

FAMILY COHESION AND STUDENTS' ACADEMIC STUDIES: EVIDENCE FROM SECONDARY SCHOOLS IN EDO STATE, NIGERIA

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Abstract

This study investigated the relationship between family cohesion and students' academic studies in public secondary schools in Oredo Local Government Area of Edo state. The study sought to find out the extent to which family cohesion influences students' academic studies. The study also determined the level of relationship between family cohesion and academic studies. Five research questions and their corresponding hypotheses were raised and tested to guide the study. The study adopted a correlational research design. The population for this study consists of 3641 SS2 students in Oredo Local Government Area of Edo state as at the time of this study. From the thirteen secondary schools in Oredo Local Government Area with a sample of 182 students which were randomly selected using the simple random sampling technique. Questionnaire was used as an instruments for obtaining data in the study. The data collected with the instrument was analyzed using Pearson's Product Momentum Correlation Coefficient (PPMCC) statistic to determine the stability reliability coefficient and the coefficient obtained was 0.951. The data obtained in the study were analyzed using simple percentage and linear regression. The findings of the study showed that there was a significant relationship between family cohesion and students' academic studies The finding also showed that there is no significant partial relationship between closeness with siblings and students' academic studies in public secondary schools. The authors recommended, among others, that family members, school administrators and policymakers should endeavor to consider promoting programmes or initiatives that would foster family cohesion as it has been shown to positively influence students' academic performance in schools.

Keywords: *Academic Studies, Cohesion, Closeness, Emotional Support, Family, Supportive Communication.*

Introduction

Academic studies refer to the pursuit of knowledge and learning in a formal educational setting, typically at a college or university. This can encompass a wide range of subjects and disciplines, including the humanities, social sciences, natural sciences, and professional fields such as business, engineering, and medicine. Academic studies often involve rigorous research, critical thinking, and the development of specialized knowledge and skills within a particular area of study. Academic studies are used to refer to activities that take place in schools, colleges, and universities, particularly those that focus more on study and critical thinking than on practical or technical skills. Education is essential for producing skilled labour that accelerates economic growth and addresses a community's pressing issues. Students must graduate with strong academic standing and are expected to devote a significant amount of their time to academic pursuits. However, the trend of students graduating is not equal to the trend of students

enrolling, and there are more students than ever. Has trouble focusing and participating in academic activities for a better and more effective study experience. Sometimes, students' academic participation hints at poor academic performance.

Family cohesion helps to improve student's academic studies. The process of passing on valuable information to members of the society is known as education. All of an experiences a person has that lead to knowledge acquisition and intellectual enlightenment are included in their education. It goes on from one generation to another generation. In this context, education refers to the informal, formal, and non-formal processes used to socialize the child to develop into a happy member of society. Informal education is the process of learning about the world around you and beyond through interpersonal interaction. Formal education is a deliberately designed method of socialization in a structured environment, like school. They emphasized that all those organized programmes and procedures for education and training that take place outside of a formal educational setting are included in non-formal education and without the support of the family, none of these forms of education are possible.

The child's first social environment is their family. The child's primary environment is still his or her family, and this environment has a greater impact on the child's intellectual development. The primary purpose of the family, a small kinship structural group, is the natural socialization of the newborn. Similar to how a family is a primary social group made up of parents, children, and possibly other housemates, a family is defined as a group of two or more people who are related by blood, marriage, or adoption and who live together. The nuclear family and the extended family are the two main types of families. The immediate group of a father, mother, and children who reside together is referred to as a nuclear family. The nuclear family is part of the extended family, which also includes other relatives like relatives, in-laws, grandparents, uncles, and aunts. Families can be divided into various categories. According to Anderson and Taylor (2000), there are four main types of families: traditional families, where the father provides the majority of the family's income and the mother stays at home to raise the kids; divorced families, which have been reconstituted after a marriage has ended; single parent families, which are typically led by women; and step families, which are made up of new siblings and new parents as a result of remarriage. This is the typical family structure in African nations. Anderson and Taylor (2000) opined that families classified as nuclear have a married couple living together with their children. In Western countries, this kind of family is characteristic.

The family one is born into is referred to as the family of orientation, whereas the family one is married into is the family of procreation. Families are regarded as the fundamental social structure that connects all societies through kinship or matrimonial ties. The ideal family provides its members with companionship, safety, support, socialization, and security. Whatever one's definition of a "family" may be, different societies have different family structures and needs that are met by various families. Muola (2010) opined that the conditions and circumstances in the family that have an impact on the child's physical, intellectual, and emotional development are referred to as the family background. Such family circumstances have varying effects on children from different family backgrounds. Due to the fact that backgrounds can change over time for the same people, some children come from good families while others do not. Therefore, formal education continues to be the means of promoting human development, which must begin in the home. Families can come in a variety of sizes. Alio (2015) defined family size as the overall population of a single family, which may include the father, mother, children, and even extended family members, all of whom reside in the same hamlet. The size of the family has an impact on education. The author emphasized that the relative amount of physical attention and time that each child receives from his parents depends greatly on the size of the family. Among the lower classes, big families are more prevalent lower class in the society. Smaller family size has been linked to high academic studies; students with fewer siblings are likely to receive more parental attention and have family support, which results in better academic studies. Children in large families may experience poverty and lack parental encouragement and stimulus that motivates their academic studies. Every child's primary environment is still their family, no matter how big or small.

Cohesion means sticking together. It refers to the action or fact of forming a united whole. There are two components of family cohesion: (1) the emotional bonding members have with one another and (2) the degree of individual autonomy a person experiences in the family system. Family cohesion is studied in various discipline. As such, family cohesion is conceptualized, defined, and operationalized in several different ways. Drawing from a family science perspective, Alio (2015) defined family cohesion as the emotional bonding members have with one another and the degree of individual autonomy a person experiences in the family system. It relates to the emotional bonding that occurs between family members. When family members have healthy levels of cohesion, interact with one another in a way that shows a harmony between the needs of each individual family member and the needs of the whole family. Families' strength and resource in overcoming life's daily challenges is a strong and cohesive family unit. The point of view holds that family cohesion is a measurement of the current emotional and practical dependence among family members. Increase the children's focus, attendance, and academic performance by operationalizing family cohesion through their family. Cohesive families, for instance, give their members a sense of security and refuge, which promotes better communication and a strong sense of self-esteem towards one another.

Statement of the Problem

While the school is an important factor in a child's success, the family is the basic institution through which children learn who they are and where they can fit into society. Parenting styles, discipline techniques, involvement with the child, and the home environment have been shown to affect a child's ability to achieve much academically. Challenges faced by students in their Family environment continues to be of crucial importance through adolescence and early adulthood. In cohesive family, parents will be more engaged in children's education. They will keep a close eye on children and guide them how to think, to interact with friends and to deal with other social problems. And they will restrict children from misconduct. Through this process, Children acquire social skills, become well received among peers, and develop strong school belonging. On the contrary, students from home without love and unity are more prone to aggression, hostility and problem behaviors, which will make them less productive in their academic activities. Students from cohesive family show more prosocial behavior and better social inclusion. Hence they may get more involved in school-based activities and develop strong school belonging. This may not be so with students from disunited family without love and harmony. Most of these students from home with aggressive parents tend to exhibits aggression on other students in school and hence they are always socially and emotionally backward which lead to a decline in their academic studies. It is based on these precarious challenges the authors of this study decided to investigate the extent to which family cohesion associate with academic studies of secondary school students.

Purpose of the Study

The purpose of this study is to examine the extent to which family cohesion associate with academic studies of secondary school students in Oredo Local Government Area of Edo State, Nigeria. Specifically, the purpose of the study is to examine:

1. the extent to which family cohesion associate with academic studies of secondary school students.
2. the extent to which closeness with siblings associate with academic studies of secondary school students.
3. the extent to which family emotional support associate with academic studies of secondary school students.
4. the extent to which family supportive communication associate with academic studies of secondary school students.
5. the extent to which closeness with parents' associate with academic studies of secondary school students.

Research Questions

Five research questions were raised to guide this study.

Research Question 1: What is extent to which family cohesion associate with academic studies of secondary school students?

Research Question 2: What is extent to which closeness to sibling associate with academic studies of secondary school students?

Research Question 3: What is extent to which family emotional support associate with academic studies of secondary school students?

Research Question 4: What is extent to which family supportive communication associate with academic studies of secondary school students?

Research Question 5: What is extent to which closeness with parents' associate with academic studies of secondary school students?

Research Hypotheses

The following null hypotheses were tested at a 0.05 level of significance.

Research Hypothesis 1: Family cohesion does not significantly associate with academic studies of secondary school students.

Research Hypothesis 2: Closeness to sibling does not significantly associate with academic studies of secondary school students.

Research Hypothesis 3: Family emotional support does not significantly associate with academic studies of secondary school students.

Research Hypothesis 4: Family supportive communication does not significantly associate with academic studies of secondary school students.

Research Hypothesis 5: Closeness with parents' does not significantly associate with academic studies of secondary school students.

Methods

Research Design

A correlational survey research design was utilized for the study. It is a non-experimental quantitative research design to achieve the specific objectives. According to Bhandari (2021), a correlational research design investigates the relationships between variables without the researcher physically controlling or manipulating any variable. The use of correlational research design is appropriate for this study due to the fact that it provides insight into the strength of the relationships between the study's various independent variables and the dependent variables. The correlation survey design allows for investigation of how different factors influences students' academic studies in the area of study.

Population and Sampling Procedure

One hundred and eighty-two (182) students from the 14 public secondary schools in the study area, which represent 5% of the entire population represent the study sample size. In order to collect data from the 14 schools in the Oredo Local Government Area of Edo State, simple random sampling technique where used. Hence, 182 respondents formed the sample that were examined in the study.

Research Instrument

A structured questionnaire was used as the instrument for data gathering and collection. The questionnaire consists of 33 items that seek respondent views on family cohesion. The items were weighed on a five-point rating scale for the respondents to make their opinions.

Validation and Reliability of Research Instrument

The instrument was validated by three experts, two from Educational Psychology and one from Measurement and Evaluation. A copy of the questionnaire was given to each lecturers who made relevant suggestions and adjust various aspects of the instrument. The reliability of the instrument was determined using Pearson's Product Momentum Correlation Coefficient (PPMCC) statistic. A test-retest was performed by administering questionnaires to 20 students who were not part of the sample. The first and second administration spans within 7 days, which yielded a reliability coefficient value of 0.951.

Data Collection and Analysis

The instrument was administered to the respondents, with the help of four research assistants who were briefed on the research procedures. The respondents were contacted through letters before the instrument were administered on them. The respondents were given the chance to complete and return the instrument immediately. The SPSS version 23.0 was used as the package for data analyses. Inferential statistics (Partial Correlation and Linear Regression) were used as the statistical tools for data analysis.

Results

Answering Research Questions

Research Question 1: What is extent to which family cohesion associate with academic studies of secondary school students?

Table 1: Summary of the Correlation Analysis Between Family Cohesion and Academic Studies of Secondary School Students.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Remark
1	.427 ^a	.182	.163	7.30208	MC

Note. MC = Moderate Correlation.

Table 1 showed that the extent to which family cohesion associate with academic studies of secondary school students in Oredo Local Government Area is .427. This means that there is moderate correlation between family cohesion and academic studies in public secondary schools in Oredo Local Government Area.

Research Question 2: What is extent to which closeness to sibling associate with academic studies of secondary school students?

Table 2: Summary of the Correlation Analysis Between Closeness to Sibling and Academic Studies of Secondary School Students.

Variable	mean	S	Covariance	Sum of Squares and Cross-products	r	Remark
CS	20.52	4.02				
SAS	36.17	7.98	9.58	1657.48	.298	MC

Note. MC = Moderate Correlation.

Table 2 showed that the extent to which closeness to sibling associate with academic studies of secondary school students is .298. This means that there is a moderate correlation between closeness with

siblings and students' academic studies in public secondary schools in Oredo Local Government Area.

Research Question 3: What is extent to which family emotional support associate with academic studies of secondary school students?

Table 3: Summary of the Correlation Analysis Between Family Emotional Support and Academic Studies of Secondary School Students.

Variable	Mean	S	Covariance	Sum of Squares and Cross-products	r	Remark
ESF	23.53	4.55	11.75	2033.14	.323	MC
SAS	36.17	7.98				

Note. MC = Moderate Correlation.

Table 3 showed that the extent to which family emotional support associate with academic studies of secondary school students is .323. This means that there is a moderate correlation between emotional support in family and students' academic studies in public secondary schools in Oredo Local Government Area.

Research Question 4: What is extent to which family supportive communication associate with academic studies of secondary school students?

Table 4: Summary of the Correlation Analysis Between Family Supportive Communication and Academic Studies of Secondary School Students.

Variable	Mean	S	Covariance	Sum of Squares and Cross-products	r	Remark
SCF	23.04	5.02	10.66	1843.79	.266	MC
SAS	36.17	7.98				

Note. MC = Moderate Correlation.

Table 4 showed that the extent to which family supportive communication associate with academic studies of secondary school students is .266. This means that there is a moderate correlation between supportive communication in family and students' academic studies in public secondary schools in Oredo Local Government Area.

Research Question 5: What is extent to which closeness with parents' associate with academic studies of secondary school students?

Table 5: Summary of The Correlation Analysis Between Closeness with Parents' and Academic Studies of Secondary School Students.

Variable	Mean	S	Covariance	Sum of Squares and Cross-products	R	Remark
CP	24.93	3.08	16.89	2922.07	.397	MC
SAS	36.17	3.73				

Note. MC = Moderate Correlation.

Table 5 showed that the extent to which closeness with parents' associate with academic studies of

secondary school students is .397. This means that there is a moderate correlation between closeness with parents and students' academic studies in public secondary schools in Oredo Local Government Area.

Testing Research Hypotheses

Research Hypothesis 1: Family cohesion does not significantly associate with academic studies of secondary school students.

Table 6: Summary of the Linear Regression Analysis of the Relationship between Family Cohesion and Academic Studies of Secondary School Students.

Model		Sum of Squares	df	MS	F	Sig.	Decision
1	Regression	2005.694	4	501.423	9.404	.000 ^a	Reject Ho
	Residual	9011.134	169	53.320			
	Total	11016.828	173				

Note. df = Degree of Freedom, MS = Mean Square, Sig. = Significant.

Table 6 showed that the coefficient of the linear regression analysis of the relationship between family cohesion and students' academic studies in public secondary schools in Oredo Local Government Area (.427, see Table 1) is significant at .000 probability value. The null hypothesis is therefore rejected at 0.05 alpha level. The implication is that there is a significant relationship between family cohesion and students' academic studies in public secondary schools in Oredo Local Government Area.

Research Hypothesis 2: Closeness to sibling does not significantly associate with academic studies of secondary school students.

Table 7: Summary of the Partial Correlation Analysis Between Closeness with Siblings and Academic Studies of Secondary School Students.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	16.374	3.470		4.719	.000			
	CS	.176	.173	.089	1.018	.310	.298	.078	.071

Table 7 showed that the coefficient of the partial correlation between closeness with siblings and academic studies of secondary school students in public secondary schools in Oredo Local Government Area (.078) is significant at .310 probability value. The null hypothesis is therefore not rejected at 0.05 alpha level. The implication is that there is no significant partial correlation between closeness with siblings and academic studies of secondary school students in public secondary schools in Oredo Local Government Area.

Research Hypothesis 3: Family emotional support does not significantly associate with academic studies of secondary school students.

Table 8: Summary of the Partial Correlation Analysis Between Emotional Support in Family and Academic Studies of Secondary School Students.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	16.374	3.470		4.719	.000			
	ESF	.192	.167	.109	1.148	.253	.323	.088	.080

Table 8 showed that the coefficient of the partial correlation between emotional support in family and academic studies of secondary school students in public secondary schools in Oredo Local Government Area (.088) is significant at .253 probability value. The null hypothesis is therefore not rejected at 0.05 alpha level. The implication is that there is no significant partial correlation between emotional support in family and academic studies of secondary school students in public secondary schools in Oredo Local Government Area.

Research Hypothesis 4: Family supportive communication does not significantly associate with academic studies of secondary school students.

Table 9: Summary of the Partial Correlation Analysis Between Supportive Communication in Family and Academic Studies of Secondary School Students.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	16.374	3.470		4.719	.000			
	SCF	.052	.142	.033	.365	.716	.266	.028	.025

Table 9 showed that the coefficient of the partial correlation between supportive communication in family and academic studies of secondary school students in public secondary schools in Oredo Local Government Area (.028) is significant at .716 probability value. The null hypothesis is therefore not rejected at 0.05 alpha level. The implication is that there is no significant partial correlation between supportive communication in family and academic studies of secondary school students in public secondary schools in Oredo Local Government Area.

Research Hypothesis 5: Closeness with parents' does not significantly associate with academic studies of secondary school students.

Table 10: Summary of the Partial Correlation Analysis Between Closeness with Parents and Academic Studies of Secondary School Students.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	16.374	3.470		4.719	.000			
	CP	.420	.129	.281	3.249	.001	.397	.242	.226

Table 10 showed that the coefficient of the partial correlation between closeness with parents and academic studies of secondary school students in public secondary schools in Oredo Local Government Area (.242) is significant at .001 probability value. The null hypothesis is therefore rejected at 0.05 alpha level. The implication is that there is a significant partial correlation between closeness with parents and academic studies of secondary school students in public secondary schools in Oredo Local Government Area.

Discussions

The first finding of this study revealed that there is significant relationship between family cohesion and students' academic studies in public secondary schools in Oredo Local Government Area. The finding is in agreement with the finding of Vahabi's (2018) who found that there is a relationship between family cohesion and students' academic self-efficacy in Kurdistan University of Medical Sciences. However, the finding is in contrast with the finding of Jincong Yu et al. (2021) who found that family cohesion significantly influences the academic burnout of Chinese college students.

The second finding of the study showed no significant partial correlation between closeness with siblings and academic studies of secondary school students in public secondary schools in Oredo Local Government Area. This finding could be due to several factors. Firstly, the influence of sibling relationships on academic performance may vary depending on individual family dynamics, the quality of relationships with siblings, and other external factors. While sibling relationships can play a crucial role in social and emotional development, their impact on academic success may not always be direct or easily measurable. Furthermore, the study's focus on public secondary schools in Oredo Local Government Area may have limited the scope of the findings, as the dynamics of sibling relationships and their influence on academic studies can differ across different educational settings and age groups. Factors such as age differences between siblings, parental involvement, and family structure may also play a significant role in shaping the relationship between closeness with siblings and academic performance. The second finding of this study is in agreement with the finding of Poisall (2022) who found that siblings' influences math's achievement.

The Third finding of this study showed no significant partial correlation between emotional support in family and academic studies of secondary school students in public secondary schools in Oredo Local Government Area. This finding could be attributed to several factors. One possible explanation is that emotional support from the family, while important for overall well-being and development, may not directly translate into improved academic performance. Academic success is influenced by a myriad of factors such as student motivation, teacher quality, school resources, and individual learning styles, which may overshadow the impact of family emotional support on academic studies. Also, the nature of the emotional support provided by families may vary widely, and not all forms of support may be conducive to academic success. For example, if the emotional support is overly controlling or enabling, it could potentially hinder students' autonomy and academic growth. Additionally, students may receive emotional support from other sources such as friends, teachers, or mentors, which could also play a significant role in their academic studies. The third finding of this study is in harmony with the findings that family

emotional support influences students' academic persistence and achievement.

The fourth finding of the study shows is no significant partial correlation between supportive communication in family and academic studies of secondary school students in public secondary schools in Oredo Local Government Area. The finding could be attributed to various factors. One possible explanation could be that other external factors such as peer influence, school environment, or individual student motivation may have a stronger impact on academic performance compared to family communication. Additionally, the quality and frequency of family communication may vary among different families, leading to inconsistencies in its impact on academic outcomes. The finding is in contrast with the study of Campos and Kim (2017) who found that supportive communication influences family cohesion.

Conclusion

Following the findings of the study, the authors can categorically assert that family cohesion plays a significant influence on students' academic performance in public secondary schools. This suggests that a strong sense of unity and togetherness within the family can positively influence students' educational outcomes. It also showed that the insignificant partial correlations between closeness with siblings, emotional support in the family, and supportive communication in the family with students' academic studies indicates that these factors may not have a direct influence on academic performance in this context. The significant partial correlation between closeness with parents and students' academic studies highlights the importance of the parent-child relationship in shaping academic success. Therefore, there is a need for all these variables to be empirically investigated in order to positively improve students' academic performance in schools.

Recommendations

Based on the findings of the study, the following recommendations were made.

1. School administrators and policymakers should endeavor to consider promoting programmes or initiatives that foster family cohesion as it has been shown to positively influence students' academic performance.
2. While closeness with siblings, emotional support, and supportive communication may not directly impact academic studies, they are still important aspects of family dynamics that contribute to overall well-being. Encouraging positive interactions in these areas can enhance family relationships.
3. Parents should endeavor to be encouraged to maintain close relationships with their children as it has been found to have a significant impact on academic success. Parental involvement and support are crucial factors in students' educational journeys.
4. Students should endeavor to be encouraged to cultivate the habit of always relating with siblings, about their study purposely for better learning.
5. Students should endeavor to take academic studies seriously and also improve on themselves personally in all ramification.

References

- Agu, S. (2020). Relationship between motivational patterns and students' academic performance in secondary schools in Enugu Education Zone, Enugu State. Nigeria.
- Ake, E. (2008). Motivational orientation of over achieving and under achieving elementary school children. *American Journal of Mental Deficiency*. 72. 662-667.
- Alicia, W. (2010). Parent-child communication: Sex education, youth, parents, sexuality.
- Bandura A. (1977). Social learning theory. Retrieved online from www.instructional-design.org/theories/social-learning.html cached on 16/5/12
- Beaudoin, M. F. (2012). Learning or lurking? Tracking the “invisible” online student. *Internet and Higher Education*, 9.

- Belinda Campos and Helen Kim's (2017). Incorporating the Cultural Diversity of Family and Close Relationships into the Study of Health. *American Psychologist*, Vol. 72, No. 6, 2017. 10.1037/amp0000122. 28880101
- Bhandari, P. (2021, July 7) An Introduction to Correlational Research. Scribbr.
- Birkeland, M. S., Melkevik, O., Holsen, I., & Wold, B. (2012). Trajectories of global self-esteem development during adolescence. *Journal of Adolescence*, 35, 43–54.
- Chaffee, Steven H., Jack M. McLeod, and Daniel B. Wackman (2012). Family communication patterns and adolescent political participation, pp. 349- 364. In J. Dennis (Ed.), *Socialization to politics: A reader*. NYC: John Wiley & Sons.
- Garber, J., Robinson, N. S., & Valentiner, D. (2017). The relation between parenting and adolescent depression: Self-worth as a mediator.
- Gardner, R. I., Heward, W. L., & Grossi, T. A. (2014). Effects of response cards on student participation and academic achievement.
- Hardberg, P. (2006). The effects of interactive reading homework and parent involvement on children's inference responses. *Early Childhood Education Journal*, 32, 173-178.
- Jincong Yu, Yifan Wang, Xiaoqing Tang, Yuqin Wu, Xuemei Tang, Jie Huang (2021). Impact of Family Cohesion and Adaptability on Academic Burnout of Chinese College Students: Serial Mediation of Peer Support and Positive Psychological Capital.
- Koerner, A. F., & Fitzpatrick, M. A. (2014). Communication in intact families. In A. L. Vangelisti (Ed.), *Handbook of family communication* (pp. 177–195)
- M. Poisall (2022). Sibling influences on math achievement, 13 (1). Aisthesis, Academic Articles
- Maduewesi, E. (2012). Home process variables that are related to educational environment. *Nigerian Journal of Education*, 2 (2), 69-85.
- Majoribanks, K. (2016), Family learning environments and students' outcomes: A Review. *Journal of comparative family studies*, 27(2), 373-394.
- Margaret L. Anderson & Howard F. T. (2000). *The family and family structure classification*.
- Marilyn Price-Mitchell (2019). *Boundary dynamics: Implications for building parent-school partnerships*.
- Maslow A, H. (2017). *Motivation and personality (3rd Ed)*. New York: Harper and Row.
- McLeod, J. M. & Chaffee, S. H. (2012). *The construction of social reality*. In J. Tedeschi (Ed.), *The social influence Process* (pp. 50-59). Chicago: Aldine-Atherton.
- Mehrdad Vahabi (2018). Relationship between family cohesion and students' academic self-efficacy in Kurdistan University of Medical Sciences.
- More, S., (2011) *What is Atkinson's achievement motivation theory?* Retrieved online on 26/10/12 from http://www.elow.com/facts_5034998_atkinsonsahcievement-motivation-theory.html
- Muola, J. M. (2010). *A study of the relationship between academic achievement motivation and home environment among standard eight pupils*. In Educational Research and Reviews. Egerton University.
- Salma Khalil Alio (2015). *The influence of family size on the academic performance of students*.