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PARENTAL ROLES AND E- LEARNING INSTRUCTION AS PREDICTORS OF STUDENTS' PERFORMANCE AND INTEREST IN MATHEMATICS IN POST-PRIMARY LEVEL IN EKITI STATE

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ABSTRACT

The objective of the study was to ascertain how parental role and e-learning packages serve as a predictor of students' interest and academic performance in Mathematics. The study examined the influence of parental role and e-learning on students' performance and interest in Mathematics. It employed descriptive survey and expo -facto research design. The population for the study comprised all Senior Secondary School two (SSII) students in Ado-Ekiti local Government in Ekiti State. The sample consisted of 200 mathematics students and 100 parents/ teachers which were selected from the four selected secondary schools. The instruments used for the study were Questionnaire on Teachers/ Parental role and e-learning instruction and Mathematics Performance (QTPRELMP), Questionnaire on Students Mathematics Interest and Performance (QSMIP). The instruments were subjected to face and content validity and their coefficient of reliability were ascertained using Cronbach's Alpha test for QETPREL and QSMIP. The coefficient of reliability of 0.87 and 0.75 ascertained for QTPRELMP and QSMIP. Four research questions were raised and six null hypotheses were formulated and tested at 0.05 level of significance. The research questions were answered using descriptive statistics of frequency count, mean, percentages and standard deviation while the null hypotheses formulated were tested using inferential statistics of Pearson Product Moment Correlation (PPMC) Analysis of variance (ANOVA) and Multiple Regression Analysis. The findings of the study showed that parental role and e-learning package influences academic performance and interest of students' in Mathematics. The main finding revealed that majority of the parents who responded are highly involved with their children's education. Based on the findings, it was recommended that involvement of parents through e-learning instruction should be made mandatory for better performance of students in Mathematics.

KEYWORDS

Parental role, E-learning, Instruction, Interest, Performance.



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Introduction

Mathematics is an important subject being taught at both primary and secondary schools. Kolawole & Oginni (2009) posited that Mathematics is a branch of human enquiry that involves the study of numbers, quantities, data, shapes, space and the relationships especially application to situation in real life. Oginni (2013) remarked that Mathematics is embraced worldwide as an asset to all knowledge; it is disheartening to see that abysmal performance of students in the subject still undulating. According to Wonu and Zalmon (2017), between 1991 and 2012 in West African Senior Secondary School Examination in Mathematics an average of 72% of the students failed with only 28% of them possibly passed at credit level. Despite the efforts of the government at all levels to forestall the poor and inconsistent performance of students in Mathematics by organizing seminar/workshop for Mathematics teachers, review of curriculum, employment of qualified Mathematics teachers, sensitization of teachers on the improvement of pedagogy and skill yet the performance issue is far from being resolved. So many factors could be responsible for poor performance in Mathematics. According to Akin oso (2011), these factors include teacher factors, school factors, parents factors, government factors, environmental factors and Information, Communication and Technology factors. All these factors need to be investigated, therefore, the educational stakeholders should endeavor to implement the outcome of the findings. That is why the researchers observed that it is high time for government and other educational stake holders to probably consider the parental role, the advent of e-learning instruction to boost the interest and academic performance of students in Mathematics particularly at the post-primary education level.

Mathematics plays a vital role on daily human socialization and interaction especially among parents and children. At times, it influences the decision making of the family. Parents play significant roles in the interest and performance of their children because some parents have mixed experienced during their schooling ages especially on the subjects and many had come to the conclusion that, out of all, Mathematics demands more time to comprehend, requires frequent practice and logical to pass. Mung'ara (2012) noted that factors such as parental level of education, home environment factors, motivation to learn, discipline and academic performance could have much impact on the interest and performance of students in Mathematics. Some parents developed a trauma for Mathematics because it has been tagged a logical, difficult and complex subject, therefore, build up the interest of their wards in Mathematics by encouraging them to develop positive attitude towards the subject and interact with the teacher handling the subject for further feedback and remediation to further improve their performance in Mathematics. Ajogbeje and Alonge (2012) referred remediation as the process of leading learners to aware of their errors and engage in possible correction.

The parental roles can be described as assisting children in their homework, purchasing learning resources like textbooks, calculators, laptops and android phones for browsing in case their parents are unavoidably absent, by engaging home lesson Mathematics teacher, communicating with the school and attending school activities that are relevant to student's performance and laudable expectations for the children's progress. According to Vukovic, Roberts and Wright (2013), defined parental involvement as motivated parental attitudes and behaviors intended to influence children educational well-being. In Nigeria, especially in the western part, parents see education as a priority, that is, they sacrifice their belongings or possessions on educating their children. Children education demands supervision of learning at home, counselling, regular payment of school fees and other necessary fees, encouragement from parents, the parents collaborating with the school in the decision making and creating an enabling environment for studying.

These factors contributing to the academic performance of learners. In the Nigerian educational context, Parents Teachers Association (PTA) facilitated the involvement of parents in the school activities and termly progress report on their children performance. Cai, Moyar and Wang (1999) carried out research in parent of middle school students to assess their home support given to their children. Results indicated that student with most supportive parents demonstrate higher Mathematics achievement and positive attitude towards Mathematics. Van Voorhis (2011) revealed that there is a positive relationship between parental involvement and students' achievement in Mathematics. O' Sullivan, Clen and Fish (2014) posited that parental involvement in Mathematics homework in the focus of direct assistance and autonomy does not predict children's grades. Students with better academic performance have careful parents who created a conducive environment for learning and they involved more in their children's homework (Kashahu, Bushatti, Dibrci and Prilcu, 2014). Parents have great roles to play in the education of their children because they act as mediators between the schools and the students. Parental roles and interest cannot be overemphasized. Nowadays, students need to be monitored and guided in order to explore the best in them and for them to measure up to the height their parents intended for them in their performance in Mathematics.

E-learning instruction is a digitalized method of teaching and learning process through closed platform, internet, and telegram among others. E-learning involves the acquisition of knowledge and skill using electronic technologies it enables us to learn anywhere and anytime irrespective of the location (Mohammed et al, 2017). E-learning instruction is a system that based on formalized teaching with the help of electronic resources (Wikipedia, 2021). Digitalization in education industry has totally changed the teaching and learning process to a very large extent it has made impartation of knowledge stress free for both students and educators (Olugbuyi, Oginni, Ayeni and Fatoba 2018).

E-learning instruction creates an avenue for teachers and students to interact at any convenient time, provided there is availability of network. The channels open an avenue for a teacher and students to interact electronically. The students have the opportunity to access the previous teaching and learning process to further comprehend the lesson. E-learning instruction builds up the interest of the students in Mathematics because it is virtual, creative, and innovative and the teacher is likely to use appropriate method to teach concepts to be taught as well as to attain the desired behavioral objectives at the end of the lesson. The instructions have been programmed and structured for students to study ahead even they can be assessed at the end of each concept with their marks pasted. Moreover, students can be evaluated within a specified period of time, although, they can forward their assignment immediately after the class for submission electronically. Ajadi, Salawu and Adeoye (2008) posited that students deepen their knowledge investigation and inquiry according to their needs and interest when access to information is available on multiple levels.

Interest is the curiosity or anticipation to learn more even in the face of challenges or difficulties. Interest is psychological, a behavioral trait or affective. Nworgu (1991) described interest as a motivational construct from educational and psychological points of view which is a driving force to accomplish one's activities. The interest on a particular activity can be boosted with encouragement, gift, counselling, and encomium among others. Hindi and Renninger(2006) described interest as a psychological state of engaging or having the tendency to reengage in a particular activity within the frame of time. Ainley (2006) defined interest as a affective which means subjective experience in learning.

Obodo (1997) cited that there is low interest in the study of Mathematics and Mathematics related courses at all levels of education in Nigeria. Saucer (2012) posited that students' interest towards learning Mathematics is a contributing factor towards their successful academic achievement.

Kpolovie, Joe, & Okoto (2014) conducted a research on 511 secondary school students in Nigeria showed that students' academic achievement and interest in learning Mathematics are correlated. The failure of students in Mathematics according to some researchers associated with lack of interest in Mathematics (Idigo, 2010; Goolsby, 2013).

Statement of the Problem

The interest and academic performance of students in mathematics has been a great concern to educational stakeholders like government, parents, teachers, administrators and examination bodies. As it has been observed by the scholars that the performance of students is fluctuating. Therefore, since mathematics is the basic knowledge for management science, sciences, engineering and other scientific related courses, it may be difficult for students who lack interest in Mathematics to perform very well in all these courses.

It has been discovered that some students lack interest in Mathematics due to assumption and narrative they heard that Mathematics is difficult to pass, methodology and approach of some Mathematics teachers to Mathematics concepts, ugly comments from some Mathematics teachers to their students who performed below average and laziness of some students who do not practice at home after the class work. In order to build the interest and courage of these students, it needs the attention of an experienced, professional teacher and parents who care. However, not all parents can afford the services of home lesson teacher

The researchers observed that not all schools are making use of e- learning instruction in our post-primary level and not all parents can afford the e-learning resources like laptop, palmtop, tablet and Hi- pad. Any student who is not exposed to e- learning instruction and not skillful to operate e- learning resources is likely to be difficult for such students to interact with others electronically as well as carrying out researches and compete with others in academic world.

In order to forestall this challenge, the introduction of parental influence and usage of e-learning instruction in this technologically driven society may probably improve the effectiveness of teaching and learning process then the interest and academic performance of students in Mathematics.

Purpose of the Study

The purpose of this study is to investigate the parental roles and the extent of e-learning instruction on secondary school students' performance and interest in Mathematics in Ekiti state secondary schools.

The specific objectives of the study are to:

- (i) examine the parental roles influence on students performance in Mathematics;
- (ii) investigate the extent to which e-learning instruction influences students performance in Mathematics ;
- (iii) Find out the influence of interest on secondary school students' performance in Mathematics.

Research Questions

The study provided answers to the following questions:

- (i) Does parental role influences students' performance in Mathematics?
- (ii) Does E-learning influences students' performance in Mathematics?
- (iii) Does parental role influences the students interest in Mathematics?
- (iv) Does E-learning influences students interest in Mathematics?

Research Hypotheses

The following research hypotheses were formulated and were tested at 0.05 level of significance.

- (i) Parental role does not significantly relate to students performance in Mathematics.
- (ii) Parental role does not significantly relate to student interest in Mathematics.
- (iii) Student knowledge of E-learning does not significantly relate to students performance in Mathematics.
- (iv) Student knowledge of E-learning does not significantly relate to students interest in Mathematics.
- (v) There is no significant difference between student knowledge of E-learning, parental role and student performance.
- (vi) There is no significant difference between student knowledge of E-learning, Parental role and student interest in Mathematics.

MATERIALS AND METHOD

The study employed the descriptive survey and expos-facto research design. The population for the study comprised all Senior Secondary School two (SSSII) students in Ado-Ekiti local Government of Ekiti State and parents that are teachers in these schools. A total of 100 students from senior secondary school two and 50 parents that are teachers were sampled for this study. Mathematics students and parents that are teachers were purposively selected from the four randomly selected secondary schools employed as the samples for the study.

The instruments designed for the collection of data are Continuous Assessment Results of sampled schools and Structured Mathematics Questionnaires developed by the researcher and tagged "Questionnaire for Teachers/ Parental role on E- learning Instruction, and Mathematics Performance (QTPRELIMP)" and " Questionnaire on Students' Mathematics Interest and Performance(QSMIP)". The questionnaires consist of two sections. The first section deals with the demographic variables of the respondents which include sex, educational background and age. Section B sought for the respondent's dispositions and decisions on parental role, e-learning instruction and students' interest in mathematics. The Continuous Assessment sheets consist of two parts. The first part consists of names of students in SSSII written according to their gender. The second part consists of the cumulative scores of the continuous assessment of the students.

The two instruments and Continuous Assessment Result sheets were subjected to face and content validity by experts in Tests, Measurement and Mathematics educators. Their suggestions were implemented and the corrected versions were used to collect data from the respondents. The instruments were further subjected to reliability test using Cronbach's Alpha test towards ascertaining the consistency of the contents of the instruments. The coefficient of reliability of the instruments was 0.87 and 0.75.

The Continuous Assessment Results were adjudged to meet the required standard and specifications. The questionnaires were administered to the parents / teachers and students by the researchers and two research assistants. Data collected from the respondents were analysed using descriptive and inferential statistics. The research questions were analysed using frequency count, percentages and standard deviation while the null hypotheses formulated were tested using t-test, Analysis of Variance (ANOVA) and Pearson Product Moment Correlation Coefficient (PPMC) to compare the mean scores of the hypotheses. All the hypotheses were tested at 0.05 level of significance.

RESULTS

Research Question 1: Does parental role influences students' performance in Mathematics?

Table 1: descriptive statistics on parental role and students' performance in Mathematics

VARIABLE	N	MEAN	SD
Parental Role	100	16.2000	1.00504
Performance	100	49.3400	14.70327

Table 1 shows the mean and standard deviation of the influence of parental role on students' performance in Mathematics. The mean score of the performance outweighs that of the parental role. To this end, one can say this is due to effort of the parents to their ward's academic performance.

Research Question 2: Does E-learning influences students' performance in Mathematics?

Table 2: descriptive statistics on E-learning and students' performance in Mathematics

VARIABLE	N	MEAN	SD
E-Learning	100	15.7200	1.42191
Performance	100	49.3400	1.00504

Table 2 shows the mean and standard deviation of the influence of E-learning on students' performance in Mathematics. The mean score of the performance outweighs that of the E-learning. To this end, one can say this is due to interest of the students in the use of E-learning in teaching and learning process.

Research Question 3: Does parental role influences students interest in Mathematics?

Table 3: descriptive statistics on parental role and students' interest in Mathematics

VARIABLE	N	MEAN	SD
Parental Role	100	16.2000	1.00504
Interest	100	31.5900	3.32148

Table 3 shows the mean and standard deviation of the influence of parental role on students' interest in Mathematics. The mean score of the interest outweighs that of the parental role. To this end, one say this is due to parental involvement in guiding their wards in use of E-learning in teaching and learning process.

Research Question 4: Does E-learning influences students' interest in Mathematics?

Table 4: descriptive statistics on E-learning and students' interest in Mathematics

VARIABLE	N	MEAN	SD
Parental Role	100	15.7200	1.42191
Performance	100	31.5900	3.32148

Table 4 shows the mean and standard deviation of the influence of E-learning on students' interest in Mathematics. The mean score of the interest outweighs that of the E-learning. To this end, one can say this is due to interest of the students in the use of E-learning in teaching and learning process.

Hypothesis1: Parental role does not significantly relate to students' Performance in Mathematics.

Table 5: Correlation on parental role and students' performance in Mathematics

VARIABLE	N	MEAN	SD	DF	SIG.VALUE
Parental Role	100	16.2000	1.00504	98	0.963
Performance	100	49.3400	14.70327		

Table 5 above shows that the significant value is 0.963 which is grater than the level of significance of 0.05. This implies that the null hypothesis which state that the parental role dos not significantly related to students' performance in mathematics is therefore not rejected.

Hypothesis 2: Parental role dos not significantly relate to students' interest in mathematics

Table 6: Correlation on parental role and students' interest in Mathematics

VARIABLE	N	MEAN	SD	DF	SIG.VALUE
Parental Role	100	16.2000	1.00504	98	0.028
Performance	100	31. 5900	3.2148		

The table 6 above shows that the significant value is 0,028 which is less than the significance level of 0.05. The null hypothesis which state that parental role does not significantly related to students' interest in mathematics is therefore rejected. This implies that there is significant relationship between parental role and students' interest in mathematics.

Hypothesis 3: Students' knowledge of E- learning does not significantly relate to students' performance in Mathematics.

Table 7: Correlation on students' knowledge of e- learning and students' performance in Mathematics

VARIABLE	N	MEAN	SD	DF	SIG.VALUE
Parental Role	100	15.7200	1.42191	98	0.210
Performance	100	49. 3400	1.00504		

Table 7 above shows that the significant value is 0.210 which is greater than the significance level of 0.05. This implies that null hypothesis which states that students' knowledge of E- learning does not significantly related to students' performance in mathematics is therefore not rejected..

Hypothesis 4: Students' knowledge of E- learning does not significantly relate to students' interest in Mathematics

Table 8: Correlation on students' knowledge of e- learning and students' interest in Mathematics

VARIABLE	N	MEAN	SD	DF	SIG.VALUE
Parental Role	100	15.7200	1.42191	98	0.109

Performance	100	31.5900	3.32148		
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The table 8 above shows that the significant value is 0.109 which is greater than the significance level of 0.05. This implies that null hypothesis which states that students’ knowledge of E- learning does not significantly related to students’ interest in mathematics is therefore accepted.

Hypothesis 5

There is no significant difference between students’ knowledge of E-learning, Parental role and students’ performance in Mathematics

Table 9: ANOVA Summary on students’ knowledge of E-learning, Parental role and students’ performance in Mathematics

variables	Sums of Squares	df	Mean Square	F	Sig
Between groups	74293.147	2	37146.573	508.351	.000
Within groups	21702.600	297	73.073		
Total	95995.747	299			

Table 9 showed the significant value is 0.000 which is less than the significance level of 0.05. The null hypothesis which state that there is no significant different between in Student’s knowledge of E-learning, Parental role and students’ performance in Mathematics is therefore rejected. This implies that there is significant different between in Students’ knowledge of E-learning, Parental role and students’ performance in Mathematics.

Hypothesis 6

There is no significant difference between Students’ knowledge of E-learning, Parental role and Students’ interest in mathematics.

Table 10: ANOVA Summary on students’ knowledge of E-learning, Parental role and students’ interest in Mathematics

Source of variation	Sum of Squares	df	Mean Square	f	Sig.
Between Groups	16297.980	2	8148.990	1738.248	.000
Within Groups	1392.350	297	4.688		
Total	17690.330	299			

Table 10 showed the significant value is 0.000 which is less than the significance level of 0.05. The null hypothesis which states that there is no significant difference between students' knowledge of E-learning, Parental role and students' Interest in Mathematics is therefore rejected. This implies that there is a significant difference between students' knowledge of E-learning, Parental role and students' Interest in Mathematics.

DISCUSSION

The findings revealed that parental role influenced students' performance in Mathematics. This is in agreement with Vukovic, Riberts and Wright (2013) that parental involvement influences students' educational Well-being. However, parental role does not significantly relate to students' performance in Mathematics. 'O' Sullivan, Clen and Fish (2014) argued that parental involvement in Mathematics does not predict children's grade.

The finding also showed that parental involvement influences students' interest in Mathematics. That is, there is a significant relationship between parental role and students' interest in Mathematics. This is in agreement with Van, Voorhis (2011) that there is a positive relationship between parental involvement and student achievement in Mathematics. Saucer (2012) and Kpolovie, Joe, & Okoto (2014) supported that children's interest towards learning resulted in their successful academic achievement even though student academic achievement and interest in learning are correlated.

The finding also showed that E-learning influences students' performance in Mathematics, this is due to the interest of the student in the use of E-learning for teaching and learning process. Therefore, it can be deduced that student knowledge of E-learning does not significantly relate to student interest in Mathematics. That is why students' knowledge of E-learning resources must be guided and tailored by parents towards productive activities.

The finding also revealed that parental role influences students' performance in Mathematics and E-learning likewise influences students' performance in Mathematics. This is due to the interest of the student in the use of E-learning in teaching and learning process. Mohammed et al, (2017), agreed with this finding that E-learning involves acquisition of knowledge and skills to learn anywhere and anytime irrespective of location. The finding of the study revealed that there is a significant difference in parental role, E-learning knowledge and performance. The parental role and E-learning are the two predictors of the performance of students in Mathematics. If these two predictors are firmly rooted in students then there will be better performance of students in Mathematics.

The study further showed that there is a significant difference in parental role, E-learning knowledge and interest. Safiyeh and Ali (2014) agreed that father and mother are important factors that affect students' interest in learning Mathematics. Once a child develops an interest in any activity he puts his best to succeed.

CONCLUSION

This study showed that parental role and E-learning, as a predictor, significantly play a vital role in students' performance in Mathematics. That is why parents must be actively involved in the educational well-being of their children. They should build up interest in Mathematics from childhood on their children and expose them to E-learning resources but they must be monitored and guided.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations were made:

1. Parents should be supportive and complement the effort of teachers by supervising and monitoring their children at home likewise in the school.
2. Parents are the first educators to expose their children to the academic world. Therefore, they must be ready to lead in support their children educational endeavors.
3. Parents should always counsel and encourage their children on the importance of Mathematics.
4. Parents should expose their children to different e-learning resources like laptop, tablet, handset among others with proper usage.
5. The government should organize seminar and workshop for teachers on the usage of e-learning resources that can make teaching and learning process creative, innovative, interesting and impactful.
6. The parental involvement through e-learning should be made mandatory for better performance of students in Mathematics.

REFERENCES

- Ainley, M (2006). Connecting with learning: Motivation, affective and cognition in interest processes, *Educational Psychology Review*, 18, 391-405. <https://doi.org/10.1007/S10648-006-9033-0>.
- Ajadi, T., Salawu, O., and Adeoye, F. (2008). E-Learning and Distant Education in Nigeria. *Turkish on-line Journal of Educational Technology* 7(4).
- Ajogbeje, OJ. & Alonge, MF. (2012). Effects of feedback and remediation in students' achievement in junior secondary school Mathematics. Department of Mathematics, college of Education, Ikere-Ekiti. Department of Guidance and counseling, Ekiti State University, Ado-Ekiti. *Journal of international Education studies* 5 (5), 153-162.
- Akinoso, S.O. (2011). Correlates of some factors affecting students' achievement in Secondary School Mathematics and Environmental studies (1 JESMES), University of Abuja 3 (10): 83-95.
- Cai, J, Moyer, J, & Wang, N (1999). Parental roles in students' learning of Mathematics: An exploratory study. *Research in Middle level Quarterly*, 22(3), 1-18.
- Goolsby, L. (2013). *School interest*. Boston: Allyn and Bacon.
- Hidi, S., & Renniger, K.A. (2006). The four-phase model of interest development *Educational psychologist*, 41(2), 111-127. <https://doi.org/10.1207/S1526985Sept4102-4>.
- Idigo, E.C.(2010). Effective Method of Retaining Students Interest in Mathematics in Secondary Schools in Enugu East Local Government area of Enugu state. Unpublished Undergraduate Thesis. Institute of Ecumenical Education. Thinker's Corner, Enugu, in Affiliation with (ESUT) Enugu.
- Kolawole, E.B & Oginni, O,I (2009). Effectiveness of laboratory methods of teaching on students' performance in Senior Secondary School Mathematics (Abacus). *The Journal of Mathematical Association of Nigeria*, 34, (1), 120-125.
- Kpolovie, P.J, Joe, A.I, & Okoto, T. (2014). Academic achievement prediction: Role of interest in learning and attitude towards school, *International Journal of Humanities, Social Sciences and Education*, 1 (11), 73-100.
- Mohammed, A., Kumar, S., Saleh, B., & Shllaibu, A. (2017). E-Learning: A fool for enhancing teaching and learning in educational institutes, *International Journal of Computer Science and Information Technology*, 8(2), 217-221.
- Mung'ara, E. (2012). Factors affecting career aspiration of girls, emerging issues and challenges: a case of Thika West District, Kiambu Country (Unpublished M.Ed thesis). Kanyatta University.

- Nworgu, B., G. (1991). Developing, Enhancing and Sustaining interest in the Teaching and Learning of Mathematics in Primary Schools. In Nworgu, B. G. and Emenogu, B.C. (Eds). The Nigeria Primary Education Systems: Trends, issues and strategies for Improvement, Onitsha: Etukokwu Publishers.
- Olugbuyi, P.O., Oginni, O.I., Ayeni, M.F. & Fatoba, J.O (2018). Digitalizing science education panacea for apathy of the present Nigeria Youth. *Journal of Research on science Education EKSU 2(1) 52-57.*
- Obodo, G.,C (1997). Principle and practice of Mathematics Education in Nigeria, Enugu: General Studies Division, Enugu State University of Science and Technology, Enugu.
- Oginni, O. I. (2013). The relationship between secondary school students body parameters and their Mathematics performance in South - West Nigeria. *International Journal of Education and culture, Untested ideas. Chapter 5, 101-111. Nigara fall, 4103, U.S.A.*
- O' Sullivan, R., Chen, Y & Fish, M (2014). Parental mathematics homework involvement of low income families with middle school students. *School Community Journal, 24 (2), 165-188.*
- Safiyeh, K. and Ali, P. (2014). Effective Factors increasing the students' interest in Mathematics in the Opinion of Mathematics Teachers Zahedan, *International Science index, Educational and Pedagogical Sciences, 8(9) 3069-3077.*
- Van Voorhis, F. (2011). Adding Families to the Homework Equation: A longitudinal Study of Mathematics Achievement Education and Urban Society, 43(3), 313-338.
- Vukovic, R, Roberts, S. & Wright, L. G. (2013). From parental involvement to children's mathematical Performance. Their role of mathematics anxiety. *Early Education and Development, 24, 446-447.*
- Wonu, N & Zalmon, I. G. (2017). Diagnosis and Remediation of Senior Secondary Students' Common Learning Difficulties in Mathematics from Chief Examiners' Report. *European Journal of Research and Reflection in Educational Sciences. 5 (1).*