

# Using WhatsApp to Support Communication in Teaching and Learning

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**Abstract:** Digital children are surrounded by various digital media such as Facebook (social media) and WhatsApp (instant messaging tools). Communication dynamics have been affected by these media. As a result, teaching and learning has been impacted by the emergence of these technological media. This study investigated the use of WhatsApp to support communication in teaching and learning in a small university, using questionnaires and interviews to gather data from 166 students and the 2 lecturers. The study found that when used to support communication in teaching and learning, WhatsApp enhances student-to-lecturer interaction, students-to-student interaction, student-to-lecturer intimacy and student-to-student intimacy. It also increased student's interest in a course on condition that lecturers and other students create some sense of humour during teaching and learning on the WhatsApp platform. Due to unnecessary post by some students, it's recommended that WhatsApp platform be improved such that group Administrators can restrict postings to groups (but viewing not block). Also it should be improved to include optional structured or unstructured conversation (especially for a group). Lecturers and students should add course related humour during interaction to sustain interest of slow paced students till they catch up.

**Keywords:** Network Generation, Digital children, WhatsApp, Synchronous communication, smartphone

## 1. Introduction

Advances in Technology have resulted in two categories of generations: the generation before technology advancement and the 'Network Generation' [1], after technology or during advancement of Technology. Children of the 'Network generation', or 'Digital Children', are surrounded by various digital media including social media (such as Facebook) and instant messaging tools (such as WhatsApp), which affect their communication dynamics and impact on teaching and learning [2]. In this paper we consider the use of WhatsApp to support communication in teaching and learning, and describe an exploratory study in a small university in Namibia.

WhatsApp is a smartphone application for instant messaging. Though there is a computer desktop WhatsApp application, it has not gained popularity like the smart phone WhatsApp app. Despite the existence of many Instant messaging tools such as WeChat, LINE, Viber, Telegram, IMO and email, a survey in Malaysia found that 97% Malaysians are using WhatsApp. 3% of those surveyed, use WhatsApp less than once a month [3]. Though SMS services were available before WhatsApp, the above is evidence of the popularity gained by

WhatsApp. Studies of [4] confirm this as they conclude that, SMS users are reducing naturally.

Communication in teaching and learning communication play a vital role. It is through communication that instructors reach out to learners and vice versa. Communication between instructors and learners may be synchronous or asynchronous. Synchronous communication occurs mostly during class sessions: this is because instructors and learners are mostly at one physical location. For School with Learning Management Systems (LMS) or video conferencing facilities, synchronous communication also occurs irrespective of physical location and physical presence of learners at the physical location. For Schools with LMS that lack tools for synchronous communication or schools without LMS, achieving a synchronous means of communication between instructors and learners, especially before or after classes, is a challenge. For such schools, communication after or before class sessions, occurs through asynchronous means such as emails. As a tool, WhatsApp can facilitate synchronous communication: Instructors can reach out to learners, learners can reach out Instructors and also reach out to their peers as well.

Acceptance of WhatsApp as technology may not pose a challenge as students are already exposed to the technology and use it very often for their daily communication: usually outside education, [3]. This confirms [5] findings that, students in universities are oriented and positive about using mobile learning in educational fields. [5] further argue that researchers should investigate how mobile learning technology can be best utilized in education. This study therefore seeks to investigate the use of WhatsApp to support communication in teaching and learning in universities

## **2. Literature Review**

Theories on media use include Uses and Gratifications theory and Social constructivist learning theory. Uses and Gratifications theory explains why and how people actively seek out specific media to satisfy specific needs. [6]. According to [7], user motivation studies of media ranges from radio [6] and television ([9]; [10]), to cable TV and VCR remote controls [11], and now the Internet [12]; [13]; [14]; [15] and cellular phones [16]. Social constructivist learning theory stresses social interactions rather than observation [17].

Access to learning resources anywhere and anytime allows for deep learning [7]. Smart Phones makes this possible as it allows for learning to occur anywhere and anytime. This assertion is supported by [18] findings. According to [19], University students use smartphones in varied ways including exchange of academic information outside the university physical walls. Outside the university walls, mobile devices are used for online interactions such as discussions and knowledge sharing. This is done through instant messaging, mobile Social networks and Web based learning [20].

WhatsApp is smartphone application that allows for instant message sending to either an individuals or groups. Pictures, Audio-Visual files attachment and websites links can be sent through it. It also allows for files sharing. WhatsApp was invented in 2009 by Jan Koum and Brian Acton and first became available on the market in 2010 [21]. WhatsApp use grew up rapidly: it gained over 350 million users, [22] between 2010 and 2013. This is also evident by the use of WhatsApp in the healthcare industry ([23]; [24]; [25]; [26]).

Among reasons that account for the popularity of WhatsApp, is its ability to allow for an almost fluent conversation, creating a sense of belongings, low cost its accessibility and ease of use for communication purposes [27]. To [28], WhatsApp allows for academic information sharing through conversations between and among students using the application. According to [3], when WhatsApp is implemented in academics, students' motivation to learn rise, making performance increase. It also creates a more engaging environment ([7]; [3]).

Since its first release in 2010, WhatsApp developers have incorporated additional features to it that makes it suitable for supporting communication in teaching and learning [8]. In their study, [29] conclude that WhatsApp application could greatly support learning activities. Similarly [30], recommends that collaborative study groups should be formed to motivate learners and raise achievements of all. From the above discussion, it's obvious that WhatsApp is relatively a new tool in education and can be used to aide teaching degree courses. However there are few studies on it [28].

This research therefore seeks to investigate the use of WhatsApp to support communication in teaching and learning in universities. It focuses on use of WhatsApp groups in conveying lecture related instant messages, pictures and videos among students and from lecturer to students. It also looks at interpersonal instructor-student communication and student-student communication by enabling availability for questions, scheduling meetings and consultations. These relationships will be examined through the Technological Acceptance Model – TAM ([31] as cited in [32]). Focus of this paper is on Perceived Usefulness (one of the constructs of TAM). This constructs is defined as the degree to which a person believes that using a particular system would enhance his or her job performance.

### **3. Methodology**

The study was conducted using two university courses or modules: one from an Information Technology undergraduate class and the other from an MBA postgraduate class (specifically, master's degree class). WhatsApp groups (one for each module) were created at the beginning of each class. All 282 students in the two modules were then added to the WhatsApp groups. In the course of the Semester, lecture notes, activities and assignments were shared on the groups. Discussions also took place on the groups. Students who did not understand some lessons in class, asked and others explained. The study took place for a period of seven months: July 2017 to January 2018 in Namibia. Instruments applied in the study for primary data collection included questionnaire, interview and observation. The questionnaire consisted of twenty one (21) questions: seven (7) on bio data and thirteen (13) on WhatsApp. Most of the WhatsApp questions were designed as closed ended questions using a five Likert scale (strongly agree, agree, neutral, disagree and strongly disagree). The questionnaire were self-administered by the researchers. Interview were conducted to clarify on unclear responses given by respondents to the questionnaires especially to the few open ended questions. To validate respondents' responses, a few questions were deliberately design to check consistency in respondents' responses. In the study period, the researchers observed learners and instructors communicating on the WhatsApp groups.

At the end of the course/module, the researchers administered questionnaire to 166 (determined using Sloven's formula for sample size determination) of the students to collect primary data on students and lecturers experiences communication on WhatsApp. This was analysed for frequency trends in percentages.

### **4. Results**

Of the 166 respondents sampled for the study, 2 had no smart phones. Thus 144 respondents (98.7%) had smart phones. All the 144 respondents had WhatsApp installed on their phones.

During the study, it was observed that interactions between the students and lecturer using WhatsApp took place throughout the week, sometimes late into the evening into midnight. In the interactions; some students asked questions on lessons that were not clear to them and the lecturers responded by clarifying on those lessons. Students that understood better, also clarified especially when lecturers were not responding.

When asked if WhatsApp tool enhanced interaction with the course/module lecturers: 2% disagreed and 3% were neutral, while 54% and 42% strongly agreed and agreed respectively.

This suggests that the population in our study experienced a more engaging environment, created by WhatsApp as found by [7]

It was also observed that students were not only interacting with lecturers on their class WhatsApp groups. They interacted with their fellow students, for instance students that understood certain topics better, explained it to others on using the WhatsApp group. Whenever lecturers were online and noticed students explaining to other students: they either Okayed the explanations or clarified further. When we asked students if WhatsApp enhanced students' interactions, the vast majority agreed. However 7% were not sure whether WhatsApp enhanced interaction amongst students or not, (Fig 1). This again seems to confirm [3] finding that WhatsApp creates a more engaging environment.

Results from the study also indicate that WhatsApp groups support intimacy in teaching and learning. Intimacy allows students to open up and ask questions on lessons which they may have never asked in the usual classroom setting, and some 93% of students agreed or strongly agreed that WhatsApp support intimacy between students and lecturers (Fig 2). A further 94% strongly agreed or agreed that WhatsApp supported learning intimacy amongst students.

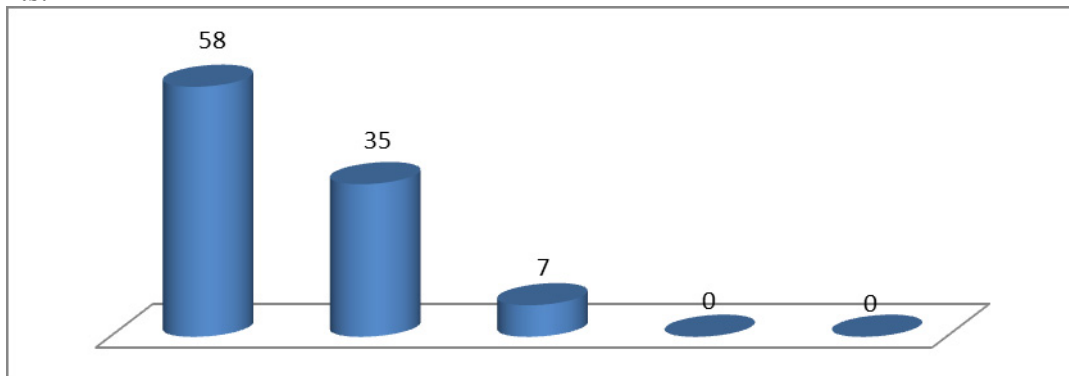


Fig 1: Enhanced Interaction Amongst Students

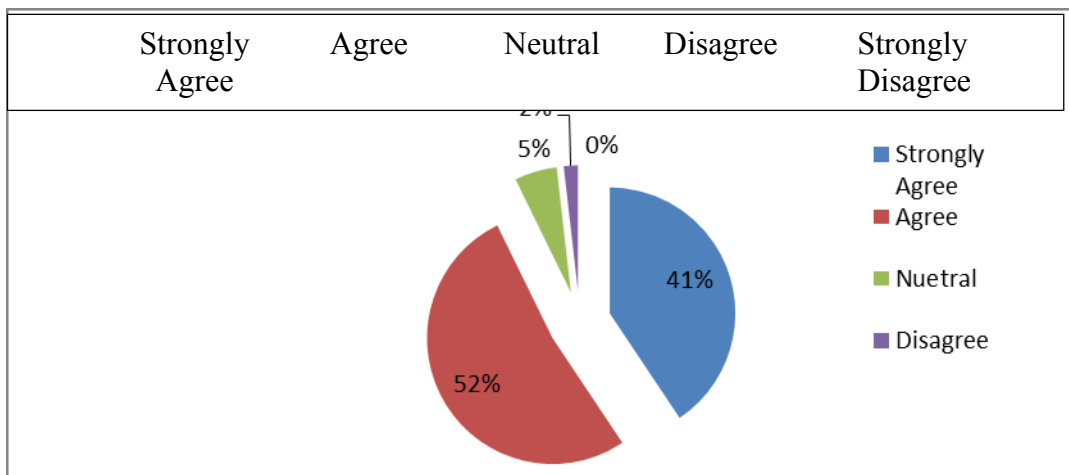


Fig 2: Learning Intimacy between Students and Lecturer

55% and 25% of students, respectively, agreed and strongly agreed that the use of WhatsApp increased interest in a course, although 18% were not certain. We link this to observations that lecturers clarified issues on the WhatsApp group with humour and suggest this could have influenced the students and accounted for differences in response rates. Students interest in a course increase when WhatsApp tool is used to support communication. However this is on the condition that lecturers and students create some sense of humour on

the group. This findings confirm the findings of [3] and [30], that students' motivation rise when WhatsApp is used to support teaching and learning.

It was observed that lecturers uploaded lecture materials into the WhatsApp groups, posted announcements and referred to other lecture activities. Meanwhile, students used WhatsApp to schedule for physical focused group meetings. 49% and 44% of students strongly agree and agree respectively that WhatsApp helped to make access to lecture materials, informed lecture activities and schedule focus group discussions easier. This confirms [28] findings that WhatsApp allows sharing of Academic Information.

On using WhatsApp for learning in other courses, 91% of the students agreed. However these students dislike it when unrelated course material or activity or non-academic materials are posted on the groups. Also lecturers expressed interest in using the platform for future courses but the platform limitation such as its file size limit and unstructured format (for course materials and activities) make it discouraging to use.

## 5. Conclusion and Recommendation

From the discussion above, it is concluded that WhatsApp can be used to support communication in teaching and learning in Namibia. WhatsApp enhances interaction between students and lecturers. It also enhances interaction amongst students. It also increase teaching and learning intimacy between lecturers and students and also amongst students. If lecturers and students add a sense of humour to teaching and learning respectively on the group, then it will increase students' interest in a course. The findings above confirms that WhatsApp is great tool to support teaching and learning. In the absence of a structured learning management system, it can play a great role in teaching and learning.

Due to non-academic or unrelated course material postings, it's recommended that the WhatsApp platform be improved such that group Administrators can restrict postings to a groups (but viewing not block). Lecturers and students should add course related humour to their interactions on the platform to increase the interest of 'weak' students in the class.

The study drew its sample from one university and from two programmes of study only. Hence the results cannot be generalised. Future studies should therefore include more universities and more programmes. It's also recommended that WhatsApp be used to support communication in teaching and learning. This study did not consider lecturers workload. Future study should therefore consider lecturers workload as this has a possibility of impacting their communication response rate.

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