

Impact of WhatsApp as a Micro Learning Tool on Instruction

Nauman Ahmad

IT Lecturer

**Centre for Preparatory Studies, Mathematics and IT Department,
Sultan Qaboos University, Al-Khoudh, Sultanate of Oman**

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Abstract

WhatsApp is a free of cost messenger application that is used by the electronic gadgets to send messages, pictures, audiovisual or auditory material through internet. Micro Learning is the division of information in small chunks and to use it for the purpose of learning through small steps. This research had used the WhatsApp tool for the purpose of learning an IT course through dividing the course contents in small chunks as Micro Learning content. Study had been conducted on two groups, 'A' and 'B', where group 'A' had used the WhatsApp tool as a Micro Learning support, accompanied by formal face-to-face education with in a hybrid learning environment. Group 'B' went under face to face instruction only. At the end, both the groups attended the examination of studied course module. Analysis have been done on the outcomes of their exams (Group 'A' vs 'B'). Opinions of the participants from group 'A' had been taken through the questionnaire and evaluated towards the impact of WhatsApp as a Micro Learning tool on instruction for the dependent variables at 'Before' and 'After' the use of this social media tool. The outcomes of this study are very stimulating for the practitioners, field experts, academicians and researchers connected with the integration of technology with education.

Introduction

Information and Communication Technologies (ICT) are components supporting the modern techniques, and are playing vital role in the educational industry. Better methods of teaching could be presented through dividing the lengthy material of instruction in small chunks of information, and using applications of information and communication technologies, like social media; through combining the electronic based activities with face to face instruction as a hybrid learning mode.

Overall the usual method of instruction is based on face-to-face teaching, grounded on long timings ranging from 1 to 2 hours, per subject, and general time consumption of the this activity between teachers and students gets more than 7 to 8 hours a day that upshots tiresomeness of both parties, and as a result teachers encounter challenges to create detailed ideas, and attempt to revise the basic concepts of topics at advanced stages or after finishing the course material that moves the learning outcomes out of the control with adverse effects (Ahmad, 2018).

Introduction.....continued

Hybrid learning is a method that enhances the skills of a learner and positively effects the instructional outcomes (Joanna, 2013). Micro Learning is a process to divide the learning contents in small parts and its usage with small steps.

(Ahmad, Al-Khanjair, 2011, Ahmad 2018; Ahmad, 2018) claimed following essential key areas to evaluate the performance of any electronic communication tool:

- Feeling 'Comfortable' while using the electronic tool (e-tool)
- Feeling 'Friendly' while using it
- Feeling the e-tool as an 'Essential' part of learning process
- Considering the e-tool as helpful in 'Understanding' and 'Learning' the course material, and helpful in 'gaining high marks in the exams'
- Learners linking towards the method of instruction.

WHAT IS WHATSAPP AND MICRO LEARNING?

(Webwise, 2018) state that WhatsApp is a social media application for electronic gadgets, including tablets, mobile and smartphones etc., that can be downloaded without any payment which can send messages, pictures, auditory and audiovisual content through internet, and the cost of WhatsApp is also much slighter than the text messaging services.

Micro Learning is an innovative method that supports in the division of learning contents in tiny pieces, and plays an important role for skills enhancement and knowledge creation (Minimol, & Habil, 2012).

PURPOSE OF STUDY

The purpose of this research was to test the impacts of WhatsApp as a Micro Learning tool by dividing the contents of course module in tiny parts and used as a supplementary help along with face to face instruction, as a mode of hybrid learning for group “A”, and to assess the impacts of WhatsApp as a Micro Learning tool on the outcomes of students’ examinations (group “A” vs “B”), to test the attitudes, support of this tool for understanding and learning the study material, and likings of students from group “A”.

METHODOLOGY

This research has evaluated the impacts of WhatsApp as a Micro Learning tool on the exam results of the IT course module (“Fundamentals of Computer”) studied by two groups “A” and “B”, based on the contents, under the titles: “Computer Basics”, “Hardware Components”, and “Software Components” etc. Group “A” was supported with WhatsApp communications along with face-to-face teaching as a hybrid mode of learning for one week, whereas, Group “B” was taught through face-to-face instruction only. WhatsApp allows the exchange of Text Messages, Audio recordings, and Pictures.

Therefore, firstly, the contents of the course module were divided in short definitions of less than 280 characters each, sent as text messages and the students were requested to read one definition at one time, with a gap of at least 10 minutes for the next one. Secondly, contents were recorded as Audio Podcasts, less than 5 minutes as micro learning content, and students were asked to listen a single recording at one time, and the listening of next audio podcast with a gap of at least 10 minutes. Thirdly, the pictures were used to explain the contents and request was made to go through these pictures for a maximum of 5 minutes with a gap of at least 10 minutes for the next viewing of pictures.

METHODOLOGY.....continued

Initially, recorded Audio Podcasts were sent to the students, then short definitions and finally the pictures. Total number of students was 30, divided in two groups “A” and “B” with 15 number of students for each group. Students of group “A” had used their smart phones to follow all the research activities, and attended face-to-face lectures within the hybrid learning mode, whereas, group “B” had attended their lectures through traditional face-to-face mode only.

This study has evaluated the impact of WhatsApp as a Micro Learning tool for groups “A” and “B” through comparing the group means (average) of their exam marks of the studied module. Moreover, the students of group “A” those had practiced communications through WhatsApp were requested to furnish their feedback through a survey questionnaire for two stages: “Before” and “After” the use of WhatsApp, based on 5-points Likert Scale, having the values from ‘1’ to ‘5’ with the option ‘1’ was marked as “Strongly Disagree”, ‘2’ as “Disagree”, ‘3’ as “Uncertain”, ‘4’ as “Agree”, and ‘5’ as “Strongly Agree” towards the key areas “Friendly”, “Comfortable”, “Essential”, “Understanding”, “Learning”, and “Favorite Mode of Instruction”. Comparisons of “Before” and “After” stages have been done through comparing the group mean (average) of group “A” for the mentioned key areas.

Statistical Analysis

Evaluations have been done to test the impact of WhatsApp (the experiment) as a Micro Learning Tool through comparing the group means of exam results for group “A” and “B” , and analysis have been done on the feedback of survey questionnaire for key areas for “Before” and “After” stages towards the use of WhatsApp as a Micro Learning tool by group “A”.

Results

1. EVALUATION OF EXAMINATION (GROUP "A" VS "B")

Table 1, and Figure.1 illustrates the evaluation of examination between groups "A" and "B", where group "A" had used WhatsApp as a Micro Learning tool along with face-to-face study as a hybrid learning mode, and group "B" went under face-to-face instruction only. Use of WhatsApp had elevated the exam results of group "A", with an overall percentage of 6.53%.

<i>Table 1: Evaluation of Examination - Group Means (Group "A" Vs "B")</i>	
<i>Examination Outcomes (Total Marks: 15)</i>	
Group "A": Supported with WhatsApp as a Micro Learning tool with in hybrid mode of learning	Group "B": Traditional face-to-face teaching only
Group Mean – Group "A"	Group Mean - (Group "B")
9.65	8.67
Difference in Means of Group "A" and "B" = Group Means of Group "A" – Group Means of Group "B" Difference in Means = 0.98 Transformation of difference in Means to Percentage => (out of 15) = 6.53%	

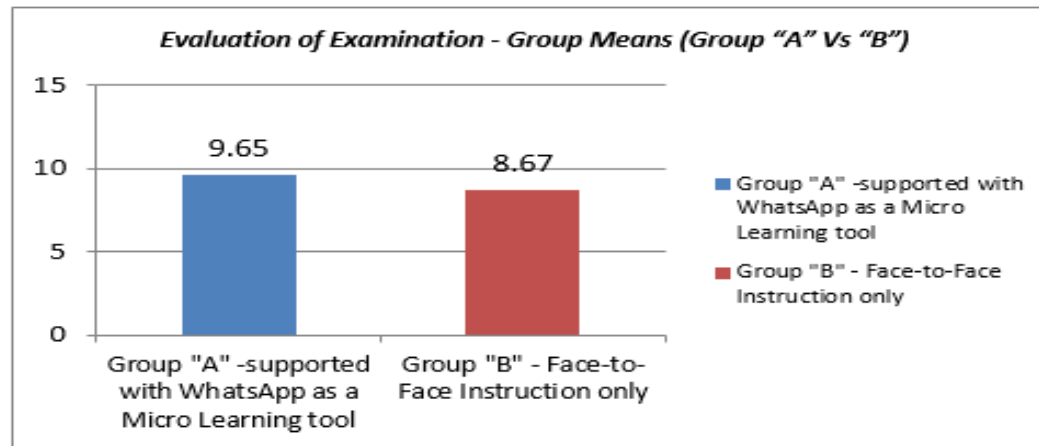


Figure. 1. Group Means of Exam Results – Group 'A' Vs Group 'B'

2. STUDENTS ATTITUDES TOWARDS WHATSAPP (GROUP "A")

Table 2, and Figure.2 explains the students attitudes towards WhatsApp for group "A" towards "Before" and "After" Stages, showing the positive impact of WhatsApp as a Micro Learning Tool with a huge size of change by (2.26, 2.00, and 2.00 respectively) towards three key areas "Friendly", "Comfortable" and "Essential" respectively.

Key Areas	Group Mean		Size of Change
	Before	After	After-Before
Friendly	2.27	4.53	2.26
Comfortable	2.47	4.47	2.00
Essential	2.40	4.40	2.00

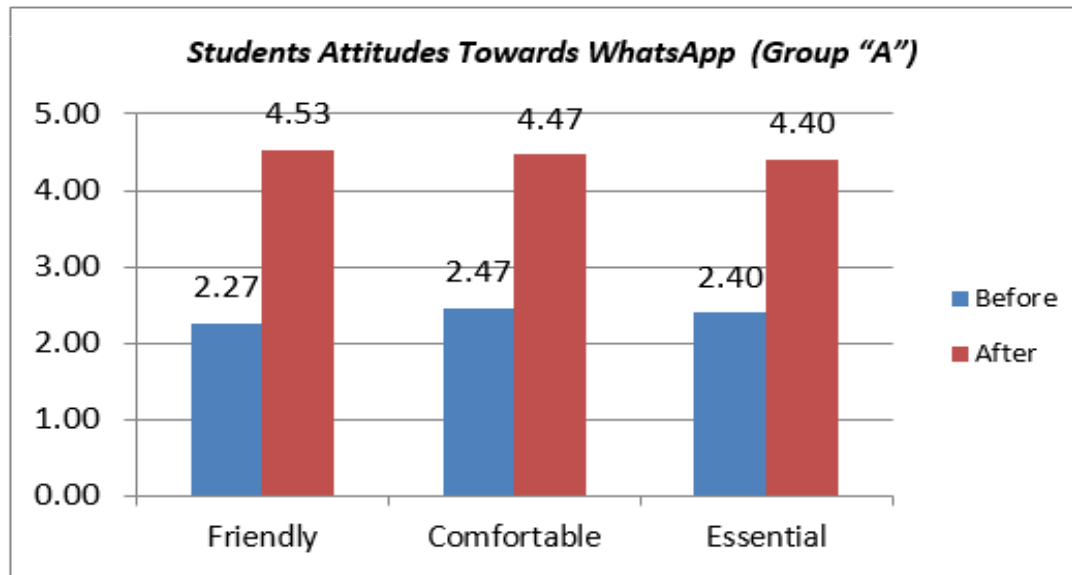


Figure. 2. Students Attitudes towards WhatsApp – (Group "A")

3. IMPACTS OF WHATSAPP AS A MICRO LEARNING TOOL ON KEY AREAS “UNDERSTANDING”, “LEARNING”, AND “PREPARATION OF EXAMS” - (GROUP “A”)

Table 3, and Figure.3 show the positive impact of WhatsApp as a Micro Learning Tool on three key areas towards its help in “Understanding” the course contents, “Learning” the course contents and its support in “Preparation of Exams” with a size of change by 1.94, 2.20 and 2.27 between “Before” and “After” Stages of group “A”.

<i>Table 3: Impacts of WhatsApp as a Micro Learning Tool on Key Areas “Understanding”, “Learning”, and “Preparation of Exams” – (Group - A)</i>			
Key Areas	Group Mean		Size of Change
	Before	After	After-Before
Help in “Understanding” the contents	2.53	4.47	1.94
Help in “Learning” the contents	2.33	4.53	2.20
Help in “Preparation of Exams”	2.33	4.60	2.27

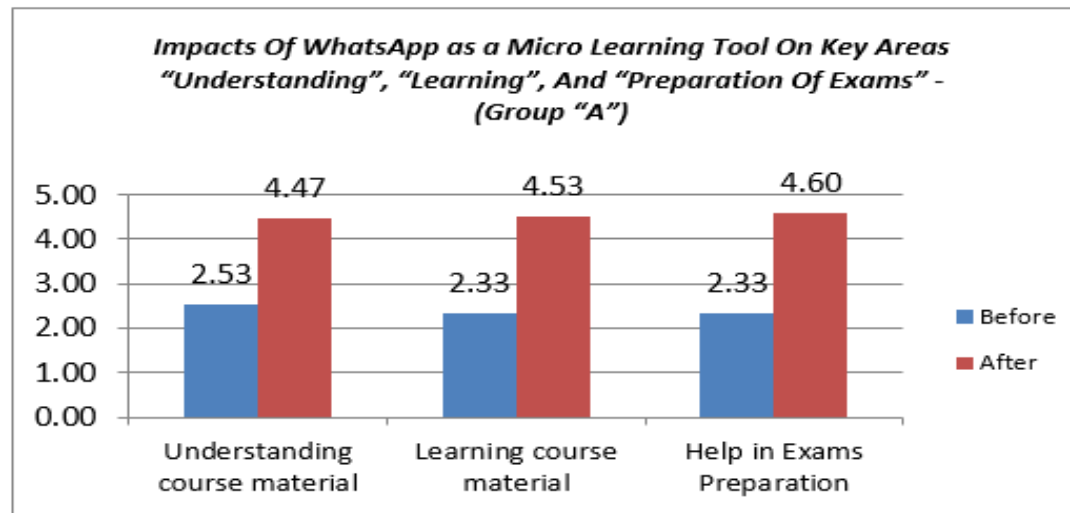


Figure. 3. Impacts of WhatsApp as a Micro Learning Tool on Key Areas “Understanding”, “Learning”, and “Preparation of Exams” - (Group ‘A’)

4. LINKING OF STUDENTS (FAVORITE MODE OF INSTRUCTION) – GROUP “A”

Table 4, and Figure.4 shows the likings of students for group “A” with a size of change by (1.93), and proves the positive impact of WhatsApp as a Micro Learning tool on the students likings towards “Favorite Mode of Instruction”.

Key Areas	Group Mean		Size of Change
	Before	After	After - Before
Studying with instructor and supported with WhatsApp as a Micro Learning Tool	2.40	4.33	1.93

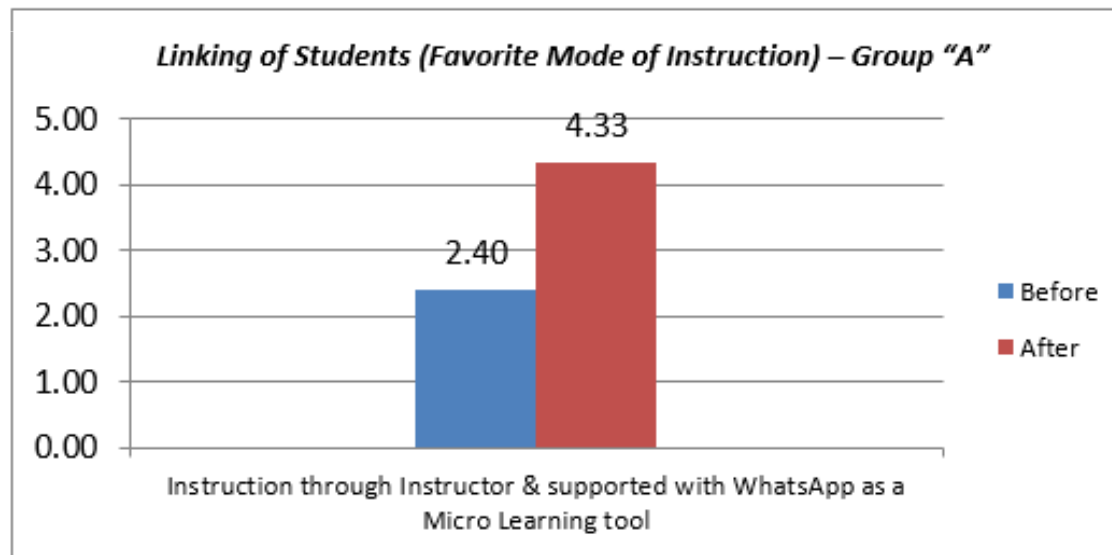


Figure 4. Liking of Students (Favorie Mode of Instruction) – (Group ‘A’)

Conclusion:

The outcomes of this research proves that the use of WhatsApp as a Micro Learning tool has positively impacted the process of instruction, and elevated the exam results of group “A”.

The comparison of feedback obtained from survey questionnaire at “Before” and “After” stages from group “A” verifies that WhatsApp a Micro Learning tool:

- Is very User “**Friendly**” and “**Comfortable**” while using
- Evidenced as an “**Essential**” element of this course module
- Found to be helpful in “**Understanding**” and “**Learning**” the contents of course module
- Rated to be very supportive in the **preparation of exams**

Usage of WhatsApp as a Micro Learning Tool with in a hybrid learning mode has been chosen as a “**Favorite Mode of Learning**” by the students.

And

The use of WhatsApp as a Micro Learning Tool has supported the students of group “A” in getting elevated marks in the **examination** with a raised group mean of **6.53%**.

Dear practitioners, field experts, and academicians, WhatsApp is the hybrid learning tool you are looking for; don’t wait any longer and add this social media application (WhatsApp) as Micro Learning tool along with your course material as a hybrid learning mode, and solve your problems of stretched teaching, to generate in-depth ideas and elevate the percentage of students understanding and learning to meet the expected results.

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Thank You