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# COMPUTER MEDIATED COMMUNICATION AND ACADEMIC PERFORMANCE OF UNIVERSITY STUDENTS' IN NIGERIA

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**ABSTRACT:** *This study on Computer Mediated Communication and Academic Performance of University Students' in Nigeria has as its objectives to ascertain the level of exposure, determine the level of dependence, ascertain the level of application and gratification derived from the use of computer mediated communication by University students' in Nigeria. The research design used for data collection was opinion survey, with questionnaire and personal interviews as research instruments. The population of the study comprised students of Akwa Ibom State University, which is 8,999 (wwwaksu.edu.ng). The sample size of 400 was determined using Taro Yamani's sample size determination formula. The research adopted two sampling procedures for selecting samples for the study. The data collected from the questionnaire were analysed in simple percentages and the personal interview were analysed qualitatively using explanation building based on the research questions. The study which was anchored on Computer Mediated Communication theory and Technology Determinism theory found out that majority of respondents (61%) agreed that the level of application/dependence on CMC was very little. The study further revealed that respondents perceived the level of application/dependence on CMC to be unsatisfactory. The study further revealed factors affecting CMC implementation in Akwa Ibom State University to include poor quality of internet signals, learners perception of social presence in CMC, lack of data, inadequate computer/laptops in the university and insufficient electricity on campus.*

**KEYWORDS**: imperatives, computer mediated communication, academic performance, Akwa Ibom State University, students.

## INTRODUCTION

The communication industry has witnessed remarkable changes... The new media including 2go, linkedIn, Whatsapp, Facebook, Youtube, Twitter, Instagram, Foursquare, Google+, Blogs, Live chats and Pinterest to mention a few, have not only widened the spectrum and method of communication but have brought new possibility or opportunities in their wake (Akarika & Ekanem, 2018). With the rapid evolution of information and communication technologies (ICT) our society continues to move forward into the "information age" (Drabier,



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2003). Advancements in information and communication technologies are offering a promising new means in the educational sector to meet needs and demands of information age learners. ICT has the potential to provide a learning environment where students can actively be involved in the development of "initiative, creativity, and skills in critical thinking and problem-solving, mental and physical skills needed for productive, using advanced technologies, engaging in group-processes, and developing good habits for self-direction and personal growth" (Kemp, 2006, p.20).

Computer mediated communication describes the communication between users with the help of networks like the Internet. Many researchers agree that CMC was first developed in 1970 by Murray Turoff (Harasim, 1990). The exact definition of CMC varies according to authors, for example Henri narrows down the scope of CMC to group work. According to him CMC is a device which provides a framework for group collaboration from a distance and which, in pedagogy, can enhance collaborative learning (Henri, 1996). Henri's definition is used as the basis to select CMC for the current research project, as according to him it provides a useful framework of group work activities in the educational field. Salmon (2000) explored the scope of CMC in the area of computer-mediated conferencing. As CMC is an attractive and powerful media of learning, it has an effect on the educational sector also.

CMC is an effective electronic means of connecting learners without time and location constraints using computers (Machtmes & Asher, 2000). CMC, its technology, its contents, and usage patterns are still in the process of rapid change, due to new developments, research and assumptions. However, the use of CMC, such as the internet as a teaching-learning tool is increasing dramatically in higher education (Qing Li, 2002). This increase in the use of CMC is not simply due to its pervasiveness. It is also due to CMC's unique communication qualities. CMC offers a radical shift from our traditional views of the communication process. The mediated context dramatically alters construction of verbal codes and feedback patterns, and the development of intimacy (Walther &Tidwell, 1996).

Advantages and disadvantages of CMC in Higher Education are nicely summarized by Kaye (1992). According to him, computer mediated communication in tertiary institutions education can produce benefits in terms of:

- The convenience of an asynchronous communication mode, which liberates users from both time and space constraints.
- Its value as a medium of written communication, within a system in which students are graded essentially on the quality of their written work.
- The enhanced levels of interactivity between and amongst students, tutors, course developers, and other members of a widely dispersed learning community.
- The reduction of isolation felt by many distance learners, and the potential of CMC for collaborative learning (Kaye, 1992).

According to Saritas (2006) citing Harrison (1990) computer-medicated communication (CMC) technologies, such as computer conferencing system (CCS) enables instructors and students to form a learning community, where intense interactive discussion can take place, deeply held values are shared, and complex issues are examined from multiple perspectives. There is a growing interest by education and policy makers in adopting and employing



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computer medicated communication in tertiary institutions in Nigeria, either as an adjunct mode or as a primary full course mode because of its uses and gratifications. Computer conferencing offers engaging collaborative environment in which students can share views, experiences, and reserves, diagnose misconception, challenge accepted beliefs and construct new knowledge in a sense of shared community (Hammond, 1998, cited in Saritas, 2006).

Many educators and scholars claim that computer mediated communication is an innovative educational tool that supports and promotes higher order conceptual using, analytical thinking skills, and knowledge creation. (Curtin & Hawsen, 2001). Computer mediated communication (CMC) is being used by a number of institutions of higher learning as a supplement to paper-based media, audio, video recordings and telephone systems to blur the traditional gaps of separation between teachers and students. Computer Mediated teaching methodologies have been identified as the most appropriate way to develop new skills required by academic sector to respond to the changing educational environment.

Most of the studies by different researchers on computer mediated communication on academics; social integration and the behaviours of students focused towards achieving integration between academics and computer mediated communication in higher institution. Gatz and Hirt (2000) conducted a study on a large, public, research university to gain a better understanding of whether email was replacing traditional behaviours in which college students engage to achieve academic and social integration. The results indicated that while the participants did use email for some academic and social integration purposes, the bulk of their email activity did not relate to either form of integration. Allowing students and lecturers to communicate when and where it is convenient through CMC can make the teaching and learning processes more flexible and more effective given the digital lecturing and knowledge acquisition programme made available by the computer mediation in academic communication.

The use of traditional media of academic communication in a digital age in some Nigerian Universities to impact and acquire knowledge is worrisome considering the slow output of face to face academic deliveries: Based on the above assumption, what is he level of exposure of Akwa Ibom State University students' to computer-mediated communication? To what extent have they applied/depend on CMC to enhance their academic performance? These and many more questions provide the underlined reasons for this study.

**Brief History of Akwa Ibom State University**

Akwa Ibom State University was established in 2009 as a non-profit public higher-education institution with its first batch of students admitted in the 2010/2011 academic year. The Institution operates a two campus system which are located in the urban setting of Ikot Akpaden, Mkpat Enin L.G.A.; and Obio Akpa in Oruk Anam Local Government Area in Akwa Ibom State. Officially recognised by the National Universities Commission of Nigeria, Akwa Ibom State University is a medium-sized uniRank enrollment range in population of eight thousand, nine hundred and ninety nine (8,999) students' coeducational Nigerian higher education institution. It offers courses and programmes leading to officially recognised higher education degrees such as Bachelor degrees, MSc, PhD and pre-degree programmes in several disciplines. The institution provides several academic and non-academic facilities and services



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to students including a library, housing, sports facilities, financial aids and scholarships to study abroad and exchange programmes, as well as administrative services.

**Objectives of the Study**

This work seeks to:

1. Find out the level of exposure to computer mediated communication in Akwa Ibom State University.
2. Ascertain the level of application/dependence on computer mediated communication in Akwa Ibom State University.
3. Find out the gratification derived from the use of computer mediated communication by Akwa Ibom University students.
4. Identify possible factors that affect the implementation of computer mediated communication in Akwa Ibom State University.

**Research Questions**

The following questions guided the research:

1. What is the level of exposure to computer mediated communication in Akwa Ibom State University?
2. What is level of application/dependence on computer mediated communication in Akwa Ibom State University?
3. What are the gratifications derived from the use of computer mediated communication by Akwa Ibom State University students?
4. What are the possible factors (if any) that affects the implementation of computer mediated communication in Akwa Ibom State University?

**Review of Related Literature**

Computer is an electronic device the can perform various operation at a greater speed than what an ordinary machine or human mind can. Ansa, et al, (2019). It is driven by many entities including the physical components that can be touched. Computer mediated communication (CMC) is the use of computers and networks to communicate with one another, makes communication across great distances and different time zones convenient, eliminating the time and geographic constraints of in-person communication. CMC facilitates the development of communities for people with common interests, regardless of their physical locations.

Using electronic mail, text messaging, chat rooms, web-based forums, and other technology to sustain meaningful relationships between people who are geographically disconnected allows for the concept of community as a physical location. The lack of social cues and social distinctions like gender, age, disability, race, and physical appearance in CMC can make even shy participants willing to share their views. (Washington.edu, 2021).

CMC in academic has been examined by many journal articles, conference proceedings, and books. Some attempts were introduced to review these studies. Cole, Beam, Karn & Hoad-Reddick (1992) listed over 400 references regarding CMC, but only about 15% of them were empirical studies. Wallace (2003) reviewed more research articles to examine the interaction among teachers and students in higher education.



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Romiszowski & Mason (2004) reviewed over 100 research articles published between 1996 and 2003. They focused on the recent growth in research on asynchronous text-based CMC. Luppicini (2006) reviewed 170 research articles selected from 78 journals to examine the recent developments in CMC research for academic institutions. In a related study on the impact of Computer Mediated Communication on the study of language, Modes of Computer Mediated Communication such as:

- Text
- Audio and
- Video have an influence on the ways students learn. Some research studies were conducted to explore the impact of CMC mode on language learning. Yanguas (2010) examined how learners in video and audio CMC group negotiate meaning during Teaching English with Technology, based interaction. The participants of the study were randomly assigned to one of the three groups:

- Video-conferencing,
- Audio-conferencing, and
- Face-to-face.

The results showed differences in the way audio and video groups carry out their negotiations. However, the results showed no differences between video CMC and face-to-face groups and video CMC interaction patterns were shown to be more versatile. Research studies on CMC have also investigated the impact of written CMC in comparison to oral CMC, and face-to-face classrooms. Sykes (2005) explored the strength of the connection between synchronous CMC and pragmatic instruction by measuring the effects of three types of synchronous group discussion:

- Written chat
- Oral chat and
- Traditional face-to-face.

The study found that written chat groups out performed the others in terms of both complexity and variety of strategies used. Brandi (2012) examined the effects of optional and required tasks on learners' quantity and quality of language use. The results showed that the optional task yielded significantly more learner output. However, students produced fewer errors when performing the required tasks than they did with the optional ones. Yilmaz & Granena (2010) examined the potential of learner-learner interaction through Synchronous Computer-Mediated Communication (SCMC) to focus learners' attention on form. The study compared two task types, jigsaw and dictogloss. The study showed that task type could affect learners' linguistic behaviour. Yilmaz (2011) tried to see if task type had any effect on the number and characteristics of focus-on-form in English as a foreign language. The results showed that the dictogloss task elicited a higher number of Language-related episodes (LREs) than the jigsaw task.

Some studies have been conducted to examine students perception and athletic towards CMC. Nguyen (2011) examined Vietnamese learners' reflections on and perceptions of the environment of computer-mediated communication (CMC) into collaborative learning. The majority of participants enjoyed the technology-enhanced class in general. There were approximately equal numbers of students who preferred synchronous CMC, Teaching English



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with Technology, asynchronous CMC, or a combination of both. The students reported that the course helped improve their computer skills and collaborative experience. More involvement in learning was observed during and after the course. In addition, the participants expressed confidence that they would attend similar courses in the future and were willing to recommend this technology embedded course to the next generations of students.

Social presence is another factor in determining the effectiveness of learning through computer mediation. It helps increase social interaction, encourage learning satisfaction, initiate in-depth discussions and promote collaborative learning. Social presence means the degree of feeling, perception and reaction of being connected on CMC to another intellectual entity (Tu, 2002). Therefore, the uses of CMC in academic learning can be affected by the learners' perception of social presence in CMC. Ko (2012) investigated the impact of synchronous CMC learning environments on learners' perception of social presence. The participants of the study were divided into three groups: video/audio, audio, and face-to-face.

The study found that the learners' perception of social presence was higher in the video/audio group and lower in audio group. Yamada & Akahori (2007) argued that social presence aids second language communication in learner-centered communication. Skype is an Internet service that provides audio and video chatting windows. Users can set up conference calls with many people at the same time. Skype is a useful tool for language learning. Robert (2005) found that Skype offers fascinating opportunities for language professionals and learners, as they provide additional channels for oral communication. Skype is also an effective tool for language teachers.

Suk, Young & Vrongistinos (2012) examined the nature of the Blackboard and Skype-based electronic mentoring system for beginning teachers. They found that using Blackboard and Skype together was beneficial to beginning teachers' effective teaching of English language learners. Develotte, Guichon& Vincent (2010) explored how language teachers learn to teach with a synchronous multimodal setup "Skype", with a particular focus on the application of a webcam during the pedagogical interaction.

The study presented five degrees of webcam utilization from non-utilization to full use of webcam. The results suggested that the last degree full use of webcam allowed for intense interaction and augmented the feeling of co-presence. Yanguas (2010) examined how learners in video and audio CMC group negotiate for meaning during task-based interaction using Skype as a tool to carry out the study. Skype was used by students to carry their conversations in the computer lab. The results indicated that using Skype for the oral CMC group created turn-taking patterns that were very close to face-to-face turn-taking.

Facebook is a social networking service launched in February 2004. In language learning it facilitates the interaction between the students and the instructors and between the students themselves. The uses of Facebook in learning were examined by a number of studies (Kamarul, Norlida & Zainol, 2010; Mitchell, 2012). Kamarul, Norlida & Zainol (2010) investigated if university students consider Facebook as a useful and meaningful learning environment that could support, enhance and strengthen their learning. The study found that the students believed Facebook could be utilized as an online environment to facilitate learning. Nevertheless, teachers have to integrate Facebook as an educational project with pre-determined learning



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objectives and outcomes for the learning experience to be meaningful. Mitchell (2012) explored the students' motivations for joining Facebook. The students in this study joined Facebook for social reasons.

YouTube is a video-sharing website, created in February 2005, which can also be used for learning purposes. Some studies were conducted to examine the impact of YouTube in learning. (Hafner & Miller ,2011; Miller, Hafner & Fun, 2012). Miller, et al (2012) presented a new approach to English for Academic Purposes (EAP) course design. The students carried out a simple scientific experiment, documenting procedures, results and interpretation in the form of a digital video uploaded and shared through YouTube. This use of multimodal scientific documentaries as a pedagogical tool in EAP was reported with reference to data drawn from a student questionnaire, interviews with the students, and students' comments in a course weblog.

The findings showed that the students perceived both linguistic and technical value in the construction and sharing of their multimodal documentaries. Hafner & Miller (2011) created a student-centered digital video project, in which students created and shared a multimodal scientific documentary. A range of new technologies and web 2.0 platforms including YouTube and Edublogs were integrated into the project process in order to create a technologically rich learning environment. They drew on the students' accounts from questionnaire, focus group interviews, and weblog comments to evaluate the digital video project and associated technological environment.

Blogs have some benefits to language learning, which have been examined by some studies (Hsu, Wang &Comac 2008). They investigated how the use of audio blogs can help to meet the instructor's need to improve instruction in academics. The instructor used audio blogs to manage oral assignments, interact with learners, and evaluate performance outcomes. The results indicated that the use of audio blogs met the instructional needs, providing an efficient and effective way to evaluate students' oral performance and permitting individualized oral feedback. In addition, learners enjoyed the ease of using audio blogs and believed that audio blogs assist their language-learning experience. Recently, almost every month new technology is introduced. This creates challenges for researchers to pretend that one can capture the snap-shot of the area. New technology, issues, methods, and topics are constantly emerging.

Lin, Huang & Lion (2013) examined the magnitude of the effect of text-based synchronous computer-mediated communication (SCMC) on second language acquisition (SLA). Ten experimental and quasi-experimental journal articles and doctoral dissertations published around 2012 were analyzed. Abraham (2008) analyzed 11 studies of computer-mediated glosses and he assumed that computer-mediated glosses had an overall medium effect on second language reading comprehension and a large effect on incidental vocabulary learning. He found that mean effect sizes varied from medium to large depending upon the level of instruction, text type, and assessment tasks.

Relatively, computer mediated communication researchers have suggested that face to face interaction in the educational context does not solve the problem of poor academic performances. A need emerges to think of an alternative that would respect the general scope of lecturers' interaction with students to impact knowledge, create medium for mixed group



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interaction in terms of its effectiveness but would favour both students and lecturers in sharing and communicating information with their male fellows. This can be fulfilled through the use of Computer mediated Communication (CMC).

**Theoretical Framework**

This study is anchored on two theories namely: Computer Mediated Communication theory; and Technology Determinism theory.

**Computer Mediated Communication Theory**

This theory focuses on the role of interactivity between parties through mediated channels of communication (Rafaeli, 1988). The postulation of CMC is on the relationship of new messages with preceding messages, rather than on the number, content, frequency, and timing of the message exchange. In both face-to-face and mediated communication, interactivity is possible and focuses on the responsiveness between conversational partners. Interactivity provides acceptance, satisfaction, and engenders thoughtfulness, sociability, and mindfulness (Rafaeli, 1988).

Computer technology increases the manner in which interactivity occurs, disbursing communication from a point-to-point exchange as seen in face-to-face interpersonal communication, to a network whose interaction is supported by the structured nature of technology (Holmes, 2009). Technology has provided a new medium through which communities can co-construct their social realities across traditional geographic and temporal barriers. This theory is relevant to the study directly as it provides a framework for its application universities based on its interactive role between students through mediated channels of communication.

**Technology determinism theory**

This theory states that media technologies shape how individuals in a society think, feel, act and how a society operates as we move from one technological age to another (Griffin 2000), corroborating McLuhan's theory, that we learn, feel and think the way we do because of the message we receive through the current technology that is available. (McLuhan 1962). The theory basically explains the fact that changes in communication technology produce profound change in our societal order. Here, communication technology is seen to have the power to transform the sensory capacity and therefore transform the way we live our life. Technological determinism is a reductionist theory that aims to provide a causative link between technology and a society's nature.

It tries to explain as to whom, what could have a controlling power in human affairs. The theory questions the degree to which human thought and action is influenced by technological factors. The term 'technological determinism' was coined by Thorstein Veblen and this theory revolves around the proposition that technology in any given society defines its nature. Technology is viewed as the driving force of culture in a society and it determines its course of history. Karl Marx believed that technological progress lead to newer ways of production in a society and this ultimately influenced the cultural, education, political and economic aspects of a society, thereby inevitably changing society itself. He explained this statement with the example of how a feudal society that used a hand mill slowly changed into an industrial capitalist society with the introduction of the steam mill.



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This theory is relevant to the present study because technological progress lead to newer ways of doing things in a society which ultimately influence the educational aspect of our society, thereby changing society itself especially in this era of Covid-19.

## RESEARCH METHODOLOGY

The research design used for this study is the survey method which is useful in opinion studies. The research design is a useful guide to the research with efforts to generate necessary primary data for the study. According to Babbie (1990:12), cited in Akarika et al (2019) survey is probably the best method available to the social scientists interested in collecting original data for describing a population. It is an excellent vehicle for measuring attitudes and orientations. The population of this study comprised students of Akwa Ibom State University, which has a population of 8,999 (www.aksu.edu.ng). The researcher used purposive sampling technique to choose two faculties of the university, namely, Faculties of Engineering, and Social Sciences. The questionnaire was administered purposively on respondents of select faculties in Akwa Ibom State University. The sample size of the study was derived using Taro Yamani's sample size determination formula as follows:

$$n = \frac{N}{1+ n(e)^2}$$

n = Sample Size
N = Population of the Study
e = Level of Significant (0.05)

$$n = \frac{N}{1 + n (e)^2}$$

$$n = \frac{8,999}{1 + n (e)^2}$$

$$n = \frac{8,999}{1 + 8,999}$$

$$n = \frac{8,999}{9,000 (0.05)^2}$$

$$n = \frac{8,999}{9,000 (0.0025)}$$

$$n = \frac{8,999}{22.5}$$



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n = 399.95

Approximately, n = 400

Therefore, the sample size is 400.
The researcher purposively selected faculty of Social Sciences and Faculty of Engineering to represent students in the two campuses of the University. Ikot Akpaden and Obio Akpa. Proportionate sampling procedure was used to administer the questionnaire on the respondents. Thus 200 copies of questionnaire each were administered on the respondents in the two faculties in the University. Out of the 400 copies of questionnaire distributed, 380 copies were returned and found useable. Thus, the data presented and analysed below is based on 380 copies of the questionnaire. Thus, the return rate is 95% and mortality rate is 5%.

**Data Presentation and Analyses**

**Data Presentation and Analyses**
**Table 1: Gender Distribution of Respondents**

| Gender | Faculty of Engineering | Faculty of Social Sciences | Total | Percentage % |
|---|---|---|---|---|
| Male | 160 | 13 | 173 | 46 |
| Female | 30 | 177 | 207 | 54 |
| **Total** | **190** | **190** | **380** | **100** |

Table 1 is a summary on gender distribution of respondents from the two faculties of study in Akwa Ibom State University. The majority of the respondents 207 (54%) were females. This implies that the bulk of the respondents were female.

**Table 2: Frequency of exposure to computer mediated communication (CMC) in Akwa Ibom State University**

| Options | Faculty of Engineering | Faculty of Social Sciences | Total | Percentage % |
|---|---|---|---|---|
| Occasionally | 130 | 100 | 230 | 60 |
| Very occasionally | 50 | 60 | 110 | 30 |
| Often | 5 | 20 | 25 | 6 |
| Very often | 5 | 10 | 15 | 4 |
| **Total** | **190** | **190** | **380** | **100** |

Table 2 clearly shows that majority of respondents 230 (60%) occasionally exposed themselves to CMC. This implies that students of Akwa Ibom State University were occasionally exposed to the use of computer mediated communication.



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Table 3: **Media of computer medicated communication**

| **Options** | **Faculty of Engineering** | **Faculty of Social Sciences** | **Total** | **Percentage %** |
|---|---|---|---|---|
| Mobile Phone and Telephone | 54 | 71 | 125 | 32 |
| Laptop and Computers | 34 | 44 | 78 | 21 |
| Internet, (chat room, text messaging and web-based forum) and social Media (skype, facebook, e-mails, youtube and blogs) | 72 | 56 | 128 | 34 |
| Audio and Video recording in class | 30 | 19 | 49 | 13 |
| **Total** | **190** | **190** | **380** | **100** |

Table 3 reveals that the most frequently used medium of communication are Internet/Social Media with 128 respondents (34%) and telephone and mobile phones 125 (32%).

**Table 4: Level of application/dependence on computer medicated communication by Akwa Ibom State University Students**

| **Options** | **Faculty of Engineering** | **Faculty of Social Sciences** | **Total** | **Percentage** |
|---|---|---|---|---|
| A very great extent | 21 | 20 | 41 | 11 |
| A great extent | 19 | 14 | 33 | 9 |
| Undecided/ neutral | - | - | - | - |
| A little extent | 121 | 111 | 232 | 61 |
| A very little extent | 29 | 45 | 74 | 19 |
| **Total** | **190** | **190** | **380** | **100** |

Table 4 reveals the level of application/dependence on computer medicated communication by Akwa Ibom State University Students. Majority of respondents 232 (61) agreed that the level of application/dependence on Computer Mediated Communication to enhance academic performance is to a very little extent. This implies that the majority of respondents, 232 (61) did not apply/depend on computer mediated communication.



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**Table 5: Perception of the level of application/dependence on CMC and its impact on academic performance**

| Perception | Engineering | Social science | Total | Percentage % |
|---|---|---|---|---|
| Very satisfactory | 20 | 15 | 35 | 9 |
| Satisfactory | 20 | 20 | 40 | 11 |
| Undivided/neutral | - | - | - | - |
| Unsatisfactory | 50 | 60 | 110 | 29 |
| Very unsatisfactory | 100 | 95 | 195 | 51 |
| Total | 190 | 190 | 380 | 100 |

Table 5 shows the perception of the level of application/dependence on CMC by students of Akwa Ibom State University. Majority of respondents (305) 195, 110 representing 80%, (51%, 29%) said very unsatisfactory and unsatisfactory respectively. This greatly impact negatively on academic performance of Akwa Ibom State University students.

**Table 6: Gratification derived from the use of CMC**

| Variables | Faculty of Engineering | Faculty of Social Sciences | Total | Percentage % |
|---|---|---|---|---|
| Promote free flow of information for academic performances/improve computer skills. | 50 | 30 | 80 | 21 |
| Promote studies among students and encourage information sharing within students/collaborative experience. | 30 | 50 | 80 | 21 |
| Promote source and used in gathering data for academic activities/encourages learning satisfaction. | 20 | 20 | 40 | 11 |
| Provide opportunities for students to speedily obtain and submit academic information which enhances academic performance/initiates in-dept discussion. | 20 | 37 | 57 | 15 |
| All of the above | 70 | 53 | 123 | 32 |
| **Total** | **190** | **190** | **380** | **100** |

Table 6: Revealed that the majority of respondents 123, representing 32%, agreed that gratification derived from the use of CMC are as follows: promotion of free flow of information improve computer skills, promotes studies among students, encourage information sharing, collaborative experience, promote source, used in gathering data, encourages learning satisfaction, provides students with opportunities to speedily obtain and submit academic information which enhances academic performance.



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**Table 7: Extent of gratifications derived from the use of computer mediated communication by Akwa Ibom State University Students**

| Option | Faculty of Engineering | Faculty of Social Sciences | Total | Percentage |
|---|---|---|---|---|
| A very great extent | 21 | 20 | 41 | 11 |
| A great extent | 19 | 14 | 33 | 9 |
| Undecided/ neutral | - | - | - | - |
| A little extent | 121 | 111 | 232 | 61 |
| A very little extent | 29 | 45 | 74 | 19 |
| **Total** | **190** | **190** | **380** | **100** |

Table 7 indicates the level of gratifications derived from the use of computer mediated communication by the students. The research revealed that (61%) of respondents agreed to a very great extent level of gratification in their use of CMC inspite of the low level of application and dependence. This implies that 61% of the respondents found computer mediated communication useful to a great extent.

**Table 8: Factors affecting CMC implementation in Akwa Ibom State University**

| Factors affecting full implementation | Faculty of Engineering | Faculty of Social Sciences | Total | Percentage % |
|---|---|---|---|---|
| Poor quality of internet signals | 20 | 20 | 45 | 12 |
| Learners perception of social presence in CMC | 10 | 10 | 20 | 5 |
| Perception of environment of CMC with collaborative learning | 10 | 5 | 15 | 4 |
| Lack of data | 20 | 22 | 42 | 11 |
| Inadequate computers/laptops in the university | 20 | 18 | 38 | 10 |
| Insufficient supply of electricity on campus | 10 | 20 | 30 | 8 |
| All of the above | 100 | 90 | 190 | 50 |
| **Total** | **190** | **190** | **380** | **100** |

Table 8 shows that majority of respondents 190 representing 50% agreed that the following factors affects the implementation of CMC in Akwa Ibom State University: Poor quality of internet signals, learners perception of social presence in CMC, perception of environment of CMC into collaborate learning, lack of data, inadequate computers/laptops in the university and insufficient supply of electricity on campus.



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## DISCUSSION OF FINDINGS

The findings of this study are discussed in line with the data gathered and presented and in relation to the research questions. First, what is the level of exposure to computer-mediated communication in Akwa Ibom State University? Table 3 shows that 128, 125 (253) respondents representing 34%, 32% (66%) agreed that internet and social media platforms as well as the use of telephones and mobile phones were the most frequently used media of CMC. This study also found out that the frequency of exposure to CMC in Akwa Ibom State University was occasionally, as shown in table 2, 230 representing 60% of respondents. This implies that students of AKSU were occasionally exposed to the use of CMC.

The findings of the study goes against the assertion by these authors that CMC is being used by a number of institutions of higher learning as a supplement to paper-based media… to blur the traditional gaps of separation between teachers and students. The findings of this study further contradicts the study by (Qing Li, 2002) who found out that use of CMC, such as the internet as a teaching-learning tool is increasing dramatically in higher education.

Second, what is the level of application/dependences on computer mediated communication in Akwa Ibom State University? Data gathered and presented on table 4 vividly captures the level of application and dependence on CMC in Akwa Ibom State University. Findings revealed that majority (232) of respondents representing 61% agreed that the level of application/dependence on CMC to enhance academic performance is to a very little extent. This implies that majority of respondents did not apply/depend on CMC. Table 5 also captures the perception of the level of application/dependence. Majority of respondents 305 (80%) said unsatisfactory and very unsatisfactory. This greatly impact negatively on students' academic performance. The findings of this study contradicts the notion by these authors that CMC are the most appropriate way to develop new skills required by academic sector to respond to the changing educational environment. The findings of this study further negates the study by Salmon (2000) who explored the scope of CMC in the area of computer-mediated conference and found it to be an attractive and powerful media of learning which has an effect on the educational sector.
Thirdly, what are the gratification derived from the use of CMC by Akwa Ibom State University students? Table 6 revealed that majority of respondents 123 (32%) agreed that CMC promotes free flow of information, improve computer skills, promotes studies and provides collaborative experience, enhances information sharing among students, promotes sources used in gathering data for academic activities, encourage learning satisfaction, provides opportunities for students to speedily obtain, submit academic information and also helps initiate in-dept discussion.

Table 7 shows the extent of gratification. Majority of respondents 61% agreed to very great extent the level of gratification. The findings of the study lends credence to Drabier, (2003) who noted that with the rapid evolution of ICT, our society continues to move forward into the information age. The findings further agrees with the findings by Hammond, (1998) cited in Saritas, (2006) that computer conferencing offers an engaging collaborative environment in which students can share views, experience, and resources, diagnose misconception, challenge accepted beliefs and construct new knowledge in a sense of shared community. The study also supports many educators and scholars claim that CMC is an innovative educational tool that



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supports and promotes higher-order conceptual earning, analytical thinking skills, and knowledge creation (Curtin & Lawson, 2001). The findings further supports the study by Nguyen (2011) on students' perception and attitude towards CMC, who found out that majority of participation enjoyed the technology-enhanced class, and reported that the course helped improve their computer skills and collaborative experience and expressed confidence that they would attend similar courses in the future and were willing to recommend this technology embedded course to the next generation.

Fourthly, what are the factors affecting the implementation of computer mediated communication in Akwa Ibom State University? Table 8 shows factors affecting CMC implementation in Akwa Ibom State University. 50% of respondents agreed that the factors include poor quality of internet signals, learners perception of social presence in CMC, perception of environment of CMC into collaborative learning, lack of data, inadequate computers/laptops in the University and insufficient supply of electricity on campus. The findings of this study agrees` with Ko (2012) study on the impact of CMC learning environments on learners perception of social experience.

## CONCLUSION/RECOMMENDATIONS

This work concludes that computed mediated communication is to a great extent useful towards enhancing academic performances of university students. In lieu of the findings the following recommendations are made:

1. Akwa Ibom State University should adopt computer mediated communication technology for academics activities as these will enhance the academic performance of students.
2. The level of dependence on computer medicated communication by Akwa Ibom State University Students should not be on social media alone. Rather, the institution should create a dedicated platforms where they can upload and retrieve academic data towards the growth of academic performance enhancement of the students.

3. The level of application of computer mediated communication in Akwa Ibom State University should be improved. Thus, the University should adopt e-classroom and lecturing strategy, dedicated platform; Zoom, Microsoft and other platforms should be used for knowledge imparting and acquisition.

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