Factors Affecting Academic Performance and Motivation among Holy Cross College Sta. Rosa Grade 12 Students

Missy S. Cordova, Jercie Mae Sta. Maria, John Vincent L. Santos

Islamic Balitar University, Blitar i.vince103@gmail.com

Accepted:	Reviewed:	Published:
May 3th 2022	August 5th 2022	Nov 30th 2022

Abstract : The goal of this study was to identify the elements that contribute to students' academic performance and motivation in Grade 12 Senior High School. The components are divided into five categories: learning skills, parental background, peer influence, teacher quality, and learning infrastructure. To quantitatively assess and analyze the factors, the researcher employed a descriptive-correlational study approach. The findings indicate that respondents descriptively agree on all factors while demonstrating a substantial association with performance and motivation, revealing that the enumerated factors indeed influence performance and motivation.

Keywords: Learning Skills, Peer Influence, Parents Background, Teacher's Quality, Learning Infrastructure

INTRODUCTION

Students' academic success will lead to an increase in employment. If the students do well in their exams, they will graduate on schedule. They still have a lot of time to pursue their studies for the following step because they graduated on time. Schools, colleges, and universities are nothing without students. The most significant asset of every educational institution is its pupils. Student academic success and motivation are intricately linked to the country's social and economic growth. Academic success (academic accomplishment) of students is crucial in developing high-quality graduates who will serve as excellent leaders and manpower for the country and therefore be accountable for the country's economic and social advancement ¹. GPA was utilized by Yogendra & Andrew ² and Singh et. al ³ to quantify student success since it focuses on the student's performance for the specific

¹ T Shanmugaratnam, "IT in Learning: Preparing for a Different Future," in ITOPLA, 2002.

² Nirogini Yogendra and Anthony Andrew, "A Study on the Factors Influencing on Grade Point Average (Gpa) with Special Reference to Third Year Commerce and Management Students of Eastern University, Sri Lanka," *Journal for Studies in Management and planning* 3, no. 8 (2017): 409–425.

³ Rajesh Singh, "Mathematics Anxiety and Its Relationship with the Achievement of Secondary School Students in Sikkim," *International Journal in Management & Social Science* 5, no. 3 (2017): 117–123.

semester. Because they are evaluating performance for a certain subject or year, some other researchers used test results or previous year outcomes ⁴.

Motivation is defined as a person's attempt to complete his or her responsibilities, including devoting the necessary effort and maintaining it. Motivation is important in a person's educational career and success. Learners' motivation is reflected in their academic task selections, the time and effort they devote to each task, and their persistence in completing academic tasks. Researchers in the subject of motivation in learning agree that a learner in any learning situation must answer three central questions: "Can I do this activity?" "Can I do this activity?" "Can I do this activity?", "Undertake I want to do this activity and why?", "Do I want to do this activity and why?", and "What must I do in order to succeed?" ".According to Denhardt et al. 5, as cited in the study of Emmanuel et. Al 6, motivation is "what leads people to behave as they do." Motivation, according to them, depicts the attainment and pursuit of goals. The concept of motivation is intertwined with various educational and psychological constructs. They include attention, needs, objectives, and interests, all of which are aimed at motivating individual learners and piquing their interest in engaging in specific activities or behaviors, as well as achieving specific actions or goals. When an individual is ecstatic to fulfill a need or desire, the concept of motivation is useful. The individual will engage in, or be drawn to, acts that appear to have the potential to satisfy this need or want. Educational psychologists believe that students' motivation is a necessary condition for effective learning to occur. It held that if there is insufficient incentive to learn, the outcome will be unsatisfying. Motivation has been characterized in a variety of ways. All of this, however, is centered on what motivates a person to undertake a specific activity.

According to study, a range of factors like as learning facilities, gender and age disparities, and so on have an impact on students' performance ⁷. According to Harb and El-Shaarawi ⁸, the most significant factor influencing student accomplishment is the student's command of the English language. Communication skills have an impact on student achievement; communication may be considered as a variable that is positively related to student performance in open learning. This study varies from previous studies in that it focuses on open learning ⁹. Students' performance increases when they have strong communication skills and an understanding of the English language. Several scholars have investigated the various factors that influence student academic success. There are two sorts of effects on children's academic success. These are internal and external classroom factors that

⁴ Syed Tahir Hijazi and S. M. M. Raza Naqvi, "Factors Affecting Students' Performance: A Case of Private College," *Bangladesh e-Journal of Sociology* (2006); Richard R Hake, "Socratic Pedagogy in the Introductory Physics Laboratory," *The physics teacher* 30, no. 9 (1992): 546–552.

⁵ Janet V Denhardt and Robert B Denhardt, The New Public Service: Serving, Not Steering (Routledge, 2015).

⁶ Emmanuel Osafo, Amy Paros, and Robert M. Yawson, "Valence–Instrumentality–Expectancy Model of Motivation as an Alternative Model for Examining Ethical Leadership Behaviors," SAGE Open (2021).

⁷ Alf Inge Wang et al., Introducton to Gamification, International Journal of Computer Games Technology, 2010.

⁸ Nasri Harb and Ahmed El-shaarawi, "Factors Affecting Business Students' Performance: The Case of Students in United Arab Emirates," *Journal of Education for Business* (2007).

⁹ Abdullah AL-Mutairi, "Factors Affecting Business Students' Performance in Arab Open University: The Case of Kuwait," *International Journal of Business and Management* (2011).

have a substantial influence on student performance. Students' Math competency, class schedules, class size, Math textbooks, class test results, learning facilities, homework, classroom climate, course content difficulty, instructors' responsibilities in the classroom, technology utilized in the classroom, and exam systems are all internal classroom elements. External classroom influences include extracurricular activities, family concerns, job, and financial, social, and other issues.

Karemera ¹⁰ discovered that student performance is substantially connected with satisfaction with the academic environment and the institution's resources such as the library, computer lab, and so on. In terms of background characteristics, he discovered a favorable influence of high school performance and school achievement, but no statistical evidence of a meaningful relationship between family income level and kid academic performance. According to Sampson ¹¹, members of the educational board will be educated, and their impact on the school will be beneficial; professional growth is necessary for student learning. Students that actively participate in the learning process are found to have a favorable link with the CGP. A student's study effort and proper use of the facilities offered by the institution, as well as a good match between the student's learning style and are all beneficial influences on the student's success.

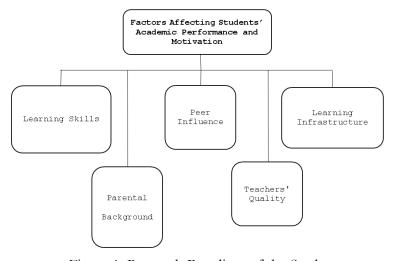


Figure 1. Research Paradigm of the Study

The figure above shows the five main factors affecting students' academic performance and motivation among Grade 12 students in Holy Cross College. These are learning skills, parental background, peer influence, teachers' quality and learning infrastructure.

Most of the students affect their academic performance and motivation once they tend to always avoid individual's energy level, decides persistence in achieving a given goal, influences the sorts of learning approaches utilized, and influences an individual's thought processes. Students affect their

¹⁰ D. Karemera, L.J. Rueben, and M. R. Sillah, "The Effects of Academic Environment and Background Characteristics on Students' Satisfaction and Performance: The Case of South Carolina State University's School of Business," *College Student Journal* (2003).

¹¹ Richard S. Pinner and Richard J. Sampson, "Humanizing TESOL Research Through the Lens of Complexity Thinking," TESOL Quarterly (2021).

learning skills in ability to learn as well as other students' learning environment. Any student's academic success is the consequence of a complex interaction of elements such as study habits, personality traits, and personal interests¹². Second, Parental background have shown a link between parental participation in school and academic accomplishment via increasing children's self-esteem and academic performance, as most of the students chose their program in college based on the influence of their parents and parental background. Third, Peer influence may be both positive and harmful, also it has a detrimental impact on a student's academic achievement. Stronger students, on the other hand, have an influence on their classmates and can help them enhance their overall academic performance. Fourth, Teachers quality affect academic performance and motivation by delivering high quality student-centered instruction, supporting high levels of student engagement, clear evaluation procedures for student learning, the use of positive behavior control tactics, and student evidence. The teachers are tasked with responsibilities of making sure that students achieve the objectives of their lessons. Learning infrastructure increase access to education and learning results especially for females. Learning infrastructures also create a safe, inclusive, and equal learning environment for everyone. This study aimed to descriptively evaluate and define the relationship of the factors affecting students' academic performance and motivation.

METHOD

The researchers adopted a quantitative strategy to explore the key facts and qualities of this study. According to Desai et al. ¹³, descriptive researchers will be able to view a significant fraction of the target population and form the appropriate conclusions about the variables. A quantitative, non-experimental design with a correlational approach was employed in this investigation. Kendall's Tau Correlation, a non-parametric test, was used to identify connections between parameters associated with academic achievement and motivation. In order to obtain data for the study, the researchers conducted a survey with Grade 12 students at Holy Cross College. They initially obtained authorization from the principle and the adviser before doing the data collection.

A survey questionnaire was used to collect the data. A questionnaire aids understudies in research instruments that include queries to get data from respondents. "It delivers a generally modest in light of the fact that it is an effective technique to gathering a large amount of data from a sample of respondents" ¹⁴. The researcher used a questionnaire since it is one of the easiest methods for gathering the information needed for their review.

RESULT AND DISCUSSION

¹² NISHA ARORA and NEETU SINGH, "Factors Affecting the Academic Performance of College Students," *i-manager's Journal of Educational Technology* 14, no. 1 (2017): 47, http://dx.doi.org/10.26634/jet.14.1.13586.

¹³ D. V. Parekh and P. S. Desai P. J. Naik, "Pelagia Research Library," Der Chemica Sinica (2013).

¹⁴ A I McLeod and Maintainer A I McLeod, "Package 'FitARMA"" (2013).

The purpose of this study was to examine and characterize the link between the factors influencing students' academic performance and motivation among Holy Cross College Grade 12 students. The researchers collected data mostly through an online questionnaire administered via Google Form. The information was gathered from the respondents of this survey, who were chosen Grade 12 students at Holy Cross College. The questionnaire included background information as well as the various aspects that influence students' academic performance and motivation. To get a better understanding of the study, the collected results were subjected to descriptive and correlational quantitative analysis.

Tabel 1. Learning Skills

STATEMENT	WM	VI
1.1 Recalling information from our past lesson when there is familiar phrase of lines been said.	4.19	Agree
1.2 I am eager to learn more and grasp new knowledge when there is something I am curious about.	4.09	Agree
1.3 I get a lot of ideas depends on the strategy that been used.	4.11	Agree

The first factor influencing students' academic performance and motivation at Holy Cross College is their learning skills, as shown in table 1. The data clearly shows that the weighted mean was calculated between 4.09 and 4.19, and that the weighted mean as a whole has a linguistic connotation of "agree." This indicates that the respondents "agree" with all of the items in the table related to the factor; learning skills. In statement no. 1 "Recalling information from our past lesson when there is familiar phrase of lines been said.", the table clearly indicates that the weighted mean of the Grade 12 Senior High School Students' perception about this statement is 4.19 with a verbal interpretation of agree. In statement no. 2 "I am eager to learn more and grasp new knowledge when there is something I am curious about.", the respondents' weighted mean was computed at 4.09 with a verbal interpretation of agree. While, in statement no. 3 "I get a lot of ideas depends on the strategy that been used." the computed weighted mean for this is 4.11 that has a verbal interpretation of agree. This simply implies that the respondents are more focused on reviewing prior classes in order to better understand the current topic being discussed by the teacher.

Table 2. Parental Background

STATEMENT	WM	VI
2.1 We use to share with each other how our day went well specially on our school happenings.	4.15	Agree
2.2 I get motivated when my parents is achieving something on the field of work they are engaging.	4.11	Agree
2.3 My mom check my notes for a day and ask me what I've learned from it.	3.67	Moderately Agree

The second factor highlighted in table 2 is parental background. The table clearly shows that the weighted mean was calculated between 3.67 and 4.15, and that the weighted mean as a whole has a verbal interpretation of "agree" and "moderately agree." This indicates that the respondents "agree" and "moderately agree" with the items in the table related to the factor; Parental Background. In statement no. 1 "We use to share with each other how our day went well specially on our school happenings. "the table clearly indicates that the weighted mean of the Grade 12 Senior High School Students' perception about this statement is 4.15 with a verbal interpretation of agree. In statement no. 2 "I get motivated when my parents is achieving something on the field of work they are engaging.", the respondents' weighted mean was computed at 4.11 with a verbal interpretation of agree. While, in statement no. 3 "My mom check my notes for a day and ask me what I've learned from it." the computed weighted mean for this is 3.67 that has a verbal interpretation of moderately agree. This simply means that the respondents are more concerned with informing their guardians about what happens at school.

Table 3. Peer Influence

STATEMENT	WM	VI
3.1 I and my friends go to the library during our vacant hours.	3.74	Agree
3.2 My friend have assisted me improve my grades in the academic.	3.96	Agree
3.3 My friend and I we always help each other with academic difficulties.	4.93	Strongly Agree

The third factor that was being pointed in table 3 is peer influence. The table clearly indicates that the weighted mean was computed between 3.74 to 6.93 and this entire weighted mean has a verbal interpretation of "agree" and "strongly agree". This connotes that the respondents were "agree" and "strongly agree" in the statements pertaining to the factor; Peer Influence that was given in the table. In statement no. 1 " I and my friends go to the library during our vacant hours'. The table clearly indicates that the weighted mean of the Grade 12 Senior High School Students' perception about this statement is 3.74 with a verbal interpretation of agree. In statement no. 2 " My friend have assisted me improve my grades in the academic.", the respondents' weighted mean was computed at 3.96 with a verbal interpretation of agree. While, in statement no. 3 " My friend and I we always help each other with academic difficulties." the computed weighted mean for this is 4.93 that has a verbal interpretation of strongly agree This indicates that the respondents are more focused on working together with classmates to keep things from becoming too tough.

Table 4. Teacher's Quality

STATEMENT	WM	VI

4.1 I get bored when my teacher is reading the book more than to explain it	4.07	Aoree
further, not a bookish explanation.	4.07	Agree
4.2 I participate more when my teacher is explaining the topic and somehow	111	Δοποο
reflect it to my own experience.	4.11	Agree
4.3 My teacher keeps on looking at me while she is discussing and it feels like	3.89	A 04400
intimidating.	3.09	Agree

The table 4 shows factors affecting students' academic performance and motivation among Grade 12 students in Holy Cross College. The fourth factor that was being pointed here is teachers quality. The table clearly indicates that the weighted mean was computed between 3.89 to 4.11 and this entire weighted mean has a verbal interpretation of "agree". This connotes that the respondents were "agree" in all the statements pertaining to the factor; teacher quality that was given in the table. In statement no. 1 "I get bored when my teacher is reading the book more than to explain it further, not a bookish explanation.", the table clearly indicates that the weighted mean of the Grade 12 Senior High School Students' perception about this statement is 4.07 with a verbal interpretation of agree. In statement no. 2 "I participate more when my teacher is explaining the topic and somehow reflect it to my own experience.", the respondents' weighted mean was computed at 4.11 with a verbal interpretation of agree. While, in statement no. 3 " My teacher keeps on looking at me while she is discussing and it feels like intimidating." the computed weighted mean for this is 3.98 that has a verbal interpretation of strongly agree. This indicates that respondents are more focused on they engage more when their instructor is teaching the topic and somehow reflect on their own experience, students participate in class because this teacher utilizes more real-life examples

Table 5. Learning Infrastructure

STATEMENT	WM	VI
5.1 I easily get distracted by noise coming from my co - students when they are passing in the hallway.	4.07	Agree
5.2 Using bright colors in a slides while presenting makes me having a hard time to keep focusing.	4.04	Agree
5.3 Conducive learning environment is very important.	4.15	Agree

The table 5 shows factors affecting students' academic performance and motivation among Grade 12 students in Holy Cross College. The fifth factor that was being pointed here is learning infrastructure. The table clearly indicates that the weighted mean was computed between 4.04 to 4.15 and this entire weighted mean has a verbal interpretation of "agree". This connotes that the respondents were "agree" in all the statements pertaining to the factor; learning infrastructure that was given in the table. In statement no. 1 "I easily get distracted by noise coming from my co - students when they are passing in the hallway.", the table clearly indicates that the weighted mean of the Grade

12 Senior High School Students' perception about this statement is 4.07 with a verbal interpretation of agree. In statement no. 2 "Using bright colors in a slides while presenting makes me having a hard time to keep focusing.", the respondents' weighted mean was computed at 4.04 with a verbal interpretation of agree. While, in statement no. 3 "Conducive learning environment is very important." the computed weighted mean for this is 4.15 that has a verbal interpretation of agree. This implies that the respondents are more focused on creating a conducive learning atmosphere, getting to know the students by name as soon as possible, and offering a pleasant and lively teaching environment that helps students enhance their sociability.

Table 6. Performance

STATEMENT	WM	VI
6.1 I make predictions and provide explanations based on understanding in our topic.	4.22	Agree
6.2 I am aware of my own strengths.	4.11	Agree
6.3 I clearly see how one day of learning builds on the next day of learning.	4.15	Agree

The table 6 shows factors affecting students' academic performance and motivation among Grade 12 students in Holy Cross College. The sixth factor that was being pointed here is the advantages and disadvantages of performance. The table clearly indicates that the weighted mean was computed between 4.11 to 4.22 and this entire weighted mean has a verbal interpretation of "agree". This connotes that the respondents were "agree" in all the statements pertaining to the factor; advantages and disadvantages of performance that was given in the table. In statement no. 1 "I make predictions and provide explanations based on understanding in our topic.", the table clearly indicates that the weighted mean of the Grade 12 Senior High School Students' perception about this statement is "I am aware of my own strengths.", the respondents' weighted mean was computed at 4.11 with a verbal interpretation of agree. While, in statement no. 3 "I clearly see how one day of learning builds on the next day of learning." the computed weighted mean for this is 4.15 that has a verbal interpretation of agree. This suggests that the respondent is more concerned with making predictions and explaining their understanding of their topic, regardless of whether they learnt or not.

Table 7. Motivation

STATEMENT	WM	VI
7.1 I improve my skills through hard work that will exert more effort than those	4.26	Agree
who didn't believe about my success.	4.20	rigicc
7.2 I am able to adapt learned content to new situations because I tend to reflect	4.22	
on underlying causes or frameworks.	4.22	Agree
7.3 I believe that succeed are more likely to reach my goals.	4.41	Agree Agree

The table 7 shows factors affecting students' academic performance and motivation among Grade 12 students in Holy Cross College. The fourth factor that was being pointed here is advantages and disadvantages of motivation. The table clearly indicates that the weighted mean was computed between 4.22 to 4.41 and this entire weighted mean has a verbal interpretation of "agree". This connotes that the respondents were "agree" in all the statements pertaining to the factor; advantages and disadvantages of motivation that was given in the table. In statement no. 1 "I improve my skills through hard work that will exert more effort than those who didn't believe about my success.", the table clearly indicates that the weighted mean of the Grade 12 Senior High School Students' perception about this statement is 4.26 with a verbal interpretation of agree. In statement no. 2 "I am able to adapt learned content to new situations because I tend to reflect on underlying causes or frameworks.", the respondents' weighted mean was computed at 4.22 with a verbal interpretation of agree. While, in statement no. 3 "I believe that succeed are more likely to reach my goals." the computed weighted mean for this is 4.41 that has a verbal interpretation of agree. This indicates that the respondents are more focused on believing that they will achieve because they study hard and their aspirations will come true.

Table 8. Relationship of Factors with Performance and Motivation

Factors	Performance	Motivation
Learning Skills	.600**	.584**
Parental Background	.681**	.512**
Peer Influence	.639**	.452**
Teacher's Quality	.700**	.514**
Learning Infrastructure	.465**	.512**

^{**.} Correlation is significant at the 0.01 level (2-tailed).

The table 8 shows the data collection in tabulation to see whether there is a significant relationship between the factors and academic performance and motivation in Grade 12. Kendall's Tau Correlation is used to determine the correlation coefficients. All the factors shows a positive significant relationship with the academic performance and motivation. Teacher quality has the greatest effect on performance, implying that getting the most out of students and enabling them to graduate as academically competent and well-rounded young people is critical. Good instructors must begin their careers with the necessary knowledge, abilities, and temperament. Students should be involved in their learning. Aside from teachers, parents have an important impact in their children's academic achievement. Students are more motivated to learn when their parents are involved in their academics, and their grades increase. It also aids in the improvement of student behavior in the classroom. More communication between parents and teachers helps students feel more motivated in

their classes, as evidence by the correlation of parental background and teacher quality with the motivation

CONCLUSION

The researchers conclude that a lot of students feel positive about their academic performance and motivation. The research points out and supports the fact that most of the respondents agreed on those factors affecting their mathematics performance and motivation. The four factors that were being discussed in this study are: the learning skills, parental background, peer influence, teacher's quality, and learning infrastructure.

Overall, most of the respondents agreed that they always recalling their lesson to improve their learning skills. In parental background, many of the respondents sharing what is happening in their school. In peer influence, they always helping each other in doing their academic related works. In teacher's quality, many of the students participating when the teacher ask a question and they will explained it. In learning infrastructure, having a good environment is very important. In performance, students provide an explanation to wide their understanding about the lesson that they tackled. While motivation, help the students believing their self to achieve their goals.

The researchers wish to make some recommendation, which, if taken into consideration, might bring more positive impact to the respondents and help them overcome the difficulties there have been facing because of the factors that cause of students' poor academic performance and motivation. All the factors shows a positive significant relationship with the academic performance and motivation.

Based on the findings, The researchers' recommendations are:

- 1. Respondents should be hesitant to face challenges in order to enhance their performance, and they should avoid doing things that negatively impact their academic performance and motivation.
- 2. The schools must facilitated lots of extra curricular activities that can reduce the skills of students.
- 3. Parents should motivate and support their children and allow them to communicate with others to enhance their capability to perform properly.
- 4. Management should introduce some useful and effective techniques in educational institutions which could be helpful in bringing good skills among students regarding in their academic performance and motivation.
- 5. Teachers must understand the students and innovates some techniques which could be easy to implement by students in order to avoid difficulties in enhancing their skills.
- 6. The students should also join a lot of activities that is important that will benefit them. Once they get into the habit of considering themselves comfortable in an unknown environment while their studying, their self would automatically improve

REFERENCES

Agustina, Fenda. "Developing Monopoly Game for Teaching Tenses through Speaking Activity to the Eighth Graders." Universitas Negeri Malang, 2019.

AKILI, U C I HELDIYA FATMALA D J. "Improving Students' Ability in Using Simple Present Tense through Matching Cards Game in SMP N 3 Pulubala." *Skripsi* 1, no. 321412050 (2018).

AL-Mutairi, Abdullah. "Factors Affecting Business Students' Performance in Arab Open University: The Case of Kuwait." *International Journal of Business and Management* (2011).

ARORA, NISHA, and NEETU SINGH. "Factors Affecting the Academic Performance of College Students." *i-manager's Journal of Educational Technology* 14, no. 1 (2017): 47.

- http://dx.doi.org/10.26634/jet.14.1.13586.
- Denhardt, Janet V, and Robert B Denhardt. The New Public Service: Serving, Not Steering. Routledge, 2015.
- Dhenabayu, Riska,] Hesty, Puspita Sari, Silviana Valyanda, and Yunita Sari. "Antivirus: Jurnal Ilmiah Dan Teknik Informatika." *Jurnal Antivirus* (2018).
- Hake, Richard R. "Socratic Pedagogy in the Introductory Physics Laboratory." *The physics teacher* 30, no. 9 (1992): 546–552.
- Harb, Nasri, and Ahmed El-shaarawi. "Factors Affecting Business Students' Performance: The Case of Students in United Arab Emirates." *Journal of Education for Business* (2007).
- Hijazi, Syed Tahir, and S. M. M. Raza Naqvi. "Factors Affecting Students' Performance: A Case of Private College." *Bangladesh e-Journal of Sociology* (2006).
- Ima, Nur. "Developing Instructional Media of Basic English Grammar Webblog for the First Year Students of Senior High School 11 Makassar." Universitas Islam Negeri Alauddin Makassar, 2017.
- Karemera, D., L.J. Rueben, and M. R. Sillah. "The Effects of Academic Environment and Background Characteristics on Students' Satisfaction and Performance: The Case of South Carolina State University's School of Business." *College Student Journal* (2003).
- Klimova, Blanka Frydrychova. "Approaches to the Teaching of Writing Skills." *Procedia Social and Behavioral Sciences* (2014).
- McLeod, A I, and Maintainer A I McLeod. "Package 'FitARMA" (2013).
- Miarso, Yusufhadi. Menyemai Benih Teknologi Pendidikan. Kencana, 2004.
- Osafo, Emmanuel, Amy Paros, and Robert M. Yawson. "Valence–Instrumentality–Expectancy Model of Motivation as an Alternative Model for Examining Ethical Leadership Behaviors." SAGE Open (2021).
- P. J. Naik, D. V. Parekh and P. S. Desai. "Pelagia Research Library." Der Chemica Sinica (2013).
- Pinner, Richard S., and Richard J. Sampson. "Humanizing TESOL Research Through the Lens of Complexity Thinking." *TESOL Quarterly* (2021).
- SAHILA, MANNUN. "THE EFFECTIVENESS OF ENGLISH TENSES ANDROID APPLICATION TO IMPROVE STUDENTS'GRAMMAR ON SIMPLE PAST TENSE." IAIN SALATIGA, 2019.
- Sari, Hesty Puspita, and Wahyu Dwi Lestari. "Designing Superlary Game to Learn Vocabulary of Tenth Grade Students." *EDUCATIO: Journal of Education* 5, no. 2 (2020): 159–168.
- Shanmugaratnam, T. "IT in Learning: Preparing for a Different Future." In ITOPLA, 2002.
- Singh, Rajesh. "Mathematics Anxiety and Its Relationship with the Achievement of Secondary School Students in Sikkim." *International Journal in Management & Social Science* 5, no. 3 (2017): 117–123.
- Wang, Alf Inge, Bian Wu, D. Burgos, Pablo Moreno-ger, J. L. Sierra, Baltasar Fernandez-Manjon, M. Specht, et al. *Introducton to Gamification. International Journal of Computer Games Technology*, 2010.
- Yogendra, Nirogini, and Anthony Andrew. "A Study on the Factors Influencing on Grade Point Average (Gpa) with Special Reference to Third Year Commerce and Management Students of Eastern University, Sri Lanka." *Journal for Studies in Management and planning* 3, no. 8 (2017): 409–425.