P4]

"Mas nakakaintindi ngan nababaro lugod ako kon ginsusurat ha board it gin- papaangbit nga leksiyon haam hit amon maestra kontra hit ginyayakan la." ["I can understand and learn better if the lesson is written on the board rather than just spoken to us."] [P9, L4, P9]

"Nakita ako hit iba pa nga mga buruhaton ha libro. Tapos nagsusurf gihap ako ha internet para kumita hin mga videos ngan mga ladawan mahiunong hit subject nga akon nakukurian." ["I look for the other activities in the book. Then I surf also in the internet so I can watch videos and pictures regarding difficult subjects."] [P7, L17, P7]

Theme 5: Scaffolds in Learning

Giving academic assistance to learners is important so the latter could achieve high performance in their education. Goos (1999) articulated that students develop their confidence in engaging more critical and self-reliant activities through the academic assistance from their friends, teachers, and parents. LNU-ILS pupils emphasized that they get help mostly from their parents, peers and teachers. This can be shown in their statements;

"Danay ginsusumat ko hira hit amon maestra tapos ginpapatukdaw hira ngan

ginpapaatubang ha bungbong hit klasrum." ["Sometimes I tell my teacher about it and

they are made to stand and face the wall of the classroom."] [P10, L17, P10]

Mag- upay la na classmate it akon gin kakaistorya." ["I am only talking to my good classmates."] [P3, L17, P3]

"Naaro ako hin bulig kan mama ha balay mahiunong hit leksiyon." ["I ask my mom's help at home about our lesson."] [P2, L5, P2]

Theme 6: Coping Mechanisms in Learning

Pupils have their own way of addressing the problems around them. Pearlin and Schooler (1978) emphasized that coping mechanisms are one's psychological defenses to avoid societyinflicted harms. Coping mechanisms in learning of pupils are shown by ignoring someone and selflearning.

"Waray ko ginbubuhat. Dire ako nakakabati kay it akon mga classmate mag- aringasa. Diri ako nagsasaway kay gin iisgan la ako nira." ["I just do nothing. I can't hear because my classmates are noisy. I don't reprimand them because they get mad at me."] [P2, L15, P2]

"Nakadto nala ako ha printi tas ngadto nala malingkod." ["I just go to the front and sit there."] [P3, L16, P3]

"Ginpapasagdan ko la tak mga klasmeyt nga na-bully ha akon tapos ginbabayaan ko hira. Danay." ["I just tolerate my bully classmates then I leave them sometimes."] [P10, L16, P10] "Nagpapakiana ak utro hit maestra hit ak diri nababatian na mga pulong." ["I ask my teacher again those words I didn't hear."] [P6, L16, P6]

This study was to identify the perceptions that affect the academic performance of the learners. The study focused on the fifth graders in a Laboratory school within Tacloban City, Leyte. Semi-structured guides or questionnaires were used in the study to explore qualitative approach on student's academic performance. Six major themes were derived namely Self-Driven Activities in Learning, Challenges in Learning, Styles in Learning, References used in Learning, Scaffolds in Learning and Coping Mechanisms in Learning.

Students are the mere focus in educational framework. Their capacities must be developed to grow through strengthening the Self-Activities in Learning. Selamat et al., (2012) accentuated that Self-driven Activities in learning must urge students to work freely and to find new things in their own interest. It is likewise important to recognize the students' learning styles so they can obtain the information they need in their own stage. Indeed, Kaya et al., (2009) said that styles in learning get ready students to connect new and previous learnings whether it is simple or complicated information.

Explicit factor that influence understudies' accomplishment matters in the References used in learning since students can peruse ahead of time the theme or search ambiguous words or thoughts that they experience issues in comprehension (Singh et al., 2016). Previous studies also mention some Challenges in Learning than can influence the academic performance through the accessibility of the learning facilities and inappropriate learning styles. These some Challenges in learning gives impact to the academic performance of the students (Mushtaq and Khan, 2012). Silliman et al., (2000) said that Learning assistance and attention must be given particularly those beginners from the Scaffolds in learning who are the teachers, parents and those people who surrounds them. Students who have trouble in learning must be given time to reach out to them the necessary intervention suited for them. If they can see the full support to them, students can have Coping Mechanism in learning so that they can handle all stressors they encounter in learning (Geisthardt and Munsch, 2016). All the academe must work together to cater all these themes so students will be progressively certain, basic masterminds and will adapt emphatically.

Conclusion

Individual learning leading to a better academic performance is being achieved with the help of the people around. However, there are things to consider such as classmates' behavior, teaching strategies, and parents' guidance, which

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are so necessary to achieve positive outcomes relative to the pupils' academic performance. The distinguished elements influencing the scholastic performance in a laboratory school will provide educators to recognize interventions to improve the teacher's teaching approaches and methodologies. Thus, school must be set into a friendly spot of learning by improving classmates' conduct towards each other and reaching out those who experience issues in learning.

The following recommendations are made for pupils, parents, teachers and future researchers. First, to the pupils that they should not regard the study as a barrier to their future, but as an enjoyable and challenging venue for learning to take place. Next, for teachers to be aware that pupils have different and special academic needs, hence needing more interactions, encouraging activities, as well as learning materials to use. To the parents, to be sensitive enough and to spend more time with their children by asking what they do in school, and how they can help them with the problems encountered in school. To the researchers to use this study for academic improvement especially in finding other factors affecting the teaching performance of teachers in the laboratory school.

References

Bandura, A. (1989). Human agency in social cognitive theory. American psychologist, 44(9), 1175.

- Battle, J., & Lewis, M. (2002). The increasing significance of class: The relative effects of race and socioeconomic status on academic achievement. *Journal of poverty*, 6(2), 21-35.
- Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The qualitative report*, 13(4), 544-559.
- Buchanan, L. K. (1992). A comparative study of learning styles and math attitudes of remedial and collegelevel math students (Doctoral dissertation, Texas Tech University).
- Clark, M. C. (1993). Transformational learning. New Directions for Adult and Continuing Education, *1993*(57), 47-56.
- Cooper, H. (1989). Synthesis of research on homework. *Educational leadership*, 47(3), 85-91.
- Dee, T. S., & Jacob, B. (2011). The impact of No Child Left Behind on student achievement. *Journal of Policy Analysis and Management*, 30(3), 418-446.
- Demirbas, O. O., & Demirkan, H. (2007). Learning styles of design students and the relationship of academic performance and gender in design education. *Learning and Instruction*, 17(3), 345-359.
- Dunn, R., Honigsfeld, A., Doolan, L. S., Bostrom, L., Russo, K., Schiering, M. S., & Tenedero, H. (2009). Impact of learning-style instructional strategies on students' achievement and attitudes: Perceptions of educators in diverse institutions. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 82(3), 135-140.
- Farooq, M., Bramley, H., Palta, J. A., & Siddique, K. H. (2011). Heat stress in wheat during reproductive and grain-filling phases. *Critical Reviews in Plant Sciences*, 30(6), 491-507.

- Felder, R. M., & Brent, R. (2005). Understanding student differences. *Journal of Engineering Education*, 94(1), 57-72.
- Fleming, N., & Baume, D. (2006). Learning Styles Again: VARKing up the right tree! *Educational Developments*, 7(4), 4.
- Frufonga, R., & Parian, M. A. (2016). Economic and Social Deficiency: Their Influence on Students' Academic Performance. Journal of Progressive Research in Social Sciences, 3(2), 198-206.
- Ganyaupfu, E. M. (2013). Factors influencing academic achievement in quantitative courses among business students of private higher education institutions. *Journal of Education and Practice*, 4(15), 57-65.
- Goddard, R. D. (2003). Relational networks, social trust, and norms: A social capital perspective on students' chances of academic success. *Educational Evaluation and Policy Analysis*, 25(1), 59-74.
- Goodenow, C. (1993). Classroom belonging among early adolescent students: Relationships to motivation and achievement. *The Journal of Early Adolescence*, 13(1), 21-43.
- Goos, M. (1999). Scaffolds for learning: A sociocultural approach to reforming mathematics teaching and teacher education. *Mathematics Teacher Education and Development*, 1(4), 21.
- JilardiDamavandi, A., Mahyuddin, R., Elias, H., Daud, S. M., & Shabani, J. (2011). Academic achievement of students with different learning styles. International Journal of Psychological s tudies, 3(2), 186.
- Katsioloudis, P., & Fantz, T. D. (2012). A comparative analysis of preferred learning and teaching styles for engineering, industrial, and technology education students and faculty. *Journal of Technology Education*, 23(2), 61-69.
- Kaya, F., ÖZABACI, N., & Tezel, Ö. (2009). Investigating primary school second grade students' learning styles according to the Kolb learning style model in terms of demographic variables. *Journal of Turkish Science Education*, 6(1), 13-27.
- Midgley, C., Feldlaufer, H., & Eccles, J. S. (1989). Change in teacher efficacy and student self- and task-related beliefs in mathematics during the transition to junior high school. *Journal of educational Psychology*, 81(2), 247.
- Mushtaq, I., & Khan, S. N. (2012). Factors Affecting Studentsâ€[™] Academic Performance. Global Journal of Management and Business Research, 12(9), 17-22.
- Nsa, S. O., Ikot, A. S., & Udo, M. F. (2013). Instructional materials utilization and students' performance in practical agriculture. *Journal of Educational Research and Reviews*, 1(4), 49-54.
- Ogunsola, O. T., Song, L., & Wang, G. (2014). Development and validation of a time-series model for real-time thermal load estimation. *Energy and buildings*, 76, 440-449.

Pashler, H., Cepeda, N., Lindsey, R. V., Vul, E., & Mozer, M. C. (2009). Predicting the optimal spacing

of study: A multiscale context model of memory. In *Advances in neural information processing systems* (pp. 1321-1329). La Jolla, CA: NIPS Foundation.

- Pearlin, L. I., & Schooler, C. (1978). The structure of coping. *Journal of Health and Social Behavior* 9(1), 2-21.
- Phelan, P., Davidson, A. L., & Cao, H. T. (1991). Students' multiple worlds: Negotiating the boundaries of family, peer, and school cultures. *Anthropology & Education Quarterly*, 22(3), 224-250.
- Richards, L., & Morse, J. M. (2012). *Readme first for a user's guide to qualitative methods*. Thousand Oaks, London, New Delhi: Sage.
- Schneider, M. (2002). Do School Facilities Affect Academic Outcomes? Washington, DC: ERIC.
- Selamat, J., Ismail, K. H., Ahmad, A., & ArpahNoordin, S. (2013). Self-driven co-curricular activities: A subtle way to enhance students' soft skills. World Applied Sciences Journal, 22(2), 287-291.
- Siemens, G. (2005). Learning development cycle: Bridging learning design and modern knowledge needs. *Elearnspace Everything Elearning*, 48(9), 800-809.
- Silliman, E. R., Bahr, R., Beasman, J., & Wilkinson, L. C. (2000). Scaffolds for learning to read in an inclusion classroom. *Language, Speech, and Hearing Services in Schools*, 31(3), 265-279.
- Singh, S. P., Malik, S., & Singh, P. (2016). Research paper factors affecting academic performance of students. *Indian Journal of Research*, 5(4), 176-178.
- Skinner, E. A., Pitzer, J. R., & Steele, J. S. (2016). Can student engagement serve as a motivational resource for academic coping, persistence, and learning during late elementary and early middle school? *Developmental Psychology*, 52(12), 2099.
- Starman, A. B. (2013). The case study as a type of qualitative research. *Journal of Contemporary Educational Studies/Sodobna Pedagogika*, 64(1).
- Vishnevsky, T., & Beanlands, H. (2004). Qualitative research. Nephrology Nursing Journal, 31(2), 234.
- Walberg, H. J., & Ling Tsai, S. (1985). Correlates of reading achievement and attitude: A national assessment study. *The Journal of Educational Research*, 78(3), 159-167.
- Wa-Mbaleka, S. (2018). *Writing your thesis and dissertation qualitatively: Fear No More.* Silang, Cavite: Oikos Biblios Publishing House.
- Wenglinsky, H. (2002). The link between teacher classroom practices and student academic performance. *Education Policy Analysis Archives*, 10(12), 1-30.
- Wentzel, K. R. (1998). Social relationships and motivation in middle school: The role of parents, teachers, and peers. *Journal of educational psychology*, 90(2), 202.

Zin, N. A. M., Zaman, H. B., & Noah, S. A. M. (2002, December). Multimedia mathematics tutor:

29

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matching instruction to student's learning styles. In *International Conference on Computers in Education, 2002. Proceedings.* (pp. 1433-1434).

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