

## INVESTIGATING TEACHERS' ACTUAL LEVELS OF USE OF WHATSAPP APPLICATION WITH ENGLISH FOUNDATION AND CREDIT PROGRAM STUDENTS AT SULTAN QABOOS UNIVERSITY IN OMAN

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**Abstract.** *As of recently, mobile technology has been widely used by many students across the educational world to access various types of resources where they can regularly practice the skills of English language acquisition, i.e., speaking, reading, listening, and writing. This has been achieved by using many communication tools, such as internet browsing, social networks interaction and smartphones applications. With such innovations, communication among students has become more convenient. WhatsApp smartphones application, as one of these innovative tools, has made interaction and communication among people within societies, in general, and among students and teachers, in particular, more easy, open, informal, and accessible. This paper aims to investigate the teachers' levels of actual use of the WhatsApp smartphone application with their own students who are studying in the English foundation and credit programs at Sultan Qaboos University. In this study, the survey research method was employed for data collection. The Level of Use Self-Assessment (LoU-SA) questionnaire was used to obtain a holistic picture of the teachers' levels of actual use of the WhatsApp application. This study found that the majority of teachers were in the middle area and almost equally distributed at the Use Level representing the Mechanical use level (III), and the Routine Level (IVA). However, there were a big number of teachers who were at the Non-use Level (0), and none of the teachers were at the Integration Level (V), and the Renewal Level (VI) of the Use Level.*

**Key words:** *skills, WhatsApp, language acquisition, English foundation and credit programs, Sultan Qaboos University*

### 1. INTRODUCTION

The WhatsApp application is one of the innovative tools (Goggin, 2010) that has made interaction and communication among people within societies, in general, and among students, in particular, easier, more open, informal and accessible (Rambe & Bere, 2013). In the case of students studying in the English foundation and credit programs at Sultan Qaboos University, it is noticeable that students are regularly installing and using this application for free on their mobile phones as a mean of daily communication. It is assumed that this application can also be beneficial in enhancing students' language learning skills.

This study investigates teachers' Levels of Use (LoU) of the WhatsApp instant messaging application towards enhancing the English language skills of the foundation and credit programs' students. The WhatsApp application is widely used in language learning across nations and can be a supportive tool towards students' language learning at Sultan Qaboos University. This shift towards using this innovative mobile technology in the teaching and learning of the English language can be a platform to initiate other research ideas relevant to other subjects taught in the foundation and credit programs as it was found that it had the potential to enhance student productivity and academic engagement (Rambe & Bere, 2013).

## 2. THE WHATSAPP APPLICATION AND ENGLISH LANGUAGE TEACHING

WhatsApp is an instant mobile text messaging application which is used on smartphones to help clients to send simple text messages, pictures, audios and videos to each other through an internet data connection for free (Salem, 2013). Salem (2013) contends that the WhatsApp application is one exemplary tool of how a language is developed and changed and it is a form of literacy in and of itself.

WhatsApp has many collaborative features (WhatsApp, 2010, cited in Amry, 2014). It helps students to be able to exchange text-messaging, images, videos, and voice recordings to their social networks or groups and contacts. It helps both students and teachers to create network groups to support their social interactions. It helps students to send out unlimited number of messages. The WhatsApp application is a potential learning tool as it helps students learn subject-related content and activate their thinking processes (Lee, 2002). Incorporating WhatsApp can improve students' language skills (Raab, 2007). Although students may tend to use the WhatsApp application for the sake of chatting, possibly using inappropriate language including abbreviations, it can still help students in developing and enhancing their language output in an exciting way along with the teacher's ongoing scaffolding towards using the appropriate language input.

The WhatsApp application is theoretically based on the connectivism theory of learning (Siemens, 2006). It has argued that when students use electronic tools to interact, they can reflect on and internalize content in order to learn. This can help them create and process new knowledge, which then leads them to develop their own personalities. This theory acknowledges that learning is a process that allows students to flourish in the electronic era rather than being an individual work. It is also supported by the social constructivist theory of learning which seeks to promote the social interactions between students and to construct and share knowledge (Vygotsky, 1978, cited in Amry, 2014). In this matter, Amry (2014, p.116) argued that the "access to learning resources anywhere, anytime, and in various formats has the potential to enhance deep student learning capabilities and to allow students to construct their own knowledge".

Many studies have acknowledged the positive impact of WhatsApp in English language teaching and learning contexts. Motiwalla (2007, cited in Amry, 2014) confirmed that using mobile devices among students had been a great and supportive tool where most of the students had benefited from WhatsApp with each other. Another study also found that students were in favor of and very positive about using mobile learning in educational contexts (Litchfield et al., 2007, cited in Amry, 2014). In addition, Cheung et al. (2008, cited in Amry, 2014) confirmed that students were mostly engaged while using

online social networks through mobile technologies. Aburezeq and Ishtaiwa (2013, p. 165), in their study, concluded that WhatsApp offers students “a space for communicating, expressing ideas and exchanging information anytime and anywhere”. Bouhnik and Deshen (2014) confirmed that WhatsApp had educational advantages for students such as the creation of a pleasant atmosphere and an in-depth acquaintance with their fellow students which positively affected their conversation. This is besides the accessibility of learning materials, the availability of teachers, and the continuation of learning beyond class hours.

### 3. THE CONCERNS-BASED ADOPTION MODEL: THE LEVELS OF USE CONSTRUCT

The Concerns-Based Adoption Model (CBAM) is developed by Hall, Wallace and Dossett (1973). It is a conceptual framework to measure, describe and explain diverse aspects of a user of instructional innovation (Anderson, 1997). According to Hall and Hord (2011), it encompasses assessing, describing and explaining the process of change practiced by teachers who are involved in actions to use innovations. It also deals with how the process is affected by intervention from individuals acting in change-facilitating roles (Hall & Hord, 2011). The CBAM model is based on the theory that change is an ongoing, individual experience, the effectiveness of which is facilitated by the extent that training is matched to the needs and concerns expressed by the individual (Hall et al., 2008). It is a multi-part model that examines the process people go through whenever they are engaging in an innovation that is a shift from previous practice.

Several assumptions about change in curriculum and instruction underpin CBAM: (1) change is a process, not an event; (2) there are significant differences in what is required in development and implementation of an innovation; (3) an organization does not change until the individuals within it change; (4) innovations come in different sizes; (5) interventions are the actions and events that are key to the success of the change process; (6) there will be no change in outcomes until new practices are implemented; (7) administrator leadership is essential to long-term change success; (8) mandates can work; (9) the school is the primary unit for change; (10) facilitating change is a team effort; (11) appropriate interventions reduce resistance to change; and (12) the context of the school influences the process of change (Hall & Hord, 2011).

Based on the CBAM, three dimensions for measuring change are included: Stages of Concerns (SoC), Levels of Use (LoU), and Innovation Configurations (IC). The SoC is based on the third and the fourth fore-mentioned assumptions. It describes the progression of individual feelings, perceptions, and motivations that result from curricular and/or instructional change. It reports an individual's concerns profile at any point during an innovation (Hall & Loucks, 1978). The LoU is arising from the first and the fourth above-mentioned assumptions. It details eight distinct developmental levels in the use of an innovation. Observations and interviews are used to ascertain an individual's LoU (Hall et al., 1975). The concept of IC is originating from the first and the second assumptions. It describes an individual's variations in the use of an innovation. The Innovation Configurations Checklist (ICC) categorizes specific instructional practices (Anderson, 1997). Figure 1 shows the CBAM framework (Hall & Hord, 2011, p. 258).

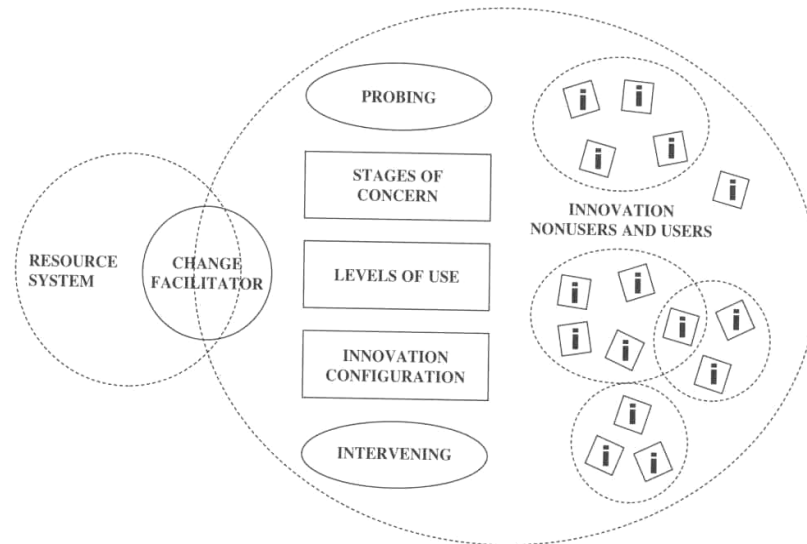


Fig. 1 The Concerns-Based Adoption Model (CBAM) (Hall & Hord, 2011, p. 258)

The LoU is the only construct of CBAM, which is investigated in this study. In such a construct, Hall Hall, Loucks, Rutherford and Newlove (1975) mentioned eight levels, which are hierarchically ordered from use to non-use. While their eight Levels of Use are fundamentally hierarchical, that is, going from the lowest level of non-use through the mechanical use median to the optimal use of renewal, the adaptation to levels is not necessarily linear and an individual's level of use may vary by context (Barrow & Delisle, 2010). Hall and Hord (2001, cited in Barrow & Delisle, 2010) argued that since LoU deals with user or non-user behaviors, it is likely to develop operational definitions of each level. Table 1 illustrates the LoU of the innovation indicators (Hall & Hord, 2011).

Table 1 The Levels of Use of the Innovation Indicators (Hall & Hord, 2011)

Indicator	Description
	USE
VI: Renewal	The user is seeking more effective alternatives to the established use of the innovation.
V: Integration	The user is making deliberate efforts to coordinate with others in using the innovation.
IVB: Refinement	The user is making changes to increase outcomes.
IVA: Routine	The user is making few or no changes and has an established pattern of use.
III: Mechanical Use	The user is using the innovation in a poorly coordinated manner and is making user-oriented changes.
	Non-Use
II: Preparation	The user is preparing to use the innovation for the first time.
I: Orientation	The user is seeking out information about the innovation.
0: Non-use	No action is being taken with respect to the innovation.

On the one hand, the first five levels are for users. Renewal refers to looking forward to new changes or innovations to start a new cycle; Integration refers to collaboration with others; Refinement refers to reflection on use and adaptation to increase impact; Routine refers to satisfactory pattern; and Mechanical Use refers to feeling awkward as the innovation is being used. On the other hand, the last three levels are for non-users. Preparation refers to the decision to adopt the change and being ready to implement it; Orientation refers to finding out about the proposed change; and Non-use refers to taking no action towards the change.

Understanding and systematically addressing the importance of documenting the level of use of innovations is an area which has been neglected by many researchers (Hall et al., 2008). The majority of such innovations have been proposed either to be used or they are not. In such contexts, the LoU construct is significant in educational research as it provides the conceptual framework for examining the user/non-user of innovations. This is also because it does not have to be redefined for each and every innovation. Additionally, it can be used in any organization and with first-order as well as second-order innovation.

The LoU, as stated by Hall et al. (2008), are distinct states that represent observably different types of behavior and patterns of innovation use as exhibited by individuals and groups. These levels characterize a user's development in acquiring new skills and varying use of the innovation. Each level encompasses a range of behaviors.

The LoU, as stated by Hall and Loucks (1977), illustrate the users and the nonusers of an innovation. They illustrate the changes in behavior that individuals show when they are shifting through their use of the innovation (Al Aghbari, 2007), and show a continuum of growth gradually moving from not using the innovation towards using different skills, experiences, and looking for various ways to modify the existing innovation (Berg, 1993, cited in Mustafa, 2010). They, as summarized by Hall and Loucks (1977), permit an operational, cost-feasible explanation and certification of whether or not an innovation or treatment is being used. They added that data from research of change and evaluation studies showed that the LoU can be reliably measured. They also added that knowing the LoU of individuals within a research or evaluation sample could avoid holding false assumptions and making misleading interpretations about the user or nonuser and the effects of the treatment or innovation under study.

#### 4. STUDY

##### 4.1. Methodology

The aim of the study is to investigate the teachers' actual use of the WhatsApp application with the students' of the English foundation and credit programs. Quantitative research method was used in this study. It was collected through Mustafa's (2008, cited Hall et al., 1973) adaptive Level of Use Self-Assessment (LoU-SA) questionnaire. The participants for this study were the teachers teaching in the English foundation and credit programs in the Language Center at Sultan Qaboos University. By utilizing convenience sampling, 135 teachers teaching in different courses and programs were recruited in the spring semester of the academic year 2014-15 to participate in this study.

#### 4.2. Results and discussions

The findings of the study based on the LoU-SA questionnaire showed that in the use of the WhatsApp smartphone application the majority of teachers (n=57) were in the middle area and almost equally distributed at the Use Level representing the Mechanical use level (III), and the Routine Level (IVA, Figure 2). However, there was a large number of teachers (n=33) who were at the Nonuse Level (0). None of the teachers were at the Integration Level (V), and the Renewal Level (VI) of the Use Level.

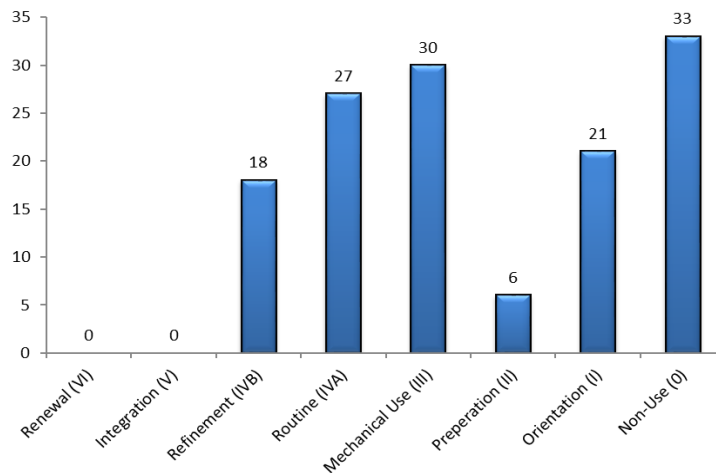


Fig. 2 Frequencies of the Teachers Levels of Use Self-Assessment

These findings are in line with the previous studies of Al Aghbari (2007), Mustafa (2010; 2012) and Nestler-Rusack (2011). Al Aghbari (2007) found that the majority of teachers were at the Mechanical Use Level (III) and the Routine Level (IVA). Mustafa (2010; 2012) found that majority of the English language teachers were at the Mechanical Use Level (III) based on LoU-SA. Nestler-Rusack (2011) found that the majority of participants were independently implementing educational innovation which reflected a Refinement Level (IVB).

Accordingly, as mentioned by Hall and Hord (2011), the teachers who were at the Preparation Level (II) had already decided to use the innovation and had scheduled a specific time to start using it. They had not yet started, but the intention and a specific start-up time was indicated by them. They were studying and preparing materials for their first use.

The teachers who were at the Mechanical Use Level (III) were disjointed and inefficient. They continuously practiced a day-to-day and minute-to-minute planning. They made adaptations in managing time, materials and other resources. They focused on short-term, day-to-day planning and using of the innovation. They also made adaptations in their use or in the innovation itself in order to increase their own benefits and to master it.

The teachers who were at the Routine Level (IVA) had already mastered the innovation and its use and established a regular way of working with it. They did not plan to make any adaptations or changes otherwise their use was stabilized as they believed that their work is fine.

The teachers who were at the Refinement Level (IVB) made reflections and assessments on their use of the innovation and made adaptations to their use with the intention of increasing their students' benefits rather than their own benefit.

None of the teachers were at the Integration Level (V) based on the LoU-SA. This actually reflects that the teachers preferred to work independently and in isolation. To overcome such a situation, it is suggested that decision-makers at the Language Center of Sultan Qaboos University should offer more personal development programs to foster collaboration strategies in order to encourage those teachers to collaboratively work with others. This may help, on the one hand, to reduce teachers' professional isolation (Sindberg & Lipscomb, 2005) and, on the other hand, to increase the effectiveness of the WhatsApp use. Also none of the teachers were at the Renewal Level (VI) based on the LoU-SA. This mainly reflects two major aspects. First, the teachers might not have the time or the energy to modify the use of WhatsApp or to reflect upon it as they were busy with daily issues. Second, they might not see the significant need for its modification.

Taking into account the absence of the teachers at the Integration Level (V) and the Renewal level (VI), it is assumed that this occurred because of three major reasons. Firstly, the use of WhatsApp was not taken seriously either by administrators or teachers at the Language Center. Secondly, such use by the teachers was not regularly assessed in order to come up with constructive feedback. Finally, teachers might not be motivated enough. These are three major reasons that probably discourage teachers from advancing from the Integration Level (V) to the Renewal Level (VI) in the use of WhatsApp. Those teachers who were at the Integration and Renewal LoU, as argued by Hall and Hord (2011), were the most important ones, the active ones, and the success of innovation depends mainly on them.

A large number of teachers were still at the Non-Use Level (0) based on the LoU-SA. This might reflect that those teachers felt quite insecure, uncertain, unclear and not confident to use WhatsApp. According to Hall et al. (2008), teachers at this level were hesitant to read about the innovation and they were also hesitant to attend any offered orientation programs related to the innovation. They were totally resistant to change. To reduce the number of teachers who were at the Non-Use Level (0), it is suggested that the management at the Language Center should design and deliver various interventions that stimulate teachers' interest, motivate them and support their movement to learn more about the innovation (Hall & Hord, 2011).

Some teachers were also still at the Orientation Level (I) based on the LoU-SA. The teachers who were at this level might start learning about the innovation by attending overview sessions about the innovation and inquiring about related information from others (Hall et al., 2008). It is suggested that the management at the Language Center should offer those teachers more interesting information and encouraging support towards the effective use of WhatsApp (Hall & Hord, 2011).

Levels of Use (LoU), as claimed by Hall et al. (2008), can serve as a valuable diagnostic tool for planning and facilitating the smooth use of innovation. In this regard, Hall and Hord (2011) insisted that each individual LoU and success with innovation is in a large measure affected by the facilitation he/she receives. The superficial knowledge base of the facilitators can provide only superficial support to the use of the user of the innovation. Consequently, those facilitators may then have an idea of the daily challenges faced by the teachers in their use of WhatsApp in order to move ahead in their LoU. This understanding and appreciation of the teachers' daily challenges may help facilitators to

design and run staff development programs and other related sessions with those challenges in mind towards a better educational innovation use with greater reliability and competency (Hall et al., 2008).

Additionally, LoU data, as stated by Marsh (1988), offers significant input on the type of support needed by individual teachers to achieve higher levels of educational innovation use. The findings of LoU in this study can be helpful for facilitators to propose timely specific support to the teachers at the Language Center. For example, facilitators can support teachers who were at the Preparation Level (II) to move ahead to the Mechanical Use Level (III) by being supportive of teachers as much as possible, providing them with ongoing assistance to help them proceed ahead to the next level as efficiently and smoothly as possible (Hall & Hord, 2011).

To support the previous discussion, much research was done on the context of LoU of educational innovation use (Rutherford & Loucks (1979), Rutherford (1981), Dudderar (1997), Richmond-Cullen (1999), Basinger (2000), Hall et al. (2008), Tunks & Weller (2009) and Orr & Mrazek (2009). For example, Rutherford and Loucks (1979) and Rutherford (1981) claimed that individual's LoU of innovation should be the main concern in order to assess the innovation being used. Dudderar (1997), Richmond-Cullen (1999) and Basinger (2000) mentioned that ongoing professional development programs should always be there to mainly support the use of educational innovation, i.e., teachers who were at the three levels of Non-Use, i.e., Non-Use Level (0), the Orientation Level (I) and the Preparation Level (II), can be quite easily facilitated to the Mechanical Use Level (III) and the Routine Level (IVA) through professional development sessions. Hall et al. (2008) suggested that the innovation use is mainly affected by the teachers themselves, their administrators, the environment and the feedback received on the innovation itself. Tunks and Weller (2009), based on interview findings, claimed that the teachers who received more ongoing support had higher LoU whereas the ones who received only initial support such as initial professional development programs had lower LoU.

## 5. CONCLUSION

Based on the findings of this study, the majority of teachers were in the middle area and almost equally distributed at the Use Level representing the Mechanical use level (III), and the Routine Level (IVA). However, there were a large number of teachers who were at the Non-use Level (0), and none of the teachers were at the Integration Level (V), and the Renewal Level (VI) of the Use Level. Accordingly, it can be concluded that some teachers were still at lower LoU in the use of the WhatsApp smartphone application in English foundation and credit classrooms at the Language Center. Therefore, better WhatsApp application use should be more facilitated to encourage teachers to easily move towards higher levels of use of educational innovations.



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