

SOCIAL NETWORKING AND STUDENTS' ACADEMIC PERFORMANCE IN BIOLOGY IN SENIOR SECONDARY SCHOOL II IN CALABAR SOUTH LOCAL GOVERNMENT AREA OF CROSS RIVER STATE.

Solomon, Obong Nseobong & Agbor Catherine Kuko

Department of Biology Education
University of Calabar
Calabar



Abstract

This study examined the influence of social networking on students' academic performance in Biology among Senior Secondary School II students in the Calabar South Local Government Area of Cross River State. The independent variables examined were the use of Facebook, WhatsApp, and YouTube, while the dependent variable was students' academic performance in Biology. To achieve the purpose of the study, three research questions and three hypotheses were posed and formulated, respectively, to guide the study. Literature was reviewed based on the variables in the study. The research design adopted for this study was a survey design. One hundred and sixty-five (165) SS II students who offered Biology in public secondary schools were randomly selected for this study. The instruments used for data collection were a 20-item questionnaire named "Social Networking and Students' Academic Performance Questionnaire (SNASAPQ)" and an achievement test in Biology constructed by the researcher. ANOVA was used as the statistical tool for data analysis. Each of the hypotheses was tested at the .05 level of significance. The findings of the study revealed that the use of Facebook, WhatsApp, and YouTube significantly influences students' academic performance among SS II students in Biology. Based on the findings of the study, it was recommended, among others, that government/school proprietors provide in-service training for Biology teachers to enhance performance, especially in the use of social networking.

Keywords: Social networking, Performance, Biology, Facebook and Students.



Introduction

Science and technology have proven to be the reality of national growth, development and productivity. Science has made life more meaningful and stress-free through the introduction of technological tools such as social media and online learning platforms. No nation can boast of any technological achievement without a solid root in science education. According to Agboola (2025) science education or pedagogy of science involves the methods and strategies used to teach science effectively. It focuses on helping students develop a deep understanding of scientific concepts, critical thinking, problem-solving skills, and an appreciation for the role of science in everyday life. Science education is divided into Biology, Chemistry, and Physics.

Duru et al (2024) defined Biology as a branch of natural science that is concerned with the study of life and living organisms, including their structures, functioning, growth, evolution, distribution, identification and taxonomy. The fields of Biology are sub-divided into Botany, Zoology, Microbiology, Genetics, Parasitology, Biochemistry, Molecular Biology. Biology serves as a foundation for the study of other professions like medicine, anatomy, nursing, pharmacology and biochemistry.

As a Natural Science, Biology is designed to prepare students to acquire adequate laboratory and field skills, meaningful and relevant knowledge in biology and also to enable

students to apply scientific knowledge to everyday life in matters of personal, community, health and agriculture among others (Ado & Udoh, 2018; Ibu et al. 2019; Igyu et al. 2022; Adie, et al. 2026; Meremikwu et al. 2022). Despite the relevance of Biology, students' academic performance is still in decline. The West African Examination Council (WAEC) Chief Examiner's Report 2018-2020 has evidence of the poor state of students' academic performance in Biology. Most of the underperformance could be as a result of social media usage; hence, the need to investigate how social networking platforms can be a remedy.

The teaching and learning process in the 21st century has been transformed by information and communication technology. The way people interact and learn has changed remarkably from the conventional way to more innovative forms (Arikpo & Yahaya-Idinye, 2026; Arikpo & Otu, 2026). One of the numerous changes brought by this technology is social networking. Social networking deals with social interaction where people connect and share with friends. In this aspect, they share their problems and find solutions for them (Ebele & Agbade; 2020; Effiong, & Agbade, 2016; Ihekoronye et al. 2020). This trend has become more popular with the development of phones and social network applications running on them. The young people mostly, have been attracted to online social networking from different races, ages, nationalities, background and education, to connect and share anything of interest.

According to Ntibi and Ibok (2020) Social networking has enables users to communicate with each other by posting information, message, comments, images. Social networking sites are highly becoming instructional tools where teachers meet with their students and foster interactions, for conveying course materials, time-tables, assignments, and sharing of related items to students as social networking sites with the number of participants, and is still counting. Facebook, Twitter, Instagram, Yahoo messenger, WhatsApp, YouTube, Pinterest, these platforms are widely common among younger generation especially students.

In this part of the world, particularly in Calabar South Local Government Area of Cross River State, students' network through internet-based applications on phones through such platforms as Facebook, Twitter, Yahoo messenger, WhatsApp, YouTube. Students in the area belong to at least one of these social networking platforms (Ndaku, 2013; Meremikwu et al.2022; Ibu et al.2019; Adie et al. 2022; Arikpo & Ekpo, 2026).

This trend has evoked some concerns from parents, guardians and teachers about the negative uses and abuses of social networking sites, and their influences and the academic performance of their children (Oskouei, 2010; Ogunode, & Agbade, 2023; Olofu et al. 2019; Opara et al.2020; Agbade & Ironbar, 2017). Numerous researches on whether students' involvement in social networking affects their grade points have been carried out. Olutola (2018) examine Social networking Utilization and Students academic achievement in Physics in Katsina State. The descriptive survey design was adopted for this study. Three hundred and eighty-one (381) students were randomly selected for the study. Researcher's-designed instruments used were questionnaire titled "Utilization of Social networking Questionnaire" (USNQ) and achievement test in Physics (ATP). The Cronbach's Alpha reliability coefficient was used to determine the internal consistency of the instrument which gave 0.78 to 0.81, while Kuder Richardson formula K R20 was used to determine reliability of the achievement test in Physics which gave .77. Descriptive statistics, Linear Regression was used for data analysis. Findings revealed that there is significant influence of students' level of Facebook social networking utilization on their academic performance in Physics.

Thuseethan and Kuhanesan (2014) examined the use of Facebook among Sri Lankan University students and the influence it has on their academic performance. Information for this study was gathered through web-based questionnaire survey on 288 students. The analysis of result was done using descriptive statistics. The result of the study showed that use of Facebook has led to low examination grades by students. Hence, the need to investigate how

Facebook influences academic performance of students in Biology in Calabar South Local Government Area, Cross River State.

Oluwaseun et al (2026) in their study assessed the impact of using WhatsApp as a classroom-extension tool among tertiary-institution students during the COVID-19 pandemic. A quasi-experimental design was adopted to compare students taught with the support of a WhatsApp group with those taught using the traditional face-to-face lecture method. Fifty-six students enrolled in a third-year Cell Biology course were randomly assigned to experimental and control groups. The experimental group received course materials and participated in academic discussions through a WhatsApp group, while the control group received instruction through conventional classroom lectures. Academic achievement was measured using pre-test and post-test multiple-choice assessments. Data were analysed using descriptive statistics and the Welch t-test, with Cohen's d computed to estimate effect size. Findings revealed a statistically significant difference in mean achievement scores between the two groups, with the WhatsApp-supported group outperforming the traditional lecture group by a moderate margin at pre-test and a substantial margin at post-test. The results suggest that mobile instant-messaging platforms such as WhatsApp can effectively extend classroom learning, promote collaborative learning, and improve academic performance.

Edache-Abah & Mumuni (2019) who in their study on the Effect of YouTube on Performance of Secondary School Students in Biology Concepts in Ikwerre Local Government Area of Rivers State. The population of the study was 2,221 SS2 Biology students in 13 secondary schools in Ikwerre Local Government Area of River State. A sample size of 109 students from two schools using purposive sampling technique was used. Instrument used was Biology Performance Test (BPT) which was validated by science education expert, a reliability coefficient of $r=0.95$ was calculated using Pearson's Product Moment Correlation Formula. The finding of the study showed that YouTube improves students' performance.

Statement of the problem

Online social networking platforms have become increasingly popular among students and have causes a shift in the way they interact, learn, connect and share with friends. At a time when academic performance of students in biology in senior secondary schools is disturbingly poor, they are great concerns that social networking may be negatively influencing the performance of students. Also, students' engagement and involvement in social networking have evoked concerns from parents, guardians and teachers about their effect on their academic performance. Many parents and teachers are of the opinion that students' addictiveness to social networking is distractive and may be adversely affecting their performance academically. The use of social networking platforms has not been studied in Calabar South Local Government Area. It is against this background the study seeks to examine influence of Social Networking on Students' Academic performance in Biology in Senior Secondary School II in Calabar South Local Government Area of Cross River State.

Purpose of the study

The main purpose of this study is to examine social networking and students' academic performance in Biology in senior secondary school II students in Calabar South Local Government Area of Cross River. Specifically, the study sought to examine the following;

1. The significant influence of use of Facebook on students' academic performance in Biology.
2. The significant influence of use of WhatsApp on students' academic performance in Biology.
3. The significant influence of use of YouTube on students' academic performance in Biology.

Research questions

The following research questions were proposed to guide the study;

1. How does use of Facebook influence the students' academic performance in Biology?
2. How does use of WhatsApp influence the students' academic performance in Biology?
3. In what way does use of YouTube influence the students' academic performance in Biology?

Statement of hypotheses

The following hypotheses were formulated to guide the study;

1. There is no significant influence of use of Facebook on students' academic performance in Biology
2. There is no significant influence of use of WhatsApp on students' academic performance in Biology.
3. There is no significant influence of use of YouTube on students' academic performance in Biology.

Methodology

Survey design was adopted for this study. The population of this study comprises of the 1014 SSII students who offer Biology in Public secondary Schools in Calabar South Local Government Area of Cross River State. The choice of using SSII students was that they are zealous to give a clear attributes and responses. There are a total of 9 Public secondary Schools in Calabar South Local Government Area and 1014 such students in SSII in the 2019/2020 session as recorded by Cross River Secondary School Education Board (SSEB, 2020). A further distribution of the population shows that there are 672 females and 342 male students.

The sampling technique adopted for this study is the simple random sampling technique. The technique employed by the researcher is the hat and draw (balloting) method. The researcher wrote the number of the public secondary schools on the slip of the papers, roll each slip into paper-ball, mixed those paper balls in a container (hat) and blindly draw the required number of schools in the same manner, the required samples were randomly draw from the study.

The sample of the study consists of 165 students randomly selected from the four (4) sample public secondary schools in Calabar South Local Government Area. The selected schools are: Government Secondary School, Atu, Government Secondary School, Uwanse, Government Secondary School, Anantigha and Government Secondary School, Ewa-Ekeng, using Yamane Formula and dividing by the four randomly selected public schools. The students were therefore selected without biased. Equal opportunities were also given to both sexes to be capture in the same population, selected from the Senior Secondary II class (A-D). A breakdown of the figure shows that forty (40) students were randomly selected from three of the sample schools and 45 students from one school.

Two instruments were used in gathering data for this study are: Firstly, a 20- structured questionnaire tagged as "Social Networking and Students' Academic Performance Questionnaire (SNASAPQ)" was designed by the researcher. Secondly, a 20 – item Biology Achievement Test (BAT) was adopted and administered at the end of treatment to determine students' academic performance. The BAT is a multiple-choice test questions with four response options (A - D).

The questionnaire (SNASAPQ) was divided into two parts namely A and B; part A was designed to collect the respondents' personal data such as name of school/address, sex, age, class etc. Part B consisted of 20- item SNASAPQ on a four-point Likert scale designed to measure personal difference variables of social networking and students' academic performance. Each item requires the respondent to indicate the frequency of his /her opinion

by ticking the item in the boxes provided. A four (4) type Likert scale with four columns of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) was structure for the respondents. Analysis of variance (ANOVA) was used in testing the three null hypotheses at 0.05 level of significance.

Results

The results of the data analyses from which the findings are drawn are presented according to the stated hypotheses.

Hypothesis one

There is no significant influence of the use of Facebook on students' academic performance in Biology. One-way analysis of variance was employed to test data collected in respect to this hypothesis. This is because the use of Facebook was measured categorically (High, Moderate and low). The hypothesis was tested at 0.05 level of significant. The summary of result is as presented in table 1

Table 1: One-way analysis of the influence of the use of Facebook on senior secondary school two (SS II) students' academic performance in Biology (N = 165)

Use of Facebook	N	$\bar{X}$	SD		
High	62	21.237	5.012		
Moderate	58	22.951	6.132		
Low	45	19.104	4.825		
Source of variance	SS	Df	MS	F	Sig
Between groups	1557	2	247	1.025	0.7
Within group	1474	163	20.135		

Significant at 0.05 level; df = 2 and 163; critical f-value of 3.06

The summary of results presented in Table 1 shows that the calculated f-value of 1.025 is less than the tabulated f-value of 3.06 at 0.05 level of significance with 2 and 163 degrees of freedom. On this note, the null hypothesis was upheld. This means that there is a significant influence of Facebook use on students' academic performance in Biology in the study area.

Hypothesis two

There is no significant influence of the use of WhatsApp on students' academic performance in Biology. One-way analysis of variance was employed to test data collected in respect to this hypothesis. This is because the use of WhatsApp was measured categorically (High, Moderate and low). The hypothesis was tested at 0.05 level of significant. The summary of result is as presented in table 2.

Table 2: One way analysis of the influence of the use of WhatsApp on senior secondary school two (SS II) students' academic performance in Biology (N = 165)

Use of WhatsApp	N	$\bar{X}$	SD		
High	62	23.567	6.123		
Moderate	56	25.102	7.053		
Low	47	23.124	5.370		
Source of variance	SS	Df	MS	F	Sig
Between groups	1561	2	252	1.104	0.5
Within group	1463	163	20.201		

Significant at 0.05 level; df = 2 and 163; critical f-value of 3.06

The summary of results presented in Table 2 shows that the calculated f-value of 1.104 is less than the tabulated f-value of 3.06 at 0.05 level of significance with 2 and 163 degrees of freedom. On this note, the null hypothesis was upheld. This means that there is significant influence of the use of WhatsApp on senior secondary school two (SS II) students' academic performance in Biology in the study area.

Hypothesis three

There is no significant influence of the use of YouTube on students' academic performance in Biology. One-way analysis of variance was employed to test data collected in respect to this hypothesis. This is because listening to music while studying was measured categorically (High, Moderate and Low). The hypothesis was tested at 0.05 level of significant. The summary of the results is presented in Table 3.

Table 3: One-way analysis of the influence of the use of YouTube on students' academic performance in Biology (N = 165)

The use of YouTube	N	$\bar{X}$	SD		
High	59	20.503	4.162		
Moderate	55	18.414	5.231		
Low	51	19.820	4.201		
Source of variance	SS	Df	MS	F	Sig
Between groups	1562	2	252	1.120	0.7
Within group	1395	163	19.715		

Significant at 0.05 level; df = 2 and 163; critical f-value of 3.06

The summary of results presented in Table 3 shows that the calculated f-value of 1.120 is less than the tabulated f-value of 3.06 at 0.05 level of significance with 2 and 163 degrees of freedom. On this note, the null hypothesis was upheld. This means that, there is a significant influence of the use of YouTube on senior secondary school two (SS II) students' academic performance in biology in the study area.

Discussion of findings

The first hypothesis states there is no significant influence of use of Facebook on students' academic performance in Biology. This null hypothesis was retained on the ground that the calculated F-values obtained from the analysis of data were statistically less than the critical F-value. The implication of this result is that there is significant influence of the use of Facebook on students' academic performance in Biology in the study area.

The study is not in tandem with the findings of Thuseethan and Kuhanesan (2014), who examined the use of Facebook among Sri Lankan University students and the influence it has on their academic performance. Information for this study was gathered through web-based questionnaire survey on 288 students. The analysis of result was done using descriptive statistics. The result of the study showed that use of Facebook has led to low examination grades by students.

The second hypothesis states there is no significant influence of the use of WhatsApp on students' academic performance in Biology. This null hypothesis was rejected because the calculated f-value was found to be greater than the critical table value. The implication of this result is that no significant influence of the use of WhatsApp on students' academic performance in Biology in the study area.

This study is in line with the finding of Oluwaseun et al (2026) The study assessed the impact of using WhatsApp as a classroom-extension tool among tertiary-institution students

during the COVID-19 pandemic. A quasi-experimental design was adopted to compare students taught with the support of a WhatsApp group with those taught using the traditional face-to-face lecture method. Fifty-six students enrolled in a third-year Cell Biology course were randomly assigned to experimental and control groups. The experimental group received course materials and participated in academic discussions through a WhatsApp group, while the control group received instruction through conventional classroom lectures. Academic achievement was measured using pre-test and post-test multiple-choice assessments. Data were analysed using descriptive statistics and the Welch t-test, with Cohen's d computed to estimate effect size. Findings revealed a statistically significant difference in mean achievement scores between the two groups, with the WhatsApp-supported group outperforming the traditional lecture group by a moderate margin at pre-test and a substantial margin at post-test. The results suggest that mobile instant-messaging platforms such as WhatsApp can effectively extend classroom learning, promote collaborative learning, and improve academic performance.

The third hypothesis states that there is no significant influence of the use of YouTube on students' academic performance in Biology. This null hypothesis was retained on the ground that the calculated F-values obtained from the analysis of data were statistically less than the critical F-value. The implication of this result is that there is significant influence of the use of YouTube on students' academic performance in Biology in the study area.

The finding of this hypothesis also agree with the earlier finding of Edache-Abah & Mumuni (2019) who in their study on the Effect of YouTube on Performance of Secondary School Students in Biology Concepts in Ikwerre Local Government Area of Rivers State. The population of the study was 2,221 SS2 Biology students in 13 secondary schools in Ikwerre Local Government Area of River State. A sample size of 109 students from two schools using purposive sampling technique was used. Instrument used was Biology Performance Test (BPT) which was validated by science education expert, a reliability coefficient of $r=0.95$ was calculated using Pearson's Product Moment Correlation Formula. The finding of the study showed that YouTube improves students' performance; the finding also showed that the control group also performed better. There was no significant difference in the mean score of both male and female students, the study concluded that despite urge and need to blend traditional classroom teaching/learning with some online YouTube contents, students can still perform better when taught concepts in Biology using enhanced conventional teaching method.

Conclusion

Based on the findings of this study, it was concluded that the use of Facebook significantly influences students' academic performance in Biology in the study area. It was also observed that the use of WhatsApp significantly influences senior secondary school two (SS II) students' academic performance in Biology in the study area. Furthermore, here is significant influence of the use of YouTube on senior secondary school two (SS II) students' academic performance in Biology in the study area.

Recommendations

In line with the finding of this study and conclusion made therein, the following recommendations were made:

1. School proprietors/ administrators should provide ICT facilities and social networking in schools to enhance teaching and learning.
2. Government/ school proprietors should provide in- service training for Biology teachers to enhance their teaching performance especially on use of social networking.
3. School administrators should give room to their staff to attend seminar, workshop and conferences in order to learn how to use social networking and improve teaching using e-learning.

References

- Adie, EB, Inah, LI ; Ibu, PN & Anditung, PA (2022). Effect of concept mapping strategy on the academic achievement of post basic students' In Mathematics In Obudu Education Area Of Cross River State, Nigeria. *Inter-Disciplinary Journal of Science Education (IJ-SED)* 4 (1), 151-158.
- Adie, EB, Ntah, HE & Anditung, PA (2026). Qualitative study on the application of mathematical principles in architectural design in Nigeria. *Zamfara International Journal of Education*, 6(1), 143-149.
- Ado, I. B. & Udoh, N. M. (2018). Awareness of mathematics and biology teachers' research pedagogy, material resources and assessment strategies for innovative teaching in Uyo municipality. *Journal of Education*, 6(1), 204-214.
- Agbade, OP & Ironbar, V. E. (2017). Training the adult facilitator for improved productivity in the 21st century: A case study of the Federal Capital Territory, Abuja. *International Journal of Continuing Education and Development Studies (IJCEDE)*. 4 (1):165-170.
- Agboola, O. S. (2025). Science Education in Nigeria: The Emergence, Challenges and Expectations. Obafemi Awolowo University Press, Ibadan.
- Arikpo, NN & Ekpo NU (2026). Leadership styles and performance of small scale enterprises in Cross River State, Nigeria. *Interdisciplinary Journal of Science Education*, 7(1), 106-117.
- Arikpo, NN & Yahaya-Idinye L, (2026). Conflict management strategies and organization performance of road transport workers in Cross River State, Nigeria. *Interdisciplinary Journal of Science Education*, 7(1), 93-105.
- Arikpo, NN & Otu, Ekpenyon-Effa (2026). Gender diversity and management of North-West Filling Stations in Cross River State, Nigeria. *Interdisciplinary Journal of Science Education*, 7(1), 81-92.
- Duru, C. M., Uko, P. J & Utibe, U. J. (2024). Application of DNA animation, improvised model and realia in teaching and students' performance based on gender in Biology in Akwa Ibom State, Nigeria. *African Journal of Educational Foundations*, 5(1), 75-92
- Ebele, FU. & Agbade, OP. (2020). Sustaining learning activities in tertiary institutions in Nigeria amidst COVID-19 pandemic lockdown: The perspective of e-learning strategy. Uyo: Benchmark Educational Services. pages 17-33. ISBN: 978-978-984-508-8.
- Effiong, L. V. & Agbade, OP (2016). Relationship between teachers' induction and brain-drain in the teaching profession in Abuja Municipal Area Council. *Abuja Journal of Education and Management Sciences (ABIJEMS)*. 4 (1): 122-128.
- Edache-Abah, O. F., & Mumuni, A. A. O. (2019). Effect of YouTube on performance of secondary school students in Biology concepts in Ikwerre Local Government Area of Rivers State. *International Journal of Engineering Science Invention (IJESI)*, 8(8), 54–61.
- Ibu, P. N., Adie, E. B. & Andortan, J. A. (2019). Home environmental variables and mathematics study habits among secondary school three (JSS3) students in Calabar Education Zone of Cross River State, Nigeria. *Prestige Journal of Education* 2 (2), 189 – 197.
- Ibu, P. N., Adie, E. B., & Okaba, L. A. (2019). Science teachers' perception of corruption in secondary schools in Calabar Municipality, Cross River State, Nigeria. *Interdisciplinary Journal of Science Education (IJ – SED)* 1 (1), 107 – 119.
- Igyu, CO, Adie, EB, Ogah, HA & Anditung PA (2022). Interactive effect of variation teaching strategy in the algebraic motivation, understanding and performance in basic 5 in Benue State, Nigeria. *Vunoklang Multidisciplinary Journal of Science and Technology*, 10(2), 65-71).

- Ihekoronye, E.O., Agbade, OP & Opara, J.C. (2020). Inducting novice teachers for improved job performance in public secondary schools in Abuja Municipal Area Council of the Federal Capital Territory, Abuja. *Benue State University Journal of Educational Management*. 2(1), 29-38.
- Meremikwu, AN, Benimpuye, EB, Inah, LI, Okri, JA & Tawo CN (2022). Influence of school feeding programme on academic achievement of primary 3 pupils in mathematics in Akwa Ibom State, Nigeria. *Inter-Disciplinary Journal of Science Education (IJ-SED)* 4 (1), 82-88.
- Meremikwu, AN, Benimpuye, AE, Idoko, LI, Arikpo OJ & Tawo, CN (2022). Classroom routine activities as predictors of students' academic achievement in mathematics in Calabar Metropolis of Cross River State, Nigeria. *Inter-disciplinary Journal of Science Education*, 4(1), 60-70.
- Ndaku, A.J. (2013). Impact of Social Media on Students Academic Performance: A Study of Students of University of Abuja. A bachelor of science degree of caritas University, Amoriji-Nike, Enugu.
- Ntibi, J. F & Ibok, E. E. (2020) Students' Facebook and Twitter usage as predictors of their Academic Achievement in Physics in Ogoja Education Zone of Cross River State, Nigeria. *European Journal of Social Sciences*. 60 (1), 39-46.
- Olutola, L. (2018). Assessment of Social networking Utilization and Students academic achievement of Tertiary Institutions in Katsina State. *Ghana Library Journal*, 20(1), 1-14.
- Oluwaseun O. A., Badero, D .T., Okonkwo, C. J. & Ejikeme, C. E. (2026). Assessing the Impact of Using Instant Group Messenger as Classroom Extension for Teaching and Learning Biology. *Nigerian Online Journal of Educational Sciences and Technology* 8(1), 101-107
- Ogunode, NJ & Agbade, OP (2023). Impact of subsidy removal on school administration, teachers' job performance and students' academic performance in secondary schools in Nigeria. *International Journal on Integrated Education*, 6(9), 19-24.
- Olofu, PA, Ihekoronye, E.O. & Opara, J.C. (2019). The role of organizational structure in facilitating effective management of the school system in the 21st century in Nigeria. *International Journal of Continuing Education and Development Studies (IJCEDE)*, 5 (1):153-163.
- Opara, J.C., Olofu, PA & Ihekoronye, E.O. (2020). Assessment of parents' perception on the impact of covid-19 pandemic school closure on secondary school students in Gwagwalada Area Council, Abuja. *Benue State University Journal of Educational Management*. 2(1), 93-102.
- Oskouei, R. J. (2010). The role of social network on female students' activities, in proceedings of 1st Amrita ACM-W Celebration on women in computing in India (A2CWiC'10) AMC, India.
- Thuseethan, S., & Kuhanesan, S. (2014). Influence of Facebook in academic performance of Sri Lankan university students. *Global Journal of Computer Science and Technology*, 14(4), 1-7.