# Virtual social network-mediated English language learning in a Saudi tertiary EFL context: Innovation and agency

A thesis presented in partial fulfillment of

the requirements for the degree of

Doctor of Philosophy

in

Applied Linguistics

at Massey University, Palmerston North

New Zealand

**Fahd Hamad A Alqasham**

2018

# Abstract

The study explores the nature and roles of virtual social network (VSN) within a Saudi tertiary EFL (English as a foreign language) context, and the trajectory of the students' experiences and perceptions of Twitter inside the classroom and of WhatsApp outside the classroom throughout a 12-week semester. The study draws on the three broad phases of Fullan's change process (Fullan, 2001, 2007, 2016) for its underpinning theoretical framework and utilizes agency theory (van Lier, 2004, 2008, 2010) as an analytical tool for developing a deep understanding of the ways the innovative use of a VSN can aid students in and outside the classroom by allowing them to practice and collaborate in English learning.

The study utilizes a mixed methods approach for data collection, divided into two stages; one designed to gather background information and another for a longitudinal study. The data collection instruments employed for the background stage included a questionnaire, interviews, and classroom scenarios, to gather data from 93 English language teacher trainees and 84 Preparatory Year Program (PYP) students from three different colleges at Qassim University (QU) in Saudi Arabia. The data collection instruments for the longitudinal study stage, which consisted of initial and post-project interviews, focus group participation, research log observations in and outside the classroom, and a post-project questionnaire, were employed to gather data from 25 PYP students throughout the 12-week semester.

The study results revealed that VSN in the Saudi EFL context is divided into two types, private- and public-based, and that participants' use and activity in each type varies depending on the platform affordances. It also suggests that, while students may have a positive attitude toward the use of a VSN in their daily lives, contextual constraints could mean that classroom use may fail to be sustained over a relatively long period of time. Within the study, although Twitter's affordances in terms of anonymity and perceived newness initially motivated the students to exercise their agency in English learning, their anxiety, the teacher's role, and the university infrastructure all played a crucial role in the

failure of Twitter's use to be sustained inside the classroom beyond the ninth week. However, WhatsApp's implementation exhibited its sustainability by continuing even after the study ended and until the end of the semester. WhatsApp allowed the students to collaborate, practice what they were learning, develop autonomy, and transit from being passive to active learners, not only in English but also in other subjects.

Finally, this thesis concludes by illustrating the value of interpreting the complex and dynamic nature of the innovation's implementation process using agency theory from an ecological perspective. It also recommends ways in which teachers could implement VSN in the language classroom.

# Dedication

This thesis is dedicated to my mother Madawi and my father Hamad who kept on encouraging me and praying for me every day.

To my beloved wife Afnan for taking care of me, encouraging me and for being patient with this long PhD journey.

To my daughters Diyala and Yara who missed a lot of attention from me because of my studies.

To my sisters and brothers for supporting me.

## Acknowledgements

My gratitude goes first to Allah for blessing me with the opportunity to continue my PhD study, for giving me the inspiration, strength, time and patience to complete this thesis, and for blessing me in all steps in my life. To my wife and family who supported me throughout my studies.

I would like to express my heartfelt gratitude to my supervisors, first to Prof Cynthia White for her guidance, expertise, encouragement, support, and patience with my ups and downs throughout this long PhD journey. It would not have been possible to achieve my PhD without her guidance and support. I am very grateful to her.

Next, my heartfelt thanks to my co-supervisor Dr Gillian Skyrme for her guidance, support and for providing me with rich feedback on my numerous drafts which greatly improved my writing and quality of the thesis. Thanks to Dr Gillian as well for her patience with my ups and downs. Also, thanks to my co-supervisor Dr Leonel Alvarado for his support and patience with me throughout this PhD.

I would like to thank the Saudi Ministry of Education for awarding me the scholarship and for supporting me financially for the past four years, Massey University for providing me with this opportunity to pursue my PhD, and Qassim University for allowing me to conduct the study and gather data from the three colleges.

Finally, I am thankful to all the participants in the study for their time and willingness to participate and share information and their opinions.

# TABLE OF CONTENTS

# LIST OF TABLES

# LIST OF FIGURES

# LIST OF APPENDICES

# CHAPTER ONE: INTRODUCTION

## 1.1 Overview

The focus of this study is on virtual social networking within a Saudi English as a Foreign Language (EFL) context and its potential as a platform for Saudi English learners and teachers to practice the English language in a comfortable environment. This introductory chapter of this thesis provides an overview of the study; it begins by reviewing the efforts exerted by the Saudi Ministry of Education to provide education with innovation, and by describing EFL education and innovation in the Saudi context; the emergence of Web 2.0 and virtual social network concepts and definitions. A presentation of the research problem, purpose, and significance of the study then follows.

## 1.2 Ministry of Education's Ongoing Efforts to Innovate Education

Innovation in education has been a significant area of concern of the Saudi Ministry of Education (MOE) (Alresheed, Leask, & Raiker, 2015; Saqlain, Al-Qarni, & Ghadi, 2013). In 2006, the Saudi government established a national plan to incorporate information and communication technology (ICT) in education so as to enhance education (Ministry of Communications and Information Technology (MOCIT), 2009). Since its establishment, the MOE has expanded ongoing efforts to implement and develop ICT in Saudi universities and schools and to meet the needs of a young generation proficient in technology use. For instance, in 2007, the Saudi government allocated $2.6 billion to King Abdullah's Tatweer program (www.tatweer.edu.sa) aimed at enhancing and reforming education with a specific focus on implementation and development of technological innovation in Saudi schools and universities over a six-year period (Albugami & Ahmed, 2015, June). In March 2017, allocating almost $426 million to fund the technological shift, the MOE signed an agreement with a company specializing in

digital technology to supply smart tablets to all students and teachers in over 1500 schools and universities by 2020 (MOE, 2017). However, the MOE's interest in innovation technology did not stop with implementing technology. In addition, it launched a website, www.ebook.sa, with the aim of digitalizing textbooks to replace hardcopy versions in the near future. In 2011, MOE established the Saudi Electronic University (SEU), the Kingdom's first online university, that combines distance and traditional learning. The SEU main campus is located in Riyadh, the capital city of Saudi Arabia, with sub-campuses in each state's capital city. This interest by the Saudi MOE in innovative education indicates the value and importance it places on the use of technology and its influence on Saudi youth as well as on the need to be competitive with developed countries.

## 1.3 EFL Education and Innovation in Saudi Arabia

### *1.3.1 EFL education*

The English language in Saudi Arabia is categorized under the expanding circle of Kachru's Three Concentric Circles (Kachru, 1992). The expanding circle refers to "the countries where English is used as a foreign language, including China, Japan and Saudi Arabia" (Alshammari, 2015, p. 366). Thus, English is being taught in the Saudi context as a foreign language for specific purposes, including academic and job-related ones or "as means of communications for trade, tourism, politics, and media" (Al-Asmari & Khan, 2014, p. 319). There are few opportunities for English learners to use the language in day-to-day encounters in what is an EFL environment.

In 1925, the Ministry of Education introduced English in the school curriculum in order to meet the growing needs of the Kingdom (Al-Ahaydib, 1986). In Saudi Arabia, English is treated as one of the important subjects in education: "English has received a lot of care from the Ministry of Education as well as from the community" (Asiri, 2014, p. 2). English is taught as a compulsory subject starting from the fourth grade (usually 10 years old) up to university level (which usually starts at the age of 18) (Mitchell & Alfuraih, 2017). The education system in Saudi Arabia is segregated by sex and is divided into four

main stages: the primary stage which encompasses grades one through six (with one year and two semesters for each grade), the intermediate stage from grades seven through nine, the secondary stage from grades ten through twelve, and finally the tertiary stage. In this final stage, English is taught in science and some humanities departments, depending on university and department requirements (Al-Asmari, 2005). The MOE's aim in introducing English during the primary stage is to enable students to read, write, listen, and speak in simple correct English so as to be able to communicate with English speakers, to access knowledge of arts and sciences from other societies, to aid in the service of humanity, and to promote the Kingdom's economic growth (Aldosari, 1992). Consequently, the Saudi government has maintained a particular focus on English language learners and teachers.

However, even though by the time they enter tertiary study they have been learning English over a long period of time (since grade four), and despite the MOE's efforts to improve language learning, the majority of students exhibit relatively low levels of achievement in English, failing to attain the level intended by the Ministry of Education (Al-Johani, 2009; Al-Seghayer, 2014; Alhawsawi, 2013; Alrabai, 2016; Khan, 2011; Rajab, 2013). According to an official statistical release of Test of English as a Foreign Language (TOEFL iBT) (2017) test results, the average overall score of Saudi test takers from January to December 2016 was 64 out of 120, the lowest average score of all Middle Eastern and North African test takers and the third lowest worldwide. Given these current shortcomings within the Saudi EFL context, it becomes crucial to not only introduce more innovation but also to investigate how learners adopt the innovation, how they use its affordances to be more active in their language learning, and how their actions reshape their environment and sustain the innovation.

### *1.3.2 Innovation in EFL education*

Technological innovation within the Saudi EFL context have undergone many developments since it was first introduced in the 1980s (Alrumaih, 2004). By early 1980, basic forms of technological innovation were introduced in English education to enhance language teaching and learning. At that time, educational innovations that were used in

the classroom included video and audio tape players, overhead projectors, VCRs, and TVs, with some institutions and universities dedicating audio language labs specifically for practicing English listening and speaking (Shaabi, 2010). By the early 1990s, technological innovation in the Saudi EFL context evolved with the introduction of CALL (Computer-Assisted Language Learning) software programs by some companies that specialized in the field of language education (Al-Asmari & Khan, 2014). At that time, the Internet was not yet available within the Kingdom, and so the use of CALL was limited to "carry[ing] out simple repeated language drills and practice exercises or to giv[ing] pre-programmed, immediate positive or negative feedback" (Cho, 2012, p. 11). Technological innovation in language education has further evolved with the introduction of the Internet and Web 1.0 and 2.0.

## 1.4 Web 2.0 and Virtual Social Networking

### *1.4.1 The emergence of Web 2.0 technologies*

The term Web 2.0 refers to the second generation of the World Wide Web, which emphasizes user-generated content, usability, and interoperability (Merino, 2016; O'Reilly, 2007). The term "Web 2.0" was first introduced by DiNucci (1999) but was later popularized by Tim O'Reilly in 2005. The purpose of Web 2.0 is to facilitate communication and secure information sharing, interoperability, user-centered design, and collaboration on the World Wide Web (O'Reilly, 2007). In other words, the purpose of the Web 2.0 technology is to surpass simply retrieving information for visitors, as was the case with Web 1.0 (a read-only technology), by allowing users to self-initiate and control the use of the tools needed to create, publish, and share information with friends, family, students, and the world (Singh, 2010; Wang & Vasquez, 2012).

Kaplan and Haenlein (2010) identify six different types of Web 2.0 technologies: "collaborative projects, blogs, content communities, social networking sites, virtual game worlds, and virtual social worlds," and Web 2.0 platforms normally employ one or more of these technologies (p. 60). Wang and Vasquez (2012) state that Web 2.0 technologies are now being used to "interact, collaborate, network, and entertain through blogs, wikis,

social networking tools, and multiplayer games" (p. 412). What motivates the use of Web 2.0 is that it is free or low cost and that it gives fast access to a wealth of information. With Web 2.0, interaction and collaboration are not limited by time and space if an Internet connection is available, and it thus promotes socialization and frequent use of its technologies.

### *1.4.2 Virtual social network definitions and similar concepts*

Many concepts are used in the literature to describe social networking; at least 10 different terms shown in Table 1.1 are used synonymously to describe the same concept. For example, McLoughlin and Lee (2007) and Ferdig (2007) use the term "Social Software" as a general term that encompasses social networking. More precisely, the definition of McLoughlin and Lee includes photo-sharing, musical taste-sharing, message-boards, social networking, mailing lists, and instant messaging. Ferdig also employs the same broader term to refer to social networking applications, wikis, weblogs, and social tagging applications.

Gruber (2008) and Kim, Jeong, and Lee (2010) use the term "Social Web Sites" to refer to websites such as YouTube, Facebook, Myspace, and Flickr. Kim et al. (2010) define "Social Web Sites" as websites that allow people to access "online communities, and share user-created contents (UCCs)" (p. 216). They state that their term "Social Web Sites" refers to the broader concept "union of social networking sites and social media sites" (p. 216). From their perspective, the difference between social networking sites and social media sites is that the latter refers to "Web sites that allow people to share UCCs. Some of the most widely used social media sites include YouTube, Flickr, Digg, Metacafe, etc.," which depend primarily on video and audio sharing, while "social networking sites are Web sites that allow people to stay connected with other people in online communities" such as Facebook, Myspace, Windows Live Spaces, Habbo, etc. (Kim et al., 2010, p. 217). However, by 2017, the nature and capabilities of social networking had significantly changed; for example, Facebook can also be used to share videos the same as platforms such as YouTube.

Jansen, Zhang, Sobel, and Chowdury (2009) employ the terms "social communication platforms" and "social communication services" to more broadly describe online communities, virtual reality, and social networking such as Flickr, YouTube, and Wikipedia. Furthermore, De Valck, van Bruggen, and Wierenga (2009) and many others (see Table 1.1) described such sites as Facebook, Wikipedia, Myspace, and YouTube as "social networking sites," while, Cox, Burgess, Sellitto, and Buultjens (2009) used the term "social networking" to describe "pages that contain user-generated content in various formats" (p. 2). Overall, even though the literature does not exhibit unanimous agreement on the terms used to describe social networking, all describe the same concept in which Facebook, Twitter, and other Web 2.0 technologies are socially built to communicate, share, and generate content online.

Table 1.1: Terms used to describe the social networking concept

| Term | Sample research publications |
|---|---|
| New social media | Fischer & Reuber, 2011; Thomas & Thomas, 2012 |
| Social multimedia network | Mahapatra, 2013; O'Donovan, Fournelle, Gaffigan, Brdiczka, Shen, Liu & Moore, 2013 |
| Social communication platforms | Eyers, Freudenreich, Margara, Frischbier, Pietzuch & Eugster, 2012; Jansen et al., 2009 |
| Social networking sites | Dwyer, Hiltz & Passerini, 2007; Griffith & Liyanage, 2008; Miller, 2012; Roblyer, McDaniel, Webb, Herman & Witty, 2010; |
| Social media | Asur & Huberman, 2010; Kaplan & Haenlein, 2010, 2011; Mangold & Faulds, 2009; Safko, 2010; Smith, 2009; Thevenot, 2007 |
| Social networks | Calvó-Armengol, Patacchini & Zenou, 2009; Miguéns, Baggio & Costa, 2008; |
| Social networking | Cox et al., 2009; Rennie & Morrison, 2013 |
| Social software | Ferdig, 2007; McLoughlin & Lee, 2007 |
| Social web sites | Gruber, 2008; Kim et al., 2010; |
| User-generated media | McConnell & Huba, 2007; Shao, 2009 |
| User-generated content websites | Dotan & Zaphiris, 2010; O'Connor, 2010 |

In this study, the term "virtual social networking" (VSN[1]) is used to describe Web 2.0 technologies such as Facebook, Twitter, WhatsApp, and other sites where an online

[1] The abbreviation in this study refers to both terms "virtual social networking" and "virtual social network."

community is established. In general, VSN is defined as an online community established to share knowledge, common interests, information, private lives, and friendships with others through a virtual environment. This term is more suitable than the others because learners can use Web 2.0 technologies inside and outside the classroom to interact, collaborate, and build social relationships virtually by creating a virtual environment that suits their English-learning needs. Hence, the term VSN more closely expresses its meaning within an innovative EFL learning environment.

The use of VSN has been confirmed to have positive effects on learners' English language achievement across various settings (e.g., Harrison & Thomas, 2009; Mahmoud, 2014; Pasfield-Neofitou, 2011; H.-J. Wu & Wu, 2011). Several studies have found that VSN could foster learners' collaboration, motivation, autonomy and confidence (Buzzetto-More, 2012; Gikas & Grant, 2013; Shih, 2011). Moreover, VSN has been reported to create better language learning opportunities outside the classroom, especially for EFL learners with limited opportunities to practice English (Al-Shehri, 2012). In addition, new generations of students and teachers are more likely to be highly active on VSN (Boyd, 2008; Kolb, 2008). Hence, it is important to consider the suitability of VSN as a technology for language learning. As Liu (2010) argues, "future technology integration in education should focus on what students use instead of what the school wants them to use to guarantee maximum efficiency" (p. 113). The popularity, ease of use of VSN, and its availability irrespective of time and space make it a suitable technology to be used to enhance language learning. In the study context, VSN is gaining popularity not just among young students and teachers but also with the older generation and even government authorities. For example, the Saudi king and his ministers all have accounts on various VSN platforms, especially Twitter, to directly listen to the people's needs. Thus, in this study, VSN will be used in and outside the classroom as an innovation to enhance learners' collaboration and to create a platform for them to comfortably practice the English language. The pedagogical benefits of VSN for language learning are explored in detail in the next chapter.

## 1.5 The Research Problem

While much effort, in the Saudi EFL context, has been expended to study the attitudes, outcomes, and behavioral intentions associated with adopting a technological innovation in learning and teaching a new language, less attention has been paid to investigating the dynamics and complexity of learners' actions throughout their use of the innovation over time. In addition, attention has not been given to how such innovation could be sustained, or possibly fail to be sustained, over a long period of time. From my point of view, the use of an innovation largely depends on how learners and teachers alike make sense of the technology and act independently to use it to make positive changes to their environment. Since the introduction of the Internet and Web 1.0 and 2.0 applications in the late 20th century, a continuous emphasis has been given in the Saudi context to employing online virtual environments to enhance language learning and teaching (e.g., S. Alharbi & Drew, 2014; Alothman, Robertson, & Michaelson, 2017; Hamdan, 2014; Hammond & Gamlo, 2015). However, when learners interact with an innovation, it is important to investigate the constraints that limit their agency in language learning and their use of the innovation's affordances to expand their actions not only based on the new features of the technological innovation but also on the factors that emerge from their culture and their language learning context. The nature and extent of these challenges has as yet been awarded little attention during the course of a technological innovation's implementation in the Saudi context.

In the Saudi tertiary EFL context, learners face significant challenges in using English inside and outside the classroom (Al-Harbi & Alshumaimeri, 2016; H. Alharbi, 2015[2]; Alshammari, 2015). According to Alharbi (2015), Saudi learners' limited use of English language inside and outside the classroom was found to negatively affect their achievement levels. The current empirical body of research on English language practice opportunities inside and outside the classroom is still very shallow in the Saudi EFL context (Al-Harbi & Alshumaimeri, 2016). Al-Harbi and Alshumaimeri (2016) argue that

[2] For clarity, references in this thesis to work by S. Alharbi are cited as 'Alharbi'. References to work by H. Alharbi is cited with the respective author' initials.

Saudi EFL learning "is in need of studies that offer practical solutions rather than just highlighting the problem" (p. 70). As a result, further research in online authentic language learning inside and outside the classroom is needed to understand the nature and roles of VSN for Saudi EFL learners and how the learners interact to learn and practice English through their use of VSN affordances to change their learning environments.

## 1.6 Purpose of the Study

The study aims to investigate the nature and roles of VSN in a Saudi tertiary EFL context and the implementation of VSN; it explores the experiences and trajectory of the students' use of Twitter inside the classroom and their use of WhatsApp outside the classroom and how VSN sustainability was achieved. The study took place at three colleges of Qassim University in different locations in the state of Qassim in Saudi Arabia. The study strives to answer the following research questions:

1- What are the nature and role of VSNs in the context of Saudi tertiary EFL learners?
2- How are the students' experiences and use trajectory of Twitter inside the classroom embedded in their EFL learning experiences?
3- How are the students' experiences and use trajectory of WhatsApp outside the classroom embedded in their EFL learning experiences?

## 1.7 Significance of the Study

From a sociocultural perspective, this study contributes to an understanding of the innovation process with regard to VSN technologies in language learning among EFL learners at the tertiary level in the Saudi context. Given the current shortcomings of English learning and practices inside and outside the classroom in the Saudi EFL context, the learners are likely to face challenges, tensions, and conflicts that may impact on their actions in their use of VSN. The study draws on Fullan's (2001, 2007, 2016) broad phases of the change process and utilizes van Lier's (2004, 2008, 2010) perspective of agency from an ecological approach as the analytical framework to understand the complexities

and dynamics of the learners' interaction within their use of the innovation for language learning. It emphasizes the learners' actions with respect to their use of VSN, how they use the affordances of VSN to expand their agency to reshape their environment, and how contextual and technological constraints influence their agency toward sustaining VSN.

It is hoped that the results of this study will offer stakeholders, learners, and teachers in the field of EFL education useful insights that will enable them to make sense of the utilization and advantages of technological innovations. The study's findings could contribute to an understanding of how to seamlessly implement online technological innovation in language learning and teaching. Such an understanding might help provide teachers with guidance in how to appropriately avoid constraints arising from the innovation that might limit learners' agency and to make use of the affordances to enable learners' actions not just from the technological features but also the affordances that emerge from the use of the technology in their life contexts. Finally, the implementation of Twitter inside and WhatsApp outside the classroom, each with different implementation strategies, could possibly provide opportunities to enhance language learning not just for university students but also for other individuals who are seeking to develop proficiency in the English language.

## 1.8 Organization of the Thesis

The thesis is organized into eight chapters. Chapter One operates as an introduction. It had provided an overview of the Saudi MOE endeavors to integrate technology in education, an overview of EFL education and innovation in the Saudi context, an overview of Web 2.0 and VSN, and a statement of the research problem. The chapter has also elaborated on the purpose of the research and research questions underpinning the current study and its significance. Chapter Two presents a review of the relevant literature; it covers the historical development of innovation theories, including Fullan's three broad phases of the change process as the theoretical framework utilized in the present study. Chapter Two also sheds light on agency from an ecological perspective as an analytical tool for the current study and presents and discusses the pedagogical value of VSN in learning in general and more specifically in language learning. Chapter Three

discusses the research procedures and methodology involved in the study. It aims to describe the research design, by illustrating the human ethics procedures followed, the pilot study, the participant sample and the three research settings. The chapter also discusses and presents the data collection instruments and the process of data analysis. The next three chapters, Chapters Four, Five and Six, present the results of the study corresponding to the research questions. Chapter Four explores the nature and roles of VSN in the tertiary EFL context. Chapter Five explores the trajectory of the students' use of Twitter inside the classroom. Chapter Six explores the trajectory of the students' use of WhatsApp outside the classroom. Chapter Seven discusses the results of the study in regard to the research questions and sheds light on the affordances and constraints that influenced the students' agency in their use of VSN. Chapter Eight revisits the research questions, discusses the implications of the study and its limitations, identifies directions for future research, and draws final conclusions.

# CHAPTER TWO: LITERATURE REVIEW

## 2.1 Overview

This chapter reviews the relevant literature on innovation, agency, and Web 2.0 technology, particularly the application of Virtual Social Networking (VSN) in language learning. In the first section, the definitions of innovation are presented, followed by an overview of the theoretical frameworks used to investigate innovation in language learning. The chapter's second section reviews Fullan's (1982, 2001, 2007, 2016) and Fullan and Stiegelbauer's (1991) three broad phases of the change process—initiation, implementation, and sustainability. Fullan's model served as the guide that drove this study, to deeply understand the innovation process and its complexity and dynamics. The chapter's third section defines and reviews the concept of agency in the context of language learning and discusses recently developed theoretical frameworks relevant to it. Specifically, this study adopted van Lier's (2004, 2008, 2010) ecological perspective toward agency as the analytical tool used to explore the dynamics and complexities of social interaction, relationships, and sociocultural values and their effects on English learners' agency and adoption of VSN. The chapter ends with a review of the relevant literature and studies on the pedagogical value of VSN in learning in general and of the English language in particular.

## 2.2 Innovation and English Learning

Before the definitions of innovation are presented, the differing views within the wider literature associated with the two terms 'innovation' and 'change' are discussed. The earlier literature distinguishes between the two terms (see e.g., De Lano, Riley, & Crookes, 1994; Kennedy, 1999a; Markee, 1997; Stoller, 1997; R. White, 1988). However, the recent literature uses the terms 'innovation' and 'change' synonymously and treats

them as equivalent (see e.g., Lamie, 2005; Waters, 2009; Wedell, 2009). Hence, the current study treats the two terms as equivalent in meaning.

### *2.2.1 Definitions*

One of the earliest definitions of innovation comes from Nicholls (1983) who defines innovation as "an idea, object or practice perceived as new by an individual or individuals, which is intended to bring about improvement in relation to desired objectives, which is fundamental in nature, and which is planned and deliberate" (p. 4). In a similar definition, White (1988) describes innovation as "a deliberate effort, perceived as new and intended to bring about improvement" (p. 5). Rogers's (2003) perception of innovation is similar to that of Nicholls and White; he defines it as "an idea, practice, or project that is perceived as new by an individual or other unit of adoption" (p. 12). Rogers adds that an innovation does not have to be objectively new as measured by the lapse of time since its invention but rather only needs to be perceived as new by an individual who has not previously had knowledge of it or if practice of the idea is perceived to be new by the individual. For example, in the current study VSN technology itself is not viewed as new by the students, rather, its application in and outside the classroom for language learning is viewed as new therefore constituting an innovation.

Within the field of language learning, De Lano et al. (1994) define innovation in terms of four aspects—change, novelty, development, and improvement. They conclude that innovation within the context of learning a second language can be defined as "an informed change in an underlying philosophy of language teaching/learning, brought about by direct experience, research findings, or other means, resulting in an adaptation of pedagogic practices such that instruction is better able to promote language learning as it has come to be understood" (p. 489). Similarly, Markee (2001) defines innovation as "proposals for qualitative change in pedagogical materials, approaches, and values that are perceived as new by individuals who comprise a formal (language) education system" (p. 120). Thus, the key aspect of defining innovation in language learning is the perceived newness of the idea or object to the individual including pedagogical materials, practice, approaches, values, and the overall improvement brought about by the innovation.

### *2.2.2 An overview of the theoretical frameworks of innovation*

Numerous theories and models have been developed to explore the implementation of innovation in various disciplines. Such theories and models were developed and created to describe, explore, and assess the implementation, adoption, and acceptance of new technologies or practices by individuals to reshape and improve the learning system in general and more particularly the English learning. Since the current study investigates the implementation of innovative technology in the Saudi context, providing the background of those theories and models is important.

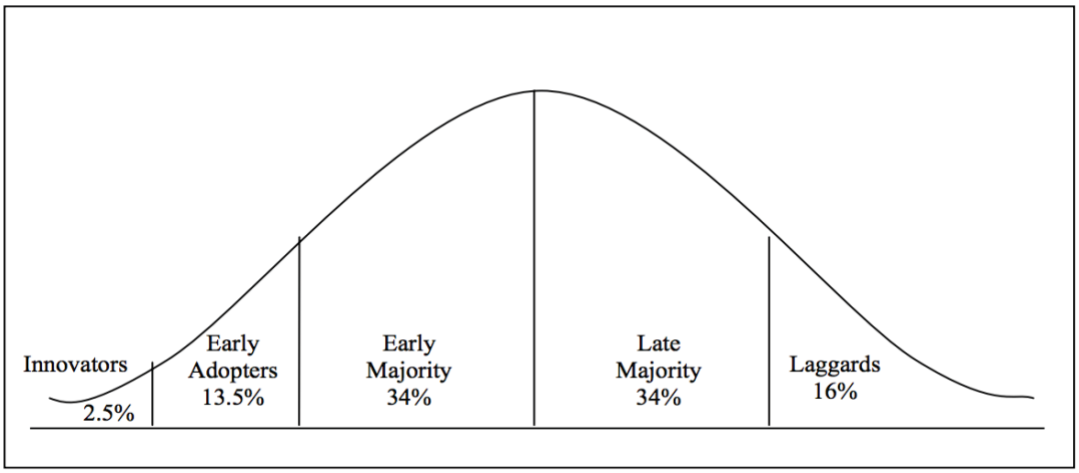
Since the beginning of innovation research, scholars have made multiple efforts to develop and validate models in the field of innovation. For example, Ajzen (1985) extended the theory of reasoned action (TRA), formulated within the psychology field by Ajzen and Fishbein (1975), into the theory of planned behavior (TPB). Taylor and Todd (1995a) later extended this theory into the decomposed theory of planned behavior (DTPB). In addition, Davis (1986) drew upon the theory of reasoned action for some main features of the technology acceptance model (TAM). Venkatesh and Davis (2000) extended TAM into TAM2, and then Venkatesh and Bala (2008) extended these into TAM3. In addition, other theories and models were widely used in innovation research to validate the acceptance and implementation of technologies such as diffusion of innovation theory (DIT), the model of personal computer utilization (MPCU), the motivational model (MM), the unified theory of acceptance and technology use (UTAUT), social cognitive theory (SCT), and finally Fullan's educational change model, which provided the framework used in this study. An overview of these theories and models and their developments are provided below.

#### *2.2.2.1 Diffusion of Innovation Theory (DIT)*

We first begin with Rogers's diffusion of innovation theory (DIT) since it is the most widely used within language research. The DIT was developed by Rogers (1962, 1983, 1995, 2003) and Rogers and Shoemaker (1971) to explore why, how, and at what rate innovation spreads through specific groups of individuals and organizations. Rogers

(1983) defines diffusion as "the process by which an innovation is communicated through certain channels over time among the members of a social system" (p. 5). DIT has been widely used and validated within many disciplines including applied linguistics. Rogers (1983) stated that the adopters of any innovation could be categorized into five categories: innovators, early adopters, early majority, late majority, and laggards (see Figure 2.1).

Figure 2.1: The innovation adoption process (Rogers, 2003, p. 281)



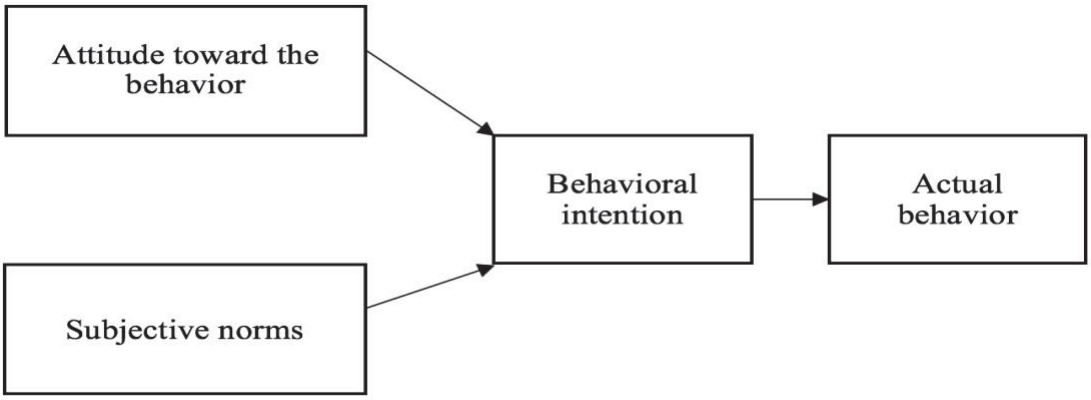

In addition, within the DIT, Rogers (1983) identified five characteristics of an innovation that he viewed as influencing probability of an innovation's adoption or acceptance of an innovative behavior. Those five features include: relative advantage, complexity, compatibility, trialability, and observability. The higher the relative advantage, compatibility, trialability, observability, and simplicity of an innovation, the more rapidly it will be adopted (Rogers, 2003). However, Damanpour (1996) argues that quantifying the diffusion of an innovation is difficult due to complex interactions between individuals, making it difficult for the diffusion research to account for all variables affecting the possibility of adoption.

#### *2.2.2.2 Theory of Reasoned Action (TRA)*

The theory of reasoned action (TRA) was developed by Ajzen and Fishbein (1975). According to Hale, Householder, and Greene (2002), the TRA was "born largely out of frustration with traditional attitude-behavior research, much of which found weak

correlations between attitude measures and performance of volitional behaviors" (p. 259). TRA is one of the most important theories used to describe human behavior (Venkatesh, Morris, Davis, & Davis, 2003). TRA assumes that an individual's actual behavior is decided by his or her intention to practice the behavior (see Figure 2.2). The construct of intention facilitates effects on actual behavior (Ajzen & Fishbein, 1975). Two factors determine intention toward a behavior, attitude towards the behavior and subjective norm, where the former is defined as "an individual's positive or negative feelings (evaluative effect) about performing the target behavior" (Ajzen & Fishbein, 1975, p. 216). An individual's assessed attitude towards a behavior is based on his or her perceived personal advantages or disadvantages arising from performing the behavior. Subjective norms' refers to "the perception that most people who really matter to the individual think that he either should or should not perform the behavior in question" (Ajzen & Fishbein, 1975, p. 302). Subjective norms emphasize potential social impacts that affect an individual's determination of his behavior intention, reflecting "the person's perception of the social pressures put on him to perform or not perform the behavior" (Ajzen & Fishbein, 1975, p. 6).

Figure 2.2: The Theory of Reasoned Action (Hale et al., 2002, p. 261)



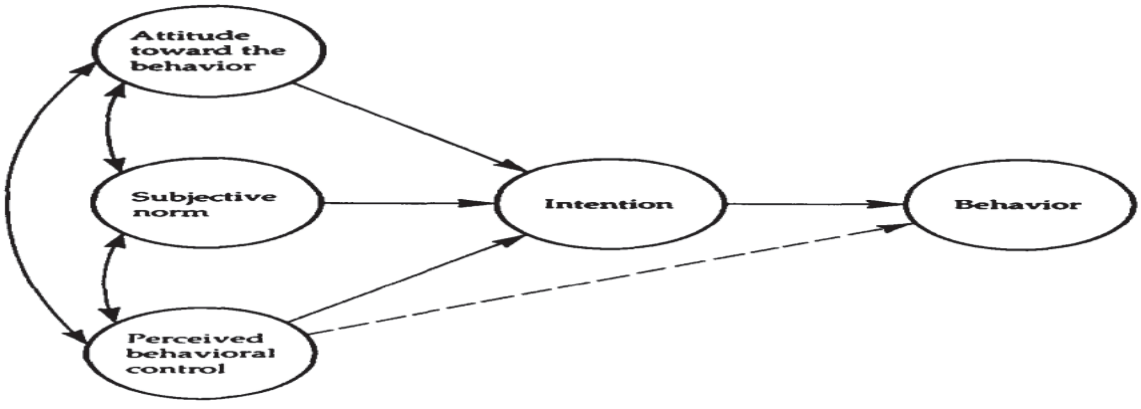

However, the TRA has some limitations in describing some of the variables of the actual use of an innovation and the role of the individual's behavioral intent (Ajzen, 1991). One of the main limitations cited is that the TRA is not appropriate for individuals who perceive themselves as having little power over their behaviors and attitudes (Ajzen,

1991). In response to this criticism with respect to the TRA's limitations, Ajzen (1991) added a third aspect (perceived behavioral control) to the original theory, resulting in the theory of planned behavior.

#### *2.2.2.3 Theory of Planned Behavior (TPB)*

In response to the limitation in the TRA, Ajzen (1991) extended this theory to include a condition that predicts "behaviours over which people have incomplete volitional control" (p. 181). The third variable added, the perceived behavioral control (PBC), is defined as the individual's perception of the level of easiness in performing a specific behavior of interest (Ajzen, 1991). According to Taylor and Todd (1995b), the PBC was added to provide information about the possible constraints an individual encounters when acting out the behavior and to explore the reasons for the intention in being unable to always predict behavior. In addition, unlike the other two variables (i.e., subjective norms and attitude toward the behavior), PBC is a direct influence on intention and also a direct influence on behavior. As shown in Figure 2.3, the broken line indicates that, in some circumstances, the PBC has a larger influence on behavior (Ajzen, 1991). However, both intention and PBC are essential in predicting an individual's behavior.

Figure 2.3: Theory of Planned Behavior (Ajzen, 1991, p. 182)



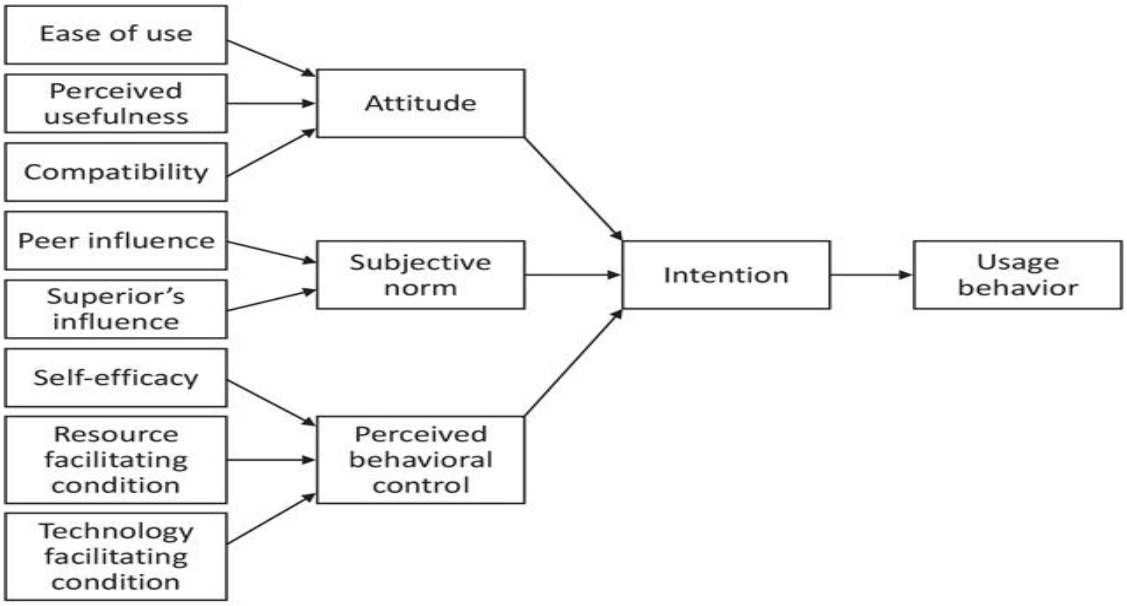

Ajzen (1991) described the constructs of TPB in a method that would result in prediction and understanding of the individual behavior in a certain context and he confirmed that "Attitudes towards the behavior, subject norms with respect to the behavior, and

perceived control over the behavior are usually found to predict behavioral intentions with a high degree of accuracy" (p. 206). However, even though Ajzen (1991) ascertained that TBP can predict behavior intention with a high level of accuracy, in technology acceptance research, TBP was found to lack sufficient scale development and empirical basis (Akour, 2009). Therefore, to account for the issues associated with TBP in innovative technology research, Taylor and Todd (1995b) introduced the decomposed TPB with the goal of delivering an enhanced, more in-depth explanation of behavior.

#### *2.2.2.4 Decomposed Theory of Planned Behavior (DTPB)*

The DTPB was designed to investigate specific influences on computer-usage behavioral intentions. It breaks down the components of the TPB model (attitude, belief, SNs, and PBC) into "multi-dimensional belief constructs" (Taylor & Todd, 1995b, p. 151). For the construct, attitudes were decomposed into three variables: perceived ease of use (PEU), perceived usefulness (PU), and compatibility. The subjective norm construct (the main construct that directly influences intention in TPB) was broken down into two variables: peer influence, superiors' influence. The model divided PBC into three variables: self-efficacy, a resource-facilitating condition, and a technology-facilitating condition (see Figure 2.4). Taylor and Todd (1995b) argued that, by decomposing these beliefs, "the model becomes more managerially relevant, pointing to specific factors that may influence adoption and usage" (p. 151). They summarized that DTPB is more powerful in exploring behavioral intentions related to technology usage than TPB. This extension of the DTPB model made it a more complex model in comparison to the TPB and TRA (see Figure 2.4).

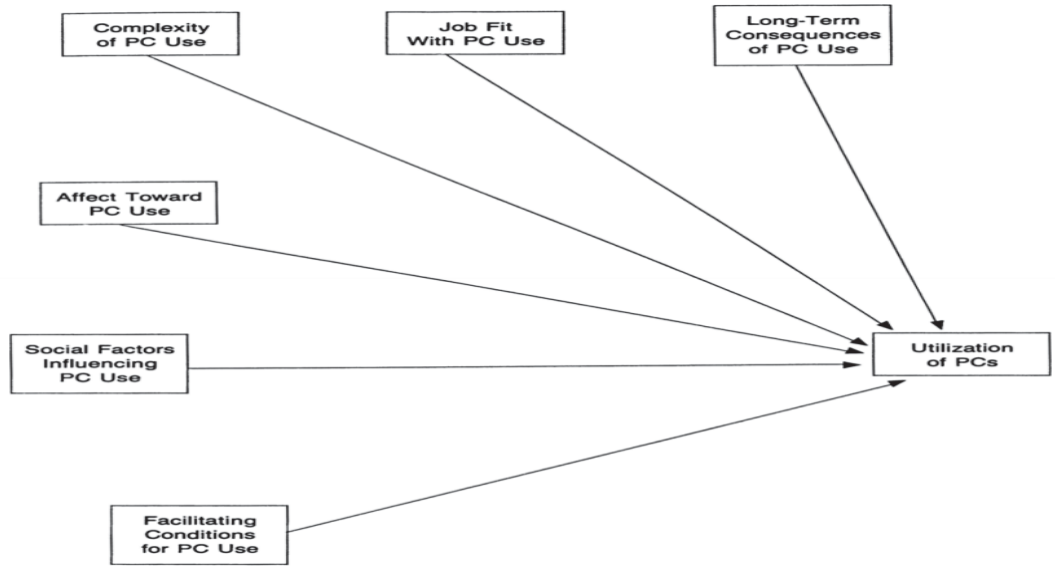
Figure 2.4: The Decomposed Theory of Planned Behavior (Taylor & Todd, 1995b, p. 146)




### *2.2.2.5 Model of Personal Computer Utilization (MPCU)*

The Model of Personal Computer Utilization (MPCU) was developed by Thompson, Higgins, and Howell (1991) by modifying Triandis's (1971) theory related to PC-usage behavior rather than PC adoption. However, Venkatesh et al. (2003) argue that it can also be suitable for investigating technology adoption. Thompson et al. stated that "Behavior is determined by what people would like to do (attitudes), what they think they should do (social norms), what they have usually done (habits), and by the expected consequences of their behavior" (p. 126). Hence, they divided the MPCU model to include six constructs that determine individual technology usage behavior including job-fit, complexity, long-term consequences, affect towards use, social factors, and facilitating conditions.

Figure 2.5: Model of Personal Computer Utilization (Thompson et al., 1991, p. 131)



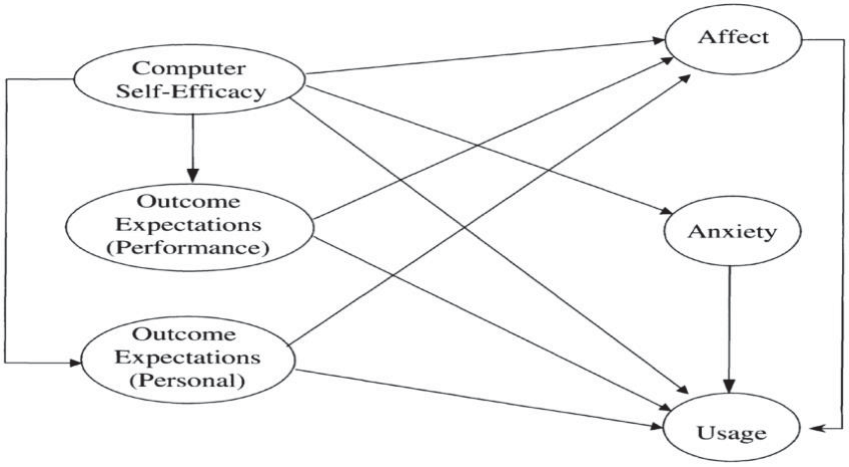

*2.2.2.6 Motivational Model (MM)*

Davis, Bagozzi and Warshaw (1992) developed the motivational model (MM) theory to explore technology acceptance based on Deci and Ryan's (1985) self-determination theory. The model distinguishes between the effects of intrinsic and extrinsic motivation in determining levels of technology adoption. Intrinsic motivation refers to performance of an activity "for no apparent reinforcement other than the process of performing the activity per se" (Davis et al., 1992, p. 1112). Extrinsic motivation refers to external factors that lead an individual to perform an activity "because it is perceived to be instrumental in achieving valued outcomes that are distinct from the activity itself, such as improved job performance, pay, or promotions" (Davis et al., 1992, p. 1112). The results of their empirical study showed significant indications for both intrinsic (such as enjoyment derived from using computers) and extrinsic motivation (such as the advantages of using computers to attain achievement and external benefits) influencing individual behavioral intentions to use technology.

### *2.2.2.7 Social Cognitive Theory (SCT)*

Social cognitive theory (SCT) was originally proposed by Bandura (1986) to explain human behavior in maintaining and acquiring certain behavioral patterns. Compeau and Higgins (1995) extended and applied this theory to include prediction of human behavior in technology utilization. Their modification of SCT focuses more on cognitive aspects of human behavior (self-efficacy, performance outcome expectations, and personal outcome expectations), affective aspects (affect and anxiety), and usage (see Figure 2.6). According to Compeau and Higgins, (1995) there are two dimensions which explain these cognitive factors. The first is outcome expectancy (performance and personal), which refers to outcomes that an individual perceives as valuable and that therefore motivate him or her to exhibit one behavior while rejecting another behavior that would lead to less favorable consequences. The second dimension is the individual's belief with respect to 'self-efficacy,' defined as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391). Ratten (2013) stated that the SCT is superior to other innovation-acceptance models because it considers both organizational and individual contributions to the analysis of technology acceptance, which implies that it consolidates innovation technology that is not consistently under the control of individuals but rather is also required by an organization.

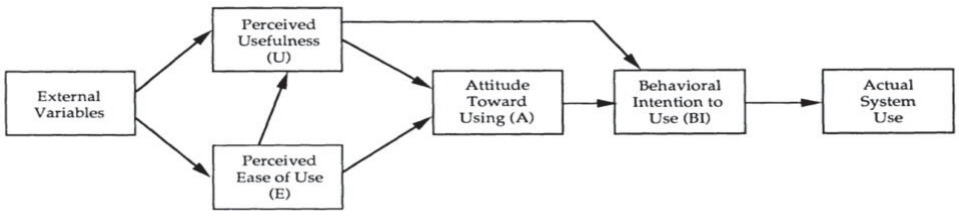
Figure 2.6: Social Cognitive Theory (Compeau, Higgins & Huff, 1999, p. 147)



### *2.2.2.8 Technology Acceptance Model (TAM)*

The TAM was introduced in 1986 by Davis as an extension of TRA to explain the individual's behavior in using the technology (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989). TAM is considered to be one of the most influential models in innovation research that allows us to understand the relationship between humans and technology. Davis (1989) suggests that this model simulates the situation where users become adopters of a newly introduced technology. The model incorporates two factors namely, perceived usefulness (PU), perceived ease of use (PEU). Perceived usefulness (PU) is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance" (p. 320). Perceived ease of use (PEU) is defined as "the degree to which a person believes that using a particular system would be free of effort" (p. 320). In the model, these two variables are depicted as affecting an individual's attitudes (A) toward the technology, thereby contributing to formation of behavioral intentions (BI) to use it and ultimately its actual adoption (see Figure 2.7). The TAM excludes the subjective norm as a determinant of intention, since it provides an "uncertain theoretical and psychometric status" (Davis et al., 1989, p. 986). These two factors, PU and PEU, are influenced by the external variables. However, many researchers found the question of what the external variables could be confusing. Hubona and Kennick (1996) proposed that these external variables could be individual characteristics (age, gender, intrinsic cognitive skills), system factors (functionality and of the application), organizational attributes (training and education). This confusion pushed researchers to continue to modify and extend it with other relevant theories and variables resulting in the emergence of TAM2 and UTAUT.

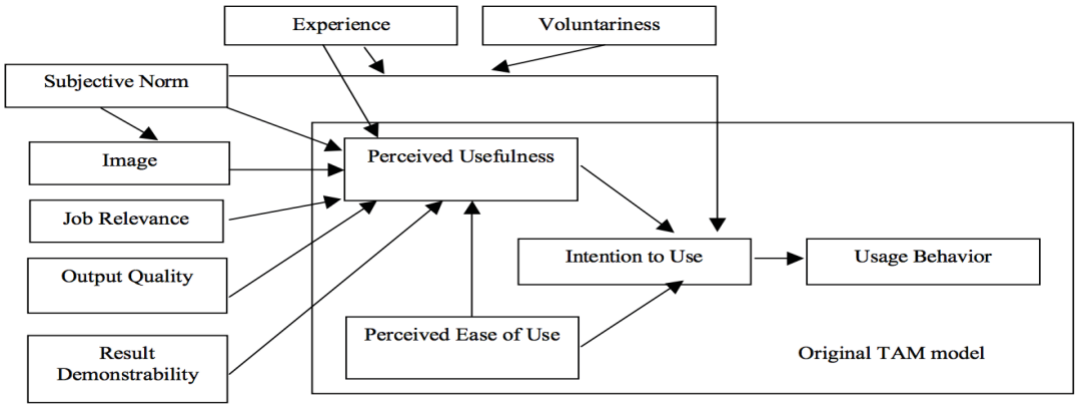
Figure 2.7: Technology Acceptance Model (Davis et al., 1989, p. 985)



### *2.2.2.9 Extended Technology Acceptance Model (TAM2)*

Venkatesh and Davis (2000) extended and modified TAM to include two theoretical processes including the social influence process and the cognitive instrumental process. These two additions are assumed to describe the factors affecting the individual determinants on perceived usefulness and intention to use a technology. The four cognitive processes that affect PU in TAM2 are job relevance, output quality, result demonstrability, and perceived ease of use, while three social processes are assumed to affect PU: subjective norm, image, and voluntariness. In addition, the construct *experience* is also proposed, to moderate the influences from subjective norm on PU and intention to use (see Figure 2.8).

Figure 2.8: Extended Technology Acceptance Model (Venkatesh & Davis, 2000, p. 188)

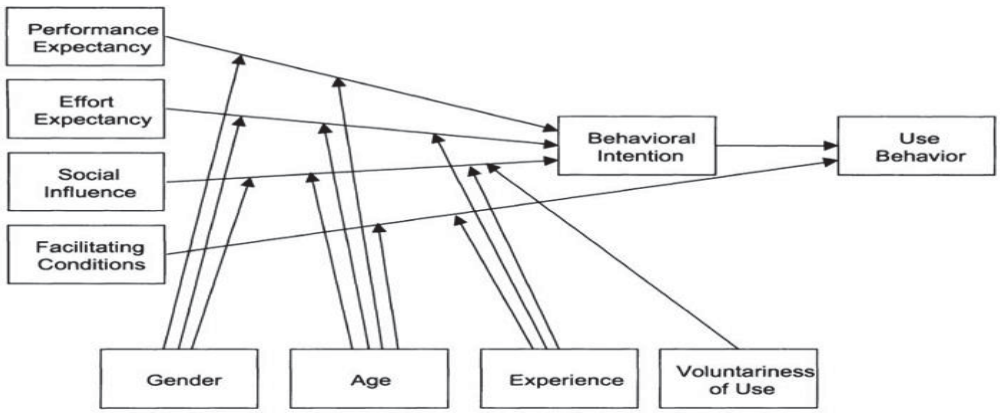



However, Donaldson (2011) argues that TAM2 fails to identify the constraints on usage behavior because it assumes access to the innovation. This limitation might ignore other important factors that could have an influence on the individual's intention and perceptions of subjective norms, usefulness or ease of use. For instance, factors such as Internet access, the infrastructure of the innovation context and the teacher's support are not covered in TAM2. This has led many studies to continue to alter the original TAM and TAM2 in an endeavor to enhance the model or create a model that could account for the evident limitation. The most dominant model that emerged from these changes is the introduction of Venkatesh et al.'s (2003) model the Unified Theory of Acceptance and Use of Technology (UTAUT).

### *2.2.2.10 Unified Theory of Acceptance and Use of Technology (UTAUT)*

Venkatesh et al. (2003) developed the UTAUT theory which aims to describe intentions that would lead to usage behavior to use a technology. The theory emerged after Venkatesh et al. (2003) conducted a study comparing eight innovation models including the diffusion of innovation theory (DIT), theory of reasoned action (TRA), theory of planned behavior (TPB), motivational model (MM), social cognitive theory (SCT), model of PC utilization (MPCU), technology acceptance model (TAM), and combined technology acceptance model and theory of planned behavior (C-TAM-TPB) (Venkatesh, et al., 2003). Based on their results, they introduced a unified model (UTAUT) consisting of four core elements determining the intention and usage behavior in addition to four moderators of key relationships. The main elements of the UTAUT theory are: performance expectancy, effort expectancy, social influence, and facilitating conditions (Venkatesh et al., 2003). In addition, Venkatesh et al. (2003) argue that gender, age, experience, and voluntariness of use moderate the influence of these four key elements on behavior intention and use behavior (see Figure 2.9). The authors state that the factors performance expectancy, effort expectancy, and social influence directly influence an individual's intent while facilitating conditions directly influence use behavior. The factors gender, age, experience, and voluntariness of use also mediate the influence of these on an individual's intention and use behavior (Venkatesh, et al., 2003).

Figure 2.9: Unified Theory of Acceptance and Use of Technology (Venkatesh et al., 2003, p. 447)



UTAUT theory has been widely adopted in applied linguistics due to its success in explaining usage behavior and adoption of technology (e.g., Cigdem, Ozturk, & Topcu, 2016; Hsu & Chang, 2012; Laire, Casteleyn, & Mottart, 2012; Lawrence, 2016; Lu, Lin, & Fan, 2013). According to Wu, Tao and Yang (2008), the descriptive power of usage behavior and acceptance of technology in UTAUT theory can reach up to 70%, which is considered higher than other theories involved with technology acceptance. The accuracy percentage of UTAUT motivated many studies to adopt the UTAUT model over other theories in exploring users' behavior during technology implementation, leading Venkatesh, Thong and Xu (2012) to state that, "since its original publication, UTAUT has served as a baseline model and has been applied to the study of a variety of technologies in both organizational and non-organizational settings" (p. 158).

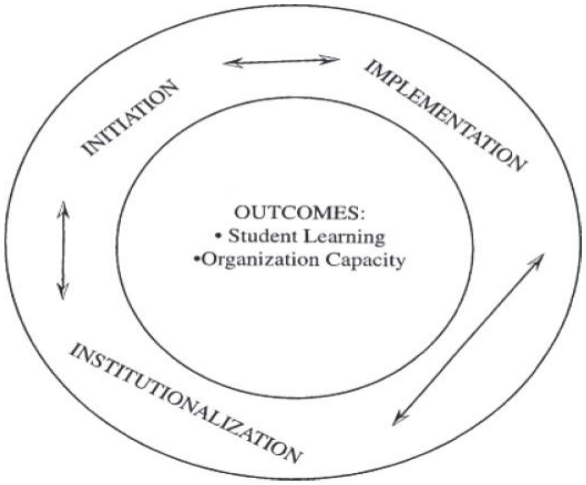
## 2.3 Fullan's Model of Change

The preceding discussion reviewed most of the theories that have been applied in investigating technology innovation. The model used to guide this study was Fullan's (1982, 2001, 2007, 2016) and Fullan and Stiegelbauer's (1991) three broad phases of change. Fullan's model differs from the other theories in that it considers innovation as a process that is complex and dynamic and not as an event. The first edition of Fullan's book *The meaning of educational change* was published in 1982 and in the second edition in 1991 he changed his book title slightly to *The new meaning of educational change*, making many significant improvements to the phases of the change process model. Although Rogers's DIT is also process-oriented, it focuses on the individual's characteristics whereas Fullan's model places more emphasis on the roles and strategies utilized by the multiple agents involved with the innovation process (such as students, teacher, administrator, principal, and government). In addition, the adopter categories proposed by Rogers ignore the dynamic and complex nature of the innovation process. Moreover, Huberman (1992) argues that Fullan's model provides "a more intricate understanding of the dynamics at work when new programs or practices or new organizational arrangements are brought into schools or designed there" (p. 2). The complexity and dynamic nature of the process of innovation could render it difficult to

be deeply investigated by the other theories. However, Fullan's process-oriented change theory focuses on exploring the complexity of an individual's actions during the change process.

Fullan's change theory consists of three primary phases: initiation, implementation, and sustainability (Fullan, 1999; Fullan, 2007). According to Fullan (2007), the initiation phase refers to the process up to and including "a decision to adopt or proceed with the change" (p. 65). The implementation phase refers to the initial attempt to put a reform or idea into practice. The third and last phase, sustainability, refers to whether the change lasts and continues to be integrated into the system or fails to be adopted (see Figure 2.10). Within each of these stages, numerous components operate. In addition, change is not a linear process in which one event at a specific stage affects and leads to a change in decisions made at earlier stages (Fullan, 2007). Marsh (2009) states that all phases are connected and will merge gradually into one another. In addition, Fullan (2007) advises that "all phases must be thought about from the beginning and continually thereafter" (p. 103). Once these stages are accomplished, the outcome is positive and the change is effective from Fullan's view. Success of the change process leads to "students' learning outcomes" or "organizational capacity" (Fullan, 2001, p. 51). The following sections explore the factors influencing the three phases in greater detail.

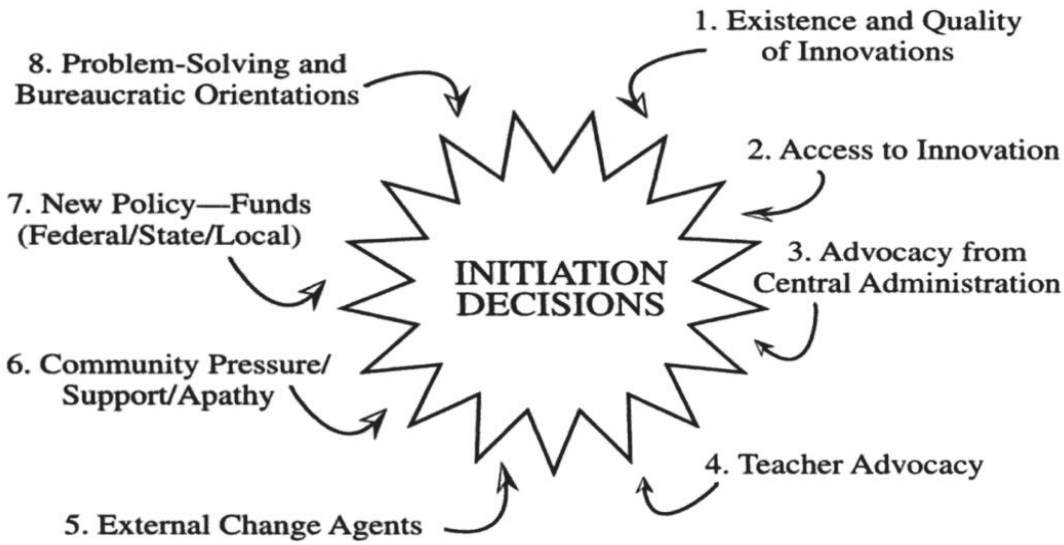
Figure 2.10: An overview of the change process (Fullan, 2007, p. 66)



### *2.3.1 Innovation initiation*

The first phase of Fullan's educational change is the initiation phase which involves identifying the variables influencing decisions before proceeding to the implementation phase in order to raise the percentage of successful implementations of the innovation. In other words, the initiation phase is where the innovation is being tested for its validity within the context prior to its implementation to identify whether to proceed with the innovation or not. Fullan (2007) argues that initiation decisions might be affected by the existence and quality of innovations, access to innovations, advocacy from central administrators, teacher advocacy, external change agents, community pressure (i.e., support, opposition, apathy), new policies and funds, and problem-solving and bureaucratic orientations (see Figure 2.11). These variables influence the entire innovation process but their influence is most apparent in the initiation phase.

Figure 2.11: Factors influencing initiation decisions (Fullan, 2007, p. 70)




Fullan (2007) cautions that this is not the full list and that other factors could influence initiation decisions. However, "the main point is that innovations get initiated from many different sources and for different reasons" (p. 69). For example, Waters (2009) identifies three main variables that influence initiation decisions in Fullan's change theory, including identifying rationales that impede the use of the innovation (e.g., dissatisfaction

with the status quo), the characteristics that influence the quality of the innovation, and finally the conceptualization of contextual factors. Thus, it could be argued as relevant to this study that due to the complex and dynamic nature of the innovation, the factors influencing the initiation decisions are not static and other factors might emerge from the environment that could have an influence on the individuals' use of the technological innovation.

### *2.3.2 Innovation implementation*

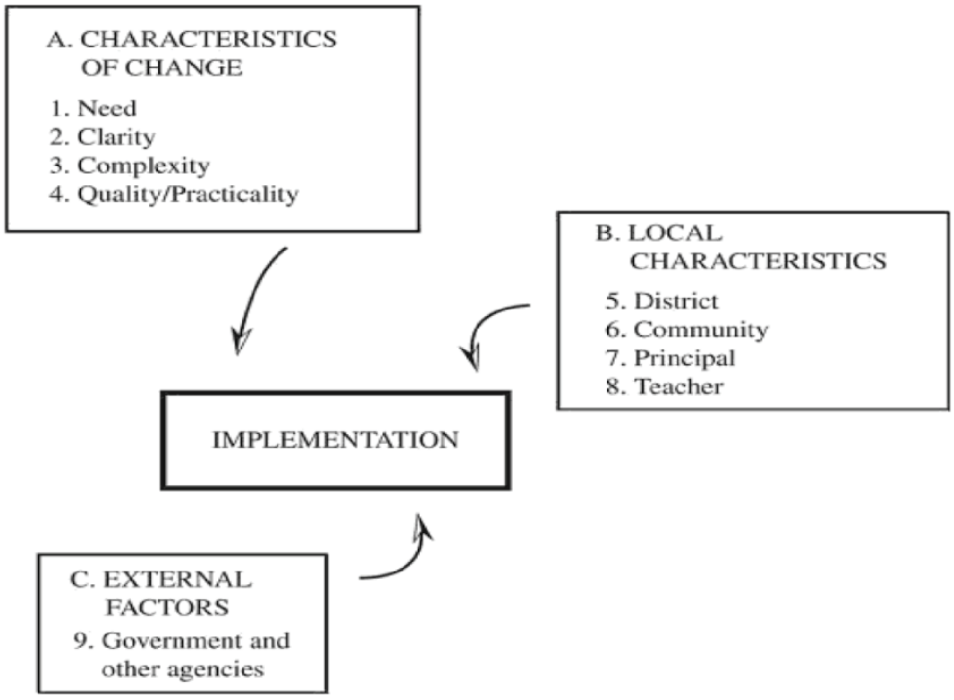
Once the innovation initiation has occurred and the innovation has been decided upon, the innovation can be implemented. In the implementation phase, the innovation process becomes more complex because it "involves more people and real change is at stake" (Fullan, 2007, p. 84). Fullan identifies nine interactive factors influencing the implementation of innovation. He classifies these factors into three main categories: characteristics of the change project (need, clarity, complexity, and practicality), local roles (school district, board and community, principal, role of teacher), and external factors (governments and other agencies) (see Figure 2.12). These factors influence the initiation stage as well; however, their effect is more intense and complex in the implementation stage. Fullan argues that these factors should not be thought of as isolated from each other but as forming a system of variables that have an impact on the success or failure of the innovation. The reason is that the innovation process is a complex dynamic one that involves interaction between various factors over time. Hence, the implementation process is not simple or straightforward but involves various interacting factors that need to be investigated as a whole to bring about continuous improvement.

### *2.3.3 Innovation sustainability*

An innovation's sustainability phase is an extension of its implementation phase in that the new innovation is sustained beyond the first one or two years or whatever time frame is chosen (Fullan, 2007). The sustainability phase refers to whether participants sustain the innovation and whether it achieves the projected outcome at the personal and

organizational levels or is dropped within this period. The projected outcomes may include acquisition of new skills, improved student learning, a change in teacher or even student beliefs and practices, or an improvement in the overall educational system.

Figure 2.12: Interactive factors affecting implementation (Fullan, 2007, p. 87)




Sustainability is widely recognized as the most complex phase of the innovation process (Chen, 2008). Sustainability occurs when a change continues and becomes the new learning method employed by the educational system (Gordon & Patterson, 2008). Hargreaves, Earl, Moore and Manning (2001) argue that "adopting an innovation or reform is straightforward enough. Developing, supporting and sustaining it is a far more difficult matter" (p. 115). In addition, Huberman and Miles (1984) state that a positive outcome of sustainability depends on whether or not the innovation has become an integral part of the organizational system; or whether administrators and teachers are involved in the innovation process and so become committed to the change; and whether methods for continuous support and assistance in relation to the innovation are instituted.

## 2.4 Innovation and Agency

Fullan's model focuses primarily on the complexity of the innovation process, in particular, the individuals acting during the innovation process in ways that determine its success or failure. Agency theory is thus an appropriate analytical approach in understanding the complexity of the individual "whose language use, meaning making, and actions are mediated by their social and cultural world" (Deters, Gao, Miller, & Vitanova, 2015a, p. 5). It allows for a deeper investigation of the factors influencing participants' on-going actions over time to adopt an innovation. While Fullan's model served as the guide that drove this study, agency theory provided the analytical approach to participants' on-going actions over time that affect the success or failure of innovation process during Fullan's three broad phases of the change process.

In addition, Evans (1996) argues that the complexity of the innovation process increases with increasing numbers of individuals involved because "change means different things to different people; in fact, it usually means something different to each and every individual" (p. 21). Agency theory, applied to the context of this study, investigates an individual's view of an innovation through his actions toward it. As Fullan (1993) explains, "it is only by individuals taking action to alter their own environments that there is any chance for deep change" (p. 40). This means that change cannot happen by just implementing the innovation but it only happens when individuals exercise actions to use and accept it (Fullan, 1993). Thus, agency theory helps in understanding how and why the individuals act through the use of the affordances within their environment and how they alter that environment, thereby leading to a positive or negative adoption of an innovation. In the following sections, I review the debate on various definitions of agency and associated theoretical frameworks, including the ecological approach adopted for the current study.

### *2.4.1 Definitions*

The definition of agency and its characteristics have been the subject of numerous debates in applied linguistics and related fields. The definition of agency has been primarily

within a sociocultural lens. In a wider view, one of the earliest definitions of agency was that of Layder (1997), who defined it as "the ability to take action in the light of a conscious assessment of the circumstances" (p. 35), while Ahearn provides a "provisional definition" of agency in that she defines agency as "the socioculturally mediated capacity to act" (Ahearn, 2001, p. 112). She stated that her definition "leaves a great deal unspecified. For example, where is agency located? Must agency be human, individual, collective, intentional, or conscious?" (p. 130). Ahearn's definition and questions pushed many theorists to provide a diverse conceptualization of the concept. For example, Candlin and Sarangi (2004) define agency as "the self-conscious reflective actions of human beings" (p. xiii). Similarly, Duranti (2004) expands the definition of agency: "Agency is here understood as the property of those entities (i) that have some degree of control over their own behavior, (ii) whose actions in the world affect other entities (and sometimes their own), and (iii) whose actions are the object of evaluation (e.g., in terms of their responsibility for a given outcome)" (p. 453). This is in line with Lantolf and Thorne (2006), who view agency as entailing "voluntary control over behavior", but they also add that agency is a concept that "entails the ability to assign relevance and significance to things and events" (p. 142-143). Lantolf and Thorne's definition of agency is that agency is not simply a choice of the individual but it is a behavior that is enabled or limited by the affordances and constraints in the environment that shape the individual's action. In their words, they view agency as "socioculturally mediated and dialectically enacted. In other words, within a given time and space, there are constraints and affordances that make certain actions probable, others possible, and yet others impossible" (p. 238). In the same line of thinking, Duff (2012) defines agency as "people's ability to make choices, take control, self-regulate, and thereby pursue their goals as individuals leading, potentially, to personal or social transformation" (p. 417, cited in White, 2018, p. 199). In her definition, she refers to goals to be linked to enabling their agency. She adds that agency "actively resist certain behaviours, practices, or positionings" (Duff, 2012, p. 417, cited in White, 2018, p.199). Finally, for Picard (2010), agency is "an immutable characteristic of individuals that allows humans to act and to speak" (p. 4). Picard's definition of agency diverges from that of Lantolf and Thorne

given that the latter view agency as also presented during mutable behavior if the individual has some degree of control over his or her own behavior and is conscious. Thus, even an individual deciding not to speak or interact with another, from Lantolf and Thorne's perspective, still constitutes an act of agency, one constrained by contextual factors.

In the language classroom, van Lier (2008) provides another conceptualization of agency viewed through a sociocultural lens following the conceptualization of Ahearn (2001) and Lantolf and Thorne (2006) and placing more "emphasis on action, interaction and affordances" (p. 163). He states that "agency is situated in a particular context and that it is something that learners do, rather than something that learners possess, i.e., it is a behavior rather than property" (p. 171). In a later publication, van Lier (2010) summarizes the construct by describing how agency refers both to "the ways in which, and the extents to which, a person is compelled to, motivated to, allowed to, and coerced to, act" and, equally, to "the person deciding to, wanting to, insisting to, agreeing to, and negotiating to, act" (p. x). These definitions of agency by van Lier capture "nicely the complexities of the notion of agency" (p. x) and largely influence the conceptualization of agency employed in the current study. Having explored definitions of agency, the section will now consider how a number of theoretical approaches have researched agency, namely sociocultural, dialogical, and complexity frameworks.

### *2.4.2 Theoretical frameworks of agency*

Even though the application of agency theory is relatively new in applied linguistics, a number of theoretical approaches have been developed. Those that have received the most attention include sociocultural, dialogical, and complexity approaches to agency. Although these approaches are similar in that they all emphasize the individual and the social, the aspects of the individual and social explored in each approach varies (Kalaja, Barcelos, Aro, & Ruohotie-Lyhty, 2015). Thus, in this section of the literature review, I explore the features of each approach, beginning with the complexity perspective, then ideological approach and finally to sociocultural perspectives, which inform the analytical approach adopted for this study.

#### *2.4.2.1 Complexity approach*

Complexity theory is one of the most recent approaches adopted to research agency (Kalaja et al., 2015). Complexity theory investigates various phenomena in relation to human interaction in language learning and teaching. It considers individual activities as part of a complex system in which various interrelated variables influence the agent. It rejects shortsighted cause-and-effect interpretations of language learning and acknowledge its "non-linear, dynamic nature which can vary across individuals and is closely tied to a range of contextual factors" (Mercer, 2011, p. 429). Complexity theory views context, environment, and individual as major aspects of the system in which actions take place but which are believed to be in a consistent condition of flux between the agent and his environment (Kalaja et al., 2015). It involves a dynamic reciprocity process in which the environment is influenced by the agent's actions based on the affordances he or she finds within the environment, allowing individuals to alter their own environment (White, 2018). A longitudinal study conducted by Mercer (2011) found that there are several factors that acted as the controlling components of learners' agency. These factors include beliefs, self-concept, self-regulation, affect and motivation. She also found that there is an interrelation between agency and the various levels of the broader context such as the educational, sociocultural, classroom and family contexts down to the learners' interaction. Complexity theory has not yet been fully explored; however, viewing learner agency from this perspective seems to be a promising avenue within language learning research.

#### *2.4.2.2 Dialogical approach*

Agency theory has also been investigated through dialogical approaches based on the writings of the Bakhtin Circle (1986, 1990). This approach emphasizes on "personal viewpoints, individual sensibilities, and the emotions, values and feelings that human beings bring to their relationships with others" (White, 2018, p. 201), rather than a focus on the individuals' level of activity as in the sociocultural view of agency (Kalaja et al., 2015). In other words, agency within the dialogical view focuses more on how individuals

act based on their emotions rather than focusing on how the environment's affordances or constraints influence their action. The agents within the dialogical view are "connected to others through constant interaction and are therefore influenced by the environment – both physical and social – in which they find themselves" (Kalaja et al., 2015, p. 17). A limitation of the dialogical approach is that it does not observe the general picture of the individual's actions but rather is more biased toward the emotional and affect, thereby making it difficult to investigate the changes of the individual's action over time within VSN implementation processes. In addition, the dialogical approach tends to pay less attention to the affordances and constraints of the individual's sociocultural and technological factors. Thus, the participants' activity levels with respect to the use of VSN are also less captured within the dialogical framework. Investigating the activity level is important in determining the success or failure of the VSN implementation process.

#### *2.4.2.3 Sociocultural approach*

Agency has been largely researched through sociocultural approaches originally developed by Lev Vygotsky (1978, 1986). The sociocultural approach provided a strong theoretical foundation for agency in language learning and teaching. Through this approach, agency theory places an emphasis on the individual acting in a particular sociocultural setting. Agency, from this point of view, is not only about "voluntary control over one's behavior, but is essentially a relationship that is co-constructed and co-negotiated with others in a social setting" (Kalaja et al., 2015, p. 15). In other words, agency emerges from the individual's action based on the outcomes of his or her relationships with the environment and its contextual factors. Agency is therefore not a characteristic of a learner or a teacher, but rather is "a contextually enacted way of being in the world" (van Lier, 2008, p. 163). Hence, the key point of language learner agency within a sociocultural approach is that it is not a feature that the agent possesses but rather is an emerging aspect from the agent's interaction with the world and its contextual factors enhancing this interaction.

### *2.4.3 Van Lier's agency theory from an ecological perspective*

Within the sociocultural approach, van Lier (2004) adopted an ecological perspective in which context is crucial in gaining insights into the dynamic interrelation of different environmental and personal factors because the learner "acts and interacts within and with his environment" (p. 246). In other words, agency is not reliant entirely on the learner but emerges from the learner's interaction with the environment's contextual and structural factors. As in Kalaja et al. (2015), an essential point in the ecological perspective is that classroom settings "should be made favorable to the emergence and development of agency, as it is seen to be crucially influenced by the environment" (p. 16). Therefore, agency from an ecological perspective is believed to be a relational effect in that an individual's agency is enabled or limited by the affordances and constraints found in the environment "and also as able to be reflective and creative in taking actions which are counter to particular constraints" (White, 2018, p. 200). An important aspect of this approach is that the individual should have the capacity to act in his environment, however, his actions depend on how he interacts with the affordances found in the environment (see Section 2.4.3.1).

Van Lier (2008), in his paper entitled "Agency in the classroom," attempted to provide a solid footing to capture agency through an ecological perspective in the language classroom. He argued that it is difficult to make a distinction between agency and other related constructs such as autonomy, intrinsic and extrinsic motivation, self-regulation, and self-initiation (van Lier, 2008). He mentions that motivation in particular is in "many ways related to agency, but it will be difficult to pinpoint or measure. Most complex activities, including those related to learning, evidence a complex mix of intrinsic and extrinsic of motivational factors" (p. 173). Therefore, from van Lier's approach motivation might be used in this study to explore parts of the individual's agency. But it is important to mention that the main focus of this study is on individual actions and how they are mediated by the sociocultural context and sense of accountability (van Lier, 2008). In other words, by locating agency in this familiar territory (motivation, autonomy, self-regulation, and self-initiation), van Lier (2008) introduced three core features to

capture agency that are largely compatible with the definitions of Ahearn, 2001; Lantolf and Thome, 2006; Wertsch, Tulviste, and Hagstrom, 1993. These features include:

> 1) Agency involves initiative or self-regulation by the learner (or group).
> 2) Agency is interdependent, that is, it mediates and is mediated by the sociocultural context.
> 3) Agency includes an awareness of the responsibility for one's own actions vis-à-vis the environment, including affected others (van Lier, 2008, p. 172)

This study adopted van Lier's agency theory from an ecological perspective as it facilitates the analysis required in locating agency involving learner interactions with VSN within their environment and the emerging affordances and constraints. Hence, in this study, agency in combination with innovation is viewed as the dynamic, socioculturally mediated capacity to act in which learners co-construct and co-negotiate their own learning paths with the use of VSN (Ahearn, 2001; Lantolf & Pavlenko, 2001; Lantolf & Thorne, 2006; van Lier, 2004, 2008). In addition, following van Lier's (2004, 2008, 2010) definition of agency, it can be said that this study identifies agency as action potentials that are enabled or limited based on the individual interaction with the affordances and constraints that are mediated by "social, interactional, cultural, institutional and other contextual factors" (van Lier, 2008, p. 171). In this study, agency involves awareness of the responsibility of one's action that leads to decisions to act with and through VSN.

#### *2.4.3.1 The concept of affordance*

An important aspect of the ecological perspective is the concept of affordance. Affordance was first coined by the American psychologist James Gibson who defined affordance as "what the environment *offers* the animal, what it *provides* or *furnishes*, either for good or ill" (1986, p. 127, italics in the original). The focus of his definition is based on what specific feature found in the environment could offer a possibility of action to an organism. Affordances can be things, places, objects or events; for example, a ladder could offer climbing to an adult but not for an infant. Hence, affordance "is action

potential, and it emerges as we interact with the physical and social world (van Lier, 2004, p. 92).

In terms of language learning, van Lier (2004) explains that affordances are relational effects in that the individual relates affordances found in the environment to his/her own language learning needs or expectations, and thus "the affordance fuels perception and activity, and brings about meanings – further affordances and signs, and further higher-level activity as well as more differentiated perception" (p. 96). He further expresses the features of the concept of affordance in linguistics terms as:

a) an affordance expresses a relationship between a person and a linguistic expression (a speech act, a speech event); it is *action potential*; it is a *relation of possibility*;
b) linguistic affordances are specified in the linguistic expression, and available to the active interlocutor (or addressee) who may pick up one or more of those affordances as they are relevant at the moment;
c) the affordances picked up serve the agent – depending on his or her abilities – to promote further action and lead to higher and more successful levels of interaction (p. 95)

However, the presence of the affordance by itself in the environment does not automatically promote action, i.e., it is important for the learner to know that these affordances exist and to be made aware of their advantages in promoting an effective language learning (van Lier, 2004); that is, the teacher or other interlocutor could help in making the affordances noticeable and accessible to the learners in order for them to make use of them.

A recent study by Ducate and Lomicka's (2013) grounded in van Lier's (2004) ecological perspective investigated the use of smartphone devices and examined the affordances that enable the learners' interaction with English language and culture both in and outside the classroom. The study found that language learners at the intermediate level who were offered the utilization of smartphone devices would use their affordances for the purpose

of their academic and personal advantages, thus allowing the learners to more exposure to the target language.

## 2.5 Virtual Social Networking

The widespread use of the Internet along with the rapid development of Web 2.0 and its applications has rapidly extended the use of Web 2.0 technologies as a mediator for language learning and has deeply affected many aspects of education (Liu, Wang, & Tai, 2016; Parmaxi & Zaphiris, 2016). Web 2.0 has the potential to change language learning both in and outside the classroom, and to create a collaborative virtual environment for the students, keeping them connected to their classroom to enhance their level of learning. In fact, Web 2.0 technologies have the potential to become an increasingly significant element in both learning and teaching environments. Researchers are beginning to explore how Web 2.0 technologies can contribute to the education process, in particular sociocultural settings, while also identifying some of their limitations. Having reviewed the literature and the theoretical frameworks of innovation and agency, I will use this section to revisit previous studies to explore the pedagogical advantages of VSN in education and language learning.

### *2.5.1 VSN in learning*

Since its application within the educational environment, VSN has been viewed as offering many pedagogical advantages. Numerous studies on the pedagogical characteristics of VSN both inside and outside the classroom have been published, illustrating teachers' recognition of the educational potential of VSN within a learning context. VSN is reported to not only support a variety of learning activities, such as discussions, but also to serve different purposes and learning goals. Applications of VSN, with or without a teacher, are rarely limited to any specific topic or discipline. VSN is seen as a dynamic and adoptable application for teachers, who also need to be familiar with its weaknesses, limitations, and strengths in order to deliver appropriate pedagogical activities and applications.

#### *2.5.1.1 Pedagogical features of VSN*

The use of VSN has become an essential routine in the daily lives of many people, including teachers and students (Staines & Lauchs, 2013). Most literature in the educational field has focused on the educational use of VSN by teachers and students, and its pedagogical advantages. Since VSN tools are designed specifically for social interactions and communication, the use of these Web 2.0 applications for educational purposes offers several potential pedagogical advantages that are useful for teachers and students in learning and teaching settings (Ferdig, 2007). Because of its pedagogical value, many tertiary teachers have begun to devote their time and effort to the technology in order to facilitate and develop their teaching (Selwyn, 2010). Several studies on tertiary education propose that VSN be used inside and outside of the classroom, and suggest that it has great pedagogical potential for learning. However, there is a lack of studies investigating the agency of learners in using VSN.

Notwithstanding this lack of studies, the existing literature on VSN has indicated that the features associated with VSN could have the potential to enhance student learning. One of the advantages of VSN most frequently discussed in the literature is its ability to engage students with continuous connectivity, thereby making learning accessible on demand, meaning that learning is no longer limited by space or time (Buzzetto-More, 2012; Gikas & Grant, 2013; Hrastinski, 2006). With the use of VSN, students can communicate with fellow classmates and teachers at any time, and from anywhere. Moreover, the ease of continuous connectivity offered by VSN enables students to view course content, and also enables faster access to information (Gikas & Grant, 2013). Lee and McLoughlin (2008) state that the main motive for students to use VSN as a learning tool is that they can receive support from peers while communicating with them at the same time, and that learning and sharing of knowledge can be easily accomplished due to the constant connectivity.

More specifically on the use of WhatsApp in education, few studies have been conducted to explore the potential of WhatsApp in enhancing learners' performance and activity in various fields (e.g., Al-Omary, El-medany, & Isa, 2015; Alghazo & Nash, 2017; Gon &

Rawekar, 2017; Naidoo & Kopung, 2016; Nirgude & Naik, 2017; Sayan, 2016). For example, Sayan (2016) explored the potential of WhatsApp in enhancing the learners' achievements during the exam. The sample comprised 92 learners, distributed into three groups, who were attending Biruni University in Turkey. The research used a pre-test–post-test control group experimental design in which 60 learners divided into two groups, 30 learners in each group, received treatment (i.e., the use of WhatsApp), and another 32 students formed the control group without WhatsApp over a one-month period. The study found that the treatment group outperformed the control group in the exams. However, Alghazo and Nash's (2017) study in the Saudi context found no statistically significant difference between the treatment and control groups in terms of learning achievements. They did find, however, that the treatment group had relatively fewer missed assignments and absences.

Twitter has been widely used in education to foster learning. The use of Twitter in education was also found to have the potential to increase the learners' motivation and engagement (e.g., Antenos-Conforti, 2009; Bicen , 2014; Junco, Heiberger, & Loken, 2010; Lomicka & Lord, 2012; Osgerby & Rush, 2015). For example, Bicen (2014), in a study to explore the potential advantages of Twitter in education, found that it increased student–student and student–teacher interactions, as well as their motivation and interest in the course as a result of its sharing features. He adds that combining smartphone use with the use of Twitter could increase the advantages of using Twitter for educational purposes. Bicen concludes that the more options for sharing VSN has, the more it will increase the activity of learners. As another example, Junco et al. (2010) explored the potential of Twitter to foster the learners' learning and engagement, and found that Twitter can have a positive impact on the learners' engagement as well as on grades, as it encourages faculty to be participatory and active. Lomicka and Lord (2009) found that the learners on Twitter developed a sense of community, and motivated each other to participate.

Another commonly mentioned advantage of the use of Twitter is its capacity to enhance collaborative learning (Dunlap & Lowenthal, 2009; Ebner, Lienhardt, Rohs, & Meyer, 2010; Gikas & Grant, 2013; Holotescu & Grosseck 2009; Lowe & Laffey, 2011; Poore,

2012). The use of Twitter offers students the capacity to discuss, collaborate, and construct their own understandings of their subjects with their classmates and teachers thanks to the features afforded in VSN, such as multimedia sharing (Gikas & Grant, 2013). Stanciu, Mihai and Aleca (2012), in a quantitative study of 64 students and 30 academics from a Romanian educational institution, found that students' communication with their teachers could be increased through the use of Twitter. Their study confirmed that learner collaboration could be enhanced by the use of Twitter because use of such tools facilitates sharing of knowledge and materials. In a similarly vein, Ebner et al. (2010) conducted a longitudinal study over one semester on tertiary-level students studying in the University of Applied Sciences in Austria. They found that Twitter not only played an important role in facilitating the learners' collaboration, but also facilitated the learners' group work and informal learning through informal communication.

Other types of VSN, such as Facebook, were also found to enhance the motivation level of learners with regard to learning, even outside the classroom. Shih (2011) conducted a quantitative study in a Taiwanese context to investigate the effects of integrating Facebook and peer assessment with college English writing-class instruction, and found that teachers could increase students' motivation and interest by integrating Facebook and peer assessments into their courses. Furthermore, Chelliah and Clarke (2011) opined that teachers could incorporate VSN in several ways to encourage collaborative learning outside the classroom. For example, they suggest that the use of a Facebook group page as a virtual classroom group, and YouTube or blogs as publishing spaces, are alternative means of communication and collaboration.

VSN platforms were also found to be beneficial in building learners' identities. Young (2009) conducted a study in an Australian context to investigate the experiences of VSN users, particularly those of Facebook and Myspace, aged 15 to 65 years. His study was built on a sociocultural framework using two theories: activity theory and situated cognition. A questionnaire was used for data collection about relationships between online and offline friends, use of photographs, status features, and negative and positive experiences associated with using VSN, as well as time spent engaged in VSN activities. The researcher found that, from a sociocultural view, the relation between the individual

and the tool was not merely an interaction, but was a form of socialization reinforced by a conscious decision to create an online identity that is reachable by others. In addition, from a theoretical perspective, the researcher recognized that each VSN platform is a culturally valued cognitive tool, in which a user is exposed to an activity that aids in learning self-presentation techniques, technical skills, and socialization practices. What can be concluded from this study is that VSN proved to be an effective tool for creating an online identity within a particular context, and for building relationships with others. In other words, the use of VSN might foster learners' agency in building their online identities, thereby enhancing their learning.

Overall, the literature reports that motivation, engagement, collaborative learning, learner identity, and increased student achievement have all been found to be pedagogical values derived from the use of VSN. However, learner agency has not yet been fully explored with respect to innovation. In view of this, further studies need to be conducted to explore learner agency with the use of innovative technologies to enhance learning.

#### *2.5.1.2 VSN in language learning*

Looking specifically at VSN research in language learning, Pasfield-Neofitou (2011) identifies a lack of studies investigating the potential of VSN in enhancing language learning. However, some language teachers experience the strong appeal of mediating language learning through the use of VSN (Harrison & Thomas, 2009). A number of studies have indicated that the use of VSN could have positive pedagogical potential for enhancing student language learning.

The number of empirical studies on the potential of WhatsApp for enhancing language learning has been growing recently, but it is still minimal (Mufanti & Susilo, 2016; Susilo, 2014). In one of these studies, Susilo (2014) implemented Facebook and WhatsApp on an English course with 10 students at the Open University of Indonesia to investigate the potential of WhatsApp in enhancing the students' activity and collaboration. Drawing on virtual ethnography and the use of interviews and content analysis, the study found that students were more active on WhatsApp than on Facebook. In addition, they found that

both VSNs had the potential to increase the students' activity and collaboration outside their learning classroom due to their affordances in facilitating information sharing, and in their ability to be used anytime and anywhere.

WhatsApp was also found to have the potential to increase English learners' achievements, motivation, confidence, autonomy and activity (e.g., Awada, 2016; biniti Mistar & Embi, 2016; Gutierrez-Colon Plana, Gimeno, Appel, & Hopkins, 2016; Mellati & Khademi, 2015; Mufanti & Susilo, 2016; Şahan, Çoban, & Razi, 2016; Yavuz, 2016). For example, a recent article by Mufanti and Susilo (2016) on the potential advantages of WhatsApp's use in the language classroom suggested that the use of WhatsApp has the potential to enhance students' confidence, motivation, autonomy and activity in English learning. Similarly, Gutierrez-Colon Plana et al. (2016) explored the learners' perception of the use of WhatsApp to enhance their learning. The study found that learners had a positive attitude toward WhatsApp with regard to enhancement of their reading, and felt more confident in their reading skills. In a similar vein, biniti Mistar and Embi (2016) found that WhatsApp has the potential to enhance learners' English proficiency and confidence. This is also in line with the work of Mellati and Khademi (2015), who also found that WhatsApp has the potential to increase learners' English achievements and confidence; but they add that WhatsApp created a comfortable and informal environment for the students and teachers to get to know each other, which also contributed to facilitating their learning.

In the same vein as the earlier studies, Aburezeq and Ishtaiwa (2013) investigated the use of WhatsApp for enhancing interaction for language learners in Al-Ain University of Science and Technology in the United Arab Emirates. Their study employed qualitative data-gathering instruments, particularly semi-structured interviews and an analysis of the students' posts and interactions on WhatsApp. They found that WhatsApp had the potential to improve three areas of interactions: 71% of the participants reported that it improves student–student interaction; 54% stated that it improves student–content interaction; and 42% expressed that it has the potential to improve student–instructor interaction. In addition, they concluded that WhatsApp offers the students a space for expressing ideas, communicating, and exchanging information anywhere and anytime.

The potential advantages of WhatsApp in enhancing language learning seem to be evident from these studies. However, in-depth studies on WhatsApp are still lacking, and a deeper investigation is required to understand how the students interact (i.e., what increases or constrains their activity), and how the platform is sustainable from an ecological perspective.

With regard to Twitter, empirical studies on the potential benefits of this platform also received some attention in the literature. However, many of these studies focus on the potential benefits of Twitter in enhancing learners' achievements and activity in the English language outside the classroom (e.g., Blattner, Dalola, & Lomicka, 2015; Borau, Ullrich, Feng, & Shen, 2009; Hattem, 2012, 2014; Kim, 2010; Kim, Park, & Baek, 2011; Mompean & Fouz-González, 2016). For example, Mompean and Fouz-González (2016) conducted a study on the advantages of Twitter in increasing students' activity, as well as their pronunciation of English words by tweeting them on a daily basis. The study found that Twitter had a positive effect on the students' pronunciation and on their English language activity. Similarly, Kim and Lim (2010) investigated the potential of Twitter to enhance language learning in nine EFL students in a college in New York. The study found that Twitter engaged the learners in initiating participation about their daily lives. However, they also found that learners placed more emphasis on content than grammar, and were interested in sharing personal emotions and difficulties and offering emotional comments. In addition, the informal nature of the use of Twitter also fostered the students' motivation to engage with the platform, which is in line with the findings of Acar and Kimura (2012), in that the informal nature of Twitter also influenced and motivated Japanese learners to engage with English learning. Although empirical studies on Twitter are increasing recently, investigation of learner agency through the use of Twitter in the classroom is still lacking. Further studies are therefore required to explore the potential of Twitter in enhancing learner agency.

The potential advantages of other VSN platforms in enhancing language learning has also received attention in the literature. For example, Harrison and Thomas (2009) investigated the effect of VSNs, specifically Livemocha, in collaborative learning environments and the promotion of "active and creative language learning" among

Japanese tertiary students through the use of Livemocha (p. 110). Data were collected through classroom observations, in-class presentations, and think-aloud sessions. They found that Livemocha not only allowed for new modes of active language learning, but also offered researchers and teachers the opportunity to inspect current theories of language learning. The study concluded that the language learners did not simply retain their existing connections, but continuously sought new connections via Livemocha. Furthermore, using Livemocha in such a way facilitated learner autonomy because the learners mediated their English learning through mutual negotiation of identities, thus enabling them to increase their control over their learning environments, and giving them more control over their own personal development. Similarly, Alm (2009) found that the use of VSNs, particularly blogs, could potentially promote autonomy of language learners.

In a study investigating the perception of 49 first-year tertiary students from Southern Taiwan who used blogs for EFL learning, Wu and Wu (2011) found that implementing blogs as an additional tool in traditional reading and writing courses resulted in improved acquisition of grammar, vocabulary, fluency, and language awareness in the students. Similarly, Toetenel (2014) more recently confirmed that VSN has the potential to be an effective tool for enhancing language acquisition. The purpose of the study was to investigate the use of Ning in creating asynchronous language-learning environments in a classroom setting in a college located in the UK. Toetenel emphasized the language practice resulting from learner collaborations such as learner-to-learner interactions and group cohesion, and its role in fostering language-learning proficiency. The methodologies employed were mixed-method approaches including questionnaires, student posts on Ning chat and diaries, and researcher observation. The participants were 30 students of mixed gender from different backgrounds, including two male Saudi students. The results showed that Ning is an effective tool in acquiring English language learning in terms of fostering group cohesion, learner–learner interactions, and informal language learning. Teachers and students also enjoyed the use of Ning in the classroom environment. An important aspect of this study is the contribution of the two Saudi students: One of them was in the top five posters on Ning, perhaps indicating a positive

attitude toward use of VSNs in language learning by Saudi students; however, further study needs to be conducted in order to confirm a positive attitude toward use of VSN within a Saudi EFL context.

With respect to the Saudi context, Saudi students have also been found elsewhere to have a positive attitude toward VSN use, motivation, and language achievement. Mahmoud (2014) examined the effectiveness of email and asynchronous Facebook in promoting English writing in Saudi Arabia, as well as the students' attitude toward using technologies in their classroom settings. The study was conducted in the foundation year at King Abdulaziz University, located in Jeddah in the western part of Saudi Arabia, and the sample included 40 participants. Data collection procedures were based on a pre-experimental design (writing pre-test and post-test) with control and treatment groups, semi-structured interviews, and student posts written via email and Facebook. The results indicated that the students' writing proficiency increased after using email and VSN, and positive attitudes toward the new technologies were observed inside and outside the classroom. Interestingly in this study, the motivation theme emerged from the student interviews, although motivation was not the focus of the study; however, when interviewed, 70% of the students thought that VSN could increase their motivation to learn the English language.

This positive attitude toward VSN was seen not just in males but also in females, in Kutbi's (2015) quantitative study investigating the perception of the use of Twitter for English learning by tertiary-level female students in the Saudi context. The study found that the majority of the participants, 84%, preferred to use Twitter as a tool for learning English. This high percentage shows that the students developed more interest in using technology to foster their English learning within the Saudi community.

More specifically, at Qassim University, Ahmed (2015) explored the influence of Twitter on Saudi female EFL students, in particular on their writing skills, and whether Twitter had an impact on student "ideas and content, organization, voice and style" (p. 134). The study was conducted using a quasi-experiment on two experimental–control groups (writing pre-test and post-test), in which students' writing skills in both groups were pre-tested. The treatment group was taught through Twitter, while the control group was

taught using traditional methods. By the end of the study, the students in both groups were post-tested using the same test. The treatment group outperformed the control group on the post-test, thus indicating a positive use of Twitter within a Saudi context.

WhatsApp has also received some attention in terms of exploring its potential pedagogical benefits for language learning in the Saudi context. For example, Almekhlafy and Alzubi (2016) employed WhatsApp as a tool for 40 Saudi EFL learners in Najran University (southern Saudi Arabia) to communicate with English native speakers on free-ranging topics and activities in order to enhance their communication skills. Data was collected through a mixture of instruments, including a questionnaire with 15 items, and semi-structured interviews with 10 participants. The majority of participants showed a positive attitude toward the use of WhatsApp, and revealed that it supported them in their learning of English. Moreover, the participants also reported in the interviews that the use of WhatsApp reduced their anxiety and raised their confidence and motivation in using English. Abdul Fattah (2015) conducted a study using WhatsApp to enhance EFL achievements by tertiary-level Saudi learners. The study showed that WhatsApp played a significant role in developing the learners' writing, punctuation and vocabulary, and that they outperformed other learners instructed in a traditional classroom in sentence structure and punctuation. This finding is also similar to that of Alsaleem (2013), who found that the utilization of WhatsApp in the EFL classroom enhanced the experience of Saudi EFL tertiary-level learners, in that it resulted in great improvements in word choice and voice.

Although the aforementioned studies demonstrate that the use of VSN may be beneficial in fostering language learning in the Saudi context, studies investigating language learners' agency in innovative VSN technology is still lacking. Further studies need to be conducted investigating language-learner agency, and specifically how their actions, inside and outside the classroom, are constrained or enabled with the use of affordances developed from the complex, dynamic, and emergent interactions of the learners, objects and their use of VSN in their language-learning environment to achieve learning goals. In addition, most of the studies conducted have emphasized quantitative aspects of the issue, which, while important, ignore its qualitative aspects, in which the learners' voices

might be directly heard, thus allowing for a deeper investigation of their agency. These issues will be investigated in this study.

## 2.6 Summary

To sum up, although the literature exploring VSN as an innovative technology for language learning has increased in recent years, it is relatively limited, especially in a Saudi context (Ahmad, 2015; Harrison & Thomas, 2009; Kutbi, 2015; Mahmoud, 2014; Pasfield-Neofitou, 2011). Some of these studies have, moreover, dealt with VSN characteristics for increased motivation and improved linguistic achievements (Ahmad, 2015; Mahmoud, 2014). Other researchers have examined attitudes toward the potential uses of VSN in learning (Kutbi, 2015) without either thoroughly investigating learner agency and their decisions to act based on their appraisal of VSN's affordances within their environments or the dynamic changes of their attitude and their trajectory attributable to use of VSN over time. Moreover, none of these studies have described how the innovation was initiated and whether the innovation was sustained by the learners subsequent to the implementation. Furthermore, while there are an increasing number of studies on learner attitudes toward VSN, similar qualitative research on these attitudes and reflections toward VSN learning is rare and yet is necessary in the context of employing agency from the view of an ecological perspective to investigate language learning. These issues were addressed in this study.

# CHAPTER THREE: METHODOLOGY

## 3.1 Overview

For the present study, a mixed methods approach was adopted to investigate the roles of VSN in the Saudi tertiary EFL context, participant experiences and the trajectory of VSN use in and outside the classroom. This chapter describes the research methods and procedures employed, beginning with the research design and related elements. It also delineates the sample selection process and the study's settings, and the procedures adopted for data collection and analysis.

## 3.2 Research Design

This section describes the embedded mixed methods design employed in the study, the pilot study procedure to develop the instruments, and the steps followed to prepare for conducting the research (i.e., the ethics approval process of both universities involved and the selection process for the VSN used in the study.)

### *3.2.1 Mixed methods: An embedded design*

A mixed methods approach was adopted in the present study to investigate the nature and roles of VSN in the Saudi tertiary EFL context and the learners' use trajectory and experiences of two VSN types, Twitter and WhatsApp, in and outside the classroom for their EFL learning. A mixed methods approach combines quantitative and qualitative paradigms, including the data collection and analysis processes related to both approaches, in a single study (Dörnyei & Ushioda, 2011). In another definition, Tashakkori and Teddlie (1998) define mixed methods research as the combination of "qualitative and quantitative approaches in the methodology of a study" (p. ix). The strengths of a mixed methods approach lie in the combined power of both approaches.

Creswell and Plano Clark (2011) state, "The combination of quantitative and qualitative data provide a more complete understanding of the research problem than either approach by itself" (p. 8). Adopting a mixed methods approach not only makes possible a deeper understanding of the research subject but also offers more "accurate conclusions" (Reams & Twale, 2008 p. 133), primarily because it brings to bear the strength of both worlds "while neutralising the shortcomings and biases inherent in each paradigm" (Dörnyei 2001b, p. 242). Indeed, the complex and dynamic nature of the learners' use of VSN required deep investigation to capture VSN's use trajectory and how the student participants used their affordances to enhance their learning and change their environment. Therefore, based on the nature of the current research inquiry, the mixed methods approach was judged to be the most appropriate to investigate the complex and dynamic process of VSN implementation.

Within the mixed methods approach, the study followed an embedded mixed methods design (Creswell & Plano Clark, 2007, 2011), "in which one data set provide[d] a supportive, secondary role … based primarily on the other data type" (Creswell & Plano Clark, 2007, p. 67). In other words, in the embedded design, the quantitative data collection instrument plays the main role, or assumes greater weight, than the qualitative instrument, or vice versa, depending on the nature of the research inquiry (Creswell & Plano Clark, 2007).

Because of the nature of the research inquiry here, the data gathering process was divided into two stages, a background stage for the first research question and an implementation stage for the second and third research questions (see Sections 3.3 and 3.6). The quantitative or qualitative approach in each stage was given greater weight than the other and required different data collection instruments and analyses, depending on the purpose of each stage. For example, the background stage involved a larger sample to explore the nature and roles of VSN in the Saudi tertiary EFL context. Hence for this stage, greater emphasis was placed on quantitative instruments so as to capture the data related to this large sample. However, a qualitative element was also used in this stage to complement and support the quantitative approach to provide the participants the opportunity to further explain their choices and VSN uses. The data collection for the first stage included

questionnaire classroom scenarios and interviews. However, the weight placed on the quantitative and qualitative approaches were nearly opposite for the second stage, i.e., the implementation study, since it involved a smaller sample than the first stage. Taking advantage of the longitudinal nature of the study's second stage, priority was given to qualitative approaches—first-round interviews, post-project interviews, research log, observations, and focus groups—with only one post-project questionnaire to allow more granular, individualized accounts of an evolving situation. Combining these with quantitative techniques enable further insight into the students' experiences and use trajectory of VSN in and outside the classroom and added more validation to the qualitative data.

One of the present study's strengths lies in its emergence feature in terms of designing instruments for data collection. In other words, since investigating students' use of VSN for English learning is a relatively new phenomenon in the Saudi tertiary EFL context and is, by nature, complex and dynamic, the potential positive (and negative) outcomes could not be reliably foreseen. Thus, the nature of the research inquiry required flexibility in the design of the data collection tools in order to provide added room for themes to emerge. Hence, the interviews and questionnaires were wide-ranging and did not emphasize agency and its relationship to innovation in order to avoid leading the research into a pre-determined path. Moreover, the students' focus group and classroom scenarios were developed on the research site based on information that emerged from the interviews and my observations of VSN implementation during the study's implementation stage. As stated by Cavallo (2000), "Design cycles that cannot adapt to rapidly changing conditions miss emergent phenomena that either need correction because they are undesirable, or need capitalization if desirable" (p. 769). Flexibility with respect to the design of the study's data collection tools allowed me to gain deeper insights into the students' agency from many different angles.

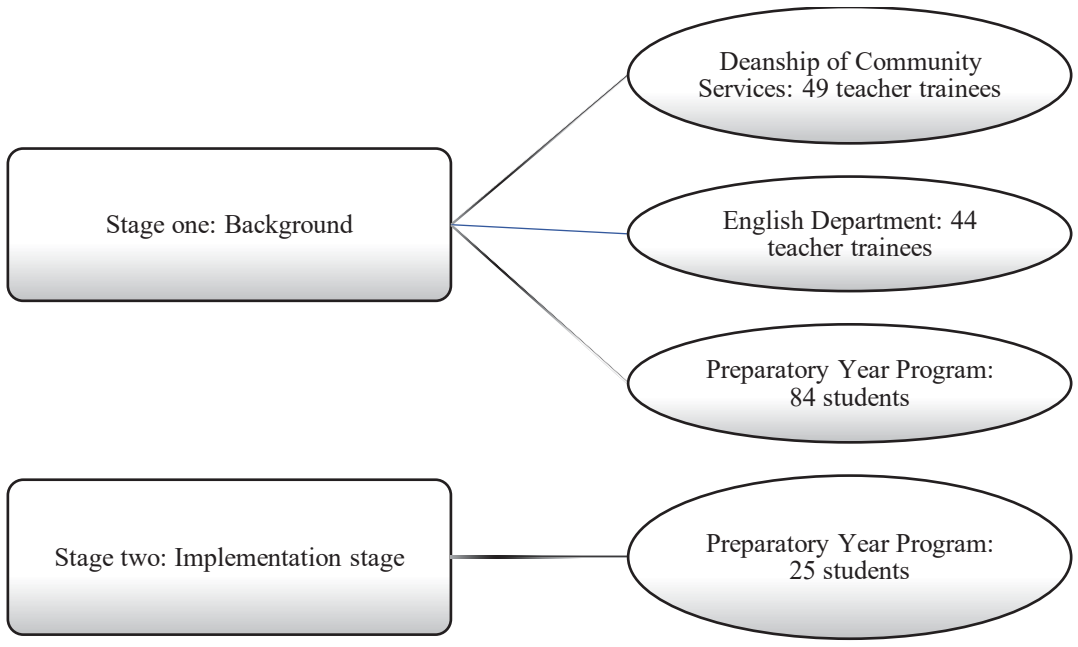
Because data were collected in two stages, this study employed "multiphase combination timing" (Creswell & Plano Clark, 2011, p. 66). For stage one, qualitative and quantitative data were collected concurrently, but, in stage two, qualitative data collection was

conducted first due to the nature of the implementation stage, and the post-project questionnaire was administered at the very end of the study.

### 3.3 The Research Settings and Sample

The participants were EFL teacher trainees and PYP students from three colleges at Qassim University; this section discusses the research sample from each of the colleges involved in the data collection process. First presented are the teacher trainee sample and settings, the Deanship of Community Services (DCS) in Buraydah city included 49 teacher trainees and the Department of English Language and Translation (DELT) at the college of Arabic and Social Science included 44 teacher trainees both two colleges are within QU. Next discussed is the PYP sample that participated in the students' classroom scenarios survey for the background stage and included 84 PYP students. Lastly, the PYP sample for the implementation stage, which followed 25 students who contributed on Twitter and WhatsApp, is presented. Figure 3.1, describes the sample for each stage.

Figure 3.1: Participants' sample for each stage



### *3.3.1 Teacher trainee sample*

As mentioned above, the teacher trainees were from two different colleges at Qassim University. DCS in Buraydah city, which was established in May 2004, provides students who are interested in becoming teachers with a one-year postgraduate diploma in Education, thus enabling these students to teach in Saudi schools. The aims of this program are as follows (Deanship of Community Service, 2016):

1) To identify the most important trends of modern theories in Education and Psychology,
2) To develop a student's ability to perceive the main elements of the school curriculum (goals, content, teaching methods, and calendar),
3) To understand modern techniques and aids and their uses and their applications in learning and education,
4) To be familiar with recent trends and methods in educational planning and supervision, and
5) To achieve a sustainable professional development of the teacher.

In the first semester of the postgraduate program, teacher trainees are taught the principles of teaching English to students, while in the second semester, the teacher trainees undergo fieldwork for 12 hours per week in secondary or middle schools under the supervision of the teachers and academic staff located there.

After consultation with the dean of the Deanship of Community Services at Qassim University, I was given access to the English teacher trainee group to invite them to complete the study's questionnaires and participate in its interviews. However, making contact with teacher trainees to invite them to volunteer to participate in the study was the most time-consuming part of obtaining participants for this part of the study. Their classes were conducted in the afternoons, and, once class was over, they tended to leave campus immediately. Difficulties in approaching the teacher trainees at the DCS forced me to attend DCS for about a month until I was able to obtain a large enough sample. In total, 49 teacher trainees, from this institution, completed the questionnaire, including six who volunteered to participate in the interviews.

The second half of the teacher trainee sample for questionnaire completion and interviews was collected from the English Department at the College of Arabic and Social Sciences. In the English Department, students can earn a four-year BA (in eight levels, with one level per semester) in English language and translation. During the first seven levels, students study various topics in the English language including linguistics, applied linguistics, translation, and educational and psychological methods for English language teaching. As with the DCS, the students in the last semester, or level eight, are required to do 12 hours per week of fieldwork in a secondary or middle school.

After consulting with the head of the English Department, I was given permission to contact the potential volunteers at levels seven and eight. The head of the English Department requested that the department's academic staff aid me in reaching the required sample size for the study, and the academic staff agreed to allow volunteers to have the last 20 minutes of their lectures to complete the study's questionnaires (see Figure 3.2). A total of 44 teacher trainees completed the questionnaire, including three who also agreed to individual semi-structured interviews. Thus, the overall teacher trainee sample consisted of 93 participants for the questionnaire and nine participants for the interviews.

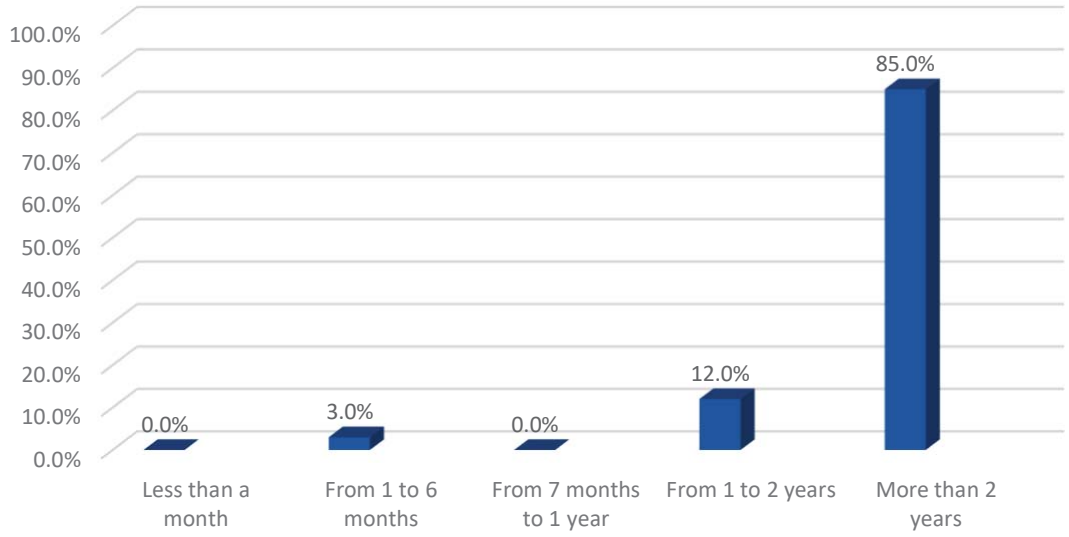
Figure 3.2: Teacher trainees completing the questionnaire in the English Department

The teacher trainees from both colleges were all Saudi-born males aged between 22 and 26 years old. The study was limited to male teacher trainees as education in Saudi Arabia

is segregated by gender; thus gaining full access to female teacher trainees would have been difficult.

All participants from both universities stated that they were VSN users, and the majority of the teacher trainees (85%) had been using VSN for more than two years (see Figure 3.3). Thus, members of this sample had been very familiar with VSN tools for a long period of time and were well aware of the capabilities, including advantages and disadvantages, of each.

Figure 3.3: Levels of teacher trainees' experience with VSN




### *3.3.2 The Deanship of Educational Services: Preparatory Year Program*

The third sample employed in the current study was the PYP at the Deanship of Educational Services (DES) located at the main campus of Qassim University. The deanship's main responsibility is the Preparatory Year Program (PYP) at Qassim University (Al-Yahya, Mahmood, & Lele, 2012). This PYP is a one-year program divided into four levels, and students cover two levels each semester. Students begin in Level One at the start of the semester and, after taking their exams, they are automatically moved to level two in eight to nine weeks' time, regardless of their exam scores. At the time of this study, there were seven groups in Levels One and Two in PYP; the number of students in each group ranged from 20 to 30 students, with each group having its own teachers for

each subject. Five of the groups (One, Three, Four, Six, and Seven) comprised the sample that participated in the student classroom scenarios.

The target students, who participated in the classroom scenario, were studying English for 16 hours a week, and their time was devoted to two subjects, *Reading and Writing* for eight hours a week and *Speaking and Listening* for the remaining hours. In addition, the medium of instruction is English for all other subjects taught in PYP. The students were all male, and their ages ranged from 17 to 20 years old. Most were from different cities in Qassim State, with a few from different states in the kingdom. The total number of participants from the group that volunteered to complete the classroom scenarios questionnaire was 84 students from the five groups. The purpose of the PYP sample was to participate in the classroom scenarios as part of the data-collection process related to answering the first research question and to provide a foundation to confirm and validate the implementation stage.

Overall, the total size of the sample for the study's first stage was 177 participants, including 93 teacher trainees and 84 PYP students who volunteered to complete the questionnaire, interviews, or the students' classroom scenarios questionnaire.

### *3.3.3 The sample for implementation stage: PYP Group Two students*

The Group Two students in PYP Level One were chosen to be the sample for the implementation stage. It is important to note that this sample is different from the sample who participated in the classroom scenarios. Although both samples study in the same PYP, Group Two were selected to receive the implementation of PYP (see Section 3.3.3.1 and 3.3.3.2 for the selection process). The PYP sample was considered appropriate for the implementation stage for two reasons. First, PYP places more emphasis on English learning, and all PYP teachers are nonnative speakers of Arabic, so students need to speak in English to communicate with the teachers. Second, PYP students tend to be more highly motivated, and most have high GPAs since PYP entry requirements are relatively high. The purpose of PYP is to provide "a foundation for students' knowledge in science, medicine, mathematics and English—the foundation for their subsequent University-

level courses" (Al-Yahya, Mahmood, & Lele, 2012, p. 46). The three primary objectives of PYP are as quoted from their English brochure:

> 1) To increase the employability of graduates of science specializations (engineering, computers and other sciences) in the public and private sectors by improving their computer literacy and English language skills.
> 2) To prepare students to use English as the medium of education in scientific and medical specializations. Students study a weekly total of sixteen hours distributed among the four language skills (reading, listening, speaking and writing). In addition, the high school–level subjects of mathematics and natural sciences (physics, chemistry and biology) are reviewed in English.
> 3) To develop applied computer skills by offering the ICDL (International Computer Driving License) as the basis of a course.

Thus, as shown in PYP's aims, the PYP places particular emphasis on enhancing students' English proficiency and their use of technology. Hence, the PYP was deemed to be the most appropriate setting for the implementation stage.

#### *3.3.3.1 The selection process of the teacher*

At Qassim University's main campus, I met with the dean of the Deanship of Educational Services to organize the PYP classroom setup for the study. The first step was to select a teacher who was interested in working on this project with me. At that time, there were only seven PYP groups, since it was the second semester and there were seven teachers assigned to the *Reading and Writing* unit (one teacher for each group). The dean sent a request to all seven teachers, and three expressed interest and willingness to participate in the study.

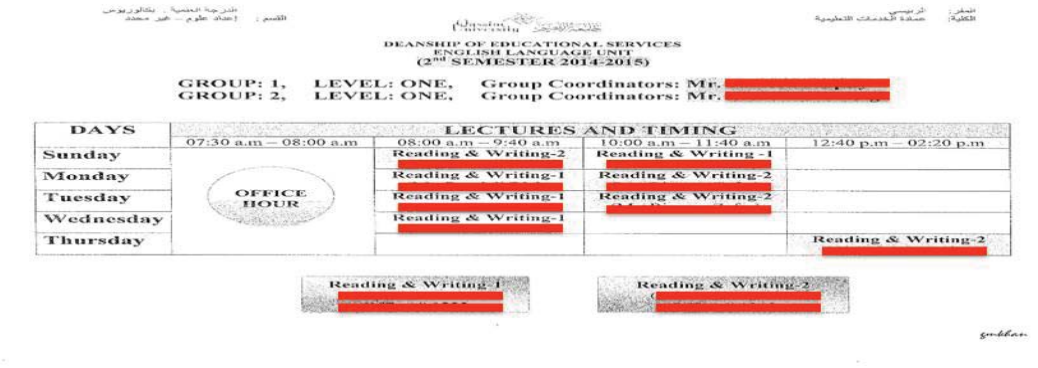
The three teachers were from different backgrounds: Indian, Pakistani, and Canadian. The suitability of the teachers for participation in the study was assessed on their familiarity with VSN and technology use in learning a foreign language. Based on these criteria, the Indian teacher was the most suitable for participation in the study. He was very familiar with Twitter and more accepting of using technology for enhancing

language learning, characteristics that would make study implementation less difficult, especially in terms of VSN's deep features (i.e., sharing images, videos, and links, etc.). I explained the Twitter strategy for the study and together we implemented it as described earlier. He then suggested that he allocate the last ten minutes of the lecture to answering students' questions. Later, he expressed greater interest in using WhatsApp when it was planned to be implemented outside the classroom, as he was more familiar with this tool.

#### *3.3.3.2 The selection process of the classroom*

Since the teachers were already assigned to their groups, by selecting the Indian teacher I was automatically assigned to Group Two's students also. Hence, selection of the participants was not random. There was a total of 25 students in Group Two with ages ranging from 17 to 19 years old and places of origin primarily from different cities in the state with a few from different states. All participants were Saudis with Arabic as their native language; the English proficiency of the group's members was a low-intermediate level. Although the study was conducted in the second semester, it was the first semester for the majority of the students. The original classroom was not equipped with the necessary computers to conduct the study; therefore, lectures were moved to a computer lab (see Figure 3.5). With all preparations completed, the PYP coordinator provided a course schedule for the Group Two students (see Figure 3.4).

Figure 3.4: Course schedule for Group Two[3]


DEANSHIP OF EDUCATIONAL SERVICES
ENGLISH LANGUAGE UNIT
(2nd SEMESTER 2014-2015)

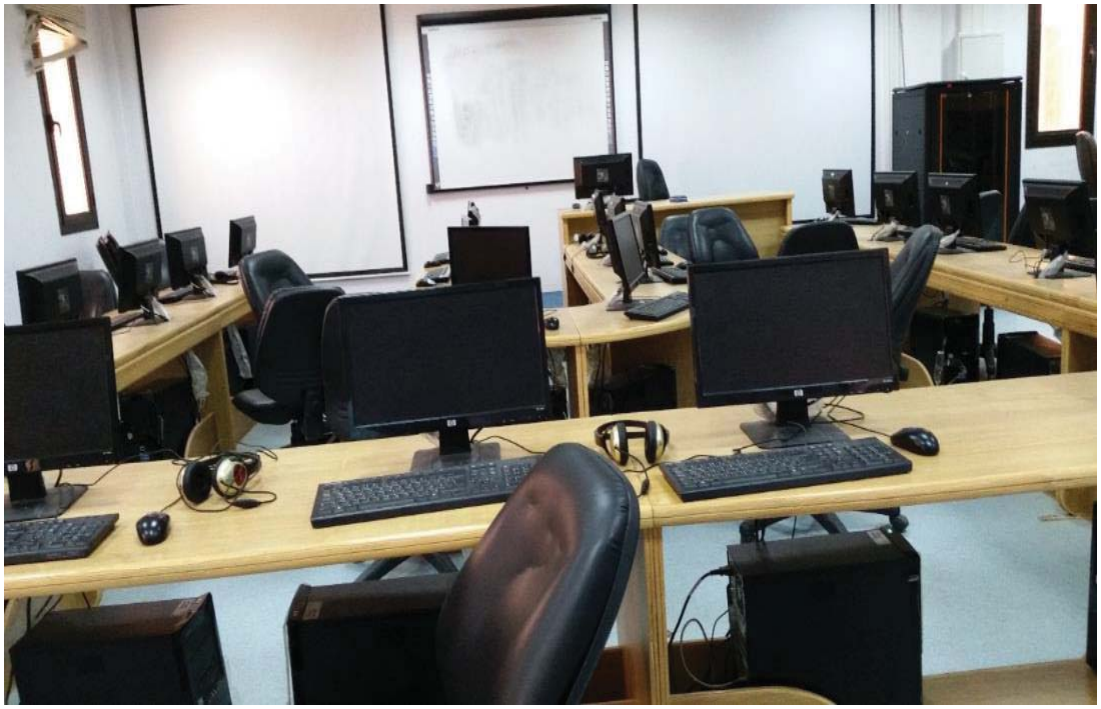
GROUP: 1, LEVEL: ONE, Group Coordinators: Mr. [redacted]
GROUP: 2, LEVEL: ONE, Group Coordinators: Mr. [redacted]

| DAYS | LECTURES AND TIMING | | | |
|---|---|---|---|---|
| | 07:30 a.m – 08:00 a.m | 08:00 a.m – 9:40 a.m | 10:00 a.m – 11:40 a.m | 12:40 p.m – 02:20 p.m |
| Sunday | OFFICE HOUR | Reading & Writing-2 [redacted] | Reading & Writing -1 [redacted] | |
| Monday | | Reading & Writing-1 [redacted] | Reading & Writing-2 [redacted] | |
| Tuesday | | Reading & Writing-1 [redacted] | Reading & Writing-2 [redacted] | |
| Wednesday | | Reading & Writing-1 [redacted] | | |
| Thursday | | | | Reading & Writing-2 [redacted] |

Reading & Writing-1 [redacted] Reading & Writing-2 [redacted]

[3] Names are blocked to maintain privacy, as per research ethics requirements.

Figure 3.5: Computer lab for Group Two



### *3.3.4 The role of the researcher*

The role of the researcher in quantitative research is very limited, as it is assumed that participants act independently, with no possible influence from the researcher. In a qualitative study, the role of the researcher is considered to be that of a mediator (Denzin & Lincoln, 2008). In the first stage, which served as the background to provide understanding of the nature and roles of VSN, and in the second, implementation stage, I dealt with data as objectively as possible by simply recording participant data without interference. In the interviews, I attempted to elicit information by asking questions without also introducing bias and listened carefully to responses (Simon, 2015). On the other hand, in the implementation stage, my responsibility was to monitor students' behavior in the two VSNs throughout their implementation process. Since the teacher could not speak Arabic but knew a few Arabic words, my role was also to mediate and facilitate students' questions in case they preferred to ask in Arabic or were unable to ask them in English.

In the Twitter intervention portion of the study, my role was explained to the students as a researcher who would mediate their enquiries to the teacher in English in case some preferred to ask in Arabic. However, the students preferred to send their enquiries to the teacher in English on Twitter using Google's translation facility to tweet their questions. Even though the students found this other affordance to mediate their inquiries, my role as a facilitator was not completely eliminated in assisting them in using the VSNs. In some cases, I clarified ambiguous questions written in English for the teacher so as to prevent possible negative emotions on the part of the students should the teacher request clarification that they would be unable to provide due to their low English proficiency.

As in Twitter, my role with respect to the WhatsApp platform was to monitor, motivate, and aid the students with their English learning. However, the students in WhatsApp rarely needed my help, as they also employed Google translation and used such multimodal features of WhatsApp as photographing their issues and sending these directly to the teacher. Hence, new aspects of my role emerged in WhatsApp, leading me to modify my role to also participate with the students on the site in sharing English grammar and creating a relaxed, conversational environment. The role change from being a researcher to a group member or peer participant aided in increasing the students' familiarity with the tools and strengthened my relationship with them, thereby also contributing to the relaxed environment.

## 3.4 Human ethics approval process

Before conducting the actual research, obtaining ethical permission from the Human Ethics Committees in both universities was necessary. Qassim University required an official request be sent to them from the Saudi Arabian Cultural Mission's (SACM) branch in New Zealand (see Appendix A). Qassim University then requested the research instruments I intended to use for data collection, a document written in Arabic that explained the procedures and purpose of the research, and the names of the colleges where I intended to collect data. I submitted these; my request was approved on 18 December 2014; and the approval letter was sent to SACM (Appendix B).

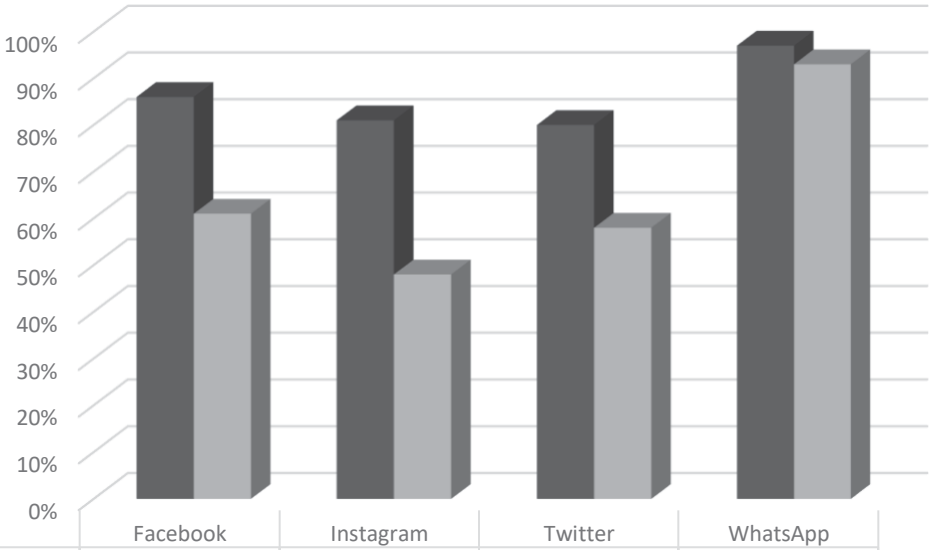
In addition, I submitted an application and obtained approval according to the Massey University Code of Human Ethical Conduct (MUCHEC). I completed a screening questionnaire to determine the approval procedures and submitted it to the Massey University Human Ethics Committee (MUHEC) along with a low-risk application form describing the purpose of the research and the instruments to be used for data collection. A separate information sheet (Appendix C) along with a consent form (Appendix D) were also provided to MUHEC. By 8 January 2015, I had received the approval letter from MUHEC (Appendix E), which was valid for three years from the approval date.

My intended role in the classroom was as an observer of the students' interactions with Twitter. I would not be involved in teaching students content, and hence my study was considered to be low risk. At the research site, the students who would participate in the study were provided with the information sheet containing a description of the study in both Arabic and English and a consent form. The study was further explained orally in class, and students were informed that they had the option of withdrawing from the study at any time. In addition, informed consent forms were attached to all questionnaires, explaining the aims of the research, detailing the procedures that guaranteed participant confidentiality and anonymity, and describing what student participation in the study involved. Furthermore, participants were informed that students who provided their real names on a questionnaire or during an interview would be anonymized. These students' names collected during interviews or from questionnaires were alphabetically coded.

## 3.5 VSN selection process and procedures

The pilot test involving the teacher trainees provided the main reason for my selection of Twitter and WhatsApp for the implementation stage at PYP. As revealed by descriptive analyses of participant responses to Item 12 and Item 14 of the pilot test, the Saudi EFL learners in the pilot test had more profiles and were most active on the following VSN platforms: Twitter, Instagram, Facebook, and WhatsApp (see Figure 3.6). Thus, I excluded YouTube, Keek, Snapchat, Linkedin, etc.

Figure 3.6: Profiles and activity on VSN as revealed by the pilot test results




| | Facebook | Instagram | Twitter | WhatsApp |
|---|---|---|---|---|
| Item 12: Profiles | 86% | 81% | 80% | 97% |
| Item 14: Activity | 61% | 48% | 58% | 93% |

The next step was to select two VSNs out of the four that remained that would be most suitable for in and out of class learning. Two VSN platforms rather than one were selected to give the students another option to use to increase their comfort levels. The challenge was selecting platforms that would be suitable for both in and outside the classroom learning, and the features of each VSN platform helped me determine which was most suitable according to this criterion. For in-class learning, I needed a platform that could be accessed via computer since the students would be using it in the classroom; options were therefore Facebook, Instagram, and Twitter, all of which were accessible by computer. Then, I needed a VSN platform that accepted hashtags so that the students could review their questions comfortably through a unique hashtag instead of going to each other's account to review the questions. Out of the three in-class candidates remaining, this criterion narrowed my choices to two, Instagram and Twitter, since Facebook did not accept hashtags at that time. Of the two, I preferred Twitter because Instagram does not allow website links to be posted and shared, and the teacher might need to post links to other websites that could explain some element of English, a grammar rule for example, in greater depth. In addition, reactions to Twitter on the pilot

test were more positive than those to Instagram, and the literature on Twitter's use in the classroom was more comprehensive than on Instagram's (e.g., Blessing, Blessing, & Fleck, 2012; Fox, 2013; Junco et al., 2010; Trueman & Miles, 2011). Twitter was chosen as the most suitable for the classroom due to its features, positive pilot test results, and positive reactions in the literature.

With respect to the VSN to be used for out-of-class learning, Twitter was, of course, eliminated since it was to be used in the classroom. The primary requirements for the VSN to be used outside the classroom were that it be a closed platform, i.e., one in which all participation occurred within pre-defined virtual groups; it thereby allowed the teacher and I to easily track student participation outside the classroom, and allowed website links to be shared. WhatsApp and Facebook possess both characteristics (although Facebook is an open platform, it has a feature allowing a closed group to be created), so Instagram was eliminated from the selection process. For these two platforms, I was uncertain which to adopt. Although the pilot test results were positive for both, the results of WhatsApp were much more positive than the results of Facebook, a point in WhatsApp's favor. However, the literature reporting successful implementation of Facebook was far greater than for WhatsApp, since WhatsApp's launch was in 2010 whereas Facebook's was in 2004, making Facebook older and more established. Initially, I was going to select Facebook as the out-of-class learning VSN, and so I designed the post-project questionnaire and interviews accordingly. However, based on my familiarity with the Saudi community, I knew that Facebook was not popular there and so had reservations about adopting Facebook as the best choice. I therefore decided to let the students at the research site choose which they would prefer to use outside of class. Thus, I deferred my selection until after the initial interviews with the students, which occurred in the second week of Twitter's implementation; the interviews were conducted to investigate the students' initial experiences with Twitter's use as the in-classroom VSN. During these interviews, I asked the students if they would like to use WhatsApp or Facebook, and all 10 of the students interviewed strongly preferred WhatsApp. For example, one comment I received was as follows:

Interviewer: Ok, what do you think if we applied Facebook out of class?

Ajlan (0105)[4]: It will be really difficult for me. I'm busy the whole week with my studies. I have many tutors through the whole week. So, there is no time to do anything

Interviewer: So, how about using WhatsApp for chatting such that you are chatting in English with your classmates and I could also add the teacher to the group.

Ajlan: We have already thought about it in the class. Honestly, we wish that all the teachers could join us so that we can ask about quizzes or anything. We chose the best of us, who can speak English, to speak to the teachers to create a WhatsApp group, that's what we were supposed to do, but we didn't. We would love to make the teachers to speak in a voice message or by writing.

Interviewer: That's a great idea. What do you think about applying it?

Ajlan: I hope so. So, will we add all the teachers now?

Interviewer: I will ask them.

Ajlan: Excellent. (0105)

All other students also reported that they preferred using WhatsApp outside the classroom rather than Facebook. Ajlan's comment indicates that he viewed Facebook as an added burden that might increase their study efforts rather than being an asset in the learning process, possibly because he did not use Facebook regularly. As indicated in the findings reported in Chapter Four, most PYP students did not prefer using Facebook for language

[4] For clarity, the numbers 01 refers to the first interviews while 05 refers to the number of the students' turn in the interviews; in this case Ajlan was the fifth student interviewed in the first interview round.

learning. However, when asked about WhatsApp's implementation Ajlan's attitude changed and he strongly wanted WhatsApp to be applied. Thus, based on the students' preference WhatsApp was selected for out-of-class learning, and its implementation was scheduled for the fourth week of the study's implementation stage.

### *3.5.1 Twitter and WhatsApp implementation procedures*

It was essential to make the students' use of both Twitter and WhatsApp as simple as possible for them, both in and outside the classroom. Hence, the strategy for both platforms was to stimulate their use in the students' daily lives to increase their comfort with using the technology for learning purposes also. For Twitter, I instructed students to send questions using a hashtag, instead of posting it directly to the teacher's Twitter page. This ensured that all students in the class would see their peers' questions by entering this unique hashtag.

Because the hashtag was unique to this study, students would see questions submitted by members of their class only if they searched for this hashtag. However, if questions were sent directly to the teacher, they might be mixed with the teacher's private tweets in case the teacher decided to use his private account, which he did during the implementation stage. Thus, I instructed the students that they could ask the teacher about anything in the lecture or past lectures that they did not understand using a hashtag.

This implementation strategy stimulated students' regular use of WhatsApp. Using it recreationally, the students belonged to different groups, one group for their families, another group for their friends, and so on. Thus, the strategy was as simple as creating a group on WhatsApp and adding all the students in the class and the teacher to it. The teacher's role within the group was to answer students' questions related to the class, both in the WhatsApp group and, if needed, in private via WhatsApp messages, and to chat with the students in English whenever possible to provide them with addition opportunities to practice their English language skills.

The final stage of the preparation was to embed these strategies in the class curriculum to accommodate the students' proficiency levels. As mentioned earlier, the PYP study

system consists of four levels (two levels per semester). In the first level, students study for eight weeks, after which they are then automatically advanced to the second level after passing their examinations. This advancement occurs to the class as a whole, and so the class make-up and classroom remain the same. Hence, the first and second levels were considered to be the most suitable for the study, as their English proficiency was sufficient to carry out at least basic interactions. Moreover, the students at this level also required more support to enhance their English competence, thereby providing a good opportunity for them to use a VSN to achieve this goal.

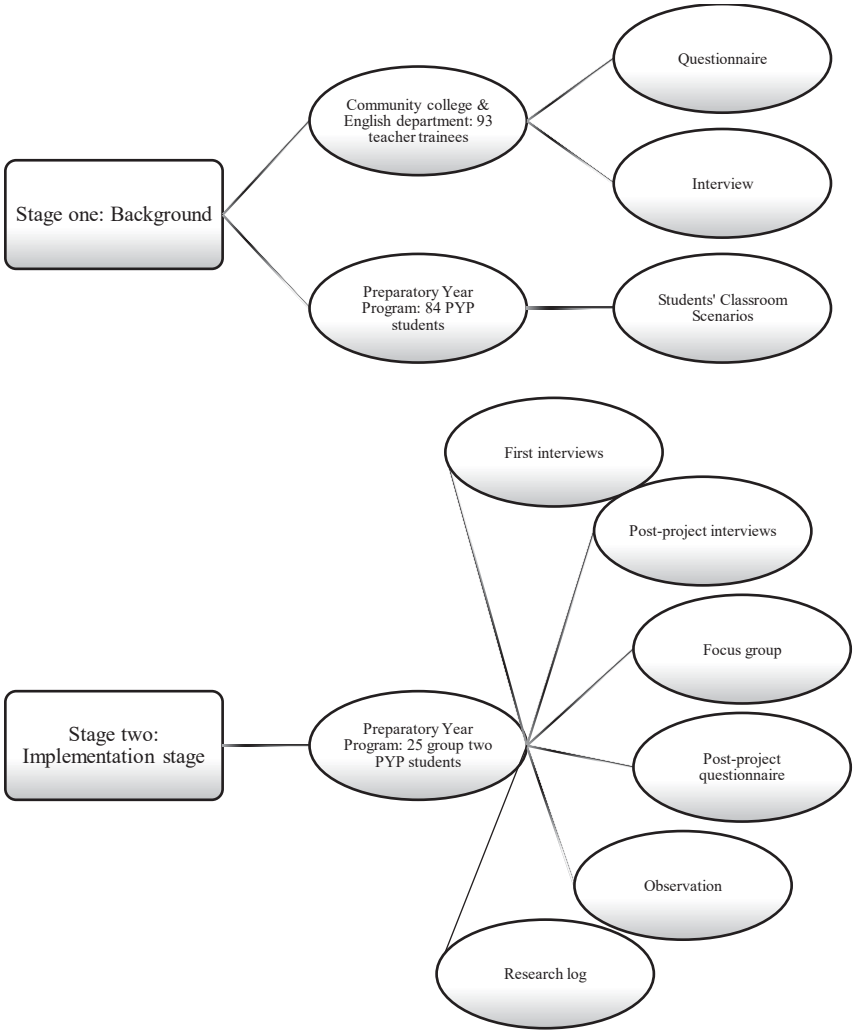
In the first and second levels, students attend a total of 16 contact hours per week, distributed between four English skills: reading, listening, speaking, and writing. Specifically, *Reading and Writing* are taught as one subject with one teacher for eight hours each week, and *Speaking and Listening* are taught during the remaining eight hours by a different teacher. This study was carried out in the *Reading and Writing* subject of the class, as it was the most appropriate fit for use of VSN. The text, *Unlock Level 4 Reading and Writing Skills Student's Book and Online Workbook* (2014) published by Macmillan which did not conflict with the use of Twitter and WhatsApp in and outside the classroom since the students could ask about English grammar or vocabulary by tweeting their questions to their teacher. Twitter usage did not contradict WhatsApp since the students primarily employed that platform out-of-class.

### 3.6 Data Collection

As is the nature of mixed methods research, the study obtained data from multiple sources once informed consent had been obtained from all participants. As shown in Figure 3.7, based on inductive reasoning, the data collection process in the current study was divided into two interrelated stages. The first stage consisted of obtaining background information about the use and nature of VSN in the Saudi tertiary context. For this stage, there were a total of three data-collection instrument types. The two types used for the teacher trainees were questionnaires and interviews, and the one type used for the PYP students was the student classroom scenario.

The second stage was the implementation stage for both the Twitter and WhatsApp interventions. Six data-collection instrument types were employed during this stage: first round interviews, research log, observation, post-project interviews and focus groups, and post-project questionnaire. Thus, a total of nine data-collection instrument types were used in both stages.

Figure 3.7: Data collection instruments



### *3.6.1 Stage one: Background*

#### *3.6.1.1 Teacher trainees' questionnaire*

The teacher trainee questionnaire was aimed at investigating the nature and roles of VSN in the Saudi tertiary EFL context: i.e., how the Saudis use VSNs in their daily life and English learning. The questionnaire was designed based on the existing literature on VSNs, and the research questions; that is, the aims of the current research formed the main guide for designing the questionnaire (Cohen, Manion, & Morrison, 2011). I therefore reviewed the literature on the use of VSNs, and on English learning, in Saudi to identify common patterns that could help in constructing the questionnaire. The questionnaire was designed to be a mix of open-ended and multiple-choice questions, to give the participants as many opportunities to express their opinions as possible. For this purpose, I divided the questionnaire into three sections: one dedicated to reporting demographic information; one for reporting VSN use such as purpose, activity, ease of use, and devices used to access VSN; and one for gathering information on advantages and disadvantages of VSN for English learning, such as benefits for practicing English, motivation, and what constraints they faced when learning English through VSN. For the first and second section, I found Bhardwaj's (2014) questionnaire to be aligned with parts of the purpose of the current study's questionnaire, and thus it was useful in aiding me to construct the questionnaire for the first and second sections. Bhardwaj investigated how library and information science professionals working in tertiary education in India use VSN in their daily routine work. Although the aims of this research were different, it gave me an idea of how I should design the questionnaire. I thus used Bhardwaj's questionnaire as a framework to develop and create the first and second sections of the questionnaire, making it suitable to the Saudi context and Saudis' use of the most popular VSN by adding, deleting and rewording items until these two sections fitted the purpose of the study. The final section focused on asking the participants for information relating to their overall experiences with VSN for English learning. The last item of the questionnaire was open-ended, and asked the participants to summarize the advantages they experienced from learning English through VSN, in order to give the participants as many

opportunities to express themselves as possible (Cohen et al., 2011). In the end, the final version of the questionnaire consisted of 29 items (see Appendix G).

The teacher trainees were invited to complete these paper questionnaires either after their lectures or during the last 20 minutes of their lecture time. After data collection, the questionnaires were uploaded to surveymonkey.com for analysis. Since the Department of English and Translation had recently moved from a branch of Qassim University in the capital city of Qassim State to their new location on the main campus in 2014, the computer labs were still under construction, and so I was unable to use the computer lab to allow the participants to complete the questionnaires online rather than via hard copy. The Deanship of Community Services did not have a computer lab, and so my only choice was to distribute the questionnaire in hard-copy form and then upload the results to SurveyMonkey for analysis. Information from this survey helped in gaining a deeper understanding of participants' specific uses and preferences for each VSN platform, including their motivations for using, the benefits they derived from, and the consequences of their use of, the various platforms.

#### *3.6.1.2 Teacher trainee interviews*

The interviews were conducted with nine teacher trainees from both colleges (Deanship of Community Services, and Department of English Language and Translation) at Qassim University in February and March, 2015. A semi-structured interview approach was used for the current study to allow for spontaneity and flexibility (Ford, Nunes, & Zafeiriou, 2001). The purpose of the interviews was to allow the researcher to elicit as much information as possible from the interview process (Mackey & Gass, 2005). The interview questions concerned the teacher trainees' use of VSNs and their perceptions of it with regard to learning English. An effort was made to make the questions open (i.e., not specifically focused on a particular theory), to allow for more themes to emerge, as described in the research design. The aims of the study were thus converted into questions that shaped the main interview guide (Cohen et al., 2011).

The interview questions were divided into two sections based on the aims of the first research question, which seeks to explore the nature and roles of VSNs in the Saudi EFL context. The first section focused on the participants' use of VSNs, and their opinion on the community uses of VSNs, while asking for more elaboration on themes that emerged as interesting from their responses. For example, on the use of VSNs, I asked questions such as "Which VSN do you use? How often do you use it?" and, "Why do you use this particular VSN?" As the conversation progressed I moved on to asking more specific questions about their use of VSNs for education and language learning such as, "In your opinion, can we use VSN in education? What about English language learning? Do you think it will be advantageous for the students and teachers?" The second section focused more specifically on their uses of VSN for their learning in general, and more specifically for English learning. Overall, the interview schedule consisted of 14 questions, and the average length of the interviews was 25 minutes (see Appendix I).

The interviews were conducted face-to-face with each participant individually after their lectures, and were digitally recorded. These interviews were conducted in Arabic to allow interviewees to express themselves as clearly and accurately as possible. The purpose of the interviews was explained to the participants, who signed a consent form translated into Arabic prior to the interview.

#### *3.6.1.3 PYP students' classroom scenarios*

The classroom scenario surveys were obtained from 84 students studying PYP in Levels 1 and 2 in the second semester at Qassim University's main campus. The purpose of the scenarios was to explore the PYP students' attitudes towards VSN types in the hypothetical cases where these were being applied in their classrooms. The PYP students were from different groups within their first PYP level (Group 1 with 19 participants, Group 3 with 17 participants, Group 4 with 10 participants, Group 6 with 25 participants, and Group 7 with 13 participants). As mentioned above, the sample for the student classroom scenarios did not include the Group 2 students involved in the implementation stage. The PYP students were asked to rate their reaction to each scenario on a four-point scale (*definitely not fit; probably not fit; probably fit;* and *definitely fit*) based on whether

a situation seemed to fit their learning styles or not (see Table 3.1 for a sample of one of the scenarios). At the end of the survey, participants were asked to comment on their most- or least-preferred scenario.

Table 3.1: Sample of a student classroom scenarios

| Scenario | Definitely not fit | Probably not fit | Probably fit | Definitely fit |
|---|---|---|---|---|
| Fahd is studying the English language. In order to motivate himself to learn he made a WhatsApp group with his classmates. His intention is to create a study environment with other students to discuss their homework and exams. Also to practice their English language from time to time. | | | | |

I used Suwannasom's (2010) Classroom Scenarios Questionnaire as a guide to developing my own version that fitted the current research aims. These scenarios, which were written in English and translated into Arabic, were designed and developed based on possible scenarios of classroom implementation of VSN by Mallia (2013), Poore (2012), Bouhnik and Deshen (2014), Cerniglia (2013), and Brien (2012), while including some of the contextual constraints that could be overcome with the use of VSN, depending on its type. These constraints were found in the literature to negatively impact Saudi students' activity in English learning, such as by increasing anxiety. For example, Twitter scenario two is aimed at students who might have had difficulties approaching the teacher out of class due to the shyness about speaking English. Another example, WhatsApp Scenario one involved voluntary participation in learning English in an environment where the students were not forced to participate, and little effort was required to participate in the WhatsApp group. Each scenario thus had different characteristics reflecting the different types of VSN. Overall, the aim of all the nine scenarios was to focus on providing the students with innovative ways to use VSN to

increase their activity, collaboration, and confidence regarding their English learning inside and outside the classroom. The classroom scenarios included one group-based VSN: WhatsApp (three scenarios); and four follower-based VSNs: Twitter (two scenarios); Instagram (one scenario); Facebook (two scenarios); and YouTube (one scenario) making a total of nine classroom scenarios (see Appendix F).

Due to the difficulty of moving this large number of students from different classes to the computer lab, the scenarios were collected in the classroom, and results were subsequently entered into surveymonkey.com for analysis.

### *3.6.2 Stage two: The implementation stage*

#### *3.6.2.1 First-round interviews*

An interview schedule was prepared after the students finished their first week of experience with Twitter. The first interviews were conducted during the second week to explore students' initial perceptions of using Twitter in their classroom for learning English and with post-project interviews and focus groups, so as to detect any changes in perception for comparison at the end of the study. The nature of the first-round interviews was semi-structured in order to allow participants to express their ideas according to their own interests, and to enable me to follow up on matters of interest that emerged during the interviews, and my observations of their use of Twitter in the classroom (Dörnyei, 2007).

The design of the first-round interviews followed the same principles as the teacher trainees' interviews: i.e., the design of the interview questions aligned with the aims of the second stage of data collection for the students' use of Twitter in the classroom. Specifically, the interviews sought to explore the participants' initial experience of their use of Twitter. To this end, a set of questions were developed that asked about behaviors in, reflections on, and perceptions of Twitter in their classroom. For example, after making the interview environment comfortable for the students, I began by asking some general questions such as "How was your initial experience in using Twitter in the class?"

and "Was this class different from other classes you have taken in the past? If so, how was it different?" but the interviews were mainly guided by what I observed in the class, and what I noted in my research log. This allowed me to capture in-depth insights into the complexity and dynamic nature of the students' use of VSNs (see Appendix J).

Ten students volunteered to participate in these initial interviews, which were conducted in Arabic in order to allow students to express their ideas and opinions effectively. These interactions were recorded using an audio digital recorder, were transcribed, and then were later translated into English.

#### *3.6.2.2 Post-project individual interviews*

Post-project interviews were conducted close to the end of the study, in the 11th week. The purpose of the second set of interviews was to elicit detailed, qualitative information about the students' attitudes toward WhatsApp and Twitter after these had been in use for a substantial period of time. More specifically, the post-project interviews aimed to capture students' reflections on, and perceptions of, WhatsApp and Twitter, and to also investigate how the students' behaviors and uses of Twitter and WhatsApp changed over time (see Appendix K). Like the first-round interviews, the post-project ones were also semi-structured to deeply investigate the complexity and dynamics of students' use of the two VSNs. For the interviews, a set of questions were developed based on the specific aims of the second stage of data gathering, and the second and third research questions. These interview questions focused on their overall experiences of their use of both of the VSNs, and the advantages they gained for their English learning, such as, "Overall, what do you think of your English studies with the assistance of Twitter and WhatsApp?" and "How would you describe it? What do you like most about it? In Twitter and WhatsApp?" Most importantly, as in the first-round interviews, the post-project interviews were guided by my observation of their use of both of the VSNs, and by elaborating on what emerged as interesting during the interviews. The average length of the interviews was about 22 minutes.

The students in the post-project interviews were the same as those in the first interviews so as to be able to document any behavior changes in the same individual. Only one student, Almutairi,[5] had to be replaced as he was not available at the time the second interviews were conducted. His replacement was Alsmuali. All the interviews were conducted in Arabic, and were digitally recorded.

#### *3.6.2.3 Post-project focus group interviews*

In addition to the individual interviews, focus groups were also conducted at the end of the study in order to obtain a wider range of data. Focus group interviews were considered to be an effective way of data gathering, as a group process of co-construction would help the students build on each other's ideas and elaborate on their opinions (Cohen et al., 2011). The focus group is "useful when the time to collect information is limited and individuals are hesitant to provide information" (Creswell, 2012, p. 218). Furthermore, "participants may feel supported and empowered by a sense of group membership and cohesiveness" (Sim, 1998, p. 346). This was the case with some of the students in the present study, who were able to express their opinions to a greater extent in focus group interviews by building on their peers' ideas to express their own, or by discussing their ideas with other students. The advantage of focus group is also to "provide information on the 'dynamics' of attitudes and opinions in the context of the interaction that occurs between participants, in contrast to the rather static way in which these phenomena are portrayed in questionnaire studies" (Sim, 1998, p. 346). The focus group was therefore important for providing further in-depth inquiry for the current research. I used the same questions as in the post-project interviews as a way to guide me through the interviews, but I focused mostly on encouraging the students in the focus group to discuss some of the issues that had emerged during their collective experiences with Twitter and WhatsApp. This allowed further themes to emerge by elaborating more on the constraints and affordances they experienced on both platforms.

[5] All names are pseudonyms.

Two focus groups were held, with five students in each group. The focus group sample consisted of the same students who had participated in the post-project interviews. The focus groups each lasted about 1 hour, and both were conducted in Arabic using a digital audio recorder.

#### *3.6.2.4 Post-project questionnaire*

The post-project questionnaire was administered at the end of the project to elicit the students' reflections, perceptions, and evaluations with respect to the entire Twitter and WhatsApp implementation processes. After class, students were invited to complete a 32-item questionnaire online through surveymonkey.com, which was later exported to SPSS for further quantitative analysis. The questionnaire was designed using five-point Likert scales ranging from 1 (strongly agree) to 5 (strongly disagree). The use of Likert scale questions allowed participants to indicate varying feelings and opinions through a quantitative lens (see Appendix H).

As with the previous instruments, the design of the questionnaire was based on the research questions and aims of the second stage. The first step was thus to clarify the purpose of the questionnaire (Cohen et al., 2011). The main purpose of the questionnaire was to evaluate the overall experiences of the students and to allow more students to express their opinions about the use of VSNs for their English learning, and to further explore some of the findings in the interviews, allowing for new themes to emerge from all of the students. To this end, I constructed the questionnaire to include 32 items divided into four sections: a Twitter section with 11 items, a WhatsApp section with 11 items, five items that measured the overall benefits of VSN, and five open-ended questions. The Twitter and WhatsApp items were categorized into four groups: Twitter items 1 through 3 (12 through 14 for WhatsApp) evaluated general impressions; items 4 and 5 (15 and 17 for WhatsApp) related to collaborative learning; items 6 and 7 (18 and 19 for WhatsApp) concerned ease of use and time consumption; and items 8 through 11 (20 through 22 for WhatsApp) explored benefits related to future use of both VSNs. Items 23 through 27 investigated the benefits students perceived in relation to achievements gained from using VSN in general. The five open-ended questions at the end of the questionnaire aimed to

capture further information on their experience of using Twitter and WhatsApp, and provided an opportunity for all the students to freely express their opinions and suggestions. The students completed the questionnaire online in the computer lab, thereby saving time.

#### *3.6.2.5 Observations*

Observation allows the researcher to better understand the context of an investigation, to explore aspects that might otherwise be missed, and to discover issues that the participants might not be eager to discuss during interviews (Cohen et al., 2011). Observations played a crucial role in following the changes over time in student engagement with Twitter and WhatsApp, and they provided me with further insights into the data. I employed various techniques during my observations related to Twitter in the classroom and WhatsApp outside of class, including photographing students' classroom interactions with Twitter, and noting their interactions in the WhatsApp group. In addition, during the implementation processes of Twitter and WhatsApp, I observed the behaviors of individual students in the classroom that might contribute to analysis of themes emerging from the study.

#### *3.6.2.6 Research log*

The use of research log played an important role in supporting the observations of the trajectory of the use of VSNs inside and outside the classroom, and provided in-depth understanding of the complexity and dynamics of the students' use of VSN over time. All my field notes and research activities were recorded in my research log. The research log was used mainly to note ongoing reflections of what I had observed from engagement with the students, teachers and teacher trainees, meetings with the administration, and even what emerged from my chat or observations with my community about VSNs.

The following table provides a summary of the participants' involvements during the data collection stage.

Table 3.2: Summary of the participants involvement during the data collection phase

| Participants | Data collection instruments | Data collection stage |
|---|---|---|
| Teacher trainees (Both contexts, Deanship of Community Services (49 teacher trainees) also the English Department (44 teacher trainees)) with total participants of 93 teacher trainees | - Teacher trainees' questionnaire<br>- Teacher trainees' interviews | Background stage |
| Preparatory Year Program students on Group 1 with 19 participants, Group 3 with 17 participants, Group 4 with 10 participants, Group 6 with 25 participants, and Group 7 with 13 participants. The total participants are 84 PYP students | - Students' classroom scenarios | |
| Preparatory Year Program Group 2 students with 25 participants. | - First-round interviews<br>- Observation<br>- Research log<br>- Second-round interviews<br>- Focus group interviews<br>- Post-project questionnaire | Implementation stage |

### *3.6.3 Piloting*

Most of the study's research instruments were piloted in June and July 2014, while the students' classroom scenarios survey was piloted later, during the data-gathering stage at Qassim University. Massey University granted its ethics permission prior to the pilot test, whose main objective was to eliminate any instrument weaknesses that might affect its reliability and validity and also to identify the most appropriate VSN to apply during the actual data collection stages.

#### *3.6.3.1 Teacher trainee questionnaire*

The questionnaire was piloted online from June to July 2014 with the help of a popular Twitter account. I sent an email explaining my study to the owners of a Saudi Twitter account (@SaudiUK) that specializes in making available to Saudi students and teacher trainees abroad, particularly those in the United Kingdom, information concerning UK universities and achievements of Saudi students in the UK. At that time, the account had more than 60,000 followers, the majority of whom self-identified as Saudi students and teachers. Since the Twitter account owner had previously assisted postgraduate students in pilot-testing their research instruments, I solicited the account for this project as well, and used SurveyMonkey to pilot-test the questionnaire online. The questionnaire was presented in both Arabic and English to ensure that participants understood all items and their translation accurately. I sent the questionnaire link to the Twitter account administrators, along with a request to the owner to ask his followers who work in the field of English teaching in Saudi Arabia to participate in completing the questionnaire.

By the end of the first week, 335 participants (62% male and 38% female) had completed the questionnaire. Because this pilot was intended to improve the survey instrument, the last items of the questionnaire asked the participants to do the following:

1- Report any items whose wording or translation they did not like;
2- Report items whose meaning was not clear;
3- Report any items that they viewed as unnecessary or repetitive;
4- Make suggestions and recommendations concerning the entire questionnaire.

Most participants reported that all items were clear to them, while some suggested improvements to some items. To avoid repetitiveness, for example, Item 14: “What are the social networking sites that you use daily? (Multiple answers are allowed)”, was merged with Item 16: “Which of these social networking sites are you most active on? (Multiple answers are allowed.)”

In addition, four items were deleted due to their similarity to other items, or their serving the same purpose, such as:

Item 13: "How often do you log into social networking sites (e.g., Facebook, Twitter, WhatsApp, etc.)?"

Item 24: "In your opinion, are there any benefits of using the social networking sites technology in education? (Please justify.)"

Item 31: "Do you support using social networking sites in education? Why, or why not?"

Item 33: "What are the changes that social networking sites can provide to our society?"

Two further items were modified to increase clarity:

Item 21: "Please specify the purpose(s) for which you mainly use social networking sites (Multiple answers are allowed)" was reworded to "Please specify the reasons that you have ('Friends', 'Followers') on VSNs (Multiple answers are allowed.)"

Open-ended items were added to elicit responses with more depth, including the following:

Item 24: "Do you think there are constraints to learning English through VSN? (Please justify.)"

Item 29: "To summarize, can you tell three things about your experience with VSN in your English language learning?"

Other items were corrected for grammar, spelling mistakes, and question wording. The final version was then completed in November 2014.

#### *3.6.3.2 Teacher trainee semi-structured interview*

The interview was piloted with a newly employed secondary-school English teacher located in Saudi Arabia on July 2014. This interview lasted for about 14 minutes and comprised about 1,100 words. This interview was good practice for conducting the study interviews. Because the interview was semi-structured, I only made a few adjustments to the interview questions, including their sequence, so that the interview could flow better. I also added two questions.

#### *3.6.3.3 Student post-project questionnaire*

As with the teacher trainee questionnaire, I asked the owner of Twitter account @SaudiUK to solicit volunteers to look at the student post-project questionnaire. However, I requested that this owner's tweet state that only learners who were studying the English language would be allowed to answer the questionnaire to maximize feedback quality and to anticipate students' responses to the questionnaire's questions. Although only students studying English were encouraged to participate, the questionnaire was presented in both Arabic and English to ensure that all the items were understandable to participants and also to double check the accuracy of the translation. The post-project questionnaire was piloted on June to July 2014. By the end of the week, the questionnaire had 94 participants. Once again, the final item invited participants to advise on improvements to the instrument. All questionnaire items were clear to participants except for minor spelling and translation errors.

#### *3.6.3.4 Student semi-structured interviews*

Both sets of student interviews (the first-round and the post-project ones) were piloted in Saudi Arabia in July 2014 with two English learners. I used these pilot data-collection opportunities to practice my skills in conducting study interviews, and to try out the interview questions. The first interview was with a participant studying English at Qassim University. This interviewee stated that she had experience in using Twitter and WhatsApp for English learning. The interview with the participant was somewhat short, and I was not satisfied with the depth of the comments that I was able to elicit from her, possibly due to the short length of the interview. However, I was able to elicit much richer data from the second interview, and was able to familiarize myself with semi-structured interviewing. After the interviews, I added one additional question to the post-project interview to help elicit more data from participants in the implementation stage: "In summary, can you mention three points about your experience with Twitter/WhatsApp for your English learning?"

#### *3.6.3.5 Students' classroom scenarios*

These scenarios which were written in English and translated into Arabic, were designed and developed based on possible scenarios of VSN classroom implementation by Mallia (2013), Poore (2012), Bouhnik and Deshen (2014), Cerniglia (2013) and Brien (2012). The purpose of the student classroom scenarios was to understand the students' perceptions toward VSN in their classrooms, and they were piloted with four PYP students in Levels One and Two on the context of the study prior to the actual data gathering on the tenth week of the implementation stage. The participants reported a few wording and spelling errors, which were then corrected.

Table 3.3, summarizes the timeline of pilot and data collection for the study. The table is divided into two sections, the first section involves the implementation stage which was conducted at the Preparatory Year Program (PYP) and involved a sample of 25 PYP students, while the second section involves the background stage which was conducted at three locations at Qassim University that is the English department, Deanship of Community Services and the PYP.

Table 3.3: Pilot study and data collection timeline

<table>
<tr><td>Context<br>Timeline</td><td colspan="3">Preparatory Year Program (PYP)</td><td>PYP, English department, and community college</td></tr>
<tr><td></td><td colspan="4">Pilot study</td></tr>
<tr><td>June 2014</td><td colspan="3">Post-project questionnaire</td><td>Teacher trainees' questionnaire</td></tr>
<tr><td>July 2014</td><td colspan="3">Initial and post-project individual interviews</td><td>Teacher trainees interview</td></tr>
<tr><td></td><td colspan="4">Data collection stages and the sample for each stage for actual data gathering</td></tr>
<tr><td></td><td colspan="3">Implementation stage: sample include 25 PYP students</td><td rowspan="2">Background stage: sample include 93 teacher trainees and 84 PYP students</td></tr>
<tr><td></td><td colspan="2">Twitter</td><td>WhatsApp</td></tr>
<tr><td>Week 1<br>(1/2/2015)</td><td rowspan="11">In class observation</td><td colspan="2">- Introduced the study to the students<br>- Initial use of Twitter in the classroom<br>- Classroom observation began on the students' interaction with Twitter inside the classroom</td><td>- Organizing a suitable time with the academic staff of the English department to gather questionnaire data from the teacher trainees</td></tr>
<tr><td>Week 2</td><td colspan="2">First interviews with 10 participants</td><td>- Applied for permission to gather data from the community college<br>- Beginning of collecting data on the questionnaire from the teacher trainees at the English department</td></tr>
<tr><td>Week 3</td><td></td><td>Prepared WhatsApp for implementation</td><td>- Continued to gather data on the teacher trainees' questionnaire from the English department<br>- Interviewed two teacher trainees at the English department</td></tr>
<tr><td>Week 4</td><td></td><td>- Initial use of WhatsApp outside the classroom<br>- Observation began on the students' interaction with WhatsApp outside the classroom</td><td rowspan="10">Out of class observation</td></tr>
<tr><td>Week 5</td><td colspan="2">Observation in and outside the classroom</td><td>- Beginning of collecting data on the questionnaire from the teacher trainees at the Community College</td></tr>
<tr><td>Week 6</td><td colspan="2">Observation in and outside the classroom</td><td>- Continued to gather data on the teacher trainees' questionnaire from the Community College<br>- Interviewed two teacher trainees at the Community College</td></tr>
<tr><td>Week 7 & 8</td><td colspan="2">Observation in and outside the classroom</td><td>- Designed the PYP students' classroom scenarios</td></tr>
<tr><td>Week 9</td><td colspan="2">- Twitter's use decline<br>- Observation in and outside the classroom</td><td>- Piloted the students' classroom scenarios<br>- Gathered data on the teacher trainees' questionnaire from the community college<br>- Interviewed two teacher trainees from the community college</td></tr>
<tr><td>Week 10</td><td colspan="3">Observation in and outside the classroom</td><td>- Conducting the PYP students' classroom scenarios on PYP students studying at level 2: Group 1 with 19 participants, Group 3 with 17 participants, Group 4 with 10 participants, Group 6 with 25 participants, and Group 7 with 13 participants</td></tr>
<tr><td>Week 11</td><td colspan="3">Final individual interviews with 10 students</td><td>- Continued to gather data on the teacher trainees' questionnaire from the Community College<br>- Interviewed two teacher trainees at the Community College</td></tr>
<tr><td>Week 12</td><td colspan="3">- Focus group interviews (2 focus groups with 5 students on each)<br>- Post-project questionnaire for all the classroom & end of the project</td><td>- Interviewed one teacher trainees at the Community College</td></tr>
<tr><td>Weeks 13 to 17</td><td colspan="3">Continued observation outside the classroom for WhatsApp</td><td></td></tr>
</table>

## 3.7 Data Analysis Process

### *3.7.1 Preparing the data for analysis: Transcription, translation and programs*

I began preparing the data for analysis as soon as I returned to New Zealand in May 2015. This process included transcribing the data in Arabic first and then translating the transcription into English. All data recorded from teacher trainee interviews, initial interviews, post-project interviews, and focus groups were uploaded to NVivo 11 for ease of transcription. Interviews ranged in length from 22 minutes to one hour, and there were 31 interviews in total, including the post-project focus group sessions, and so the transcription process was extremely time-consuming. The average length of an interview was about 1600 words, and the average length for each focus group was about 3000 words. Since the nature of the current study is inductive in nature, it was important for me to transcribe everything to ensure that no themes were overlooked. The total word count for the recorded data was more than 54,000 words (not including the number of words captured in the questionnaire's open-ended responses and the classroom scenarios). Each transcription was double-checked by listening to the recordings and reviewing the interview transcript several times to ensure that all information captured in the interviews was also included in the transcripts. The transcription process helped me understand and explore the study's data more fully and thereby facilitated the process of identifying themes and linking these to theoretical underpinnings.

In addition, the quantitative data were manually uploaded to SurveyMonkey.com for analysis. As with the interviews, I first uploaded the students' responses to the open-ended questions in Arabic to speed up the transcription process. The quantitative instruments whose results were manually uploaded to SurveyMonkey.com included the teacher trainees' questionnaires and students' classroom scenarios; students completed the post-project questionnaire directly online.

All content was worked with in original form, and only selected parts of interviews and focus group sessions were translated into English for analysis and discussion. I translated these transcriptions first, and they were then revised by a translator holding a master's

degree in English-to-Arabic translation to check for translation errors. This translator was instructed to render the meaning of the findings as closely as possible to the original versions. In the case of disagreements or discrepancies, the translator and I discussed and revised the translation until a consensus was reached.

As aforementioned, the paper-based quantitative data were uploaded to SurveyMonkey.com for analysis. SurveyMonkey.com is an online software program that allows survey instruments to be designed and hosted and survey responses to be analyzed. It offers the researcher a variety of statistical analysis tools and is less complex than SPSS (I also used SPSS to check the reliability of the questionnaire and classroom scenarios.) All coding for the qualitative data gathered during the interviews and the open-ended responses was done using NVivo 11, a qualitative analysis software. NVivo helps uncover themes within data by coding data into nodes, a term used by NVivo to represent categories. All data in a node can be later viewed and reviewed in a single window, making it convenient and efficient for the researcher to conduct a qualitative analysis of a large amount of data.

### *3.7.2 Exploring the data*

After the data were prepared, the next step was to explore the data in-depth (Creswell & Plano Clark, 2011). The quantitative data were explored using descriptive statistics, with means and standard deviations of items displayed in tables and represented in bar charts. This descriptive analysis helped identify broad trends. With respect to the qualitative data, my strategy was to read the findings in depth to develop a preliminary understanding, make memos in NVivo, and link these to my observations of the students' use of VSNs in and outside the class and research log.

This process helped me familiarize myself with the data and organize them into clusters based on the research questions for analysis. The first group corresponded to the study's background stage and included the data gathered during this stage from the completed teacher trainees' questionnaires and their associated interviews and the completed PYP students' classroom scenario questionnaires. The second group of data corresponded to

the study's second, implementation stage for Twitter and WhatsApp and consisted of the results of the first round and, post-project, individual and focus group interviews, my observations, research log, and responses to the post-project questionnaire. The clustering of the data described earlier helped simplify the analysis process.

### *3.7.3 Analyzing the data*

The data for each stage of the study (i.e., the background and implementation stages) were analyzed separately and then compared to deepen my understanding of the research inquiry. The questionnaire results were analyzed using descriptive statistics, which summarized and described the data through percentages and averages and could be presented in tables and diagrams (Trochim, 2002). Bar charts of these descriptive statistics were created for each item. Numerical data, i.e., for the classroom scenarios and post-project questionnaire responses (Likert scale), were described using each variable's means and standard deviations (SD). Categorical variables were described using percentages, which were especially necessary for the responses to the teacher trainee questionnaire. Then, analyses for each questionnaire item were compared separately for each stage and further compared with and related to the qualitative data to find any significant relation between variables. All quantitative analyses were conducted using SurveyMonkey.com and SPSS.

Thematic analysis was adopted for the qualitative findings, including the interviews and participants' responses to the open-ended questions. The purpose of this type of thematic analysis is to identify any themes that could emerge from the data to explain the phenomenon of interest (Daly, Kellehear, & Gliksman, 1997). The themes identification requires "careful reading and re-reading of the data" (Rice & Ezzy, 1999, p. 258). This process involved, in Corbin and Strauss's (2015) words,

> … breaking the data down into manageable pieces, reflecting upon that data . . . To arrive at an understanding of what the data are stating, there was a lot of brainstorming going on with questions asked about the data, comparison made and a lot of reflective thought. (p. 238)

I began analyzing the findings of the first stage interviews while using the initial findings of the quantitative data as a guide for further exploration. This analysis involved a series of codings and recodings for themes to emerge after further interpretation and reading of the data, including linking to theories, until no new themes emerged. I started the second stage analysis by examining all interview transcripts from the first round, and post-project, individual and focus group interviews, research log and from my observations of the students' use of VSNs in and outside the classroom in an iterative fashion. I read the students' interviews page by page, underlining expressions or key words and taking note of what had been said several times while at the same time comparing the themes from the interviews with the observational data. I used Beltman and Volet's (2007) model of a learner's trajectory of sustained motivation to further organize the findings of the qualitative data and track the students' VSN use trajectory over time. Then, I compared and related the analysis of the qualitative findings with the analysis of the post-project questionnaire in relation to the theories, until no new themes emerged. The final step was to compare the first-stage and second-stage findings. Finally, after becoming familiar with all the data, I began the writing process.

### *3.7.4 Presenting the data analysis*

The presentation of results varied based on the stage of the data collection and analysis. Chapter Four concerns the quantitative analysis, since the primary data collection instrument employed quantitative instruments. There, results of the data analysis are presented as summary statistical descriptive results in figures and tables triangulated with qualitative findings to further elaborate on the quantitative data.

The second stage of the analysis employed primarily qualitative instruments to track the students' experiences and use trajectory of Twitter and WhatsApp, with the questionnaire assuming a supplementary role. Hence, the shape of Chapters Five and Six prioritizes qualitative findings since they were analyzed separately. These included first round interviews, post-project individual and focus group interviews, research log and observations, followed by the quantitative post-project questionnaire. Information about certain issues (themes or categories) was presented by combining, connecting, and

integrating qualitative findings with quantitative ones in a narrative order. This presentation format helps provide depth and breadth to the information answering the focus of this study.

### *3.7.5 Validity and reliability*

An ideal study is one where quantitative scores are reliable and valid (Creswell, 2012). There are several ways to examine consistency of responses in quantitative data including test–retest, alternate forms, combined alternate forms and test– retest, and interrater and internal consistency reliability (Creswell, 2012). The reliability of the quantitative instruments was tested using internal consistency. Internal consistency can be measured in several ways. One is to calculate Cronbach's alpha, a statistical measure of the internal consistency of items on a test. It can range from 0.00 to 1.00 (Wiersma, 2000), and, according to Creswell (2012), "If the items are scored as continuous variables (e.g., 'strongly agree' to 'strongly disagree'), the alpha provides a coefficient to estimate consistency of scores on an instrument" (p.162). Hence, Cronbach's alpha was used to determine the internal consistency of responses to the items on the classroom scenario questionnaire and the post-project questionnaire.

The alpha for responses to the items on the post-project questionnaire was calculated to be .925, indicating acceptable internal consistency according to George and Mallery (2016), who state that a Cronbach's alpha of .7 or greater is acceptable internal consistency of the instrument for the purpose of establishing the reliability of the research tool. However, the alpha for responses to the student classroom scenarios questionnaire was calculated as .694, which was lower than the threshold considered to denote acceptable internal consistency. Therefore, to improve internal consistency, item 9 was deleted from the analysis of the classroom scenario responses, since this item had the lowest individual alpha score. This raised the overall value of Cronbach's alpha to .704, thereby increasing its reliability level to the threshold for acceptable internal consistency.

The validity of the current study was strengthened by triangulation employed to integrate quantitative and qualitative results. Triangulation is considered one of the most effective

means of validating accuracy of the findings (Creswell, 2012). Triangulation is defined as "the combination of multiple methodological practices, empirical materials, perspectives and observers in a single study" (Denzin & Lincoln, 2008, p. 7). One of the ultimate strengths of the current study is its use of a range of data-collection instruments, i.e., questionnaires, classroom scenarios, interviews, research log and observations. The study was conducted on young students studying at PYP and also teacher trainees, who can be viewed as bridging students and teachers. The varied data-collection instrument types together with the range of participants contributed greatly to the study's overall validity.

## 3.8 Summary

The ultimate aim of the current research is to investigate and examine the effectiveness of VSN technologies as innovative tools for language learning in a Saudi tertiary EFL context. The three research questions were investigated using an embedded design for collection in a mixed methods approach. This chapter has included a detailed description of the pilot test of all data-collection instruments prior to the actual data-collection process. With respect to ethical consideration, the stringent procedure followed to obtain permission from the human ethics programs of both Qassim and Massey Universities was described. The selection process of VSNs in and outside the classroom underwent several processes described in this chapter. It also defines the sample, which was drawn from the three colleges at Qassim University: The Deanship of Educational Services (the operator of Preparatory Year Program), the Deanship of Community Services, and the College of Arabic and Social Sciences (Department of English Language) and the selection process for the sample in the implementation stage. Finally, a detailed discussion of the data-collection and data analysis processes was presented.

# CHAPTER FOUR: THE NATURE AND ROLES OF VSN

## 4.1 Overview

The major focus of this chapter is to present findings concerning the nature and roles of VSN in a Saudi tertiary EFL context. The participants were Qassim University's (QU) teacher trainees and Preparatory Year Program (PYP) students. The three research instruments analyzed herein are a) teacher trainee interviews, b) a questionnaire administered to teacher trainees and c) a classroom scenario survey administered to the non-longitudinal study PYP students (Groups One, Three, Four, Six and Seven as described in the methodology chapter). The chapter is divided into three main sections. The first explores VSN types and their diffusion in the study contexts through an analysis of an open-ended questionnaire distributed to 93 teacher trainees in two different departments at Qassim University, namely the Deanship of Community Services branch in the city of Buraydah and the Department of English Language and Translation at College of Arabic and Social Sciences in the main campus in Almalida city. The second section of the chapter addresses the influence of the community on participants' use of VSN by presenting the data analyzed from teacher trainee interviews and questionnaire responses. Finally, the third section presents the findings of VSN roles in relation to English learning. Overall, the aim of this chapter is to answer the first research question regarding the nature and roles of VSNs in the Saudi tertiary EFL context, which is also aligned with Fullan's initiation phase.

## 4.2 Types and Diffusion of VSN

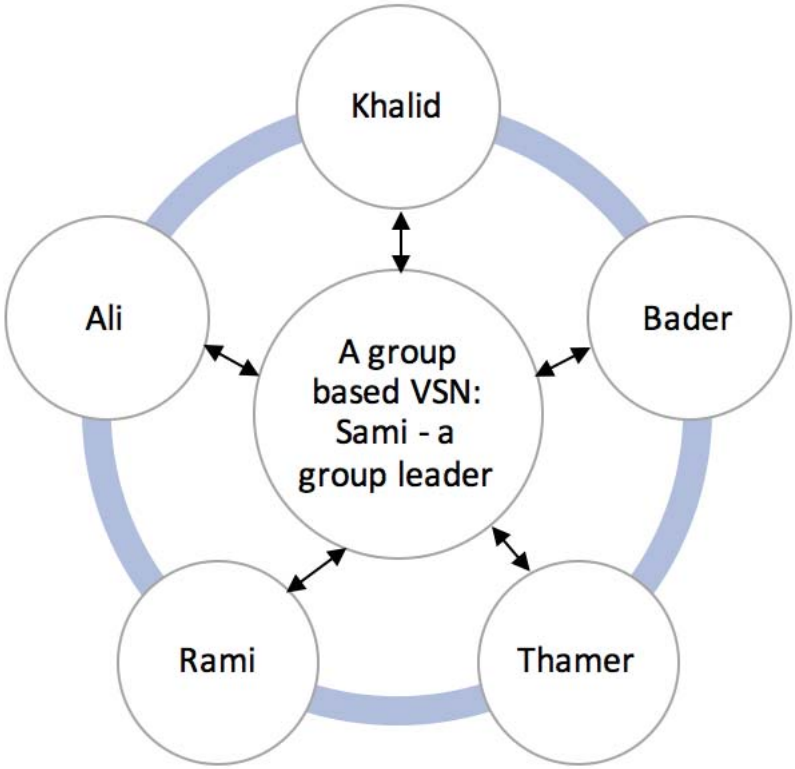
Before and during the Group Two implementation stage, I was gathering data from two different colleges in different locations at Qassim University, namely the Deanship of Community Services branch in the city of Buraydah and the Department of English

Language and Translation at College of Arabic and Social Sciences in the main campus in Almalida city, to investigate teacher trainee attitudes toward VSN use in general, and for learning English, in particular. Specifically, this section explores the existence and quality of currently available VSN for English learning within a Saudi community (Fullan, 2007). Two instruments were used to collect data for this section. The first was an open-ended questionnaire used to gather data from 93 English language teacher trainees, and the second was an in-depth semi-structured interview administered to nine teacher trainees from both colleges. The trainees' ages ranged from 23 to 28 years old. The following sub-sections present survey findings and highlights from the interviews concerning trainee experiences in and their attitudes toward using VSNs, in general, and, more specifically, in learning the English language.

### *4.2.1 VSN types*

From the data collected, a Saudi tertiary EFL context recognizes different types of VSNs, with each type having its own purpose. Hence, differentiating VSN types from a Saudi perspective is important to better understand the quality and existence of VSN (Fullan, 2007). The VSNs that were investigated fall into two categories. The first consists of 'private-based VSNs' such as WhatsApp and BlackBerry Messenger. This type's model is based on groups in which members can share information to a limited number of other group members and can also receive information from all other group members (see Figure 4.1). A group member also has the capability of sending a private message to one other member or to multiple group members. In other words, as in Figure 4.1, Sami can send and receive information from everyone in the group that includes Khalid, Thamer, Rami, and Ali, all of whom can also share information with one another. In a private VSN, group members usually share some form of close relationship, e.g., family, friendship, profession, or even some interest held in common such as a hobby. Thus, in a private VSN, the information shared could be received by anyone within the group.

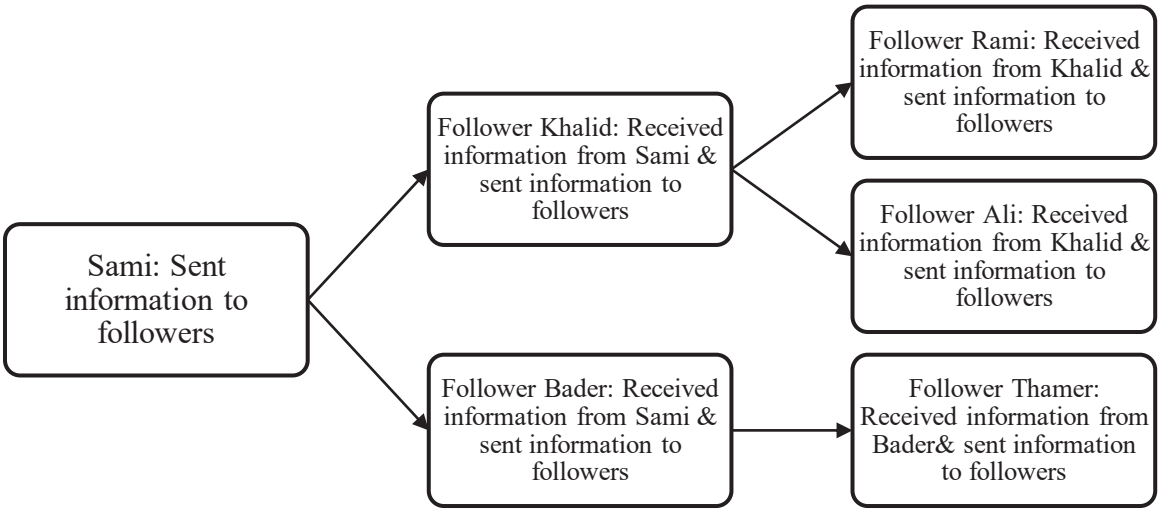
Figure 4.1: A private-based VSN, information sharing process




A second VSN type is 'public' and includes Twitter, Instagram, Facebook, and YouTube, for example. In this type, which is based on followers/friends, an individual can send information to an audience, but the audience cannot necessarily send him/her information. An exception is Facebook, which operates like a group-based VSN but is 'public' in the sense that an individual could be friends with anyone located anywhere in the world. In a public VSN, an individual can receive information from only certain people that he/she follows, as shown in Figure 4.2. For instance, in Figure 4.2, Sami can send public information to Khalid and Bader because they are Sami's followers, but Khalid and Bader cannot send Sami information because Sami has not chosen to follow them. They can, however, still communicate with him via private message and among themselves through a private channel. In Figure 4.2, Khalid can only send information to his followers, i.e., Rami and Ali, but not to Bader, whom he does not follow. This VSN type is usually more public in that individuals can follow each other even if they are not closely related outside

of the platform. For example, one can follow famous individuals such as movie stars, fashion accounts, and news accounts.

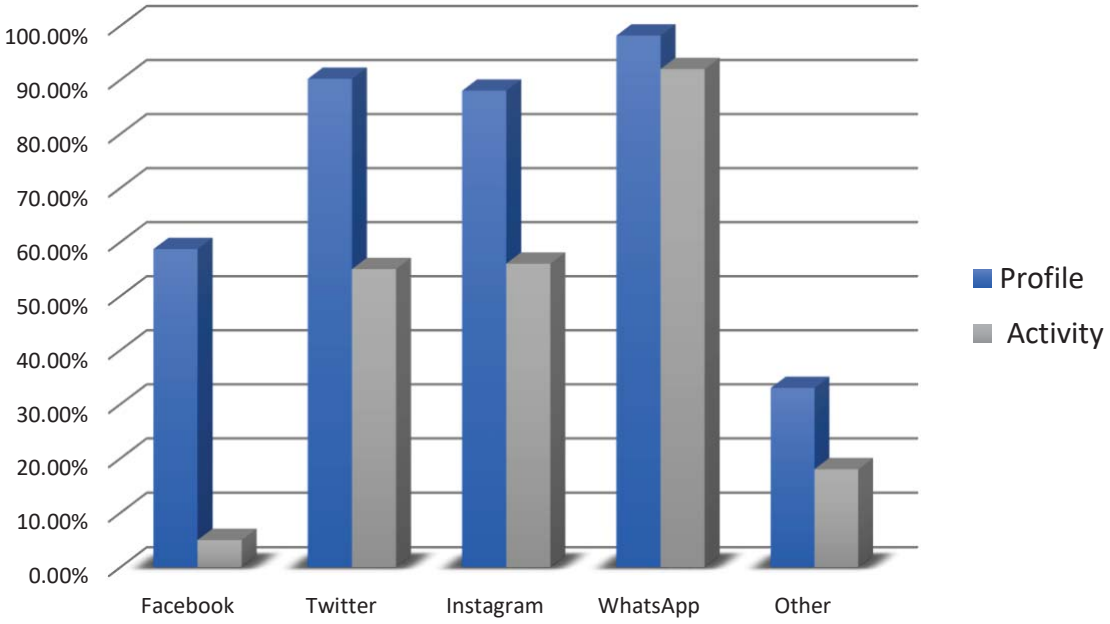
Figure 4.2: Public-based VSN, information sharing process




### *4.2.2 VSN preference*

Responses to item 10 in the survey (the first item, after the demographic section) demonstrate how widely the teacher trainees used VSN. This item asked them if they were users of VSNs. All 93 teacher trainees (100%) responded that they had a profile on at least one VSN. While this percentage might seem high, it is not surprising as VSNs have become embedded within the Saudi community. Moreover, when asked in item 12 if they had a profile on specific named VSNs, their responses were interesting. As shown in Figure 4.3, the most popular VSN among the teacher trainees was WhatsApp (a private-based VSN), with 98.9% of participants reporting that they had a WhatsApp account. Twitter and Instagram (public-based VSNs) were in second and third place, with 90.2% and 88.0%, respectively, reporting that they used those platforms. Facebook (public-based VSN) was the least popular, with reported participations of 58.7%. In addition, 33% stated that they also used different VSNs, including Snapchat, Path, and YouTube.

Figure 4.3: Popularity of and activity on VSN




However, when the teacher trainees were asked about their activity on these types of VSN in item 14, their responses drop significantly for the public-based VSN, especially for Facebook with only 5% reporting being active on it. Their activity on WhatsApp remains high as shown in Figure 4.3 with 92% reporting being active on it. Their decision for such actions will be further explored in detail in Section 4.3. Although teacher trainee participation on various platforms seems high, the different platforms allow for different types of activities. The teacher trainees' responses to these two items were very close to their responses in the pilot study, where WhatsApp was also ranked as the top VSN used within a Saudi community (see Chapter Three, Figure 3.1). Nevertheless, in terms of reasons underlying their choices, in both the qualitative and quantitative data, the teacher trainees indicated that their VSN selections depended on the affordances provided by each type and how their use of each type gave them the capability of reshaping their environments. However, this chapter presents the features of just the most popular private and public-based VSNs that provided affordance for the participants to increase their activity (i.e., Twitter and WhatsApp, respectively). Moreover, these are the two VSNs

implemented in the longitudinal study (i.e., the implementation stage) in Chapters Five and Six, respectively.

## 4.3 Private and Public Environments in Relation to the Context

In this section, I present the complexity of the community influence and support on participant use of VSNs in the environment. Specifically, I explore the general environmental affordances of the most popular VSNs, namely WhatsApp (private-based VSN) and Twitter (public-based VSN), that explained why the teacher trainees chose to use one VSN more frequently instead of another. The teacher trainees' level of involvement with VSNs differs based on the features of each VSN that provides affordances with respect to reshaping their physical context. For example, the private-based VSN WhatsApp allows users to be constantly connected to their closest communities (i.e., friends, colleagues, relatives, and family). Hence, it allows them to reshape their environments to the extent that on some occasions communication with members of their closest communities is no longer face to face but is instead virtual. On the other hand, a public-based VSN affords every individual within the platform opportunities to connect and communicate with the wider community represented by the entire Saudi society, although some are unable to do so without having access to a VSN. The following sections further explore the features of VSN that provided affordances or constraints that enabled or prevented the teacher trainees' exercise of agency in both VSN types.

### *4.3.1 The private-based VSN WhatsApp*

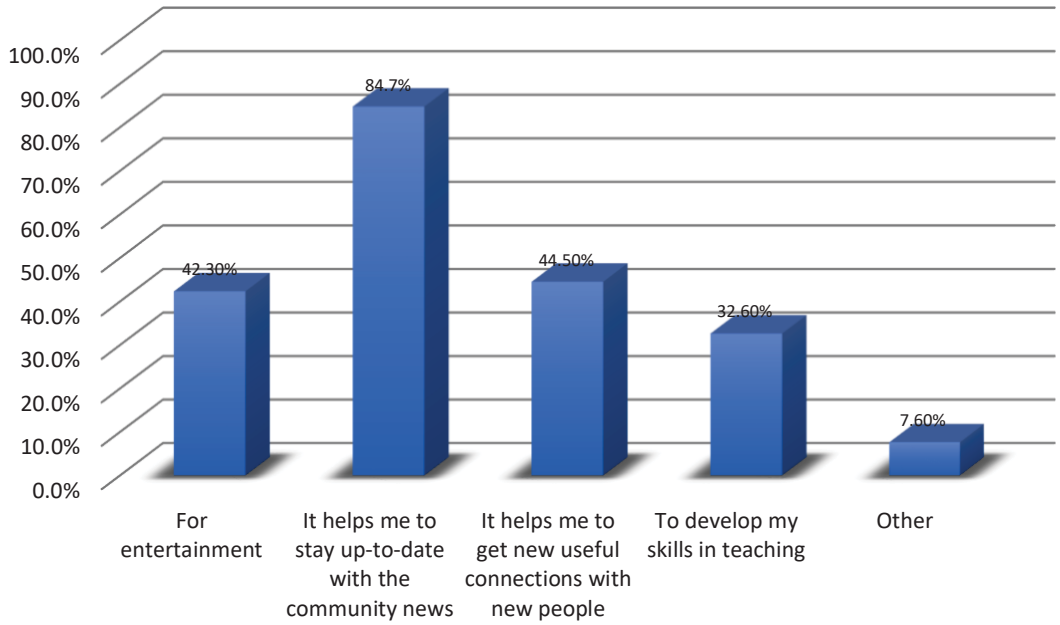
In item 14, the teacher trainees confirmed a strong preference for actively using WhatsApp as shown in Figure 4.3 earlier. Their reasons for preferring WhatsApp varied, but the most commonly cited advantage was connecting them with their closest community members, allowing them easy access to a large group of people within their communities, including private channels through which to communicate with these group members. In addition, the teacher trainees reported that they were comfortable in using

WhatsApp to communicate with others in coordinating meetings. This section presents their appraisals of WhatsApp's affordances.

As shown in Figure 4.4, the majority of the participants, 86%, stated that they were active on WhatsApp because it allowed them to "stay up to date with the community news." From the teacher trainees' interviews, the community news referenced in this item permits them to strengthen their social relationships with members of their closest community. For example, teacher trainee (TT) Amar stated that WhatsApp helped him strengthen his relationships with his relatives and friends and hence he reported himself as being more active on WhatsApp due to its capabilities. Indicating an awareness of the potential benefits of WhatsApp in strengthening social relations, TT Amar stated the following:

> For socializing with relatives and friends. In the past, people were far away from each other, but, now, they are closer and it has improved their relationships. (TT Amar[6])

Figure 4.4: Reasons for joining a private VSNs




[6] All names are pseudonyms.

For TT Dawood, his preference in using WhatsApp could be inferred from his actions as described in the following quote.

> Generally, I'm not interested in using the social network, but when I found that everyone uses WhatsApp, I used it too. (TT Dawood)

He describes himself as deciding to use WhatsApp because he felt he was being left out, revealing that his agency was activated by the desire to actively engage with members of his closest community. His comment also shows self-regulation of his actions and thinking; he revealed that his behavior had changed because elements of his surroundings influenced him to initiate his use of WhatsApp. In other words, the people around him caused him to revisit his decision concerning the use of WhatsApp. In addition, when asked about how WhatsApp was useful to him, he stated:

> WhatsApp facilitates and improves communication with other people more than before, especially with relatives. (TT Dawood)

Thus, his desire to build his social relationships with members of his community and his decision to use WhatsApp appear to be positively correlated, demonstrating an awareness of the positive potential of WhatsApp to help him achieve his goals.

The teacher trainees not only found the features of WhatsApp useful in strengthening already existing relationships but valued the ability it afforded them to access and communicate with a large number of friends within their communities. TT Bander mentioned the broadcast feature of WhatsApp, he expressed:

> Providing facilities in general. Now you can send text messages to a large number of friends, and the most important thing is that you can communicate with them. (TT Bander)

In addition to its features in accessing a large number of community members, WhatsApp also allows privacy in communicating with closer community members. TT Bander evaluated the privacy feature of WhatsApp in comparison to a public-based VSN:

> WhatsApp has some privacy so that I can talk to only one person without having other people involved. This is what I like about WhatsApp, because sometimes people want to share their opinion about something without being interrupted by someone else. (TT Bander)

What differentiated WhatsApp from TT Bander's perspective was his ability to send messages privately to friends and relatives and not involve an unwanted person in the conversation, which could possibly constrain his agency to engage with the community. Thus, this feature of WhatsApp acts as an affordance to increase his involvement level, allowing him to further reshape his environment by eliminating an obstacle that might have a negative impact on his actions. This, in turn, might reduce the possibility of his experiencing negative emotions due to being interrupted by someone else. Thus, he valued the features of WhatsApp in allowing him to be able to speak privately to a particular friend or relative. This privacy made him feel more comfortable using WhatsApp so as to avoid embarrassing moments or pressure from someone else in the group.

In addition, for TT Bander, WhatsApp constituted not only a communication tool but also a collaborative tool that helped him and his friends to manage and regulate their plans when they wanted to meet or go on a trip:

> One of the advantages is managing and saving time. For example, if I want both of us to hang out tomorrow, I only send you a message on WhatsApp which you will read anytime and I would tell you if you need to bring anything with you. So, everyone now has an account on WhatsApp to the extent that people don't call each other anymore. (TT Bander)

Due to WhatsApp's being a private-based VSN, information sent can only be seen by members of a group, which is limited in size to a maximum of 256 members (increased recently from 100 members). Thus, the teacher trainees could use it to regulate their meetings, and, as mentioned by TT Bander, they no longer had to call one another to do so. Although a bit exaggerated, this illustrates his awareness of the affordances associated

with WhatsApp, particularly those involved in initiating a virtual communication environment, through which he and his group members could comfortably and collaboratively organize themselves more quickly and easily and therefore save time and effort. Hence, the virtual environment facilitated and influenced the physical environment, thereby increasing the teacher trainees' agency with respect to being more active and organized.

TT Amar supported Bander's statement regarding how WhatsApp's features, particularly its feature allowing regulation of meetings, had changed the social possibilities for him and his friends in that they could see each other more often than before:

> Whenever we want to hang out together, we plan everything on WhatsApp. So, WhatsApp is why we see each other. Before WhatsApp, we were only gathering in vacations. (TT Amar)

This statement illustrates the strong potential of WhatsApp to influence an individual's agency through the community. Because of WhatsApp, they could see each other more often than before and could interact and act more than before. Again, the closed environment of WhatsApp created more affordances for the teacher trainees and removed some of the constraints that prevented limitations in the physical environment.

In general, WhatsApp's virtual environment facilitated and influenced the physical environment, thereby increasing the teacher trainees' activities mediated by their closest community, i.e., their friends, colleagues, relatives, and family. Such features of WhatsApp as its closed, private environment, its privacy channels, accessibility to a large number of close community members, provided the trainees with affordances that facilitated communication with each other and helped them initiate or regulate their actions so as to achieve their aims.

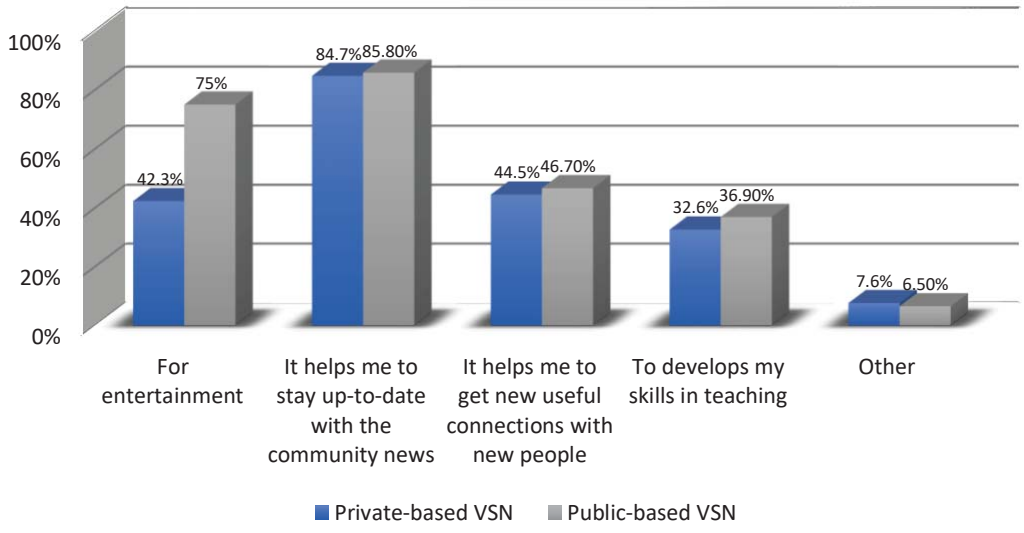
### *4.3.2 Public-based Twitter*

The second VSN type consists of public-based platforms such as Twitter, Instagram, Facebook, and YouTube. Based on the survey data, particularly the item shown in Figure 4.3 earlier, the teacher trainees were less active on public-based VSNs. Although the

majority of the participants had profiles on Twitter and Instagram, only half, 55% and 56% respectively, reported actively using them. In addition, as shown in Figure 4.3, although around 58% of the participants had Facebook profiles, very few, only 5%, reported being active on that platform. Having a profile and actually being active indicated an unstable use of the public-based VSNs.

The interviews revealed that the primary rationale behind participants' use of a public-based VSN was community influence. The majority, 85%, indicated that they used public-based VSN for community reasons, which is almost the same as the private-based VSN percentage (see Figure 4.5). However, in the interviews, the teacher trainees reported being influenced by different community-based advantages, such as to access the latest national news, gain more information about such hobbies as sports, and share their opinions publically, using public-based VSNs. With respect to a private-based VSN, the teacher trainees were more influenced in adopting WhatsApp by their close communities, for which they used the app chiefly to strengthen and regulate their existing social relations and create new social possibilities. However, they primarily used public-based VSNs to gain information about and communicate with the wider community in general.

Figure 4.5: Reasons for joining a public-based versus private-based VSN in percentage



During the interviews, many trainees cited obtaining news related to a wider community as one of their main reasons for using a public-based VSN, particularly Twitter, rather than the more personal connections and news that WhatsApp provided. Such was the case with TT Fadi, who called Twitter a tool to browse the daily news of the community. "I always use WhatsApp, and I use Twitter just for browsing the daily news". Thus, the public-based VSN's features in providing the trainees with a way to connect them with the wider community enabled them to initiate activity.

TT Gaber, when asked about the advantages of Twitter, replied, "Twitter showed us our problems (general problems, such as issues in education or corruption etc.) and made us aware of the people in need". Thus, TT Gaber's perception of Twitter was as a more open platform to the community as a whole, for which strengthening social relations with friends and relatives was a less important goal in its use. He also stated that his use of WhatsApp was limited to his friends but that on Twitter he could speak to the whole community:

> WhatsApp is limited to my friends, but Twitter is more open and I feel it has more freedom. (TT Gaber)

TT Gaber indicated that WhatsApp might constrain his activity in communicating with the community as a whole, that is, by inhibiting him from stating his views because of close community members' presence there, whereas Twitter's characteristics eliminate this constraint and so provide an alternative environment where he could express himself to a wider community. Other teacher trainees also reported that they felt they had more room to express their opinions about various topics on Twitter than on WhatsApp. Thus, Twitter for them was an official platform on which to publicly share thoughts and opinions about the community. In addition, TTs Yassier and Hamad reported in the interviews:

> WhatsApp is private and personal, however, Twitter is public and I use it in an official way. (TT Yassier)

> It depends on my usage. For example, I use WhatsApp to communicate with family, friends, and relatives, so it is kind of private. However, Twitter is for public and general use. (TT Hamad)

Due to Twitter's features, the trainees apparently perceived their voices and opinions to be heard better by the wider community, especially as many government officials are available on Twitter, including the king of Saudi Arabia. This could have motivated the trainees to express themselves on various issues, including educational ones.

Another important feature of Twitter that provided the TT with affordance is the ability to disguise one's identity through the use of anonymous nicknames and so avoid being recognized by the community, especially during discussion of sensitive topics. Thus, from the trainees' perspectives, Twitter constituted an environment where they could express their own voice to the community while hiding their identity. TT Fadi mentioned two points that prompted the trainees' Twitter activities:

> The Saudis now have a chance to express themselves and their thoughts more than before when they didn't want to share anything about his personality or his knowledge. Finally, for people who don't want to use their real names, they now have a chance to express themselves and their thoughts under anonymous nicknames to keep their privacy. (TT Fadi)

In addition to the features of Twitter in allowing the teacher trainees to express their thoughts and opinion, what extended their agency was that they could hide their identity. This affordance could overcome the constraints that some individuals might encounter when expressing their voice. This might be due to religious, political, or other reasons that might constrain them from expressing their opinions.

In addition to Twitter being a platform to connect the teacher trainees with the wider community, it was also found to provide them with an environment to practice their hobbies which also facilitated their agency in expressing their voice. For example, teacher trainee Hamad's hobby is sports and he uses Twitter to discuss his hobby with his followers, as in his following quote:

> For me, it delivers my messages. I mean, if I am sending a sports message, I want it to be received by the maximum number of people. (TT Hamad)

TT Hamad's interests in sports allowed him to actively use Twitter in pursuit of his hobby. Twitter afforded him the ability to communicate with an unlimited number of people, a capability not possible on WhatsApp, since it is private-based, and groups are limited to 256 members. This was also the case with trainee Gaber, whose interest in Arabic literature led him to use Twitter as a platform on which to discuss the topic with the wider community:

> I use Twitter to practice my hobby. I am interested in Arabic literature, so I always have discussions with Arabic authors on Twitter. (TT Gaber)

On Twitter, he was able to reach people of different Arabic backgrounds and cultures and from different Arabic countries and so communicate with people beyond his own environment and people of status sharing his interests. This is again not possible to do on WhatsApp. Therefore, the unconstrained possibility of practicing their hobbies was a motivating factor of the teacher trainees' active use of the public-based VSN Twitter.

In addition, some trainees reported constraints that affected their use of Twitter. For instance, trainee Bander stated that impoliteness of others on the platform inhibited his use:

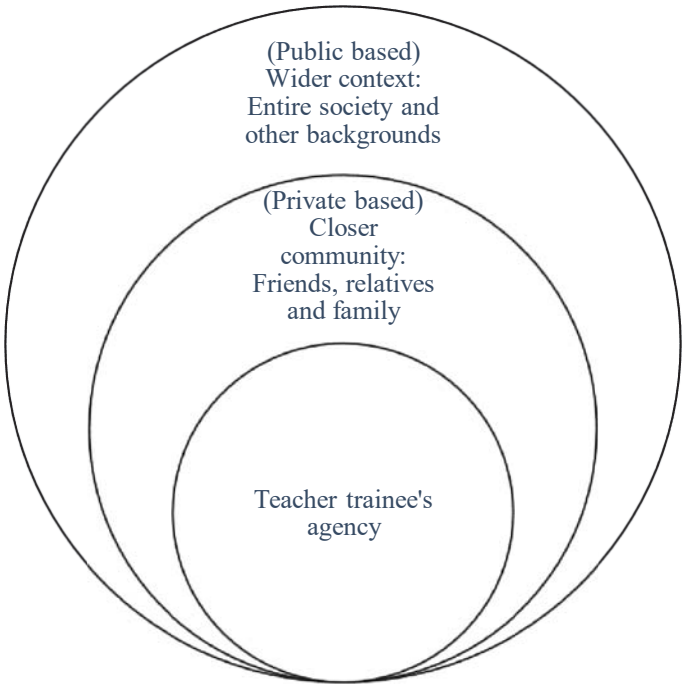
> TT Bander: Mainly, I use WhatsApp because I need it, unlike any other application such as Twitter or Instagram. For example, I think that Twitter is not organized.
> Interviewer: How is this?
> TT Bander: Everyone replies on Twitter impolitely, even people started to gossip about how someone replied to another one impolitely, and so on.

Since Twitter is generally more publicly based, it could sometimes be difficult to control. Issues of impoliteness on posts are commonplace with such an open tool, and this could constrain teacher trainees' agency on Twitter to a certain extent so that they might not feel comfortable using it, especially if they use their real names. Hence, this could account for their using nicknames when participating on Twitter, allowing them to avoid pressure from certain people that could constrain their activity.

Overall, the teacher trainees' perceptions of the affordances provided by public-based VSNs differed from their perceptions of those provided by a private-based VSN with respect to community practice. In a public-based VSN, the teacher trainees' environment was expanded in that they could use it as an official platform to share their opinions with the wider community or with people beyond their own context, and sometimes they would communicate using an anonymous account to hide their identities, while others would use it to indulge their hobbies or browse the daily news. Although this was viewed as a positive by some of the teacher trainees, not all shared the same values, thus possibly explaining their preference for private-based over public-based VSNs (as shown in Figure 4.3).

To sum up, VSN types and features, played an important role in enabling the teacher trainees to exercise agency. Their actions derived from using VSNs arose primarily from their features that were used as affordances to enhance their connection with their communities and also with their wider community, especially for the public-based VSN. Analysis of the data revealed that the teacher trainees divided their overall community into two circles, with respect to their activities on VSNs. The first circle consisted of their close community members, including friends, relatives, and family. The interviews indicated that they preferred to use a private-based VSN to connect to close community members whereas they preferred a public-based VSN to interact with members of the second circle, the wider community which included the entire society and communities from other backgrounds (see Figure 4.6). Hence, it could be concluded that the closer the circle to the teacher trainee, the closer it was in facilitating activity, and the more likely it was to produce stable behavior with respect to the innovation's use.

Figure 4.6: Community circles from the teacher trainees' perspective




## 4.4 The Roles of VSNs' For English Learning and Teaching

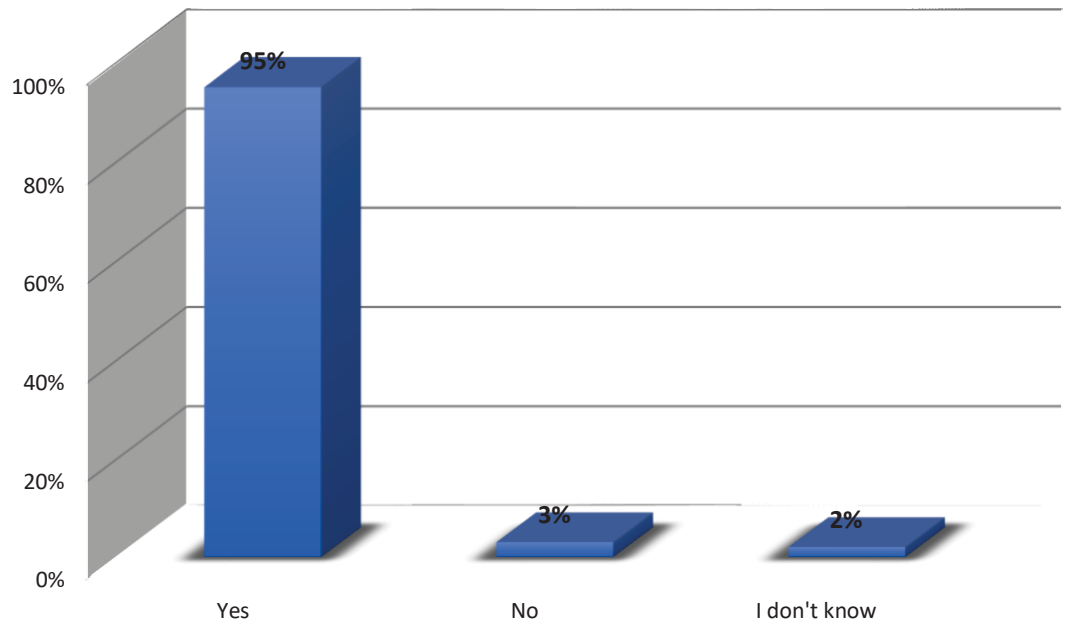
This section focuses on the teacher trainees' and PYP students' attitudes toward the affordances provided by VSNs' features for English learning and teaching. The section begins with a presentation of the findings derived from the teacher trainee interviews and questionnaire responses with respect to their attitudes and appraisals of the affordances of VSNs in fostering their English learning and teaching. Following this is a presentation of the results found in the students' classroom scenarios with regard to the PYP students' attitudes of the different VSN platforms for English learning. The section ends with a discussion of the devices used to access VSNs that play a crucial role in facilitating their use.

### *4.4.1 Teacher trainees' attitudes toward VSNs*

In relation to the trainees' attitudes toward VSNs for English language learning and teaching, almost all, about 95%, stated in the questionnaire that VSN has many benefits

with respect to this activity (see Figure 4.7), thus indicating a highly positive attitude on their part. The qualitative data, based on interviews and the comment section of the questionnaire, confirmed this positive attitude. Overall, the teacher trainees cited three uses of VSNs in English language learning and teaching. They used VSNs a) to enhance their English language achievements, b) to overcome negative emotions experienced when speaking English such as feelings of shyness and c) others perceived it as an innovative tool that afforded them with an alternative environment to practice and learn English.

Figure 4.7: Advantages of VSN for English language learning




#### *4.4.1.1 An alternative virtual environment*

Waters (2009) argued that one of the main steps in the initiation phase is for the learners to show a dissatisfaction with the status quo. The teacher trainees did indicate in the interviews some dissatisfaction with the current physical environment for English language learning, which they felt hampered their opportunities for active learning. This could be attributed to the Saudi EFL environment, which did not provide them with the necessary affordances for active learning due to the limited practice of English (Kachru,

1992). This dissatisfaction might have motivated the teacher trainees to use VSN as an alternative environment to overcome this constraint, as in the following comments:

> In our society, we have few who speak English, however, by using VSN you will be able to improve your English language through interacting with English speakers. (questionnaire item 25)

> Because you have to practice the English language with others to acquire it and in VSN you have an actual way to practice English. (questionnaire item 25)

In the first comment, the teacher trainee exhibited dissatisfaction with the environment. However, the features of VSN created a new channel for him to exercise more agency in learning English by practicing with native English speakers. This was supported by the second comment, in which the teacher trainee appraised VSN in initiating "an actual way to practice English" referring to the virtual VSN environment. Furthermore, TT Hamad also reported that VSN created an innovative virtual environment that facilitated his learning:

> It is now easier for a learner to get more information than before. Now, you can login to any VSN and learn from it, books are not the only sources of information anymore. Now, you have a greater chance to learn and improve your speaking and writing skills, I mean that the 2 hours of in-class lecture are not enough. (TT Hamad)

Indeed, learning a language requires a lot more effort than just two hours. However, the VSN virtual environment made obtaining information easier and made it available all the time. The VSN enabled him to access collaborative learning in the VSN environment, rather than depending solely on books. Hence, the features of VSN facilitated his decision to actively use it in learning English.

The various learning resources afforded by a VSN's virtual learning environment were also found to foster the teacher trainees' activity in English learning. In this environment, the teacher trainees had the option to learn English in the way they preferred and to avoid

the learning resources that they did not like, thereby allowing them to enhance their English language achievements, as this comment demonstrates:

> I follow accounts on Twitter and Instagram that post vocabulary daily. It helps me gain new vocabulary words or be reminded of ones that I already know. Also, interacting with foreign people improves the language as does watching and listening to English videos or audios. VSN gives you a variety of these so you could watch and listen to anything you like. I hate news and documentaries but I love watching movies, series, YouTube programs, vlogs, tutorials, and songs, all in English. VSN really developed my language. (questionnaire item 29)

Worth noting in the above comment, where the trainee stated that the VSN afforded him a variety of learning resources, is his comment on the help it provided him in developing his capability of speaking English. The trainee revealed his feelings toward the learning resources available to him in VSN; he liked learning from YouTube videos and vlogs but hated news and documentaries. The affordances provided him by the VSN helped him develop his language skills in ways that met his learning preferences.

Other trainees appraised the affordances of VSN's virtual environment in relation to their use of the technology. The technology itself influenced and motivated them to engage in English language learning. For example:

> All the English skills are being taught through technology now as the traditional method is no longer effective. (questionnaire item 25)

While others cited its features in reducing the effort required in learning the language:

> Using VSN reduces effort and facilitates access toward learning the English language in various ways. (questionnaire item 25)

Finally, others cited the features it gave them to use it anywhere and anytime as valuable:

> Because it is very easy, it makes the learning available anytime and it is not boring. (questionnaire item 25)

> The easiest way (in your home), interesting (because of the apps), fast way (because of the internet). (questionnaire item 29)

#### *4.4.1.2 Moving virtual contexts from public- to private-based VSNs*

Another interesting theme that emerged from the trainee responses was their preference for using a private-based VSN over a public-based one to practice English. In my interview with trainee Khalid, he noted that he used Twitter to look for WhatsApp groups in order to learn English, as shown below:

| | |
|---|---|
| Interviewer: | Don't you have groups on WhatsApp? |
| TT Khalid: | Yes, I have a group for English. |
| Interviewer: | For learning English? |
| TT Khalid: | Yes, even its name is "English". |
| Interviewer: | So, do you know the members? |
| TT Khalid: | No, they added me as I requested to join on Twitter, as I follow many accounts for learning English on Twitter. |
| Interviewer: | How many members are there in the WhatsApp group? |
| TT Khalid: | The maximum number of members, which is a 100 members. |
| Interviewer: | So, have you benefitted from it? |
| TT Khalid: | Yes, well. There are English conversations and voice tracks. |

He had earlier related how he follows many accounts on Twitter to enhance his English learning, but for practicing English, he said he prefers to be invited on WhatsApp, possibly because of the features found in the WhatsApp environment. In WhatsApp,

tracking a conversation in English is easier than on Twitter. In addition, such features of WhatsApp as its closed platform, video, image sharing, and voice tracks, in which the trainees could share and showcase their abilities to speak another language, made this virtual environment appealing to them (Aburezeq & Ishtaiwa, 2013; Susilo, 2014). All in all, the teacher trainees were aware of the potential advantages of WhatsApp, thereby increasing their sense of agency toward it.

More specifically, the following comment shows that the speaker perceived WhatsApp as affording him a collaborative learning environment in which to enhance his English learning:

| | |
|---|---|
| Interviewer: | Would you accept it if you had a WhatsApp group for your class? |
| TT Dawood: | We already have a WhatsApp group for class students, and it is beneficial for us. |
| Interviewer: | So, what do you discuss in the group? |
| TT Dawood: | We share anything we have or whatever we miss in the lecture. Also, we remind each other of assignment submission dates. |

The teacher trainee in this comment perceived the VSN's environment as fostering autonomous learning that was more socially oriented and helped him shift his learning from being teacher-centered to learner-centered, not just for the English language but also for their studies in general. These autonomous learning opportunities may have motivated the trainees to actively seek to learn English. The features of WhatsApp which gave them a virtual environment they could use regardless of time or place motivated them to increase their efforts to learn English.

#### *4.4.1.3 Overcoming emotional barriers*

Moreover, the features of VSN could act as affordances that could prevent a teacher trainee from experiencing such negative emotions as lack of confidence that could constrain his actions in the physical environment. Many teacher trainees could experience feelings of shyness when speaking English in the physical environment, possibly because

they are doing so in an EFL environment where practicing English might be difficult due to the lack of resources (Alrabai, 2014). This could, in turn, negatively influence their acquisition of English skills, thereby reducing their confidence and generating anxiety (Al-Khairy, 2013). TT Ismail reported experiencing this issue during his studies:

> TT Ismail: I noticed that students who study a Bachelor of English Language are good in writing, but they still need to improve their speaking skills.
>
> Interviewer: Why is this?
>
> TT Ismail: Because they don't practice speaking. Once before, my English teacher asked me a question and I couldn't answer him in English, so I answered it in Arabic and he laughed at me. He asked me why I couldn't answer in English, although he spoke English all the time. I told him that I needed some more time to form the question in my mind first.

The situation that TT Ismail went through might have decreased his confidence level to speak English, thus constraining his activity. Although it is not explicitly stated in the quote, it could be indicated from his emotion where he stated, "he laughed at me". This situation might limit him from actively engaging in the physical in-class environment to avoid embarrassing moments. This situation that TT Ismail has gone through might explain why the other teachers preferred to use VSN for practicing speaking, whereby they could raise their confidence and keep practicing and improving their English language, as demonstrated in the following few comments:

> Practicing your language with English speakers through VSN really helps, because you will not be ashamed of making mistakes. (questionnaire item 25)

> It helps you to gain the confidence that you need to communicate and interact with others in English. (questionnaire item 29)

> You can say anything you like without feeling stressed or ashamed. In my opinion, I think I cannot improve my English skills without VSN. (questionnaire item 29)

> It removes the shyness phobia. (questionnaire item 29)

From these comments, it could be inferred that a VSN had already become part of most of the teacher trainees' learning processes. It had helped them build their confidence, which in turn encouraged them to be active in learning English. Their increased confidence might have enabled them to do so, as indicated in the third comment. This statement apparently indicated greater feelings of freedom to speak English without being inhibited by feelings of anxiety or lack of confidence.

#### *4.4.1.4 VSN resistance*

While their attitude toward using a VSN for learning English was clearly positive, a few participants reported negative experiences in using it for this purpose. Although in the minority, these trainees did not believe in using technology for learning English, possibly due to the negative effect of the EFL environment in a Saudi context. Their past failures in language learning due to context may have generated a negative attitude toward learning English in an EFL environment in general. The following comments imply this:

> You cannot acquire a language unless you are forced to practice it. (questionnaire item 25)

> Language cannot be acquired unless you practice it while traveling. I studied English in university for four years and I took an English language course for two years before the university and I still have not acquired the language. (questionnaire item 25)

One interpretation of the first comment is that the trainee believed that the language could only be acquired by being physically present in the language's native country, where he would be forced to speak it, a perception which the second comment supports. Another possible interpretation is that, because he was in an EFL environment, he did not have to speak the language, indicating a lack of motivation due to environmental constraints. Thus, both types of VSNs might not be perceived to be useful by this teacher trainee.

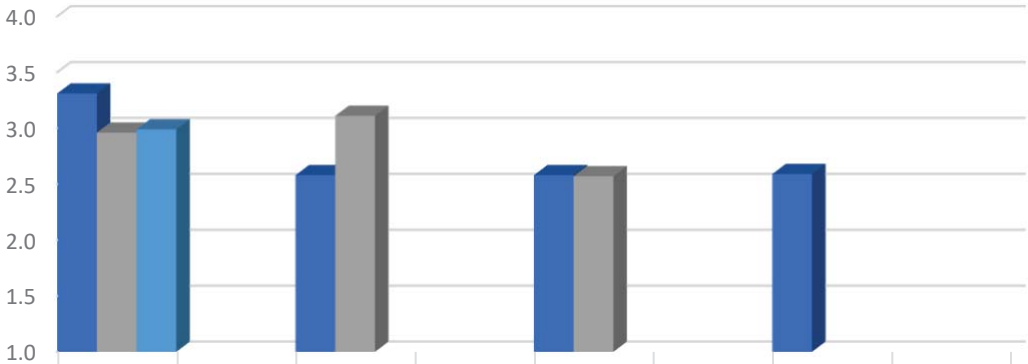
Overall, the trainees' attitudes toward VSN's affordances were highly positive, as indicated from the survey and also the qualitative data. Most of the teacher trainees had already had experience using VSN for English learning and teaching. The VSN's virtual environment and its features were used by the trainees as affordances that enabled their actions to improve their English achievements and provided an environment not restricted to time and place. In this way, it reduced their efforts by facilitating access to information, fostering collaborative learning, and eliminating and overcoming negative emotions, and so was perceived as an innovative tool motivating their decision to use it to enhance their English language learning. Their use of VSN for English language learning and teaching constituted attempts to overcome environmental constraints to develop their English language competency in this context.

### *4.4.2 PYP students' attitudes toward VSN*

In this section, the PYP participants' attitudes and their initial perceptions of the use of VSNs as an affordance to enhance their agency is investigated through analysis of the student responses to the classroom scenarios survey. As mentioned in the methodology chapter, the classroom scenarios are stories that were created for each type of VSN (private- and public-based VSNs) to explore the PYP students' attitudes towards them as if they were being used in their classrooms. The PYP students were asked to rate their reaction to each scenario with a 4-point scale (*definitely not fit*, *probably not fit*, *probably fit* and *definitely fit*) based on whether the situation seemed to fit their learning style. At the end of the survey, participants were asked to choose one and comment on their most preferred scenario. The VSNs where chosen based on their popularity, as shown in Figure 3.1 in the methodology chapter. As shown in Figure 4.8, all scenarios were associated

with a positive attitude toward VSN and its various applications. The analysis of the data will be presented in this section proceeding from most preferred to least preferred scenario.

Figure 4.8: Rating scale for VSN (*n*=84)

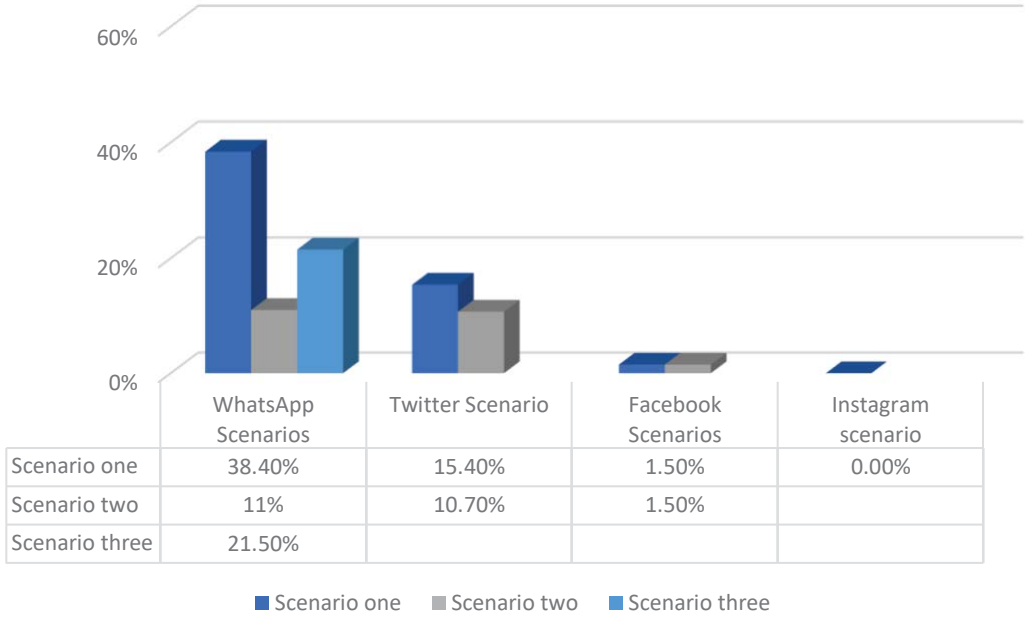



| | WhatsApp Scenarios Mean | WhatsApp Scenarios S.D. | Twitter Scenarios Mean | Twitter Scenarios S.D. | Facebook Scenarios Mean | Facebook Scenarios S.D. | Instagram Scenario Mean | Instagram Scenario S.D. |
|---|---|---|---|---|---|---|---|---|
| Scenario one | 3.31 | 0.76 | 2.58 | 1.01 | 2.58 | 0.98 | 2.59 | 1.01 |
| Scenario two | 2.96 | 0.81 | 3.11 | 0.85 | 2.57 | 0.89 | | |
| Scenario three | 2.99 | 0.99 | | | | | | |

#### *4.4.2.1 WhatsApp scenarios*

Three WhatsApp scenarios were created and named in sequential order, i.e., WhatsApp Scenario One, Two, and Three. Each scenario added a new learning style that the students could possibly follow in their English learning. The students' most preferred scenario out of the three WhatsApp scenarios was Scenario One, while the least preferred was Scenario Two. Overall, all three of WhatsApp scenarios were among the top preferred scenarios as shown in Figure 4.9 when the students were asked to choose one VSN that they prefer to use, including WhatsApp Scenario One (WSO), WhatsApp Scenario Two (WST) and WhatsApp Scenario Three (WSTH).

Figure 4.9: Most preferred scenarios




#### *4.4.2.1.1 WhatsApp scenario one*

The main characteristic of WhatsApp Scenario One was voluntary participation in learning English in an environment where the students were not forced to participate and little effort was required to participate in the WhatsApp group. The scenario also included collaborative learning, especially for exams and homework, the areas students are typically the most focused on. The scenario is as follows:

> Fahd is studying the English language. In order to motivate himself to learn he made a WhatsApp group with his classmates. His intention is to create a study environment with other students to discuss their homework and exams. Also to practice their English language from time to time.

**WhatsApp scenario one**

WSO was the most preferred of the three WhatsApp scenarios. Analysis of the rating scale showed that 38 (45.2%) participants viewed this scenario as definitely fitting their learning styles. The number of participants who believed that WSO would probably fit

their learning styles was 37 (44%). Overall, the majority, 75 out of 84 (89.2%) participants, agreed that WSO could fit their learning style.

The reason they gave for their preference for WSO emerged from their response to their choices in the comment section. Here, participants indicated they preferred using WhatsApp because they viewed the tool as being comfortable and easy to use and because of the frequency with which WhatsApp is used in a Saudi society, all of which motivated them to use it. In addition, the students reported that the scenario also enhanced collaborative learning of the English language. The following comments are representative of others:

> WhatsApp is used on a daily basis and it is in the hands of everyone, also it is the easiest and fastest tool to use among other social media.

In the following comment, the student also added that he felt it enhances collaborative learning:

> There will be a lot of cooperation because the application is widely and actively used in society. I think if it is used for conversation among the students themselves in the English language, their skills will improve.

While the next comment emphasizes more its collaborative learning, as shown:

> The student will be able to ask or inquire from his classmates about anything he didn't understand.

What could be noted from their quotes is that most of them appraised WhatsApp's frequent use in the society which makes it closer to them to use than any other VSN. For example:

> All WhatsApp scenarios, because WhatsApp is close to me and easy to use, also I use WhatsApp a lot.

What could also be argued from the participants' preference for this scenario, is that it did not require them to do extra work on their studies and so did not add to their feelings of pressure from their existing educational workload. Instead, it acted as a facilitator to their learning by organizing their collaborative learning and helping them learn from their

classmates, thereby reducing study pressure that might act as a constraint on their activity. The use of WhatsApp in the daily life of the participants operated as an affordance that could possibly raise the participants' agency to take advantage of this tool for their learning.

#### *4.4.2.1.2 WhatsApp scenario three*

The second most preferred WhatsApp scenario shown in Figure 4.9 was WhatsApp Scenario Three, which was more highly focused on collaborative learning of the English language, thus emphasizing learning vocabulary and practicing the English language as the following description indicates:

> Hamad is studying the English language, and he's struggling with memorizing vocabulary. When he learns a word today he forgets it the next day. To solve this issue, he decided to create a WhatsApp group with his classmates to practice the new vocabulary. He thinks that practicing the new vocabulary words with his classmates will help him memorize them better.

**WhatsApp scenario three**

The rating scale for WSTH was also very positive. Out of 84 respondents, 29 (34.9%) perceived it as "definitely fitting" their learning styles, and another 40 (48.1%) participants viewed it as "probably fitting" their learning styles. Thus, overall, 69 out of the 84 (83.1%) participants preferred this scenario for their learning styles.

The participants' preferences of WSTH was associated with similar themes to WSO, with the former being preferred primarily because of the scenario's collaborative aspect that the tool provided, for example:

> Because cooperation is very successful. Establishing a group in WhatsApp to memorize vocabulary is very important to better learn the English language, especially how to pronounce and write the words. I think it is the best option.
>
> Because we are using WhatsApp!

What emerged further from the participants is the use of smartphones as follows:

> Because it will give me the motivation to memorize, and my smartphone is always with me so I will be able to memorize anywhere, otherwise I always forget to study my vocabulary.

The use of smartphones was perceived by the participant as an affordance that could aid him in producing more actions. The advantage of this is that it enables him to study anytime and anywhere. By being unconstrained by time and place using the smartphone, he could be motivated to study English. Overall, WSTH is nonetheless ranked lower than WSO. The difference in the participants' attitudes regarding the two scenarios could be accounted for by WSTH's primary focus on learning the English language whereas WSO had multiple learning goals, not restricted to learning English or increasing their English vocabulary. Thus, there are more advantages of WSO than WSTH since they could also use it to cooperate for other subjects.

#### *4.4.2.1.3 WhatsApp scenario two*

Finally, WST was the least preferred scenario out of the three WhatsApp scenarios. As with WSTH, WST was focused on collaborative learning of the English language. However, WST required more effort on the part of the students, such as posting stories weekly. The scenario was as follows:

> Abdulrahman is studying the English language, and in order for him to improve his reading, grammar and vocabulary as fast as he can, he posts short stories weekly on WhatsApp and discusses them with his classmates through their WhatsApp group. His aim is to extend his English language learning through discussing what he has learnt from the short stories.

**WhatsApp scenario two**

Although WST was the least preferred scenario, it was the fourth most preferred scenario overall, as indicated by Figure 4.9. Moreover, the analysis of the rating scale in Figure 4.8 showed that its ranking is the third in terms of the number of students who rated it as

definitely or probably fit, where 21 (25.3%) participants thought that WST would "definitely fit" their learning styles, while 43 (51.8%) indicated that WST would "probably fit" their learning styles. Overall, 65 out of the 83 (77.1%) participants agreed that WST would fit their learning styles which makes it ranked the third among the most rated scenarios.

The quantitative data showed similar responses to the previous WhatsApp scenarios in appraising its usage in the society, such as:

> A lot of students are using the WhatsApp VSN and it is especially useful for writing.

However, the participants also in this scenario appraised the features of WhatsApp as in the following quote:

> Because he used the easiest social media tool that is extremely popular and also through this VSN he can view all the media such as pictures and videos.

The combination of ease of use and the ability to share and view media such as pictures and video added strengths to WhatsApp more than the other VSN platforms. These features could have complemented each other and operated as affordances that could facilitate the students' activity in learning English. In other words, it is not only about the platform being easy to use but also the other features it includes that support the level of easiness. These factors work together in order to produce acceptance of the innovation by the participants.

Even though WST had positive responses from the participants, relative to WSO and WSTH, it was the least preferred. The reason could be because WST required the students to expend more effort in using the VSN's tools, thereby reducing their motivation to use these tools. For example, having to post short stories weekly and having the students discuss these stories with their classmates increased the already heavy educational workload the students carried. Thus, it is important that the use of VSN in the class does not conflict with the students' interests in how they would like to use VSN and that it should not add more effort on them to use it.

#### *4.4.2.1.4 WhatsApp's disadvantages*

Even though the WhatsApp scenarios were viewed as highly positive, as shown by both the quantitative and qualitative data, there were a few negative responses towards them. Those participants who did not prefer the WhatsApp scenarios stated that it was because they were mainly concerned about the supervision of the WhatsApp group, as in:

> I do not think students will respond a lot since the teacher is not part of the learning process.

> Because making a group on WhatsApp with the students without the presence of the teacher may not develop the language, because the language level of the students is about the same.

> His method does not suit me because it does not enhance the students' writing skills. Writing is the basis of learning and without a professional teacher who would oversee the group the benefits for the group will be very minimal.

The teacher's role is very important in mediating and facilitating activity and communication in language learning. The participants might have thought that a WhatsApp group without the teacher's role would not make it a meaningful group for learning. The teacher role in mediating communication, and bringing activities and motivation to the students is a crucial part in enhancing the students' activity in VSNs, as was found during the implementation stage discussed in Chapters Five and Six. Therefore, the student use of the innovation alone cannot guarantee that the affordance will be effective, but also how the teacher uses and makes an advantage of it (van Lier, 2004).

Overall, all the participants' responses to the WhatsApp scenarios indicated a positive attitude toward WhatsApp's use in the language classroom. The PYP students were familiar with WhatsApp due to its frequent use in the society, which enhanced their preference for the platform for language learning. In addition, the students valued the

features of WhatsApp in being easy to use with the ability to share photos and videos, thus providing them with a comfortable collaborative learning environment. There were minimal negative responses, and those students who were negative did not completely reject the WhatsApp innovation but were concerned about the teacher's role within the group to support and motivate their English language learning.

#### *4.4.2.2 Twitter scenarios*

The next preferred scenarios involved public-based VSNs, particularly Twitter. Two scenarios were created for Twitter, Twitter Scenario One (TSO) and Twitter Scenario Two (TST). Each scenario presented the students with a new learning method that they could hypothetically apply in their classrooms. The Twitter scenario that received the most attention was TSO, which was ranked as the fourth preferred scenario of all the scenarios. It was followed by TST as the fifth most highly ranked scenario.

##### *4.4.2.2.1 Twitter scenario one*

TSO was aimed at students who might have had difficulties approaching the teacher out of class. It afforded them a virtual environment where they could have the opportunity to ask the teacher questions through Twitter at any time and anonymously. The scenario was as follows:

> Omar is studying English grammar and he is a shy student who may not want to approach his teacher after class or during office hours to ask a question about a grammar point he didn't understand. So, his teacher created a Twitter account and had all the students "Follow" his account so that they could ask questions freely and anonymously. Omar now is comfortable asking any questions about grammar and can more easily enhance his competence in English grammar.

**Twitter scenario one**

With respect to TSO's ranking in the quantitative data, 31 (37.3%) of the participants perceived TSO as "definitely fitting" their learning styles, while 29 (34.9%) indicated

that it would "probably fit" into their learning styles. Therefore, a total of 60 out of the 83 (72.2%) participants reported that TSO would either "definitely fit" or would "probably fit" into their learning styles, thereby demonstrating a positive attitude toward the affordances offered by TSO.

Although their attitude toward TSO was positive, their rankings were nonetheless lower than the first and third WhatsApp scenarios, possibly due to the increased characteristics that WhatsApp provides, particularly its frequent use in Saudi society, which might have had a high influence on the students' preferences. In addition, accessibility to the WhatsApp platform is relatively easier and faster than to Twitter. The teacher trainees also exhibited a preference for WhatsApp; the trainees stated that they were leaving Twitter and beginning to use WhatsApp because they were more comfortable with its characteristics.

Their positive and negative attitudes toward Twitter were further explored through the qualitative data, which revealed the details behind the participants' views of TSO. The participants ranked this scenario first mainly because its virtual environment helped some deal with the shyness they experienced when speaking English in the classroom. The following comments made by participants illustrate further their reasons for preferring TSO and are representative of others:

> This method gives space to the shy students who cannot ask questions in front of their classmates, so by doing this scenario the shy student can ask the teacher questions comfortably without shyness.

> Because some of the students, including me, are very shy because of some of the students who are misbehaving by bullying us.

This scenario was preferred mostly by those students who were anxious about participating in class due to weak English skills or fear of making mistakes, which could have resulted in their being bullied by their fellow students (Alrabai, 2014). Therefore, they preferred TSO since it was producing less anxiety for them since participation could

be anonymous and voluntary, thus creating more room for them to exercise agency in learning English.

Another group of participants preferred TSO because they viewed it as an innovative, easy-to-use tool that allowed them to communicate with the teacher regardless of time or place and without disturbing the teacher, who could also log on at any time to review student tweets. The following comments evidence this:

> Because you will be able to communicate with the teacher anywhere and anytime, also it facilities communication.
>
> Twitter is easy to use and much more comfortable for the teachers and students and it relies on modern technology.
>
> Because Twitter is available for all students and the teacher does not get annoyed from the messages because it is through tweets and not chatting.

The features of Twitter mentioned by these participants were the same as those the other participants mentioned with respect to WhatsApp, as discussed in the WhatsApp section. However, the majority preferred WhatsApp over Twitter. Thus, although Twitter was viewed as easy to access, the WhatsApp's level of ease was perceived as still better, helping to facilitate agentic systems to engage in learning English with the use of the innovation to achieve their goals. Therefore, a valid conclusion from these findings is that a VSN's level of accessibility influences user preference for it, particularly within an educational context. Overall, the participants' attitudes toward TSO were positive due to its being an innovative tool that facilities communication between teacher and students and that helps them overcome their shyness.

#### *4.4.2.2.2 Twitter scenario two*

The fifth preferred scenario was TST, which participants also viewed positively. TST apparently provided greater opportunities for the students to inquire about things they did not understand during lectures. As with the previous Twitter-based scenario, the

anonymity inherent in the platform provided shy students with a better opportunity to participate. Twitter Scenario Two was as follows:

> Khalid is an English teacher that teaches reading and grammar. He wants to incorporate hashtags during classroom time as another option to encourage students to tweet questions to the teacher. He used this method to ensure that students don't interrupt the teacher while he is talking and to provide an opportunity for all students to participate. He also made all participation anonymous so that the shy students would feel more comfortable asking questions.

**Twitter scenario two**

Student attitudes toward TST were positive, as indicated by the quantitative data, in which 25 (30.1%) of the participants perceived TST as "definitely fitting" in their learning styles with 32 (38.5%) indicating that the scenario would "probably fit" into their learning styles. Thus, a total of 57 out of the 83 (68.6%) participants exhibited a positive attitude toward TST. The participants' preference of TSO over TST could be attributed to the fact that TSO was designed for out-of-classroom learning while TST was designed for in-class learning. Thus, participants seemed to exhibit a preference for using technology in general and Twitter in particular for out-of-class learning, which afforded them a virtual environment with which to connect with the teacher outside the classroom since this is what they are lacking most in their learning process.

The findings derived from the qualitative data for the PYP students' attitudes toward TST did not differ from those concerning TSO. Most of the participants expressed a preference for this type of scenario since it reduced such negative emotions as shyness when they were participating in using English, demonstrating that shyness could be an issue that many PYP students face, as evidenced by these comments:

> `It motivates the students in an innovative and effective way, especially for the shy students.`

In the second and third comments, the students cited shyness as the main issue that constrained their behavior in learning English. Therefore, these students expressed their

preference for this scenario, because it would have allowed them to overcome the shyness that constrained them from learning English:

> Because shyness is the main reason that students have weak skills in the English language.
>
> Because he gave a space for the shy students to participate and in my view, the biggest obstacle in learning the English language is shyness.

Anxiety is one of the main issues that the students in an EFL environment encounter and is one of the main reasons for the students' weak achievements in English language (Al-Khairy, 2013; Alqahtani, 2011; Alrabai, 2014). By overcoming anxiety, the participants could have a better opportunity to be active in the classroom. The use of Twitter out of classroom through anonymous names potentially has positive advantages in engaging the students with their learning.

#### *4.4.2.2.3 Twitter disadvantages*

Even though the participants had positive attitudes toward the Twitter scenarios, some negative attitudes were nonetheless expressed. The participants who nominated TST as the least preferred scenario mentioned one common theme that rendered this scenario uncomfortable for them, that the use of smartphones during lectures could distract them from focusing on the lecture. Although the scenario itself did not suggest using smartphones to access Twitter, the participants nonetheless mentioned smartphones as the only constraint that would prevent them from using this tool in the scenario. The participants' attachment to smartphones was shown in the comments given below:

> Because using smartphones during lecture will distract the student from focusing on the lecture.
>
> Because no one will open the smartphones during the lecture as most students will be distracted from the main goal of learning.

> Because it is not appropriate to use smartphones in the classroom as this will distract students.

In general, the PYP students' attitudes toward the Twitter scenarios were positive as indicated by both the quantitative and qualitative data. The students preferred TSO over TST, thus indicating their preference for using Twitter outside of class. TST's disadvantage from the perceptions of the students was that it might include using smartphones during the lecture, a behavior they feared would distract them from learning.

#### *4.4.2.3 Least preferred scenarios*

The scenarios based on Facebook and Instagram (categorized as public-based VSNs), consisting of Facebook Scenario One (FSO), Facebook Scenario Two (FST), and the Instagram Scenario (IGS), were the least preferred scenarios and were ranked comparably, as shown in Figure 4.9. FSO was designed for out-of-class activities focused primarily on improving a student's reading skills through the student himself posting a short paragraph with three questions to classmates following his Facebook page. The scenario was as follows:

> Mohammad is studying English reading skills. So, to improve his reading, he asked the teacher to create a Facebook page for the students to follow and the teacher made an activity for Mohammad and his classmates in which each student is asked to post a paragraph each week about a certain topic that's decided by the teacher. Then the student who posted the paragraph is required to post three questions related to the paragraph. His classmates should answer the student's questions weekly.

**Facebook scenario one**

As with FSO, FST's purpose was to improve student reading skills. However, in this scenario, the activity was teacher-driven:

> Faisal is a reading skills teacher; each week he posts paragraphs on Facebook and asks the students questions related to what they have read in the paragraph. He usually allows the students to work in groups through their Facebook page and each group is required to answer 3 to 4 questions and post the answers on the comments section for feedback.

**Facebook scenario two**

Lastly, the Instagram scenario focused primarily on student-centered out-of-class learning. In this scenario, students would learn English collaboratively through Instagram by posting short videos and images anytime they wanted, thus participating in a free learning environment such as WSO. The scenario was as follows:

> Sulaiman and his classmates want to learn new vocabulary and grammar collaboratively, so they decided to follow each other on Instagram, and each one is required to post an image daily or weekly that contains a new word or grammar point to his classmates to maximize their vocabulary and grammar learning.

**Instagram scenario one**

The analysis of the rating scale revealed that these scenarios were least preferred by the PYP students. Only 18 (21.6%) and 12 (14.4%) participants rated FSO and FST as "definitely fitting" their learning styles, respectively; the Instagram scenario was perceived as a "definite fit" by only 18 (21.6%) of the participants. A slightly higher number of participants perceived the scenarios as "probably a fit" for their learning styles for all of these scenarios: 26 (31.3%) for FSO, 34 (40.96%) for FST, and 25 (30.1%) for the IS. While these numbers are lower than for the other scenarios, the total number of participants who believed that these scenarios would fit into their learning styles nonetheless indicated a positive attitude: 44 (53%) for FSO, 46 (55.4%) for FST, and 43 (51.8%) for the IS.

With respect to FSO, the qualitative data indicated that neither Facebook as a platform nor its scenarios interested them for use in their studies. They perceived Facebook as an uninteresting VSN to use due to its limited use in the society as a whole and its difficulty to navigate. In addition, the scenario was viewed as increasing the effort required of the students, causing them to resist its use due to the already heavy workload they carried, as shown below:

> Because no one is using Facebook and we feel that methods like this will make us feel like it is homework, so it is useless.

The Facebook scenario apparently would be like doing "homework," a reference to the increased pressure that this scenario would have added to their studies. In the second and third comments, the participants clearly indicated that they would not be interested in Facebook due to its limited use in their culture, as shown in the following comments:

> Boring. Kind of difficult. Facebook is bad.

> Because nobody uses Facebook anymore. Only a few students have Facebook accounts.

As for FST, the PYP participants expressed a slight preference for it over FSO, since that scenario required the teacher himself to post the paragraph with the students' roles only to answer the questions posted by the teacher, thus, providing less work and pressure on them. However, they still cited the same issue as discussed earlier; Facebook is not frequently used within Saudi society:

> The application is old and not used. I think most students will not actively participate. And if they are active they will depend on one student.

As for Instagram, the feedback for this scenario was less negative than for the Facebook scenarios. However, the participants still perceived it as an unsuitable virtual environment for learning due to its limited features, in particular in allowing only pictures and very short videos to be posted, which might not fulfill their learning needs. For example:

> Because in Instagram you only use images, so some students might not be able to recognize the mistake.

In addition to the features, the privacy issue was cited by the participants as an obstacle in using it for English learning, for example:

> Instagram is not suitable for these kinds of topics, and some people lock their Instagram page to maintain privacy.

Another theme indicated that the previous perception of Instagram and its use for entertainment purposes made it inherently less suitable for the serious purpose of education:

> The Instagram technology is popular now but it is only about pictures, some of it is useful but it has now become a tool for entertainment only.

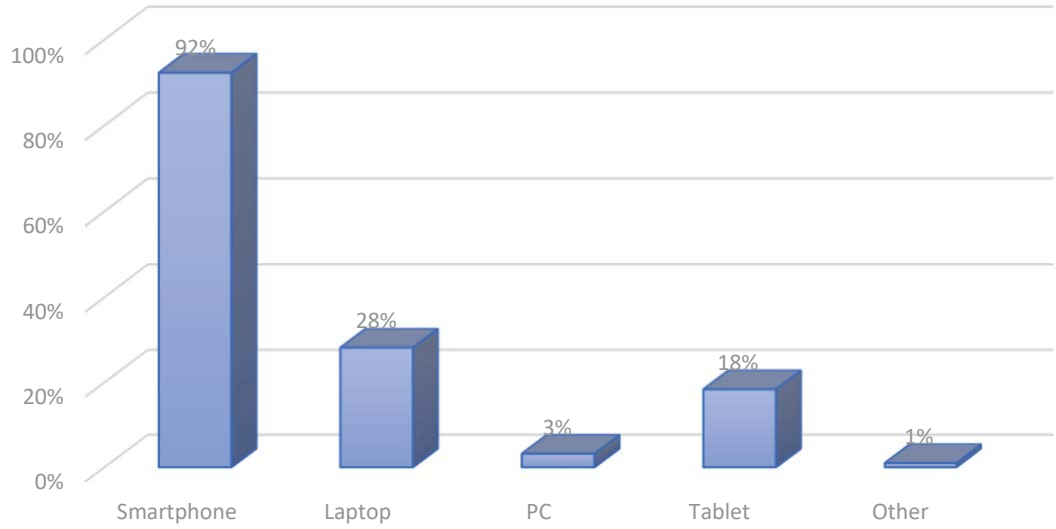
In general, the features of Instagram and Facebook were perceived by the participants to fail to create a virtual environment that could enable their activity in English learning. The lack of use of Facebook in the society, the difficulty of use and its limited features for learning played a crucial role in reducing participants' preference of both scenarios toward using it for English learning. The previous perception of Instagram as an entertainment tool, made it less favored for the purpose of learning.

### *4.4.3 Accessibility to VSN*

Another interesting finding was with regard to the devices that the participants were most comfortable using when accessing VSNs. The survey revealed that the most common way they accessed VSNs was through a smartphone. For instance, as shown in Figure 4.10, the majority of the teacher trainees (93%) reported accessing VSN with a smartphone. The design of these VSN tools could explain the reasons for their attitudes, as most public- and private-based VSNs are designed for use on smartphones. Although they can still be accessed through PCs or laptops, the students were apparently more comfortable using them through smartphones. In addition, the availability and faster access of translator apps and the Internet access available on smartphones might have provided the

reason for the teacher trainees to prefer using smartphones over PCs to access VSNs. More importantly, the teacher trainees carry their smartphones with them at all times in their pockets, thus making access to VSN environments faster with a smartphone than with a PC or laptop and facilitating their agency in using these innovations in learning English.

Figure 4.10: Devices used to access VSN




## 4.5 Summary

This chapter presented the results obtained by analyzing the data on both the teacher trainees' and the PYP students to investigate the nature and roles of VSN as an innovative tool for learning and teaching the English language. In summary, the features of VSNs complement each other to provide an effective affordance that could enhance the learners' agency for English learning. From the analysis of the teacher trainees' questionnaire and interviews and the PYP participants' classroom scenarios, it became clear that the participants perceive different roles for each VSN, depending on its type (private- or public-based), its features and how the EFL learners perceive it for English learning. Both the teacher trainees, and the PYP students seem to prefer private-based over public-based VSN for English learning possibly due to its closed environment, increased features (e.g., video, and photo sharing), ease of use and most importantly its frequent use in their

current community which positively influenced their adoption and acceptance of this type of VSN for English learning. These characteristics of the private-based VSN provided opportunities for the participants to overcome some of the constraints that were limiting their agency such as anxiety in practicing English face to face and provided them with affordances to enhance their English learning such as collaborative learning. The role of the teacher in VSN was raised by the participants to be an important factor to take full advantage of VSN. Other factors such as the less effort required to use VSN could play a crucial role toward the implementation success of VSN for English learning. Finally, smartphones were perceived as facilitating their access to VSNs' virtual environments and consequently were found to play a significant role in facilitating participants' activity for learning within these virtual environments.

# CHAPTER FIVE: TWITTER

## 5.1 Overview

This chapter presents the results focusing on students' experiences and trajectory of Twitter use during the implementation and sustainability phases (Fullan, 1982, 2001, 2007, 2016) in the EFL classroom to address the second research question. The data analyzed included responses to a survey employing 11 items using a five-point Likert scale with open-ended items appended. Other data consisted of transcripts of first-round individual interviews with 10 students, 10 post-project individual interviews and two focus group interviews with five students per group. Finally, photos, and observations of student engagement with Twitter also form an important part of the main instruments for data collection. The post-project questionnaire, interviews and focus group were conducted between the eleventh and twelfth weeks, while the first-round interviews were conducted in the second week of the implementation stage. Observations were carried out throughout the implementation stage. This chapter begins by presenting the story of the students' use of Twitter over nine weeks and an overview of the findings, which are then analyzed in depth, beginning with its affordances and ending with its complexity and constraints.

## 5.2 Learning Trajectory of Twitter Use Over Nine Weeks: The Story

This section presents the trajectory of Preparatory Year Program (PYP) students' agency and appraisals of their use of Twitter and how they used its features as affordances to produce activity throughout the nine weeks of the Twitter implementation phase in the classroom. Twitter was implemented in the second week of the second semester with Group Two students. Although it was the second semester, the majority of the students were new to PYP as they were recently admitted.

In the first item on the post-project questionnaire, students were asked to express their opinions about the use of Twitter in the class. Ten of the group students (40%) agreed that they liked learning with Twitter, with seven (28%) strongly agreeing. Another seven (28%) had neutral opinions regarding Twitter's use in the classroom, and, finally, only one student disagreed with using Twitter. In summary, 17 out of 25 (68%) students confirmed that they liked learning with Twitter (M = 3.92, SD = .84). In addition to this, the majority of the students who attended the first-round interviews, the post-project individual interviews, and the focus groups interviews, expressed a positive attitude toward Twitter. Detailed findings of their attitudes are presented below, starting from the first week of its application and running through the ninth week, at which time their use of Twitter was observed to decline and they decided not to use it further.

### *5.2.1 Applying Twitter*

In the first lecture of the first week on 1 February 2015, the students went to a computer lab for the *Reading and Writing* unit of the class. At the beginning of the lecture, during the first 20 minutes, I introduced myself to them as a PhD candidate and researcher and explained the study to them, including their right to withdraw at any time during the course of the research. I provided them with the information sheet and consent forms for collection and analysis of study data. I explained to them that they could use Twitter in the class (they could also use it outside of class but the main focus was using it in the class) to tweet their questions to the teacher. I instructed the students to use Twitter to ask any question related to English language relating to the current lecture, or any other past lectures. In the beginning, I noticed that the majority of the students were very keen to use Twitter in the class, even though they knew that they would not be assessed for their participation in the study, as noted in my researcher log below:

> I spoke with the dean, and he told me that PYP students at the main campus do not have participation marks. They are graded through exams and quizzes only. (Researcher log 29 January 2015)

However, I observed that a small number were not initially interested but that they later became interested when they saw other students using Twitter. As reported in the first-round interviews, their lack of interest could possibly be due to either their lack of knowledge as to how useful Twitter could be to them in learning English or their lack of experience using Twitter. Overall, the first lecture consisted primarily of an introduction to the study and technical support to those few students who did not already have Twitter accounts and then the teacher continued the lecture.

In the second lecture of the first week, the teacher started by displaying the study unit on the projector, and the students exhibited positive attitudes toward Twitter. They immediately began using Twitter in the class to tweet questions to the teacher, who switched to Twitter whenever he had the chance to see questions, as shown in Figure 5.1. The students were highly engaged with their English learning, and, by the end of the lecture, a total of five questions had been posted on Twitter.

Figure 5.1: Teacher switching to Twitter during the lecture[7]

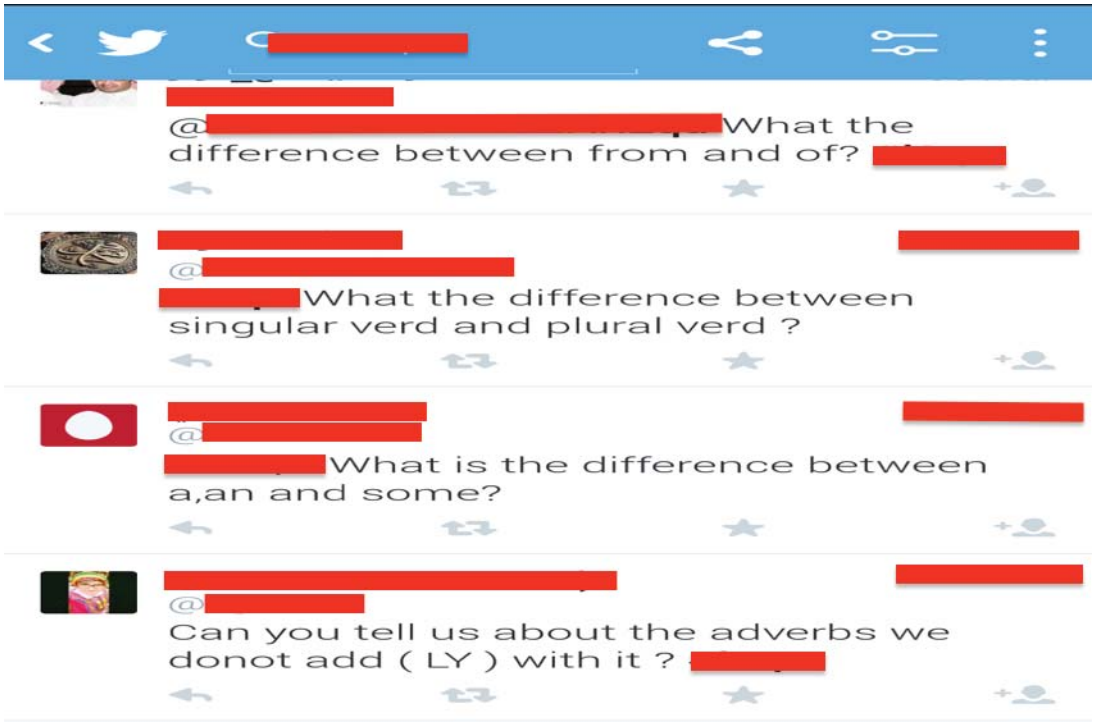
Most of the posted questions concerned English grammar, and they were all asked in English, some were related to the class and others were general questions that the students wanted to understand more. The English level was low of some of the questions. Although the students had been told that they could use Arabic to ask their questions and that I

[7] The student's faces are blurred for confidentiality purposes

would translate them for the non-Arabic speaking teacher, all the questions were written in English, indicating a positive attitude toward Twitter's use (see Figure 5.2 for a sample of the questions). One of the students, Ruaished, commented on this point, saying:

> Well, what is the point of asking questions in Arabic, then? It is an English class, and I should get used to English. (Ruaished, 0108[8])

Figure 5.2: Student questions on Twitter[9]




In the last ten minutes of the class, the teacher began answering the questions one by one, making a point to look directly at each student when answering his question or requesting clarification of his question. However, this was the first constraint faced by the students; one of the students, Alkhuder, felt so anxious when the teacher asked him to clarify his question that he could not speak. Although the students were encouraged to use anonymous accounts to avoid such a situation, many of them at that time used their real names. Nevertheless, the question was not lost because others in the class spoke up to

[8] The first number 01 refers to first-round interview, while the second number 08 refers to the students' number in the interview's list

[9] Names are masked in red for confidentiality purposes

clarify Alkhuder's question for the teacher, indicating that the action of asking a question was recognized as legitimate by the class who stepped in to take collective ownership of it on behalf of the student who had asked it (Researcher log 2 February 2015). Although this incident could have negatively influenced Alkhuder's use of Twitter, he continued to post questions to the teacher after the teacher stopped addressing him when he began using an anonymous account, (reported in the post-project interview see Section 5.6.1) and became one of the most active on Twitter.

On the Thursday lecture of the first week, Twitter proved its value to the students as attendance was higher than expected even though it was the last lecture of the last weekday, which students usually tend to skip, as reported by the teacher. In addition, more students were engaged in using Twitter than during the previous lecture and posed eight questions for the teacher to respond to, requiring him to take extra time to do so (Researcher log 5 February 2015). Overall, during the first week, many students were clearly engaged in using Twitter.

### *5.2.2 Using Twitter*

In the second week, I continued to record observations. During this time, two uses of Twitter were observed that could have negatively affected students' participation on the platform. The first was that, when answering questions, the teacher directly addressed the students who had asked them rather than addressing the group as a whole, increasing the students' anxiety and so inhibiting their Twitter activity, where the students used it as an affordance to communicate with the teacher. In addition, during the lecture, some of the students were observed using the computers to play games (see Figure 5.3), and another was observed watching an animated video, as shown in Figure 5.4. Distracting students from their studies might be the first constraint observed of using Twitter in the computer lab. The second week was when inappropriate use of the computer lab began to appear.

Figure 5.3: One of the students using the computer to play games

Figure 5.4: Another student watching animation during the lecture

However, with respect to the positive aspects of Twitter's usage, the teacher began to be more open to Twitter and even gave the students his private Twitter account so that they could ask him questions related to the unit. In contrast to Twitter's initial use in the class, when the teacher was unsure of its potential benefits, his actions now might indicate a recognition of its benefits in teaching English. So, by allowing the students to contact him

through his private Twitter account, he was inviting them to approach closer to him outside of the classroom, as noted in the researcher's diaries:

> The teacher became more accepting of Twitter. He gave the students his private Twitter account and started answering their questions even after class had been dismissed. (Researcher log 10 February 2015)

The interview data proved useful in revealing the students' responses to the manner in which the teacher was using Twitter. They reported that they felt uncomfortable when he directly addressed the student whose question he was answering. Therefore, I decided to talk to the teacher in regard to this issue as it was having a negative emotional impact on some of the students who were not using anonymous Twitter accounts and who had low English proficiency. He responded positively and agreed to answer the students' questions indirectly, without facing the student whose question he was answering. However, I noted later that he could not completely avoid singling students out when answering their questions, as some of them were using their real accounts and some who used anonymous accounts asked questions that were difficult to understand, thus requiring clarification, making the teacher ask the students to reveal their identity.

In the third week, the students became much more active in using Twitter by asking many questions related to the midterm exam, which also constituted the level one final exam[10]. Moreover, they were asking the teacher all kinds of questions, even relatively easy ones.

In the fourth week, WhatsApp was introduced to support out-of-class English learning for Group Two students based on their preference (explained in the Methodology Chapter), with the teacher added to the group dedicated to the class in order to increase student engagement with the platform. Beginning in this same week, I observed a decline in the student activity levels on Twitter. The role that WhatsApp played in the students' study of the English language is presented in more detail in Chapter Six.

Nevertheless, in the fourth week through to the seventh week, the students continued to use Twitter, introducing variations related to its use. In the preceding three weeks, some

[10] There are two levels per semester, with each level 8-9 weeks in length

experienced Internet connection difficulties that interfered with their ability to access Twitter, and this sometimes delayed the display of their tweets. Hence, in the fourth week, the students began to use their smartphones to tweet rather than their computers because it was faster, as the students reported in the interviews (see Figure 5.5). Interviews revealed that the computers they were using accessed Twitter through the university's Internet connection, while their smartphones accessed it through 4G private Internet or the university's Wi-Fi which was faster for them.

Figure 5.5: One of the students using his smartphone to tweet his question

This attractive affordance associated with the Twitter environment might have led the students to expand their use of the smartphone to Google translation, which allowed them to translate their question into English before posting the question to the teacher on Twitter. This represented adding a new support tool to their repertoire (see Figure 5.6).

During the fifth week of the class, they continued to tweet using their smartphones instead of the computers. At that time, even the teacher suggested that they return to the original classroom since the students were using their smartphones more than their computers. He seemed uncomfortable with the computer lab since it is four times larger than a normal classroom, and the students' use of their smartphones provided him with a reason for

going back to the classroom. However, I decided to keep going using the computer lab in case some students wanted to use the computers.

Figure 5.6: Another student using his smartphone to translate his question into English

However, during the sixth week, a noticeable decline in the students' activity on Twitter occurred. I discussed probable causes of this with the teacher, who opined that employing WhatsApp could be the primary reason behind it. The students had begun to pose their questions to the teacher in WhatsApp, either within a WhatsApp group or privately, rather than in Twitter, especially when outside the classroom (Researcher log, 4 March 2015). This might have made the students feel that WhatsApp's environment constituted a better option for them, especially because Twitter was seen to be a technology only to be used in the class. Ruaished mentioned this point:

> The reason is that we use Twitter only in class. However, we can use WhatsApp everywhere. (Ruaished, 0208)

In addition, their usage decline may have been attributable to the constraints Twitter imposed on them during its implementation. For instance, the disclosure of their identity may have played a crucial role in affecting the students' perceptions of Twitter and their current reluctance to use the platform. Furthermore, it was creating anxiety especially in that they used Twitter in the classroom where they directly faced the teacher. In addition, the introduction of WhatsApp could be a reason that by the fourth week they preferred its

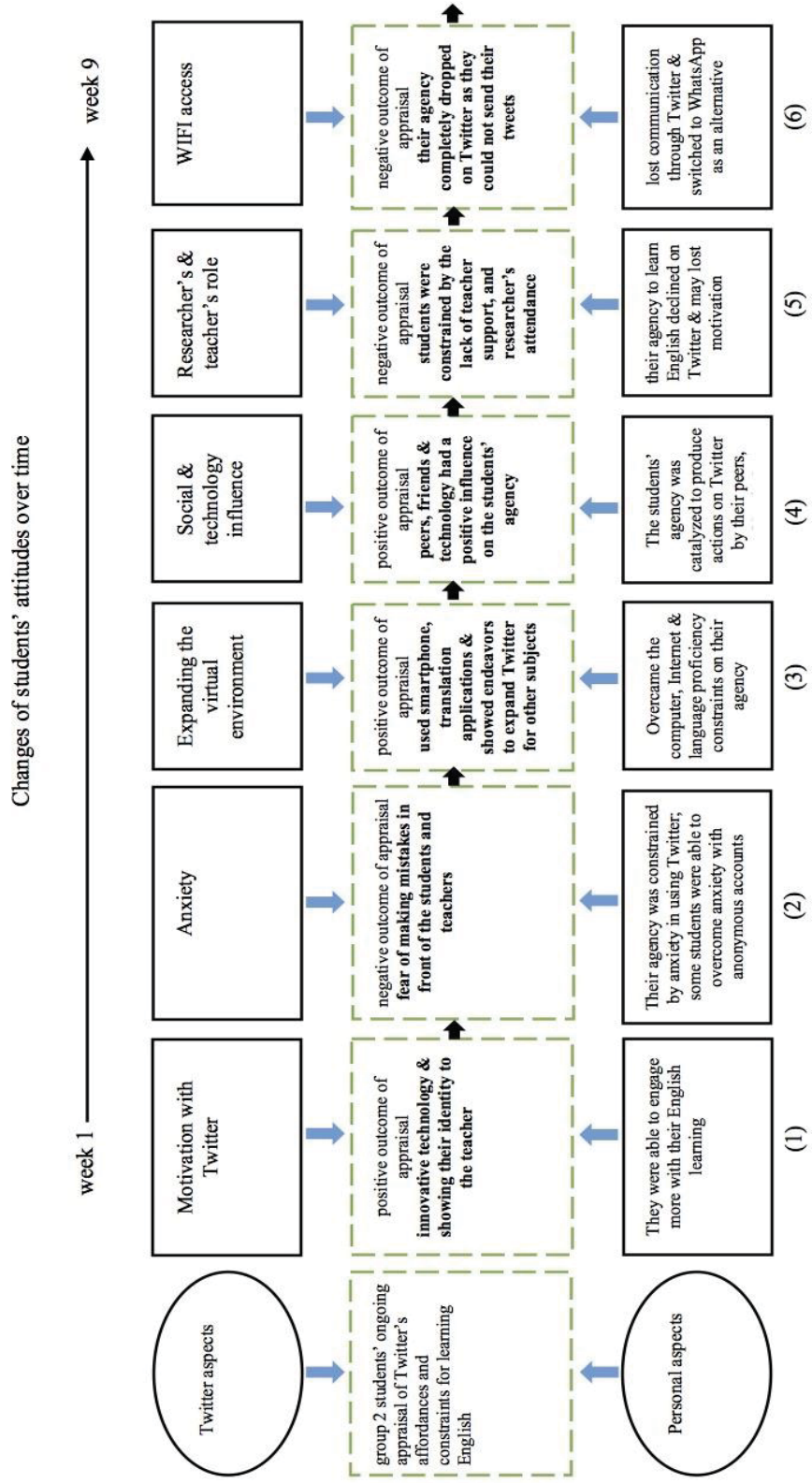
environment rather than Twitter since they could use it outside the classroom. Therefore, WhatsApp's environment provided increased affordances for them and eliminated the constraints limiting their use of Twitter.

### *5.2.3 Twitter's alternative environment*

The students had their one-week spring break in the eighth week, and, during that time, they totally ignored Twitter and used WhatsApp extensively to prepare for the midterm exam (or the final exam for level one). Twitter appeared to have been fully replaced by WhatsApp since the students were more comfortable asking the teacher questions directly through WhatsApp. During the ninth week, the students were barely active on Twitter; only one question was posed on this platform during that week, and, by the tenth week, no questions were posted on Twitter. Its constraints might have caused their activity on this platform to drop off: anxiety and the university campus's weak Internet connections were also likely to have had an effect. These apparently influenced the students' decisions to switch to WhatsApp as the preferred environment. Some of WhatsApp's features were used as affordances to eliminate the negative issues they had encountered on Twitter and other affordances represented improvements on Twitter (refer to Chapter Six).

In summary, drawing on Beltman and Volet's (2007, p. 319) trajectory model of learners' sustained motivation, Twitter's use trajectory is shown in Figure 5.7; it represents this trajectory over time in relation to the students' appraisals of the platform's affordances and constraints for use in learning English. The first row in the model displays platform aspects, and the second row indicates whether the students appraised the aspects of the platform as positive or negative and the reason for their appraisal. The last row shows the personal advantages or disadvantages of these aspects in terms of the students' agency. The following sections present in-depth analyses of the data obtained concerning the Twitter implementation process in relation to their trajectory of Twitter's implementation and sustainability.

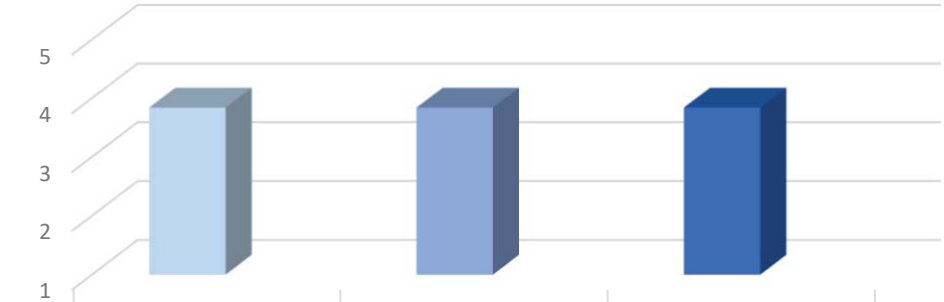
Figure 5.7: The trajectory of Twitter use



## 5.3 Twitter's Virtual Environment

This section presents the data obtained from the longitudinal study in relation to the affordances brought about by the use of Twitter's virtual environment. Figure 5.8 displays the results of the post-project questionnaire giving the students' responses on their experiences using Twitter for English learning. The most outstanding aspect of the Figure is the 15 (60%) students who viewed the Twitter project as beneficial for them in learning English (item 9) with 8 (32%) strongly agreeing with this point. Only two students did not agree, with one strongly not agreeing. Overall, 23 out of 25 students appraised Twitter as a useful tool for learning English, a sentiment repeated in the interviews. Although their participation on Twitter decreased during the course of the study because of WhatsApp and other contextual constraints, the quantitative data, as shown in the Figure, indicates that the students still perceived Twitter as useful, most likely due to the affordances students recognized in Twitter with which they engaged to learn English.

Figure 5.8: Twitter's post-project questionnaire




| | 4-I learned a lot from my classmates' questions during the lecture on Twitter. | 8-Asking the teacher on Twitter in the classroom helped me understand more about the subject. | 9- The Twitter project was beneficial to me. |
|---|---|---|---|
| Mean | 3.84 | 3.84 | 3.84 |
| S.D. | 0.77 | 0.78 | 0.91 |

Additionally, the second most interesting item on the questionnaire consists of the responses to item 4, which asks the students to agree whether they perceived their classmates' questions on Twitter as beneficial to them. In contrast to item 8, in which the students were asked if they themselves benefited from asking their questions, the students' responses indicated that they preferred to see their classmates' questions rather

than asking questions directly of the teacher. As shown in Figure 5.8, the mean of item 8's responses is slightly lower than the mean of item 4's, while the standard deviations of both items are relatively low, .78 and .77, respectively. This might indicate strong agreement by the students as to the benefits they felt they derived from their classmates' asking questions on Twitter as opposed to they themselves posing the questions. The data obtained through the interviews supported this. Harbi's comment is typical:

> You benefit from other students' questions. Sometimes, you forget to ask a question, and you find that it is being asked by another student. (Harbi, 0101)

Harbi's comment could also explain the students' attitude toward Twitter as revealed by their responses on the questionnaire. Since the teacher expanded the Twitter environment by making questions posted on Twitter visible to the entire class by projecting them on the classroom's projector screen, his actions might have constrained some of the students' activity on Twitter and added anxiety about making mistakes (see Section 5.6.1). Hence, even though the students' responses displayed a more positive attitude toward their classmates' questions than their own, this attitude could be viewed as a constraint with respect to their classroom participation on Twitter. In other words, some students might have felt anxious when posing questions to the teacher even on Twitter due to their names being displayed on the screen and, hence, might prefer not to participate but instead depend on other students' questions; and this could have reduced their own activities on Twitter. The students' on-going interaction with Twitter's affordances over time is further explored in the next subsections.

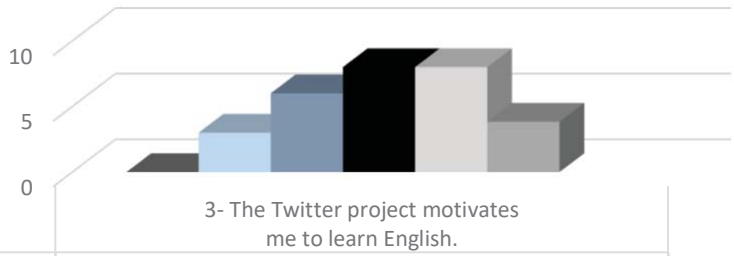
### *5.3.1 Innovation influence*

The student respondents evaluated Twitter as an innovation supplying extrinsic motivation to engage with their studies (Junco et al., 2010). In the post-project questionnaire, they reported that Twitter did motivate them to increase their activity in their study of English (see Figure 5.9). Moreover, the interviews revealed that Twitter might have played an important role in motivating the students to increase their activity in learning English, especially in the early weeks of its implementation. In other words,

the perception of Twitter as an innovative tool that makes them different, emerged as an affordance that fueled their agency in the classroom. For example, Mubarak had been forced to drop the class during the previous semester because of low grades on the midterm exams. When he explained his reasons for dropping out in the previous semester, he stated "I got bad grades and could not keep going with something I did not like. I wanted to be specialized in Engineering and it requires high grades" (Mubarak, 0104). However, when he returned to study English in the second semester, the classroom environment was substantially different due to the use of Twitter, and so Mubarak's perception of learning English also changed. He found the Twitter platform increased his activity because he "became able to ask about everything in English whether in class or outside" (Mubarak, 0104). In contrast to the previous semester, he felt that using Twitter this semester influenced him to continue to learn English:

| | |
|---|---|
| Mubarak: | Honestly, I felt the change; I felt that there was something new. |
| Interviewer: | Did you like it? |
| Mubarak: | Yes, it was motivational. Some students may feel afraid to ask a question, but now Twitter makes it much easier. (0104) |

Figure 5.9: Students' motivation to learn English through Twitter.




| | 3- The Twitter project motivates me to learn English. |
|---|---|
| Strongly Disagree | 0 |
| Disagree | 3 |
| Neutral | 6 |
| Agree | 8 |
| Strongly Agree | 8 |
| Mean | 3.84 |
| S.D. | 1.01 |

Mubarak's first impression of Twitter was as an innovative tool, and he "felt the change" in his studies. This change influenced him to learn English since Twitter acted as an affordance that could facilitate his communications with the teacher.

Furthermore, some students thought that using Twitter in the classroom made them seem more developed and sophisticated, and this encouraged them to participate. For example, when Bader (0102) was asked about what made their class more special than other classes, he replied, "We are using a new tool that makes us feel improved and more respected." Thus, the use of Twitter allowed the students to impress others, i.e., the teacher, the peers and the students in the other classes as well. The affordance of Twitter generated extrinsic motivation for the students to act positively toward their English learning (Nicholson, 2013; Ryan & Deci, 2000). Bader was not the only one who felt extrinsically motivated, other students such as Mubarak and Ruaished shared this view:

> Because we are using a new technology, I mean, students in other classes still ask oral questions while we use Twitter. (Mubarak, 0104)

> Because in the developed countries, they use Twitter as a learning tool. I am a supporter of these ideas. (Ruaished, 0108)

The evident pride of Mubarak and Ruaished seems to be influenced by the presence of Twitter as an innovative tool; the early weeks of the implementation of Twitter thus provided them with an affordance to act in the classroom to use English.

This was also the case with Amry (0103), who found Twitter gave him more opportunities to engage with English learning in the classroom. This was Amry's second semester, as he had attended a different college during the first semester before transferring to PYP. In the comment below, he shared his feelings about his use of Twitter in comparison to the previous semester:

> Well, most of the teachers do not want you to interrupt them whether in the first semester or the second. They also do

> not want you to ask easy questions, and you need to raise your hand to ask. But, the difference is that in the second term we can ask the teacher about whatever we want without interrupting him through Twitter. So, for me, the second semester is much better than the first. (Amry, 0103)

With Twitter in the classroom, Amry might be able to exercise his agency comfortably without interrupting the teacher to ask questions or even raising his hand which would have posed a challenge for Amry that inhibited his learning of English. This is what made the second semester "much better than the first" for Amry; with Twitter, he could be more active and involved in the second semester's class since Twitter provided him with an innovative way to approach the teacher.

Harbi (0101) held a different perception of what motivated him to engage in learning English with respect to Twitter, as shown in this excerpt:

> Interviewer: So, what was the reason that changed your mind?
>
> Harbi: Honestly, I felt it has some benefits but at first I wanted to help you when you said that you are a researcher. But, now I can see that it has many benefits. I feel comfortable that I joined it. (0101)

Harbi's comment demonstrates that he was extrinsically motivated because of my role in the classroom; it enabled him to be active in the classroom with the use of Twitter. It is a habit in some Saudi tribes to help others. Although helping others is a common thing that everyone could do, some Saudi tribes perceive it as a must-do and it could become very shameful if you do not help those in need. Thus, Harbi might have perceived the use of Twitter as just a means to help me achieve my research aims. However, he self-regulated his perception after seeing its benefits and based on that he acted positively toward Twitter. He was then able to shape the Twitter environment to suit his needs in order to participate fully in the class. One of the benefits that Harbi recognized and that increased his use of Twitter was to impress the teacher and communicate that he was still interested

in the class and was a diligent student, something he had been unable to do in the past. This, from his perspective, would have helped him gain increased support from the teacher, which would then have motivated him to learn English:

Harbi: Honestly, since I entered the university, I wasn't participating with the teacher. But, when you came, and we used Twitter, I started to participate. I mean, now the teacher knows that I participate. And honestly, I felt comfortable when he said "Harbi" because I want him to know that I participate.

Interviewer: You want the teacher to have a good impression about you?

Harbi: Yes, and that motivates me to participate.

Interviewer: Explain to me, why do you want the teacher to have a good impression about you?

Harbi: Because I want him to know me. The teacher knows whether the student is diligent or not. I want him to know that I am diligent so he will help me with many things. For example, he will help me with my writing and give me more attention and higher marks. (0101)

Therefore, Twitter mediated Harbi's engagement to establish a virtual context in which to learn English. Harbi was able to show increased activity in the classroom as Twitter afforded him a suitable environment for participation although he had been unable to do so previously. His decision to act by participating in the class was for him to be recognized, and Twitter aided him in achieving this goal, because it made him visible to the teacher.

### *5.3.2 Anonymity*

Since the teacher made the immediate environment of Twitter public, that is, live in front of all the students by projecting student tweets on the screen, some of the students' attitudes toward Twitter at the beginning of the class were ambivalent, especially those who used their real names. Consequently, many of them created accounts using anonymous names so as to participate anonymously and feel comfortable. The main source of their anxiety was their worry that the teacher would speak to them in English in front of the class and they would not be able to answer him because of their low English proficiency (see Section 5.6.1). Hence, the use of anonymous names might have provided the students with an affordance to access Twitter in an alternative way which then allowed them to overcome their anxiety.

In the interviews, the students reported that the use of Twitter in the classroom reduced the anxiety they felt when participating face to face (FTF), especially if they used it anonymously. The affordances of Twitter that facilitated student questions, although not perfect, made some of the students feel more comfortable than they had previously in participating in class. This meant Twitter influenced their emotions in FTF interaction, that is, it expanded their agency in using English FTF. One of the students who felt that the use of Twitter changed the environment for him to the better in learning English was Oreny. In brief, Oreny, an excellent student in the class, was always active in and out of class. He was very confident and liked to take the lead in class to help other students with their English language struggles. He was one of the first students to participate, especially in collective activities, even FTF. When asked in the first interview about his Twitter experience, he stated:

> First, it was beautiful, especially, if the teacher was answering and he didn't know who was asking. I think it's better, as you have some questions which you might not want to ask the teacher, because if you asked him, he might change his impression about you. But, if you ask him using an anonymous account and he answers you, it is better, as

> you don't have to be limited to some questions. (Oreny, 0109)

Oreny praised Twitter's anonymity and explained how it changed his interaction with the teacher in the class. From his point of view, what was constraining some of his actions to learn English was the teacher. He wanted to appear diligent to the teacher, to appear to understand everything that the teacher said in class. However, on Twitter, he was not "limited to some questions" (Oreny 0109), that is those acknowledged as challenging and therefore worth asking. On Twitter, he could possibly bypass this constraint by asking anonymously. In other words, this constraint was overcome by Twitter's feature in bringing affordances to the environment (van Lier, 2004). Thus, Twitter might have afforded him with an immediate virtual context where he could ask about anything related to English while masking his identity.

In addition, he was also concerned about falling in his classmates' estimation if he asked a simple question FTF, and this concern might have also limited his activity to some extent. He shared a moment in which his efforts to learn English were constrained when he was asking the teacher a question FTF:

> Yes, sometimes I feel afraid of asking as I might make mistakes then I will be looked down on by the students. For example, when I asked the teacher directly the last time, another student told me: "Weird, I did not expect you to ask such a question. I thought your English is a high level." I felt very embarrassed. (Oreny, 0109)

Oreny cared about his status in the class as the one that could be depended on by the other students. Therefore, asking a question that might be easy for one of the other students in the class could have damaged his reputation among them, thereby reducing his interaction in the classroom to learn English. Thus, to keep this issue from happening again, Oreny preferred to use Twitter anonymously to mediate his questions to the teacher. The environmental change for him was that his identity could remain unknown on Twitter, allowing him to exercise a higher level of agency in the class.

Amry (0103) further expanded on this affordance of Twitter. When I asked him why he felt more comfortable on Twitter, he offered that he could ask the easiest questions without feeling anxious about prompting negative reactions toward him by the teacher or other students, as was the case with Oreny:

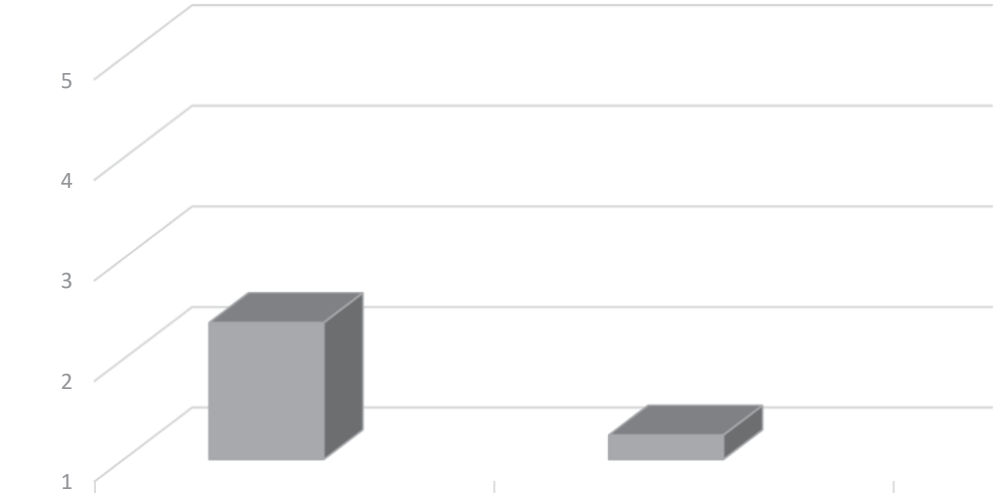
> Honestly, there were some questions that I did not want to ask the teacher directly because I felt that they were not worthy to ask. So, if I wanted to ask him directly, it would be a little difficult for me because I would feel shy. But, on Twitter, you ask comfortably. (Amry, 0103)

In another comment, he defended himself for asking simple questions, stating, "Sometimes the questions I am asking are stupid for some students, but it is important to me." He of course had the right to ask the teacher any question, but the potential reactions of the other students to the question might have been preventing him from participating fully in the class. However, introducing Twitter into the class changed this negative situation for Amry, because with Twitter he could mediate his questions to the teacher through an anonymous account on Twitter. Eliminating the anxiety associated with asking simple questions enabled him to expand the actions he would take in the class.

However, as stated in Section 5.2, most of the students began using their smartphones in the fourth week of class. Hence, having to switch accounts from their real to anonymous names on their smartphones for every lecture might have increased the effort of using Twitter in the class. In other words, logging out from their real accounts to then logging in to their anonymous one and then once the lecture is over switching back again could consume quite a bit of time and effort. Although it is simple a thing to do any amount of extra effort to use the technology might have a negative influence on its use, especially if they could use an alternative that required less effort, such as WhatsApp (Rogers, 2003). This is indicated from their responses to item 6 on the questionnaire (see Figure 5.10). Here, a few students said they thought the Twitter project consumed too much time. Although the overall responses were positive, the students' responses to this item are higher than their responses for item 17, in which none of the students communicated that they viewed WhatsApp as taking up too much time. Expending more effort using Twitter

could have affected their agency in terms of actively interacting through the English language in the classroom.

Figure 5.10: Time consumption comparing Twitter and WhatsApp




| | 6- The Twitter project took up too much time. | 16- The WhatsApp project took up too much time. |
|---|---|---|
| Mean | 2.36 | 1.24 |
| S.D. | 0.79 | 0.43 |

Overall, Twitter's anonymity affordance could have increased the students' activity in learning English as indicated from their responses. It helped them avoid the anxiety produced in making mistakes or asking simple questions. The only disadvantage of using anonymous accounts was that, as mentioned earlier, it increased the effort involved in using it. This could have been one of the main reasons as to why the students had switched to WhatsApp by the end of the ninth week.

### *5.3.3 Immediacy: Time and place*

In the interviews, many students reported that the time and place of their activity on Twitter, that is its immediacy feature, facilitated their learning English. To be more precise, the students reported that they could use Twitter in their English studies at any time, even outside the classroom although it was originally intended to be in-class. For example, Abdullah was one of the students who reported that he benefited greatly from Twitter. Abdullah had to retake the class in *Reading and Writing* because he had failed it

the previous semester. During his interview, he shared his attitudes toward Twitter and how his attitudes toward the current study environment changed when comparing his current class, in which Twitter was used, with his previous, more traditional courses:

> Honestly, it (Twitter) is a beautiful idea because sometimes I feel shy, and I do not want to ask the teacher a question… Well, not shy, but I mean he may leave after the lecture, or he may ask us to meet him in his office. I might be too lazy to go to his office, or I do not know where it is, but with this method, when I go home and open my book, if a question comes to my mind, I will log into Twitter and ask him. However, before Twitter, if I had a question, I would keep telling myself to ask him the next day, and I would totally forget. (Abdullah, 0107)

Abdullah's evaluation of Twitter's immediacy was that it helped him connect to the classroom environment even outside the classroom, allowing him to overcome his past struggles in approaching the teacher during the first semester. He was able to engage with his English studies by sending his questions to the teacher whereas previously he had not been able to do so because of limited opportunities. With this affordance, Abdullah had a better environment in which to study hard and pass the course to achieve his longer-term goal of enrolling in engineering:

> My English skills need to improve, and also I need to ask questions so I can understand. Especially, because I have to pass Reading and Writing so, I am working hard to pass this semester. (Abdullah, 0107)

Likewise, Harbi also valued Twitter's immediacy which helped him participate outside of class in learning English. Through Twitter, he could ask the teacher free from the hesitation that negatively affected his activity. Because he followed the teacher's Twitter account, he could ask questions at any time. Therefore, he was connected to the teacher outside the classroom:

> It facilitates our study of the English language as we follow up with the teacher on Twitter because sometimes I have a question, but I cannot ask the teacher directly for some reason. So, I keep telling myself that it is not important, and then I forget it. But, now, I tweet immediately. (Harbi, 0101)

Finally, Oreny also responded positively to Twitter's spatial and temporal affordances. Twitter was not simply easier to use for Oreny, but he could also exercise his agency anywhere out of class. Most importantly, it saved him time:

> It is easier than interrupting the teacher, and you can use it anywhere. It also saves you time. For example, you may ask the teacher a question directly, and he starts to talk about other things that are out of your interest. You just want to ask your question and leave. So, on Twitter, you can ask, and get your answer more comfortably. (Oreny, 0109)

Although Oreny appeared confident in front of the other students, his explanation of how Twitter saved him time could indicate a lack of confidence in his English skills when speaking with someone who had a greater mastery of English than him. Instead of admitting to possibly not being able to handle a long conversation with the teacher, who was highly proficient in English, which could have compromised his reputation, Oreny instead stated that he preferred Twitter rather than that associated with face-to-face communication because Twitter saved him time.

However, even though the students praised Twitter's immediacy in out-of-class learning, I observed only a limited number of them actually using it to contact the teacher outside of class, possibly due to the lack of privacy if they used their real names and the extra effort needed to switch to their anonymous names on Twitter. These two constraints might have played a key role in reducing the students' activity on Twitter. The implementation of WhatsApp by the end of the fourth week also reduced their activity on Twitter, in general, but more specifically for out-of-class activities due to WhatsApp's increased affordances.

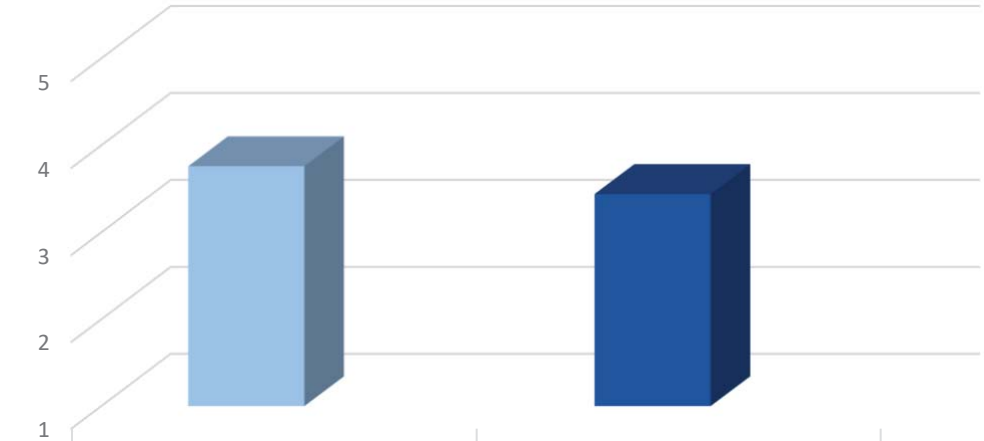
## 5.4 Expanding the Virtual Environment

In addition to Twitter's built-in affordance, I observed the students' endeavors to take advantage of other affordances that emerged from implementation within the context, such as the use of smartphones to tweet, translation applications, and even attempting to expand their use of Twitter into other courses. In this section, the data related to their on-going attitudes to expanding the virtual environment will be presented, along with the disadvantages of using the university's computer lab.

### *5.4.1 Using Twitter for other classes*

In their responses to the questionnaire, specifically item 10, the students exhibited a positive attitude to using Twitter for other classes. The majority of the students, 19 out of 25, indicated that they would like to use Twitter for subjects other than English (see Figure 5.11). This result could indicate a positive implementation of Twitter, which raised its adoption level because the students wanted to "use it for other subjects, not just English" (Waters, 2009, p. 446).

Figure 5.11: Students' attitudes toward using Twitter for other classes




| | 10- I would like to use Twitter in other subjects. | 11- I will continue to use Twitter for the next semester as well. |
|---|---|---|
| Mean | 3.76 | 3.44 |
| S.D. | 1.03 | 0.85 |

Abdullah (0107) shared his view that he also wanted to apply Twitter to other courses such as one particular science-based class in which he apparently struggled to approach the teacher because of the teacher's aggressive personality. This issue was limiting his ability to learn in this particular science-based class. Abdullah stated that he believed that using Twitter would increase his engagement by allowing him to avoid this teacher's negative personality while participating:

> Teachers in the other classes, and even in our class, give their lectures and leave without caring about the students. We know who those teachers are. I mean, we try to avoid their classes, and we even advise their students to transfer to other classes. So, if we used Twitter, everyone would feel comfortable. For example, we have a teacher who, if you tell him "I don't understand something," he will not even answer you. I mean, he shouts, "Why don't you understand? I have just explained it. How don't you understand? You aren't paying attention!" This teacher is well-known among the students. I mean, as a student, it is my right to ask! I am afraid to ask questions because I don't want to be abused in front of the other students. I prefer to post it on Twitter because he won't know who I am. (Abdullah, 0107)

As shown in his comment, Abdullah's agency was constrained by the teacher of that particular science-based class because his fear of being "abused in front of the other students" by the teacher inhibited him from asking questions. Therefore, to change this environment, he thought that Twitter could also serve to mediate his interaction with the unpleasant teacher by creating a virtual context for that particular science-based class. In this, he could exercise agency by asking the teacher questions anonymously to better understand the course content. However, using Twitter as a tool for discussion was not possible during the lecture or even outside the classroom, because of Twitter's 140-character limitation. Moreover, Twitter's public nature made it an inappropriate environment for discussion.

Although the students displayed a positive attitude toward using Twitter for other courses, when asked in item 11 (shown in Figure 5.11) if they wanted to use Twitter in next semester's course, their attitude was a little less positive. Only 14 out of 25 students stated that they might use it next semester. When queried about this during the post-project interviews, Harbi replied, "[F]or Twitter, it depends on each teacher" (Harbi, 0201), that is using Twitter in the next semester would depend primarily on the attitude of the teacher in accepting this innovative tool and the teacher's role in creating activities and motivating the students to ask either through FTF or via Twitter.

### *5.4.2 Using smartphones*

I observed the students beginning to use their smartphones more extensively in the fourth week, to tweet questions to the teacher; this might be because most had been familiar with using smartphones to access Twitter prior to the study. Moreover, WhatsApp had been implemented by the end of the fourth week so the students had already experienced the potential benefits of smartphones in communicating with the teacher which might have motivated their use to tweet their questions in the classroom instead of using the computers. Also, more time was required for their Tweets to appear in the hashtag when these were sent from the university computers, due to the weak Internet access there (see Section 5.6.4) The following observations confirmed this:

> I noticed that some students preferred to tweet questions to the teacher using their real (private) account on their smartphones. I think that Twitter works more properly on smartphones than PCs because I noticed that tweeting through PC can take several minutes before it arrives at the hashtag. So, I think that they think it is better and easier to use smartphones since it posts the tweets instantly. (Researcher log, 25 February 2015)

> The only problem is that we have to go to the computer lab to use Twitter when we can use it our smartphone instead. (Oreny, 0109)

Harbi: For me, I think using smartphone is better. Because last time I tweeted from my smartphone, not from the computer. (0301[11])

Interviewer: So, why didn't you tweet from the computer?

Harbi: I feel more comfortable with the smartphone. It's faster and easier to use. 0301)

Amry: No, honestly, I prefer the smartphone. It's more comfortable and faster. (0301)

This led them to seek alternatives in accessing Twitter "more comfortably and faster" (Amry, 0301) than with the computers. The smartphone's use provided affordances that might have allowed the students to overcome the contextual constraints associated with the speed of the Internet connection, so that they "will always be asking" (Ajlan, 0301) the teacher. As shown in Oreny's comments and my observations as well, their expansion of the environment caused them to feel that their presence in the computer lab was no longer nesessary. Overall, the affordance offered by the use of smartphones might have added to their acceptance and adoption of the tool as it allowed the students to use what they felt comfortable with.

However, I was concerned that allowing the students to use their smartphones in class might distract them from their studies, although I had not observed any students playing games with them. Therefore, I asked Amry for his opinion, and he replied:

> Games are on the computer and the smartphone. Whoever wants to play will play whether on the smartphone or the computer. (Amry, 0203)

Indeed, the smartphones were not the issue in distracting the students provided they were used appropriately. Rather, the issue was a lack of motivation causing some students to

[11] The first part of the numbers (03) refers to the focus group interviews, while the second part (01) refers to the first focus group team

act in such a way. For example, during the early weeks of Twitter's use, I observed that some students were using the computers to play games, as shown earlier in Figures 5.3 and 5.4. This is also evident in Harbi's comments on the disadvantages of Twitter, "Some students may play games instead of using Twitter" (0201). In addition, Abdullah expanded on Harbi's comment:

> Well, I think it is a disadvantage in that it distracts you from the lecture. I can see students browsing the tweets in Twitter while the teacher is lecturing. (Abdullah, 0107)

However, this was not an issue with the technology but rather with student behavior. When asked the reason for using Twitter or the lab's computers to play games or distract themselves during the lecture, they replied that they were struggling to understand the teacher's English. Since their level of English proficiency level was low, experiencing difficulties in using the new language was understandable, and because of the language constraint on their activity, their engagement with the teacher and the class was reduced. Hence, they decided to use the affordances available to them in class, that is Twitter and the computers, to escape. As reported by Bader in the focus group interviews:

> At the beginning, I was thinking of dropping this term. Because I couldn't understand anything the teachers said. (Bader, 0302)

Because the teacher was speaking English and this was constraining his ability to benefit from the class, and this was the case with the majority of the students as indicated in the interviews. However, he reported later that he stopped distracting himself when he was better able to understand the teacher's English over time:

> Interviewer: I have seen many students who were playing during the lecture, and you are one of them, Bader. Why were you playing during the lecture?
>
> Bader: This is because the teacher was speaking English and I couldn't understand him, but

> this was in the first month. Now, I started to understand him, so I keep concentrating on him. (0202)

Therefore, the technology implementation did not drive this behavior but rather other contextual constraints. Overall, the affordances represented of using smartphones were positive in enhancing the students' engagement with English learning. Using smartphones afforded them a faster and more comfortable platform on which to tweet their questions to the teacher and allowed them to overcome the computer's contextual constraints that were reducing their enthusiasm for using Twitter (Boyd, 2008).

### *5.4.3 Translation applications*

Using Twitter as an innovative tool also attracted the use of other innovations such as translation applications, which they could access on their smartphones, to aid them in comfortably expanding their agency in the class. For example, some students found it useful to use Google's translation app to translate their questions from Arabic to English, as shown earlier in Figure 5.6. This was the case with Harbi (0101), who used this app every time he asked a question on Twitter. When I asked him about it later, he was worried that his use of Google might be considered cheating:

> Interviewer: How was your first experience using Twitter?
> Harbi: Excellent. But, I had to use google translation.
>
> Interviewer: No, it is all okay.
> Harbi: Sometimes I get confused in English. So, I used it just to make sure.
>
> Interviewer: You used to translate certain words?
> Harbi: No. I entered the whole question then I copied to Twitter and rearranged it. It was an easy question that I could

> translate without Google. But, I was afraid to type it incorrectly or that the teacher might not understand it. (0101)

Since Harbi's English proficiency was low, the use of the Google translation app might have allowed him to overcome this limitation and increase his engagement with English. This was also supported by Ajlan:

> Its advantage is once one can't write in English, he usually fails to ask directly and gets afraid of the other students. So, its advantage is that I can ask in Arabic then put it in google, get the English translation and then I ask. (Ajlan, 0105)

Thus, the translation application acted as affordance that enhanced the students' agency and adoption of Twitter as it allowed them to break the English proficiency constraint that was reducing their activity and increasing their anxiety. They were then able to pose questions to the teacher.

## 5.5 Influence of Peers and Friends

Data analysis revealed that the students were influenced by internal (i.e., within-classroom) and external (outside-the-classroom) factors that both negatively and positively affected their decisions to use Twitter. Some students were not interested in using Twitter at the beginning but became interested later because their peers, or friends, influenced their change of attitude and the consequent decision to participate on Twitter.

With respect to the internal influence, some students were promoted by their peers to participate on Twitter. Ruaished (0108), for example, commented: "I was more motivated when I saw my other classmates participating." Van Lier (2004) states that "notions such as relations" bring affordances to the environment to expand activities (p. 91). Since Ruaished was a shy student who did not usually participate in class, his peers' engagement with Twitter influenced him to use it, and hence acted as an affordance that made him become one of the top users participating on Twitter.

As for the external influences, Bader (0102) indicated that his decision to use Twitter was also influenced by his friends outside the classroom. Bader used his real name on Twitter from the beginning because he was more comfortable doing so. When he was asked whether Twitter could be beneficial for him outside the class, he replied:

> Bader: Yes, some of my friends outside the university asked me about the questions I wrote on Twitter, so I explained that it is part of your Ph.D. research, and they liked the idea of using Twitter in class.
>
> Interviewer: Well, do you feel a little shy when you ask the teacher in English using your real account?
>
> Bader: No, not at all. My friends on Twitter may like the idea and use it in their classes. (0102)

However, although this influence might seem to have been positive for Bader, it could also be viewed as a constraint for the other students who were using their real names. Throughout the Twitter implementation phase, I observed some students deleting their question tweets as soon as the lecture was finished and the teacher had answered them. As noted in my researcher log, this issue made it difficult for me to take photos of the students' archival data on Twitter for data analysis purposes, as reported in the following note:

> I noticed some students who were using their real account deleted their tweets after the lecture or after they were being read by the teacher, which makes it difficult for me to take photos of their questions. (Researcher log 17 February 2015)

Moreover, this might indicate that some students were being negatively influenced by their friends or relatives outside the university, who followed their real account and limited them taking advantage of Twitter to some extent. A common explanation for this is that they might have felt anxious when their friends or family questioned them about

their tweets, as many students preferred to maintain their privacy by not involving their outside friends or relatives in their studies. Overall, the positive internal influence of their peers on the students to use Twitter seemed to be higher than the more constraining external social influence.

## 5.6 Complexities and Constraints

The students' interaction with Twitter began to change noticeably in the fourth week of the class, with the introduction of a new innovation, WhatsApp, for out-of-class English learning. Beginning in the fourth week, the use of Twitter began to gradually decline until it stopped completely, and the students had switched to WhatsApp by the beginning of the tenth week. This section explores in detail the constraints and complexities that the students faced that led them to decide to replace Twitter with WhatsApp.

Three main constraints influenced the students' decisions whether to continue using Twitter or not. The first was anxiety in being asked by the teacher to clarify questions in front of their classmates. The second consisted of the roles of the teacher and researcher, especially after WhatsApp was introduced. The third was the university's weak Wi-Fi access, which played an important role in influencing the students to switch from Twitter to WhatsApp, since they used Twitter in the class and WhatsApp out of class.

### *5.6.1 Anxiety*

Students' anxiety with respect to Twitter was found to be the biggest constraint that motivated them to switch to WhatsApp, which they considered a less anxiety-producing environment. This anxiety was found to be closely linked to their ability to develop English proficiency. Since the students had low English proficiency, they lacked confidence and felt anxious if they were spoken to in English because they did not possess the proficiency to reply in English. Harbi (0101), for example, felt anxious when he first participated on Twitter when using his real name, particularly when the teacher projected his name on the screen. He was concerned that he might not be able to speak English adequately to reply to the teacher in case the teacher asked him a question:

Harbi: Honestly, First, I felt comfortable that I participated with students on Twitter and that the teacher could easily read and understand it.

Interviewer: So, when the teacher read it and read your name, how was your feeling then?

Harbi: Honestly, I got worried. I was looking at my watch and hoped the lecture would end fast so he couldn't talk to me. I was nervous that he would ask the question and that I might fail to answer. So, I was waiting for the lecture to end.

Interviewer: So, now, do you want to participate on Twitter? Or you feel afraid that he might address you?

Harbi: Honestly, all of this. I have the problem of getting nervous, especially, when I have spelling mistakes. But next time, I will create an anonymous account so he cannot recognize my name. (0101)

Harbi was concerned that the teacher might not understand his question, but, when the teacher read and understood it, he felt comfortable, however, his comfort was short lived: another challenge that Harbi encountered was that the teacher might talk to him directly and he might be unable to reply. In addition to Harbi, this situation influenced many of the students using Twitter to create anonymous accounts. However, although Harbi was able to avoid this danger by using Twitter under a pseudonym, doing so created the need for a trade-off. Using a pseudonym meant that he was not able to show the teacher that he was a diligent student, another issue that had originally increased his motivation to engage with the English language (see Section 5.3.1).

Bader (0102) also commented that the teacher asked them questions in response to their questions and this made them anxious. In his comment, he stated that the advantage of Twitter was that it allowed them to escape asking the teacher questions FTF but that the

teacher's asking them further questions obviated this advantage of using Twitter in learning English:

> Bader: Because I am asking him on Twitter, to run away from asking him directly.
> Interviewer: So, why don't you like to ask him face to face?
> Bader: Because it makes me feel shy, I may not understand him or know what to do. (0102)

Similarly, Alkhuder (0106) displayed a negative attitude toward Twitter in the first interviews because the teacher addressed him when answering his questions, including speaking his name in front of the class, as was the cases of Harbi (0101) and Bader (0102) also. However, for Alkhuder, this situation made him anxious and pressured his agentic system in Twitter:

> As I said to you I have a problem with spelling, so sometimes I have a question, but I hesitate to write it on Twitter because I am worried that I might make spelling mistakes. So, I prefer to use a anonymous account, but the problem is that even if I use a anonymous account, the teacher will want to know who asked the question. So, you know sometimes the student wants to look diligent. That is why I usually do not write any question unless I am confident in writing it. (Alkhuder, 0106)

Alkhuder's lack of confidence affected his activity in the class in general. Although he initially thought that Twitter would allow him to engage with English, he did not realize that using his real name on Twitter would act as a constraint on his agency.

In addition, the anxiety resulting from the teacher addressing them by calling on them in class or even asking the students using pseudonyms to reveal their identities when, for instance, he was unable to understand a question and required clarification had negative implications for their activity to use Twitter for English learning. Therefore, they hoped that the teacher would not directly answer them or address them by name. Instead, they

preferred that the teacher answer their tweets anonymously. Therefore, as mentioned in Section 5.1.2, I discussed this issue with the teacher, and he agreed not to respond to the students' tweets directly wherever possible. However, he was not able to avoid this completely as some of the questions were written in poor English but it was enough to change Alkhuder's attitude toward Twitter. In the post-project interviews, Alkhuder (0206) reported that the teacher had stopped addressing him and he no longer hesitated to participate and therefore demonstrated more engagement with English than before:

> Alkhuder: Lately, he stopped addressing certain students. He just reads the question and answers directly without addressing anyone.
> Interviewer: Did you feel more comfortable?
> Alkhuder: Yes, I started to ask more questions since he was not addressing me directly. I feel that I am free to ask any question. (0206)

However, Ajlan's views were opposite to those held by Bader, Harbi and Alkhuder; using his real name on Twitter did not cause him anxiety, and, in fact, he was one of those most frequent users of Twitter in the class. One of his reasons for using Twitter was to encourage shy students to participate. Ajlan was aware of the anxiety that some students felt when participating; hence, he felt that it was his responsibility to change the class environment to be less anxious, as in the following excerpt:

> No, it is not about showing off my abilities but to encourage my friends to write their questions too. For example, when I write a question, I will motivate my friends to write and to get over their fears. He might be thinking that it is difficult. So, you show him that it is okay, and you motivate him to ask. (Ajlan, 0105)

To sum up, anxiety was a big challenge to the students' agency in using Twitter for their English learning. Anxiety might have constrained their actions to escape the in-class disadvantages primarily related to their levels of English proficiency. Although Twitter provided them with the affordance of a virtual environment which might have made them

less anxious, some, especially those using their real names, still faced some anxiety when the teacher read their Twitter account names or asked them to clarify their questions. By using pseudonyms, many students were able to overcome this constraint.

### *5.6.2 The teacher's role*

Another constraint that the students reported was a lack of support on the part of the teacher. The teacher's activity on Twitter gradually began to decrease after WhatsApp was introduced, particularly in the fourth week, which also affected the students' activity on Twitter. In the post-project interview by the eleventh week of the implementation stage, the students weighed the pros and cons of the two VSNs (i.e., Twitter and WhatsApp). One of the disadvantages that might have led the students to reduce their use of Twitter was the lack of support and motivation on the part of the teacher, as reported by Bader:

| | |
|---|---|
| Interviewer: | Do you still have the same motivation to use Twitter? |
| Bader: | No, it is lower now because no one is participating, and the teacher does not check Twitter. |
| Interviewer: | Why does not he check it? |
| Bader: | First, he asks whether anyone has asked him on Twitter or not, and if no one replies, he does not check it. (0202) |

Of course, it would put the students under more pressure if they were being asked by the teacher whether they participated or not, especially for those who would like to ask anonymously (as the students showed in section 5.6.1). The main purpose of the students using Twitter was to overcome their English proficiency level. Thus, if the teacher pushed them to show their proficiency level in public, it might add more anxiety and constrain them from asking on Twitter (Al-Khairy, 2013; Alqahtani, 2011; Alrabai, 2014).

The students also reported that the teacher limited their use of smartphones to access Twitter which in turn constrained their agency. Because they were more comfortable

using smartphones, if the teacher prevented their use it would impact on their willingness to participate. Bader and Alkhuder reported this as a limitation that reduced their activity:

> Sometimes when you write it during the lecture, the teacher asks you to concentrate, and then you will not be able to write. (Bader, 0202)

> For Twitter, sometimes the teacher does not allow you to use your smartphone or to write your question during the lecture because you will be distracted and miss the lecture. (Alkhuder, 0206)

As indicated in both arguments, the role of the teacher might have shifted the students' decision to positively act on Twitter due to its limited advantages since the teacher did not act very positively in the last week of Twitter's implementation. The lack of teacher support and constraints associated with the use of smartphones seemed to have negatively affected the students and added more pressure causing its use to decline by the ninth week.

### *5.6.3 Researcher's role*

One of the students reported that my role as a researcher in the class might also have influenced him and other students' uptake of Twitter. From the beginning, I attended most of the lectures to observe the students during the Twitter implementation process and my attendance was motivating the students and the teacher to use Twitter. However, my attendance declined in the seventh week while I was busy gathering data with the teacher trainees at the other two colleges. This might have affected Ajlan and the other students' agency on Twitter, as Ajlan mentioned in the focus group interviews:

> Maybe because you stopped motivating us to use it; also we were at the end of the term, so we did not have many questions to ask. (Ajlan, 0301)

My absence could have slightly influenced the decline in the use of Twitter. A study conducted by Zohrabi (2013) found that "the students react differently because of the

researcher's presence in the classroom" (p. 258). In this study, the students' might have thought that my presence is important for them to continue to engage with Twitter. However, this argument could also be extended in that the students might have been accustomed to my presence especially in the middle of Twitter's implementation, and hence my influence might "decrease[d] significantly after the researcher has been observing for a while" (Johnson & Turner, 2003, p. 312). However, the constraints that the students encountered had a significant influence on their agency. After the midterm exams or the final exams of level one, the students switched completely to WhatsApp outside of class, and the teacher had begun giving them more support on WhatsApp since he was also more comfortable using it.

### *5.6.4 Internet access*

The Wi-Fi access to Twitter was also one of the biggest constraints faced by the students. Since the students preferred to send questions via their smartphones to the teacher instead of using the computers, Internet access constituted a challenge for them: it began to be unstable around the sixth week, and many students expressed dismay about the slow Wi-Fi connection during class that sometimes prevented them from posting their tweets to the teacher. For example, when Ruaished, Alkhuder, and Mubarak were asked to summarize the disadvantages of using Twitter, they indicated that the Internet was the biggest challenge:

> The Wi-Fi signal does not cover all the university. I mean, for example, some students have to get connected to the internet through their friends' smartphone 3G connections. (Ruaished, 0208)

> Maybe on Twitter, because the Wi-Fi connection is weak. It may take up to fifteen minutes to log into Twitter, write the hashtag, and ask the teacher your question. However, WhatsApp is more comfortable and can be used anywhere. (Alkhuder, 0206)

> Sometimes the Wi-Fi connection is weak and does not allow you to log into Twitter. However, everyone uses WhatsApp. It is easier and available at any time. (Mubarak, 0204)

Hence, even if they switched to using smartphones instead of computers, the weak Internet and Wi-Fi connection was a challenge. It might have made them feel uncomfortable because they could not connect to the Wi-Fi or sometimes had to use their friends' private Internet connections to be able to tweet their questions. The Wi-Fi therefore added more effort to their use of Twitter while, with WhatsApp, they did not experience any of these constraints. They chose to switch to WhatsApp since it was more comfortable for them to use Twitter for learning English.

## 5.7 Summary

This chapter has presented the data obtained through the longitudinal study on the PYP Group-Two students. It focused on the students' experiences and use trajectory of Twitter's implementation process over time by analyzing the students' agency throughout the process. The findings revealed that it was not stable, and their decisions to use Twitter were complex and depended on their appraisal of the platform and contextual affordances and constraints.

In summary, Twitter provided the students with a degree of motivation needed to learn English such as their perception that the implementation of Twitter made them feel sophisticated. The anonymity feature of Twitter might have also allowed the students to increase their activity since they could pose any question without worrying about the teacher or the students' negative reaction to these questions. They also appreciated its immediacy in facilitating their learning initially in the early weeks of its implementation until problems with the Wi-Fi connection compromised its advantages in the classroom. Moreover, the students also stated they would like to expand their use of Twitter to other courses. The implementation of Twitter opened the door to other affordances that emerged from the process such as smartphones and translation applications to overcome computer, Internet, and English proficiency constraints. The influences of peers were also found to be positive for many of the students, while friend influences outside the

classroom were less positive due to the students' deleting their tweets immediately after the teacher read their questions.

However, the students' anxiety was a major constraint on their participation on Twitter due to their fear of making mistakes publicly. In addition, other contextual constraints (such as lack of teacher support and limited Internet and Wi-Fi access) also played a part in the declining use of Twitter. By the end of the ninth week, the students had switched to WhatsApp, which they found to be less anxiety producing and where teacher support was available to them to a greater extent than on Twitter.

# CHAPTER SIX: WHATSAPP

## 6.1 Overview

This chapter examines study results concerning the students' experiences and use trajectory of WhatsApp during the implementation and sustainability phases (Fullan, 1982, 2001, 2007, 2016). Data for this analysis included responses to the post-project questionnaire consisting of 11 items on a five-point Likert scale with five open-ended questions appended; post-project individual interviews with 10 out of 25 students; post-project focus groups interviews with two five-student groups who volunteered to participate by the 11th and 12th weeks of the implementation stage; and finally classroom observation. This section begins with the story of the students' trajectory of WhatsApp use, including a brief overview of observations made during this process. It then presents a more in-depth analysis of the affordances and constraints encountered by the students and their agency during their interaction with the new environment. Overall, this chapter addresses the third research question, which concerns the students' experiences and trajectory use of the application of WhatsApp to learning processes within the EFL classroom.

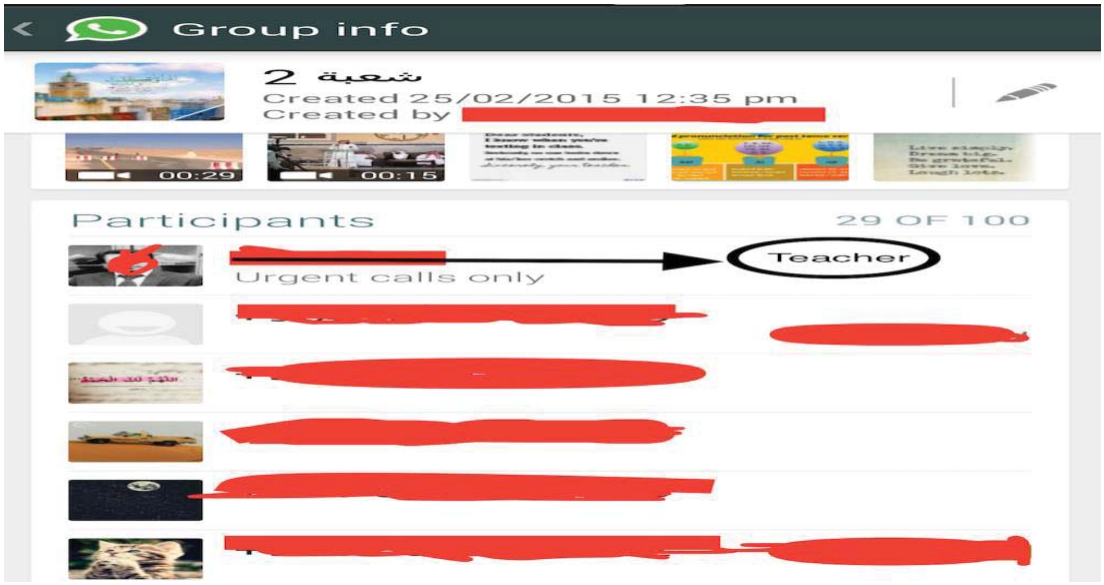
## 6.2 Learning Trajectory of WhatsApp Use Over 13 Weeks: The Story

### *6.2.1 Applying WhatsApp*

Before applying WhatsApp at the end of the fourth week of using Twitter, I presented the rules the group would need to follow in order to avoid conflicts and to facilitate organized discussion. I gave the students these instructions face to face (FTF) during class and then repeated them on the WhatsApp group when it was created. These rules were quite simple: Prohibited were aggressive behavior, that is bullying in general but, specifically, bullying another student for speaking English; posting inappropriate videos or pictures; and calling the teacher's private number. In addition, the students were encouraged to

speak in English and share videos or pictures related to the English language. Apart from these rules, the students were given free rein to share and discuss whatever they wanted whether in English or not. The group was created on the 25th of February 2015, and the teacher was invited to join it (see Figure 6.1). After doing so, the teacher changed his status to 'Urgent Calls Only' so as to avoid unnecessary calls from students, as is shown in Figure 6.1.

Figure 6.1: Creating the WhatsApp group

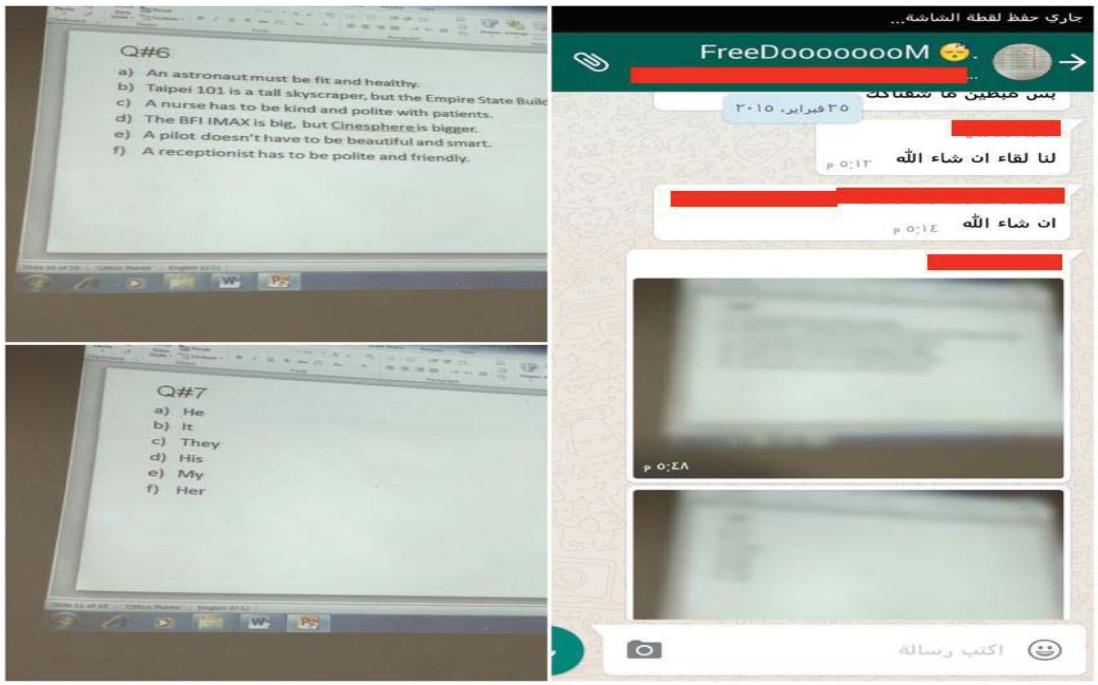



The students began their activity on WhatsApp immediately after the group was organized in the fourth week. As shown in Figure 6.2, one of the earliest posts was a photo of a practice exercise that was captured during the lecture and was sent to the WhatsApp group. When asked about this in the interview, Mubarak (0204) responded that he did it to benefit other students, especially ones who had been absent during a lecture, or out of a general desire to share things he considered useful (see Section 6.4 for further analysis):

> Yes, I do this to help the students especially the absent students. Sometimes I share some useful ideas with them. But this is not just for English, for example, I have just sent a link on WhatsApp about how to log in to the Qassim

University website to check your mid-term exam grades. (Mubarak, 0204)

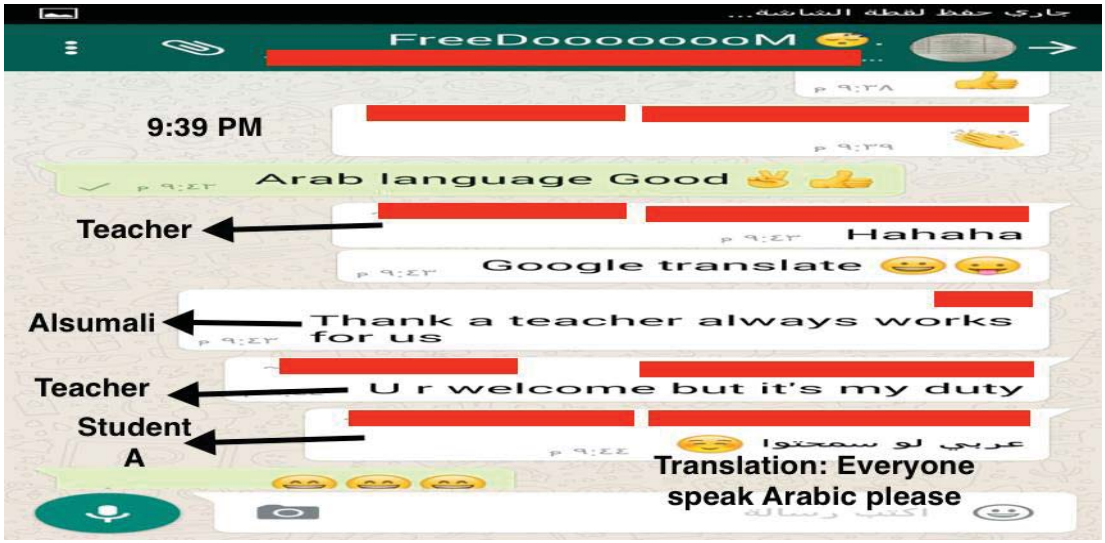
Figure 6.2: Students posting photos from a day's lecture[12]




In the fifth week, the students were clearly having fun while learning and practicing their English with the teacher and with each other as shown in Figure 6.3: the teacher is interacting casually with the students by chatting in Arabic using Google Translation, while also helping them with their inquiries. The teacher displayed his positive agency by responding to the students' questions because, in his own words, it was "his duty" to help the students. This typically happened late at night, at around 9 P.M., indicating that the use of WhatsApp did not interrupt the teacher's and the students' time. Moreover, their continued activity on WhatsApp during weekends revealed genuine enthusiasm for the platform. The decline of the students' use of Twitter began to be obvious in the fifth week.

[12] The group's title "FreeDooooooM" is explained at the end of their use trajectory.

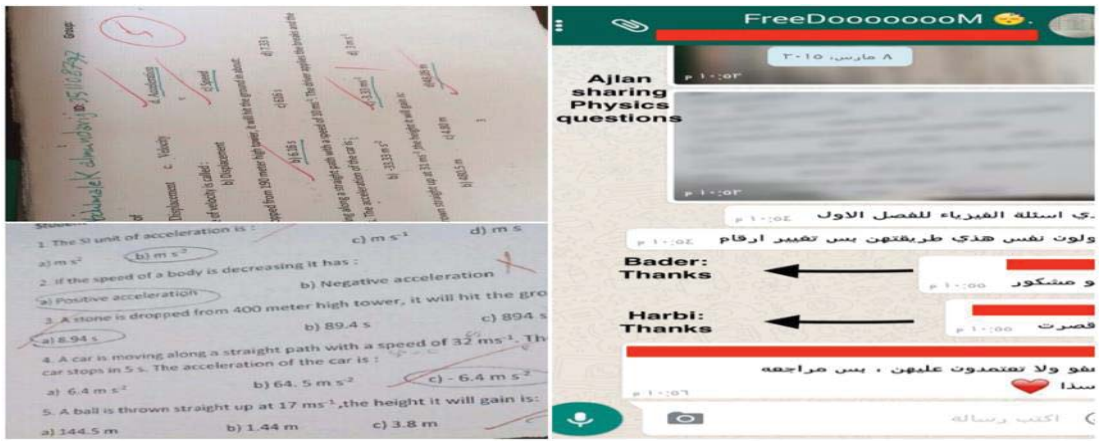
Figure 6.3: Student activity on WhatsApp in week 5




### *6.2.2 Using WhatsApp*

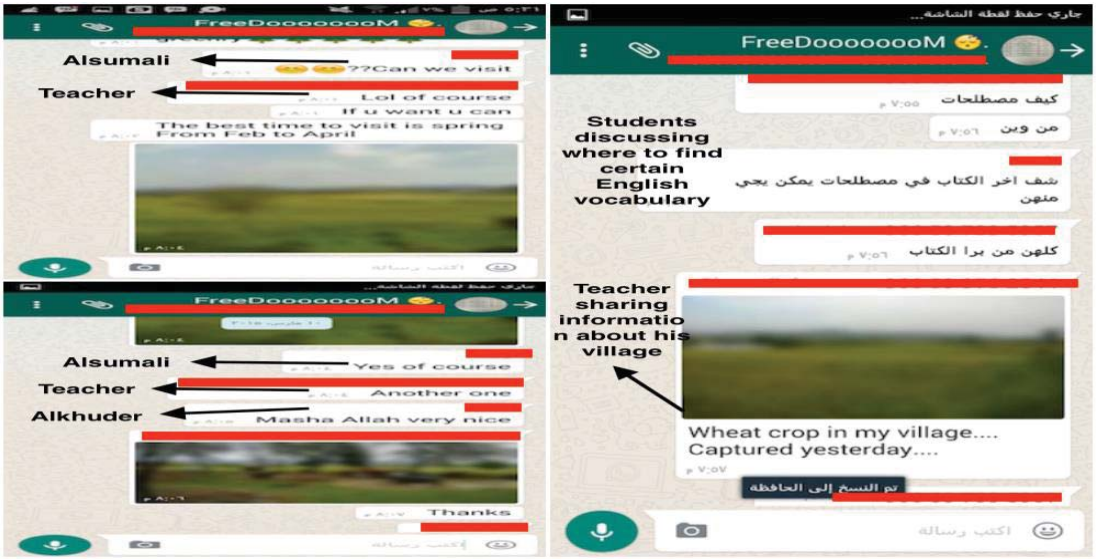
From the sixth week on, the students also used WhatsApp to discuss other subjects, including computer science, information technology, and physics (see Figure 6.4 for a discussion on a physics topic and Section 6.7.3 for further analysis). Their WhatsApp activities included posting photos they had taken of illustrations teachers had displayed during their lectures, helping others with homework, and sharing previous semesters' exams and quiz questions. Figure 6.4 displays participants sharing a physics quiz and exam questions from the previous semester (Researcher log, 8 March 2015).

Figure 6.4: Ajlan's sharing physics questions



Additionally, during the sixth week, the teacher began chatting with the students in English much more often than previously and about a wide variety of topics, pushing the students to be more confident to speak English. His sharing photos of his hometown in India prompted the students to become even more engaged and to begin writing to him in English about his hometown, as shown in Figure 6.5. Even the relatively shyer students took this opportunity to speak in English.

Figure 6.5: Teacher sharing information about his hometown in India




Moreover, in the sixth week, the students were observed to be much more active on WhatsApp than on Twitter, and students sometimes made up to 500 WhatsApp posts during a single day; the majority of these posts (about 70 to 80%) were written in Arabic for entertainment purposes. During this increased level of activity, which usually coincided with an upcoming quiz or homework assignment, the teacher became extremely engaged with the students, as reported in the researcher's log:

> WhatsApp is overtaking Twitter, the students and teacher are much more active on WhatsApp than Twitter. Messages on WhatsApp can reach up to 500 messages on some days when the participants have a certain activity such as when they are doing homework or have a quiz. (Researcher log, 10 March 2015)

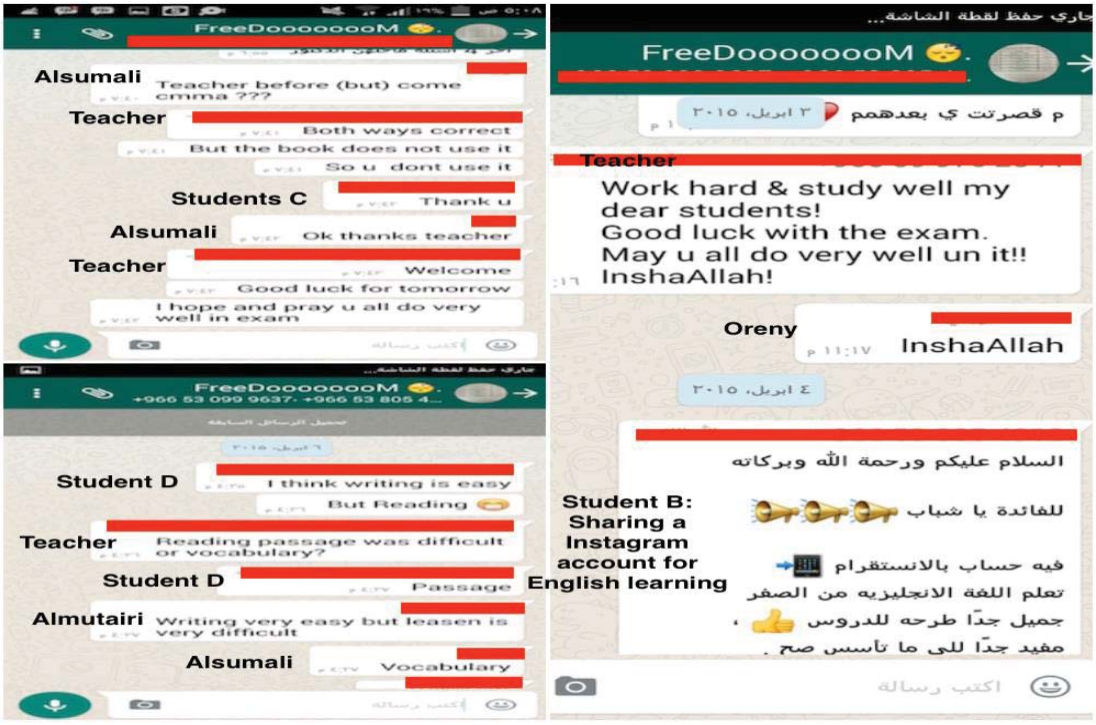
As shown by the increased level of activity on WhatsApp and the declining use of Twitter, participant attitudes toward WhatsApp were becoming increasingly positive: the students chatted, had fun, and questioned the teacher about anything they did not understand (see the example shown in Figure 6.6). Moreover, the teacher began engaging in different kinds of activities via WhatsApp, such as competitions for the students involving English or mathematics puzzles that encouraged them to speak English. All the affordances that WhatsApp provided the students with and this platform's less formal structure caused the students to prefer it over Twitter and to now ask the teacher the same types of questions they had been asking on Twitter on WhatsApp instead.

Figure 6.6: Examples of students' questions and casual engagement with the teacher


In the seventh and eighth weeks, the students continued their activities on WhatsApp, having fun but also helping each other with homework and practicing their English. In the eighth week, they had a one-week break before the mid-term exams scheduled during the ninth week. During the break, the students increased their activities on WhatsApp, sometimes generating up to 1000 posts per day. Most of these posts were for entertainment purposes or discussion of other subjects (about 70 to 80% of the posts), but some also helped one another prepare for exams or involved asking the teacher questions

both publicly and privately (see Figure 6.7). When asked what kind of situations motivated the students to become highly active on WhatsApp, Ajlan (0205) responded, "When we have exams or homework, we cooperate to help each other."

Figure 6.7: The teacher encouraging students and helping them prepare for an exam




The students took their Reading and Writing midterm exams on Monday of the ninth week (they had another exam in a different subject on Sunday) but attended their *Reading and Writing* class on the other days of the week as usual. During this week, the students' activity on Twitter stopped as they switched completely to WhatsApp, which they continued to actively use during the 10th and 11th weeks also. After that, there was only one more week of data gathering, which was due to finish at the end of the 12th week.

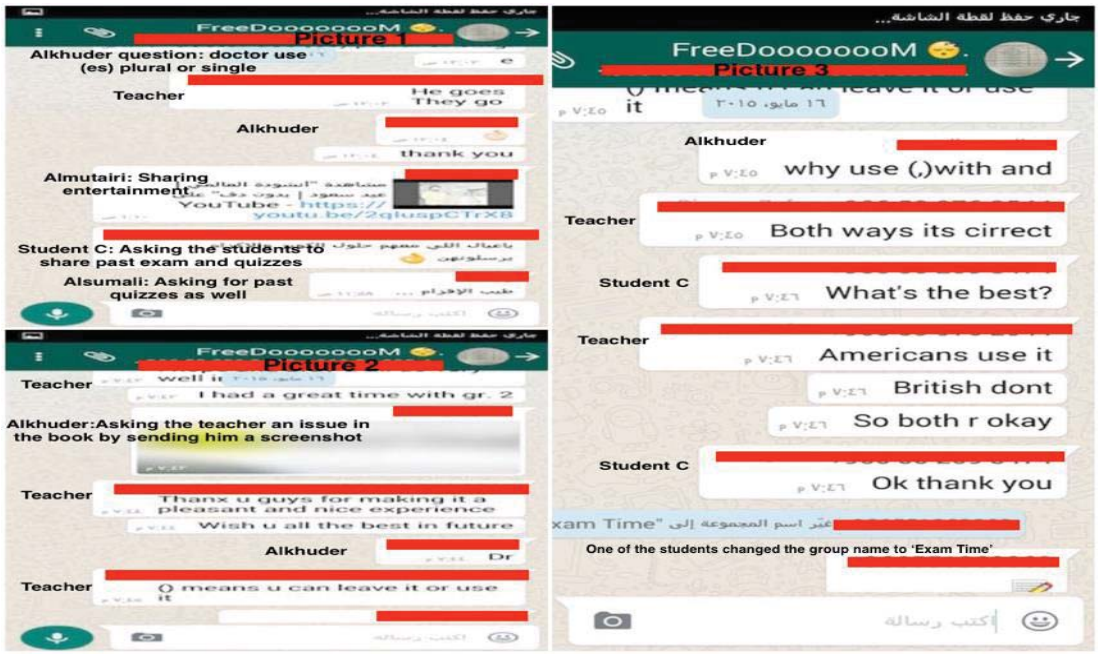
### *6.2.3 Continued use of WhatsApp until the end of the course*

By the end of the 12th week, the data gathering process at QU was finished, and I notified the students and the teacher both in class and also within the WhatsApp group of this and thanked them for their cooperation throughout the study. In response, some of the students sent me private posts on WhatsApp to thank me for providing this opportunity for using

WhatsApp for English learning. However, I did not leave the group after the study concluded, as the students and teacher continued using WhatsApp.

In fact, they were active on WhatsApp to the end of the semester in the 17th week, using it frequently throughout this time to help each other with homework, prepare for exams, and practice English with the teacher whenever possible, as shown in the examples in Figure 6.8 (from the 16th of May 2015, one week before the exams). Picture 2 in the figure is a photo posted by Alkhuder of a page in the curriculum in which he was asking a question involving grammar which he could not express himself to explain to the teacher. The teacher understood what he was asking and explained the grammar point to him. On this day, one of the students also changed the group name to 'Exam Time' so as to influence his peers to begin studying for the exams, as shown in picture 3, thus illustrating how WhatsApp had become embedded in their study, in general, and in their study of English specifically.

Figure 6.8: Students posing questions to the teacher on 16th of May 2015




Finally, on the last day of class and the day of the final exam (29th of May), the students changed the WhatsApp group's name to 'FreeDooooooooM', including a resting emoji. This action indicated the intensity of the PYP and also the playfulness and humor that

WhatsApp had allowed them to develop within it. However, after exams, the students felt that they were free from the PYP pressure and could finally enjoy themselves. After the exam, the teacher thanked the students and left the WhatsApp group following the last day of the final exam period. In excusing himself, he mentioned that they would have a different teacher for the next term (see Figure 6.9 for examples and excerpt 6.1 from WhatsApp). The students thanked the teacher too, even though some were still obviously struggling to communicate their gratitude clearly to the teacher, as shown in Excerpt 6.1. However, the teacher was nonetheless able to understand their feelings toward him and responded accordingly. The students then thanked one another for their help and cooperation in the group and then left the group one by one, as also shown in Figure 6.9.

Excerpt 6.1:

Teacher: Asalamualaikum

Teacher: How r u dear students

Teacher: I hope and pray that u all pass the exam with good grades

Teacher: I had a wonderful time with u all

Student D: Pretty Good

Teacher: I really enjoyed teaching u

Teacher: Thanks for the pleasant memories

Teacher: Wish u all the best my dear students

Student D: Thank you

Teacher: U r welcome Student D

Teacher: I will leave this group now bcoz the session is finished now and u will have new teachers in the next term

Teacher: Good luck

Teacher: And goodbye!!!!🖐🖐🖐💔

Student D: Thank you

Ruaished: Thanks always for your

Ruaished: The teacher near to be a profit

Student E: thanx for evry think doctor

Teacher: Welcome Student E & Ruaished

Alsumali: teacher jztt its good term nd gud teacher so i dont say with u bye my teacha i will never with u my teacha

Teacher: U can come to my office any time Alsumali if u have any problem

Alsumali: Ok thanks teacher

Bader: Teacher

Bader: First :thank you all time

Bader: Finish:thank you

Teacher: Welcome

Student C: Thank you teacher, we learn a lot of grammars and vocabulary with you

Figure 6.9: Students and teacher leaving the WhatsApp group on 29th of May

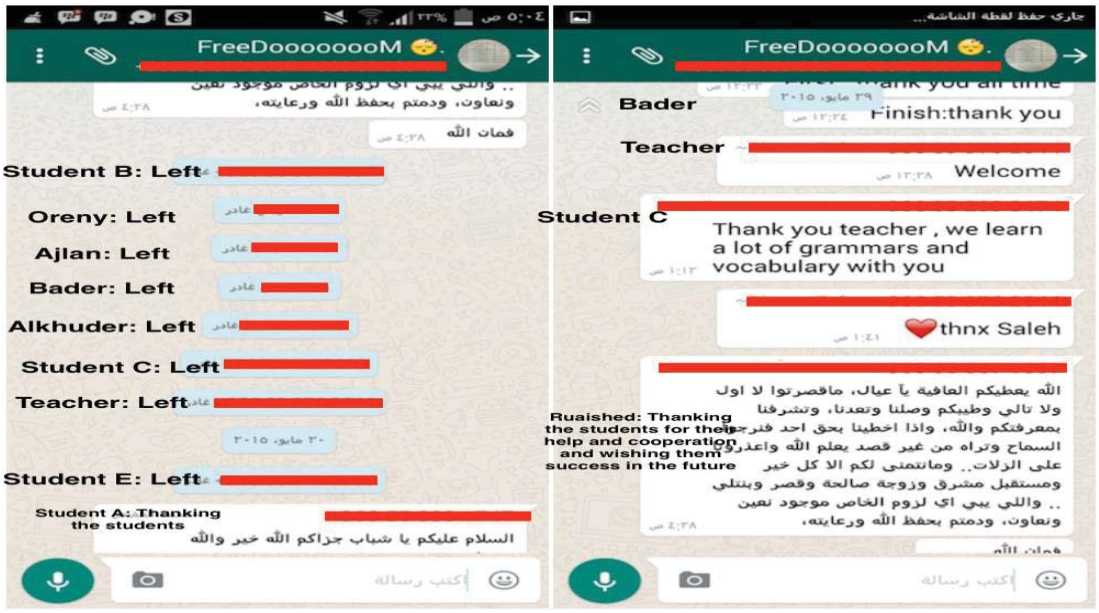
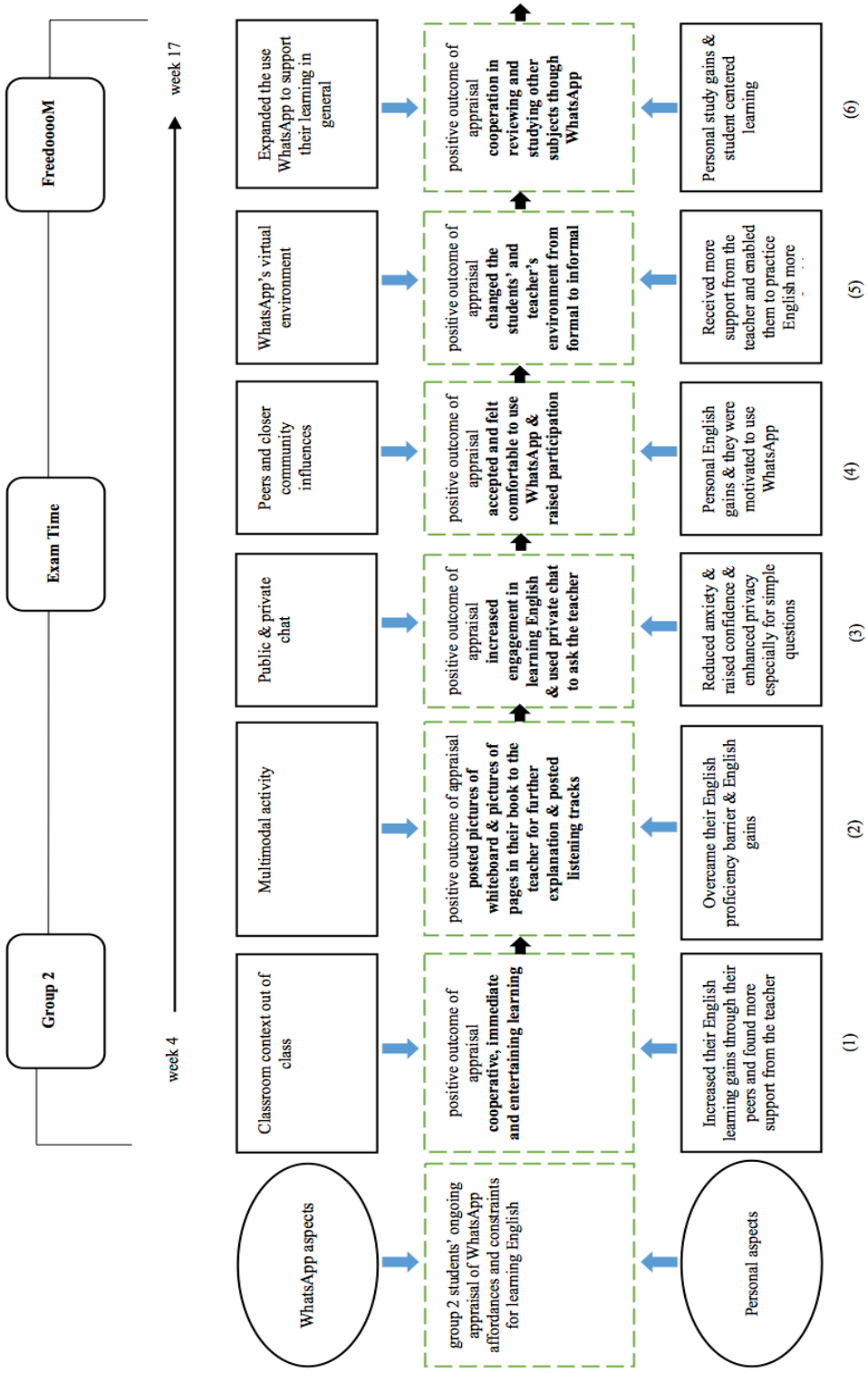



Figure 6.10 summarizes the trajectory of the student appraisals of WhatsApp's affordances and constraints observed during the trajectory of WhatsApp use over 13 weeks. These appraisals were captured from observations, research log, the post-project individual and focus group interviews held in the 11th week, and the post-project questionnaire responses by the end of the 12th week. As with Twitter, the trajectory model drew on Beltman and Volet (2007). The first row in the model comprises the aspects that

emerged from implementing WhatsApp as an affordance or a constraint. The second row indicates whether the students view the aspect as a positive or a negative and the reason for this view. The last row shows the personal advantages or disadvantages with respect to students' English learning. The following sections examine in depth the data found in the WhatsApp implementation and sustainability process.

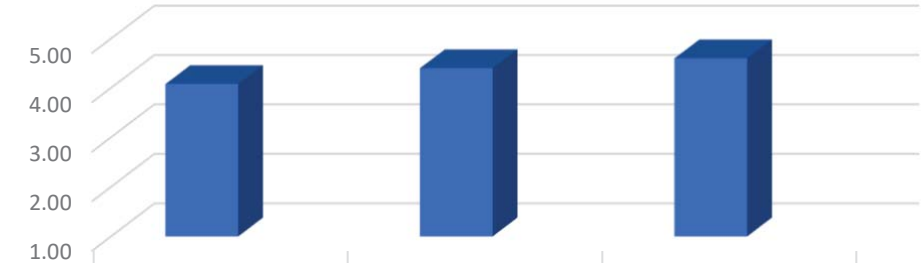
Figure 6.10: The WhatsApp innovation trajectory



## 6.3 A Moveable Classroom Context

In this section, I present the study findings related to the student appraisals of WhatsApp's virtual environment, a platform used predominantly outside of the classroom. The most beneficial affordance of WhatsApp to the students appeared to be as a classroom environment outside of the traditional classroom. In other words, it represented a virtual connection of the students to the classroom environment and, moreover, was available to them at any time and from anywhere in their comfort zone outside of class. The students' levels of satisfaction with respect to WhatsApp's affordances were demonstrated in the post-project questionnaire, where they reported a higher level of satisfaction with all aspects of WhatsApp. Constraints associated with FTF communication or Twitter were no longer present in WhatsApp. The most notable item in the questionnaire was item 20, wherein almost all the students agreed that WhatsApp was beneficial for their English learning with a S.D. of only .57, indicating strong agreement on this point (see Figure 6.11).

Figure 6.11: WhatsApp's post project questionnaire




| | 15- I learned a lot from my classmates' discussion on WhatsApp. | 16- Discussion in the WhatsApp group helped me understand more about the subject. | 20- The WhatsApp project was beneficial to me |
|---|---|---|---|
| Mean | 4.08 | 4.40 | 4.60 |
| S.D | 0.74 | 0.69 | 0.57 |

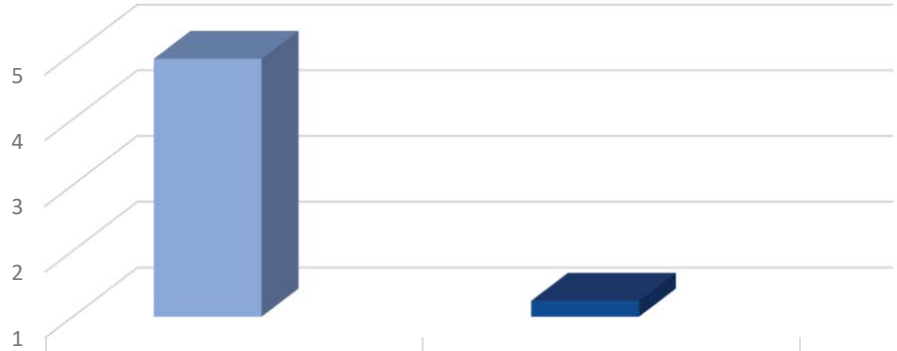
In addition, student responses to items 16 and 15, in which the students indicated that they benefited from their own questions (item 16) more than from their peers' questions (item 15) on WhatsApp, were the opposite to their Twitter experiences (in which the students stated that they preferred their peers' questions more than their own). In fact,

only one student disagreed with this item with three students reporting a neutral opinion. These respondents might have thought that some of the students' activities on WhatsApp were not useful to their English learning since some were clearly for entertainment purposes. Some students would have preferred making the group solely for practicing English, as reported in the interviews. In the following sections, this chapter analyzes in depth the affordances of WhatsApp, beginning with these associated with its immediacy and moving on to those associated with learning and entertainment.

### *6.3.1 Immediacy: Time and place*

WhatsApp's immediacy seems to be linked to its ease of use. As shown in Figure 6.12, the students expressed very high agreement with item 18 in relation to WhatsApp's ease of use. In fact, the responses for this item on the questionnaire were very high; all the students reported a positive response to this item. Indeed, not only was WhatsApp easy to use, but its immediacy, as reported in the interviews, and the increased ease in accessing the teacher saved them time and removed the time constraint inherent in the classroom.

Figure 6.12: Ease of use and time consumption




| | 18- It is easy to work on WhatsApp. | 19- The WhatsApp project took up too much time. |
|---|---|---|
| Mean | 4.92 | 1.24 |
| S.D | 0.27 | 0.43 |

In the interviews, the students appraised WhatsApp's immediacy feature in allowing them to be active in English learning regardless of time and place, as Ruaished's (0208)

comment illustrates: "[I]t is available anywhere and there is no time limitation." This feature might have been used as an affordance by the students to increase their activity and especially since it was faster for them to access WhatsApp than any other VSN, thus providing them with greater access to the teacher, as demonstrated in Harbi's comment:

> Because we use WhatsApp now instead of Twitter, it is easier and I have the teacher on WhatsApp to ask him questions immediately whenever I want. (Harbi, 0201)

Harbi was comparing WhatsApp with Twitter, stating that accessing the teacher was easier on WhatsApp and that he replaced Twitter with WhatsApp because it was easier for him to use.

Bader expanded on Harbi's comment, commenting that WhatsApp also requires less effort than Twitter:

> I prefer WhatsApp, because Twitter takes time to log in and ask, so one feels lazy. However, we always use WhatsApp. (Bader, 0202)

In WhatsApp, they did not have to spend as much effort since it is private-based which means that users will always be signed in and they do not have to write the hashtag; they also do not have to switch to an anonymous account since they could only use one account that is their real account. In addition, they were "always us[ing] WhatsApp" (Bader, 0202) in their daily lives and so were comfortable and expert in using it to contact the teacher instantly. Therefore, the less effort required and the ease of use of the innovation could have positively increased its adoption rate and increased the level of activity of the students in learning the English language.

A new element that enhanced WhatsApp's immediacy was inviting the teacher to join the group. In the interviews, the students revealed that WhatsApp saved them time because the teacher was with them in the group. The sense of social presence that the teacher carefully constructed with his chats within the group brought him into a communal relationship with the students, which possibly made him seem affectively as well as technically more available to them. Ajlan commented, stating that WhatsApp afforded

him with a mobile classroom environment allowing him to access the teacher instantly at any time:

> I do not have to go to the university one week before the exams just to ask him a simple question, I just ask him on WhatsApp. (Ajlan, 0205)

Therefore, the WhatsApp's immediacy might have enabled the students to raise their agency with English learning, allowing them to be continuously connected to their classroom, no matter where they were, but especially in places where they felt most comfortable.

### *6.3.2 "All students are gathered on WhatsApp"*

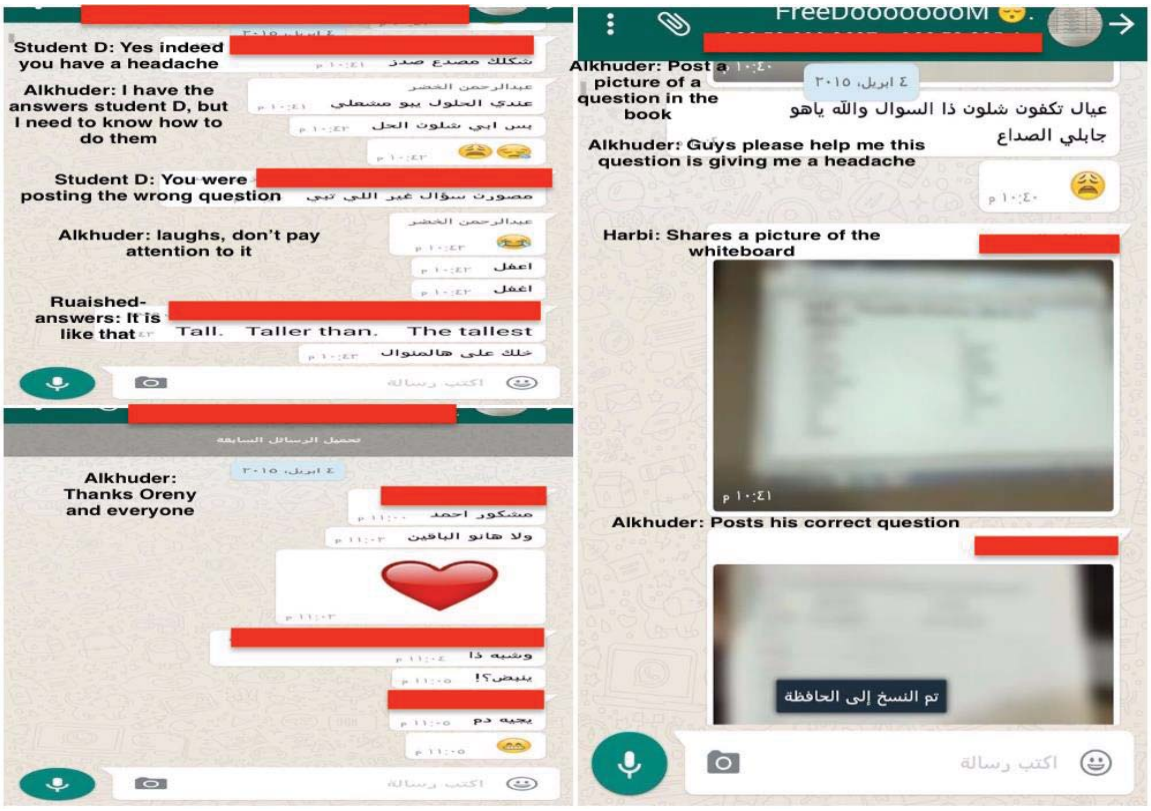
In addition to its immediacy, the students also valued WhatsApp which allowed them to virtually connect with their peers and enabled all to be present in a virtual classroom. This afforded a way to facilitate cooperation among the students, enabling them to answer their peers' questions. This feature meant that answering questions was not limited to the teacher but included the students themselves, thereby increasing their comfort in asking questions. They also recognized that they would receive not just one but multiple responses, increasing the chance they would receive a correct answer, as Oreny's comment indicates; among other values he notes:

> Well, sometimes it is better to use WhatsApp instead of getting charged for mobile calls. Also, all students are gathered on WhatsApp, I mean, on a mobile call you can only talk to one person and he might not have an answer for your question. However, on WhatsApp, when I ask a question, I may get answers from twenty students, and that is a great advantage of WhatsApp. (Oreny, 0209)

From Oreny's point of view, the advantage of WhatsApp is the ability of the students and teacher to gather in one place which he saw as an affordance that increased his engagement with English learning; that is, a student could pose a question and multiple people would respond to it free of charge, an important consideration for the students.

Hence, even if the teacher did not respond to a question immediately, other students would often step in to respond, and this would still be under the teacher's supervision (see Figure 6.13). According to Venkatesh and Morris (2003) and Rogers (2003) the higher the advantage of the innovation to the students the more the students will be active and adopt the innovation. Thus, the advantage was not just for Oreny to comfortably engage with English learning but also for his peers to engage and answer the questions which would positively influence their English learning.

Figure 6.13: Cooperation between students




Mubarak also appraised WhatsApp in affording him peer-to-peer support. Mubarak reported that, even if he missed a point while studying English, the other students on WhatsApp would bring him up to speed, especially when studying for exams:

> Of course, some students remind you of questions you would never think of, and they are asked in the exam. You may study

> and miss some points, but other students do not miss them. (Mubarak, 0204)

In addition, Amry extended this idea by indicating that the cooperation between the students in WhatsApp helped him gain performance benefits, not just by answering his questions but also because his peers' collaborative English learning extended his English achievements, through the sharing of multimedia relating to English:

> Amry: Sometimes we use it for doing group homework, revising for exams, solving the problems that we could not solve in class or sharing some photos of reading paragraphs.
> Interviewer: So, was this helpful for you?
> Amry: So much, it helped me in improving my English skills and my grades. (0203)

Cooperation between the students did not stop at this—the students also reported that another great affordance of WhatsApp is that it was not only helpful to the students in the class but it is also helpful to those who were absent on that day. Amry explained this when he was asked about the benefits of WhatsApp:

> Honestly, lots of things. You can still know which topics were covered in the lecture when you were absent. (Amry, 0203)

WhatsApp, in providing the students with a virtual meeting place, created an alternative source of information for them if they failed to attend class. Their peers could share what they had learned that day, possibly through photos of the whiteboard as shown in Figure 6.2 earlier, or through explanations. This feature of WhatsApp could be viewed as an affordance that enhanced the agency of the students to cooperate in creating a virtual context in which all the students and the teacher could gather while in their own homes or wherever they felt comfortable. Hence, it opened up an environment in that they could participate more often and more comfortably than FTF or even than on Twitter.

### *6.3.3 Lecture time*

Missing parts of the class could arise from causes other than being absent from the entire lecture. During their interviews, the students revealed that class lectures seemed long, causing their attention to wander. However, WhatsApp enabled them to overcome this constraint by giving them the chance to revisit what they may have missed during the lecture. For example, Alkhuder reported that WhatsApp helped students who could not maintain focus during long lectures, which could run to almost two hours. Alkhuder stated that collaborating in a virtual environment helped them catch up with what they had missed in class:

> Of course, because lectures here are one hour and forty minutes, it is impossible to concentrate the whole time. Sometimes you forget something or do not understand another thing, so whenever you study at home you will be able to contact the teacher. The best advantage is that the teacher will indeed answer you. (Alkhuder, 0206)

Amry pointed out that this was a new experience for freshmen students:

> Indeed, because in secondary school we did not study continuously like this, the longest lecture was just 45 minutes. However, in preparatory year the lecture is two hours, so after one hour we lose our concentration. So, I think that WhatsApp has helped us to share notes, topics covered and receive the answers to our questions. (Amry, 0203)

As freshmen, these students were adjusting to the university environment, and especially the length of the lectures, since they were accustomed to the 45-minute lectures given in secondary school. Thus, at times, the students would lose their focus on the teacher because they were not used to this element of their new environment. Before WhatsApp, this constrained their present and future activity and progress in English learning since the points they missed would accumulate through time, hence affecting their activity with increasing magnitude. However, WhatsApp enabled their peers' collective activities

within the group and the teacher's support to fill the gap for Alkhuder and Amry, especially through private chat (see Section 6.5.2).

Thus, the affordances of WhatsApp opened up further levels of learning possibilities for the students, allowing them many more opportunities to exercise their agency, whether by initiating contact with the teacher or with their peers, or revisiting earlier messages.

### *6.3.4 Learning and entertaining*

In contrast to the Twitter platform, the students made no comments about constraints that limited their agency in using WhatsApp for English learning. However, some students did state that they were uncomfortable with the way other students used WhatsApp to send entertainment messages. For example, Alsumali (0210) complained about the messages students sent that were unrelated to their studies, especially during exams:

> Alsumali: Yes, there are some useless discussions in the group when we have exams.
>
> Interviewer: Why do you think there are useless talks when you have exams?
>
> Alsumali: I think when students study for exams, they get bored and escape from studying by joking and starting useless discussions, and all other students interact. (0210)

Indeed, as the students observed, some students would send many entertainment-focused messages on WhatsApp during the exams period. Very early on, WhatsApp had been established as a zone of good humor and playfulness, and this was probably exaggerated and exacerbated in the tenseness of exam time due to the students' pressure. However, these disadvantages for Alsumali and Amry were considered advantages for many other students who reported that they both learned a lot and also enjoyed the entertainment aspect of WhatsApp. Abdullah expressed this idea:

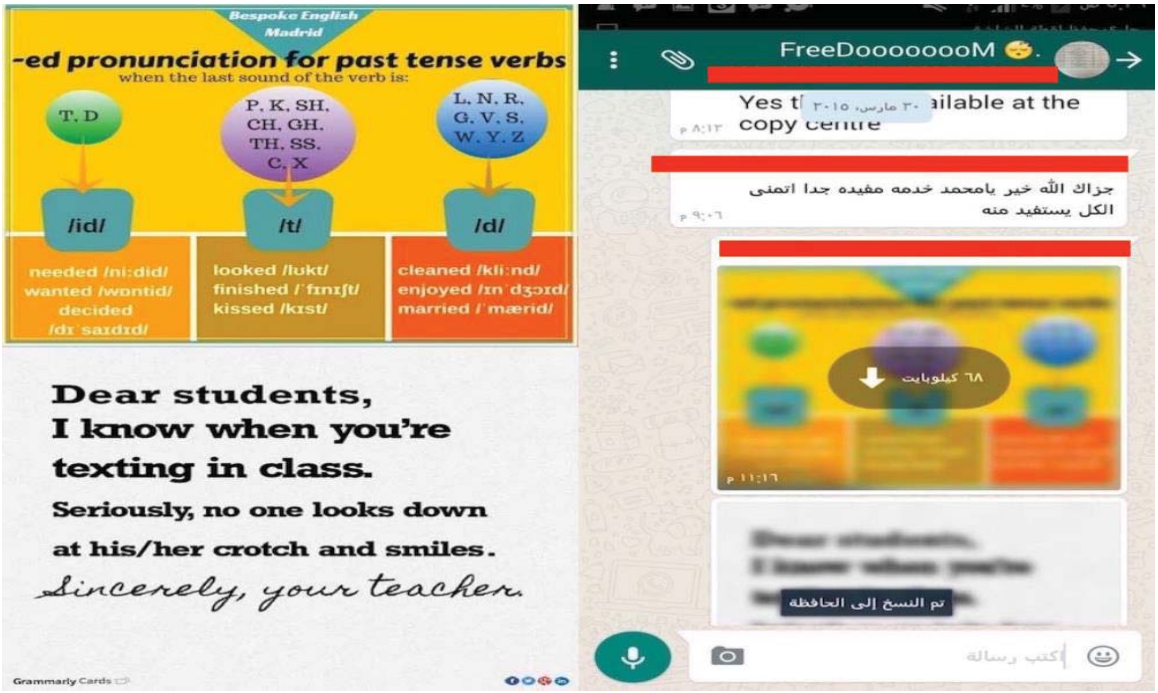
> On WhatsApp, the teacher sends us photos and useful things which I read and benefit from, especially because I failed in English last term and now I'm working hard to improve my skills. At the beginning, I used WhatsApp just for entertainment, but now I use it for learning and for entertainment. (Abdullah, 0207)

Thus, what some considered an advantage of WhatsApp others considered a disadvantage. However, even those students who did not like the entertainment aspect of some WhatsApp discussions did not limit their activity in English learning, revealing that they experienced little actual negative effects from some students using the platform for entertainment. In fact, those two students (Alsumali and Amry) were among the top five students in activity on WhatsApp. In addition, the entertainment aspect was found to engage the students to be more active on their English learning (van Lier, 2004). This is evident from their intense activity during normal days of up to 500 messages on normal days while it doubled during exams times to 1000 messages about 20 to 30% of these messages were related to their English language. Hence, there seems to be advantage of learning while entertaining through VSN.

## 6.4 Multimodal Activity

The fact that it allows multimodal activity is one WhatsApp feature that was used as an affordance that attracted the students to engage and that allowed them to help their peers with learning English. The students employed WhatsApp to send photos of objects having some relation to learning English, including photos of the whiteboard taken during the lecture, images illustrating some aspect of English grammar or vocabulary, and even photos of pages of the syllabus, to the teacher or to other students to help provide an explanation, as shown earlier in Figure 6.13, and below in Figure 6.14. In addition to photos, the students and teacher sent audio tracks of their own voices and videos (see Section 6.4.2).

Figure 6.14: The teacher sharing photos




### *6.4.1 Posting photos to the WhatsApp group*

I observed that the teacher and the students tended to share photos on various subjects related to the English language that were useful for the students (see Section 6.2). For example, when I asked Alkhuder about this, he said he valued the WhatsApp's image-sharing feature; he thought the photos the students and teacher sent were useful for improving his English skills. The following comment clearly reflects this view:

> It is excellent. WhatsApp is very useful. Students and teachers send English photos that you can read or translate. Also, WhatsApp is useful for improving your grammar. (Alkhuder, 0206)

Interestingly, photos of the whiteboard appeared multiple times on the WhatsApp group. Students would often share photos of the whiteboard itself during the lecture, as shown in Figure 6.2. When Amry was asked about this, he responded as follows:

Interviewer: I noticed that sometimes you take photos of the board and send them to the group.
Amry: Yes, this is faster than writing.
Interviewer: Is this only for absent students?
Amry: No, not only for absent students, even some students who attend are unable to write all that the teacher writes on the board.
Interviewer: Then?
Amry: Then, when we are at home, everyone writes from the photos of the board. (0203)

As is evident from the preceding discussion, the students increasingly employed the multimodal features of WhatsApp as an affordance to extend their agency. At the beginning of the WhatsApp implementation process, the platform was viewed only as an alternative virtual context that the students could use to connect with their teacher and classmates. However, they began to make use of WhatsApp's multimodal activity to overcome constraints that were limiting their learning of English, specifically their writing skill. Since their English proficiency was low, they extended the use of WhatsApp as a tool so as to extend the time available to them: taking photos of the whiteboard allowed them to quickly overcome their English writing proficiency constraint that was slowing them down from focusing on the teacher in the class. Specifically, when the students were at home, they wrote from the photo of the whiteboard. That is, students in the Saudi context typically copy all that is written on the whiteboard to review later (a point that is explored further in the discussion chapter). However, since the students had low English proficiency, they wrote slowly and were unable to capture everything displayed on the whiteboard before the teacher ran out of space and erased some so as to be able to continue. Therefore, to overcome the constraint associated with their slow writing, they photographed the whiteboard with their smartphones and posted these photos to the WhatsApp group for everyone else to write from.

This multimodal activity occurred not only within the public WhatsApp group with the students but also in private communications with the teacher, as shown in Alkhuder's comment:

Interviewer: Have you asked the teacher questions on WhatsApp in a private conversation?
Alkhudar: Yes, and he answered.
Interviewer: Does he take time before he answers?
Alkhudar: No, not at all, he is so understanding and tolerant with us. I even asked him about adding “es” and “ies” to plural nouns, so he searched the internet, took screenshots and sent them to me.
Interviewer: Without explanation?
Alkhudar: First, he explained it, but I told him that I did not understand, so he searched and sent me screenshots.
Interviewer: So, was his explanation helpful for you?
Alkhudar: Honestly, it helped me a lot. (0206)

The teacher employed the multimodal feature of WhatsApp as an alternative method of explanation: it involved sending him a screenshot showing a simpler illustration more suitable to the student’s level of understanding, thus not only extending Alkhuder’s agency in allowing him to initiate interaction with the teacher but also allowing the teacher to be active in helping the students according to their level of English proficiency.

### *6.4.2 Posting videos and audio tracks*

The students employed other multimodal media, in particular videos and recordings of their own voices not just in Arabic but also in English, to explain issues to the students and to practice their English language. I frequently observed some students sending audio recordings, as shown in Figure 6.15, and some sent recordings of themselves speaking more often than others did, especially in English. One such student was Oreny, who stated that WhatsApp helped him overcome his anxiety (see Section 6.5.1 for further findings relating to anxiety) by enabling him to send recordings of his own voice. In contrast to face-to-face communication, however, when Oreny recorded himself making a mistake and posted the recording on WhatsApp, he did not mind being corrected:

Interviewer: Do you think that you are one of those students who feel shy?

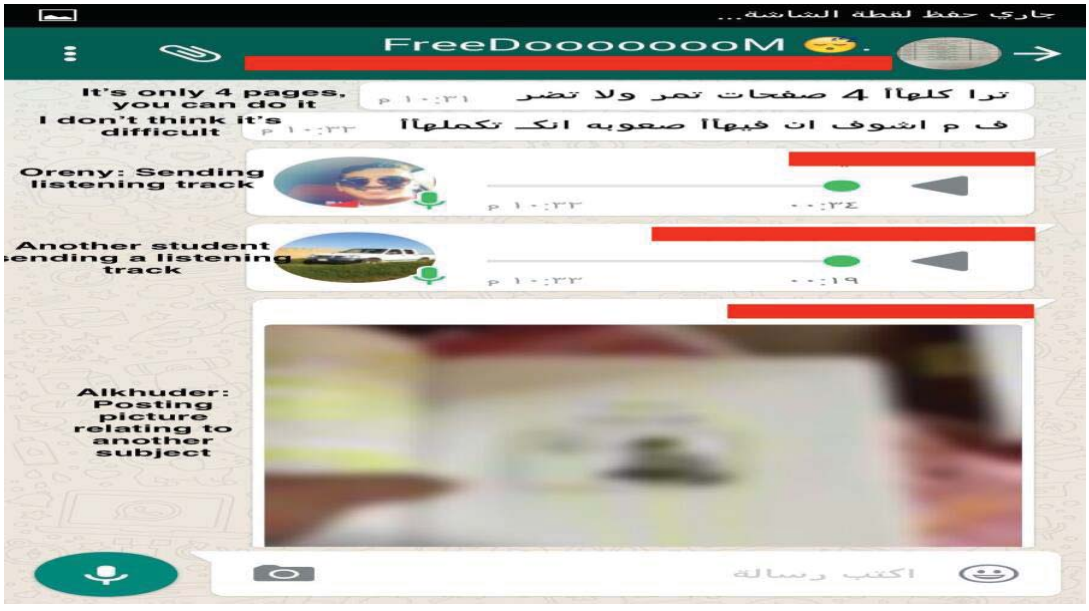
Oreny: There are some students who feel shy. Maybe, they didn't practice English, such as listening, so their skills are so weak.

Interviewer: So, do you think that WhatsApp helps to get over shyness?

Oreny: Yes, it does. For example, I always send English voice messages because I trust myself. I also may have some spelling mistakes that are corrected by other students. (0209)

Oreny's confidence was thus raised outside of class, because WhatsApp provided an environment where he could demonstrate his confidence and also his English abilities to the teacher and his fellow students. He wished to be viewed by the students and teacher as a diligent student who was extremely knowledgeable with respect to the English language, as he indicated in other comments, especially those data in Section 6.6.2. Thus, WhatsApp's multimodal activity provided him with an environment that allowed him to achieve his goals.

Figure 6.15: Posting audio recordings



On the other hand, although Alsumali (0210) did not send audio tracks of himself, he found those of others to be useful in his learning of English:

> Some students in the group posted useful listening tracks that helped us improve our listening and grammar. (Alsumali, 0210)

Therefore, even if some students did not actually participate in sending voice messages, they could still perceive advantages from their peers' activity, and it is possible that this could increase their confidence to speak over time. Overall, the students' use of WhatsApp's multimodal activity provided them with alternative methods to simplify and expand their learning processes and to facilitate their cooperation with each other, not just with respect to learning English but other subjects as well.

## 6.5 Emotional Implications

Within the qualitative data, the students did not report any anxiety that constrained their agency in WhatsApp, possibly due to the increased confidence associated with their use of WhatsApp over Twitter or FTF, as is evident from the post-project questionnaire responses shown in Figure 6.16. Here, the students reported a high level of confidence when sharing their knowledge of English through WhatsApp, a sentiment with which all but one of the students expressed agreement. This exception expressed a neutral opinion. Their response to item 13 is markedly different from their responses to item 2 asking about their confidence on Twitter.

Figure 6.16: The students' confidence level on WhatsApp


In addition, the students' increased confidence levels, due to using WhatsApp, seemed to positively affect their agency. Those students prone to anxiety or shyness seemed less anxious on WhatsApp than on Twitter, as Alsumali (0210) explained. The reason he gave for the students' activity on WhatsApp was that they felt more comfortable in chatting there than when facing the teacher in person in the class, particularly since they really wanted to participate so as to improve their English language proficiency:

> I think it is because everyone of us wants to speak English, so everyone looks for someone else to speak English with. Maybe some of them do not have friends to speak English with, so they speak with the teacher in the WhatsApp group and even because when someone speaks English face to face, he may get pressured and confused, so writing is much easier. (Alsumali, 0210)

Alsumali's comment might demonstrate that the environment in WhatsApp is different from FTF or even Twitter, i.e., there were no opportunities for Alsumali and the other students to practice English in FTF or Twitter due to the contextual constraints in speaking English FTF: anxiety and the technological features of Twitter for example. In

addition, the use of WhatsApp outside the classroom could have fostered their comfort with the tool since they will not be facing the teacher nor the students (Aburezeq & Ishtaiwa, 2013; binti Mistar & Embi, 2016). Thus, WhatsApp appear to have counteracted the anxiety constraint as Alsumali felt comfortable practicing his English through WhatsApp with the other students and even the teacher.

### *6.5.1 "Feelings disappear"*

As a result of WhatsApp's raising the students' confidence levels, some students reported that their negative feelings decreased when using WhatsApp as was the case with Alsumali described above. Other students indicated in the interviews that anxiety might have been reduced in WhatsApp, as they were able to speak to the teacher without barriers that might negatively affect their activity. An interesting comment by Ruaished (0208) expressed his feelings toward the platform when he was questioned about its advantages:

> There is no barrier between a student and the teacher. (Ruaished, 0208)

The meaning of his comment could be interpreted through another comment from the interviews: "Because I will not be talking FTF, so these feelings disappear" (Ruaished, 0208). In other words, Ruaished revealed that, using WhatsApp might have helped eliminate the causes of his anxiety, because he is not speaking English FTF which might otherwise act as a constraint on his ability to act (Aljumah, 2012; Hamouda, 2012). Hence, speaking through a mediating tool outside the classroom could allow him to further increase his activity (Aljumah, 2012). This is clearly shown in his comment in that emotional barriers disappear.

In addition, Alkhuder (0206) advanced another interpretation of the "barrier" imposed on him by anxiety. Explaining the reasons as to why there was no longer a barrier between the teacher and the students in WhatsApp, he stated:

> Alkhudar: I think WhatsApp has replaced Twitter, especially after the teacher joined our group.

> Interviewer: How could the teacher make this difference?
> Alkhudar: Sometimes, the teacher sends us photos and videos, he speaks with us and tells us about his city and his culture. He became our friend with all the respect and without fears or pressure. (0206)

Since the teacher chose to participate with the students in ways that had not been typical of classroom interactions but which were readily afforded by WhatsApp, such as by sharing photos, videos and also talking about himself and his culture, as in the example shown in Figure 6.5 earlier, the teacher became closer to the students. He became their friend while keeping his respect as their teacher at the same time. Thus, their anxiety about making mistakes in front of him was reduced, by breaking the formality of their relationships, thereby making them more comfortable in participating (see Section 6.7.1 for further findings on informal relationships between the teacher and the students).

In addition, the students' previous familiarity with the tool, especially to practice English, facilitated their comfort in using it during the class. In fact, some of the students had endeavored to use WhatsApp to practice English with their friends or with other groups of English learners prior to the class, as was the case with Ajlan:

> Before using WhatsApp in class, I had already created a group with some students. We were speaking English only and there was no problem if anyone of us made a spelling or a grammar mistake, we used to correct each other's mistakes. (Ajlan, 0205)

Ajlan's comment might demonstrate that some of the students were well aware of WhatsApp's benefits even before the study. In addition, they were aware that this virtual context creates less anxiety surrounding mistakes in English, which they did not mind having corrected within the platform.

### *6.5.2 Private chat*

WhatsApp's private chat also acted as an affordance that facilitated the students' engagement with English learning and further reduced their anxiety from making mistakes in front of other students. It gave them more privacy in asking questions, even ones they considered 'easy,' and thus were able to overcome the constraints that limited their activity on Twitter and FTF in asking simple questions. One of Twitter's biggest constraints was fear of making mistakes in public or even asking simple questions they believed most of the students would already know the answers to. However, WhatsApp might have eliminated these constraints because of its private chat. Hence, the students did not feel they had to hide their identities by logging into their anonymous accounts to be able to ask the teacher questions as in Twitter, thereby increasing the effort required for them to use that platform. In WhatsApp, they could straightforwardly ask the teacher questions through private chat. Oreny described the advantage of this affordance in the following comment:

> Actually, sometimes I have some questions that I do not like to ask in the group. So, I asked the teacher during the exams period, I was studying and I did not understand something, I asked the teacher to explain it in a voice message, he agreed to send it in a minute, and he did. Honestly, it was so beneficial. (Oreny, 0209)

Oreny preferred to ask the teacher some questions via private messages because he feared being looked down upon by the other students if he had asked the teacher a simple question on the public WhatsApp chat. On Twitter, Oreny had to ask the teacher simple questions using an anonymous account to hide his identity from the other students (as presented in Chapter Five). However, with WhatsApp he did not have to use an anonymous account to hide his identity as he could ask him from his real WhatsApp account, thus reducing the effort involved in doing so. He could ask the teacher difficult questions in the public WhatsApp group visible to all the students, and he could ask simple questions in WhatsApp via private chat. Hence, WhatsApp's privacy increased Oreny's involvement with English learning by reducing the effort involved and the

negative emotions associated with asking simple questions which would erode his academic stature in front of the other students.

The students' activity on WhatsApp's private chat facility increased immediately before and during the mid-term exam period. Many students reported in the interviews that they frequently asked the teacher questions in private, especially when studying for exams, and the teacher was extremely responsive according to what the students revealed in the interviews. Since Alkhuder was a shy student, asking the teacher questions on WhatsApp might have provided the perfect opportunity for him to increase his knowledge of English. For instance, during his interview, he found an interesting strategy to ask multiple questions of the teacher while still maintaining a good relationship with him:

| | |
|---|---|
| Interviewer: | Did you ask him before the exams? |
| Alkhudar: | Yes, I have asked him questions before the exams. I did not understand more than half of the book, so I distributed my questions over the remaining days before the exam in order not to annoy him. I asked him one question every day and he answered. |
| Interviewer: | Why didn't you ask him all of your questions at once? |
| Alkhudar: | I was worried I would annoy him, and then he would not answer my questions. (0206) |

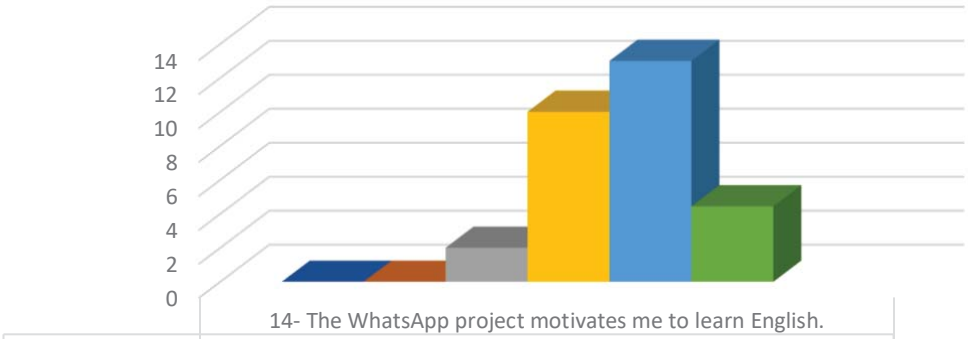
However, he self-regulated himself in asking those many questions in order to not damage the teacher's attitude toward him. He was aware that causing the teacher more work might affect the teacher's willingness to help him with his future English studies. Thus, he was very careful in exercising his agency to communicate with the teacher in the private chat.

### 6.6 Closer Community, Social Relations, and Peer Influence

In addition to WhatsApp's features acting as affordances that positively influenced the students' agency to engage with learning English, the affordances which emerged relating to the students' closer community (i.e., friends, family, and relatives) also played a crucial

role in motivating the students' agentic system. As the students reported in the interviews, those with whom they had the closest relationships contributed to making them comfortable with and accepting of the new tool as well as motivating them to learn English. The majority of the students strongly agreed that WhatsApp motivated them to learn English (see Figure 6.17); the qualitative data associated with this item indicated the closer community presence in the tool, the building of their social relations and their peer competition, which motivated the students' use and adoption of WhatsApp.

Figure 6.17: The students' motivation in WhatsApp




| 14- The WhatsApp project motivates me to learn English. | |
|---|---|
| Stongly Disagree | 0 |
| Disagree | 0 |
| Neutral | 2 |
| Agree | 10 |
| Strongly Agree | 13 |
| Mean | 4.44 |
| S.D. | 0.64 |

### *6.6.1 Influence of closest community*

The students demonstrated that their activity on WhatsApp might have been influenced by their friends', families', and relatives' activities on VSN. For instance, Ajlan indicated that it was popular among his friends, family members, and relatives, thereby influencing his use of it for learning English. He used it because everyone did. Moreover, he commented that it was extremely difficult to find anyone who did not use WhatsApp in a Saudi context:

> Everyone has an account on WhatsApp, all my family, my friends and my relatives, and they are all active. I mean, it is so difficult to find someone who does not have an account on WhatsApp. Besides that, it is easy to use. (Ajlan, 0205)

Also, Harbi mentioned that his activity was influenced by the presence of his teacher and his friends on WhatsApp, to the detriment of his use of Twitter:

> Honestly, I was motivated at the beginning, but after the teacher joined us on WhatsApp, my motivation to use Twitter became lower, because WhatsApp covers all the advantages of Twitter and most of my friends are there. (Harbi, 0201)

Ajlan's and Harbi's comments could provide one of the reasons explaining the decline in the students' use of Twitter and their switch to WhatsApp, that is the lack of sufficient positive social activity on Twitter within their close communities. Such activity could have influenced the sustainability of Twitter, if all the students used anonymous accounts. In other words, the positive social activity from the students' closer community might be important but also its effects might be reduced by Twitter's open platform. Thus, for Twitter to achieve a longer sustainability, both the activity of the students' closer community and the use of anonymous accounts on the platform might be important to achieve that goal. Of course, closer community activity is something that develops over time but this could provide a hint for teachers who are choosing an appropriate VSN for English learning.

### *6.6.2 Importance of social relationships in enabling participation*

In addition to being influenced by their close community, the importance of building social relationships with their peers appeared to have contributed in influencing the student use of WhatsApp for English learning. To be more precise, the students were building relationships to motivate themselves and this, in turn, might have contributed in influencing their agency. For example, Oreny reported that, to remain active in his studies, he needed to maintain good relationships with his peers, and WhatsApp helped

him strengthen these relationships. With this affordance, his participation went beyond asking questions to actually be answering other students' questions, which he had a particular motive for, thus developing a sense of a learning community:

> To keep motivated, you have to make many friends. I mean, you should not connect with your classmates only when you need them. First, I did not know anyone so I was not participating, but now I know all of them and this encourages me to participate. (Oreny, 0209)

His goal was not only to enhance his social relationships with his peers but also to be perceived by his peers in a certain way, that is to engage in a process of self-presentation as a diligent student. Therefore, when they asked him about things related to the English language, thus made Oreny feel motivated and this catalyzed his agency in learning English: he felt satisfied about his English ability as the other students trusted him. His next comment clearly illustrated his wanting to maintain a good relationship with his peers:

> Well, when I answer a question from some student, I imagine other students would say: "Oreny knows this subject well, we should ask him about what we do not know," so they all start to ask me questions. Yesterday, for example, some student asked me on WhatsApp about questions in English. (Oreny, 0209)

Oreny's reason for building a relationship was recognition by his peers. He imagined that, if he kept answering the other students' questions, they would think that "Oreny knows this subject well, we should ask him about what we do not know" (Oreny, 0209). Thus, when the students asked him, they motivated him because one of his goals was to be known among the other students as a diligent student. WhatsApp acted as an affordance to facilitate his goal, especially since all the students were gathered in one virtual place and so were available outside the classroom. Thus, his opportunities to answer the others' questions were increased, as in Figures 6.13, where Oreny is answering their questions and students are thanking him in return.

### *6.6.3 Peer competition*

Peer competition has been found to be a strong motivator in language learning (Dörnyei & Murphey, 2004; Gao, 2008). The use of WhatsApp also catalyzed students' agency is that it contributed to increased peer competition. Once they had built strong relationships with their classmates, the students began to be rivals, and WhatsApp helped them to keep their rivalry going by affording them with an environment to observe one another's progress. Abdullah (0207) encountered this situation with his peers when he was unable to understand one of the words of his peers' conversation in English on WhatsApp, as recounted in the following comment:

Interviewer: So, if you read and could not understand some word in WhatsApp, what do you usually do? Would you ignore it or translate it?

Abdullah: Honestly, it happened before, and I used the translation.

Interviewer: So, what motivated you to translate it?

Abdullah: Because I want to know what the students are saying and I feel happy when I understand what is said, because I do not want to read without understanding.

Interviewer: Well, do you not feel upset when a student uses some word that you cannot understand?

Abdullah: Yes, I feel upset when I don't understand what he does understand, as we are supposed to have the same English level. (0207)

He felt bad about himself when he could not understand his classmates chatting in English as they were all "supposed to have the same English level" (Abdullah, 0207). Indeed, it was because he knew them well through their classroom interactions and also outside the classroom through WhatsApp and FTF. If they spoke in English and he could not understand them, it made him feel that he was behind and that his progress toward joining

his dream major was insufficient. Hence, this situation motivated him to increase his efforts to learn English and translate every word that he did not know. Thus, WhatsApp could be seen as a catalyst for increased efforts in learning English.

The competition between the PYP students was very high, and it was good for their learning in general but more specifically for their achievements in English. Thus, WhatsApp might have mediated the students' competition within their studies. Abdullah's comment below reveals how competition with his friends might have raised his activity to spend more time and effort learning English. When asked if he had ever competed with another student on WhatsApp, he replied as follows:

> Yes, it happened but in a private conversation with one of my classmates, I was talking to him and I asked him about which unit had he finished in Reading and Writing. He said that he was studying in unit eight, and I was still in unit five, so I was motivated to work hard and keep studying to compete with him. So, I got high grades because I had enough time to revise more than once. (Abdullah, 0207)

Because of his conversation with his classmate on WhatsApp, he was able to increase his competence and agency in English as reflected in his grades, because he had the time to "revise more than once" (Abdullah, 0207). Therefore, WhatsApp appeared to have opened the door for healthy competition, a factor that might have not arisen in FTF interactions, as the contextual constraints did not permit them to be open to each other's progress to the same extent as on WhatsApp. Their competition on WhatsApp might have increased their agency and could have made learning English more interesting for them since they could compete in learning English.

Overall, the influences of their community, their social relations, and their peers were important factors that influenced the students' use of WhatsApp. These influences might have contributed to their comfort levels, while building their social relations with their peers; also competing afforded them with extrinsic motivation to engage with learning English and so increased their achievement. Hence, other external influences on the students' agency to adopt WhatsApp were their closer communities, social relations, and

peer competition, and these influences need to be taken into account when considering the use of a new tool for learning English.

## 6.7 Environmental Change for the Teacher and Students

This final section of the WhatsApp chapter explores WhatsApp's features in providing the students with affordances that contributed to changing the student and teacher environments from formal to informal, a positive step supporting the students' agency to learn English. In addition, the section presents the findings relevant to WhatsApp's contribution in extending the students' learning environment to include their cooperation in other subject areas.

### *6.7.1 Formal to informal relationships*

One of the affordances that was promoted by WhatsApp was that it changed the classroom environment from formal to more informal relationships which in turn fostered their English learning (Al-Shehri, 2012). This environmental change allowed the students to demonstrate a higher level of participation in learning English on WhatsApp than they did FTF. They asked the teacher many questions related to the English language and also took advantage of every opportunity to open conversations in English with him. In addition, he posted messages on his own, both related to and not related to the English language, such as entertainment messages as shown in most of the figures above. These actions done by the students and the teacher reduced the formality tension of their relationships. The evidence of this was that both students and teacher were more comfortable on WhatsApp than on Twitter or even FTF. Oreny and Ruaished mentioned in the focus group that the reason for greater teacher engagement and participation on WhatsApp was that it facilitated more informal interactions between the students and teacher, thereby creating a greater feeling of comfort with WhatsApp as opposed to Twitter:

Oreny: He answers all of our questions whether on Twitter or WhatsApp, but I think he does not feel comfortable on Twitter.

Ruaished: You can feel that he is speaking more formally on Twitter, but on WhatsApp you can feel that you are speaking with your friend. (0302)

Indeed, the teacher answered the students' questions and interacted with them informally on WhatsApp as if he were chatting with friends and used the WhatsApp platform to motivate and encourage the students' learning. His role in influencing the students' agency was very important in developing their sense of belonging and comfort on WhatsApp, as supported by Harbi:

> Even the teacher is friendly in the group and keeps motivating us, he does not mind to answer all of our questions, even the simplest ones. (Harbi, 0201)

Some of the students intentionally sent entertainment posts to the group, and one reason for doing so was to make the teacher feel more comfortable there by being less formal. Thus, the teacher's action extended the agency of the students' in learning English, such as giving them more opportunities to practice their English or recognizing them as diligent students. Such was the case with Mubarak when he was asked if he would like the group to be more formal by prohibiting entertainment posts. He replied that he considered WhatsApp very important in making the teacher feel comfortable, that is to be viewed as a friend:

> The teacher, for example, talks with us and there is no problem. So, if we felt that it was formal, we would create another group for entertainment, but I don't think it would be formal. However, if there were some fun, this would make the teacher comfortable and friendly. (Mubarak, 0204)

As a result of this informal relationship, when asked how his WhatsApp experience changed him, Ajlan replied that he felt closer to the teacher than previously because he

had spoken with him several times on WhatsApp, thereby letting the teacher know that he was participating and so causing the teacher to recognize him as a diligent student, as shown in the following comment:

> I became closer to the teacher in an informal way, because when you ask the teacher questions many times, he knows you and remembers that you have asked him questions before. (Ajlan, 0205)

This could also be interpreted the opposite way—because the teacher became connected more informally to the students through WhatsApp, he was then able to accept more of the students' interactions. In answering the students' questions, the teacher was encouraging them and improving their English competence, which positively influenced their agency by increasing their interaction on WhatsApp. Bader, for example, expressing his opinion of the teacher's support, noted how the teacher would typically send him detailed explanations:

> It is excellent. Sometimes we even ask him questions during the exams period, and he replies with detailed explanations. (Bader, 0202)

Alkhuder, who contacted the teacher several times through private chat on WhatsApp, stated his belief that WhatsApp changed him for the better:

> Yes, it has changed me for the better. I once asked him in private and made a spelling mistake, so he corrected the mistake and asked me to rewrite my question again. (Alkhuder, 0206)

This anecdote reveals the importance of the teacher's positive attitude toward the innovative use of WhatsApp as an aid to teaching. He did not limit his activity to just the WhatsApp public group but extended his engagement and endeavored to help the students with their struggle to learn English not just by answering their questions but also by seeking to improve their English proficiency. He was aware of his responsibility as a teacher to improve his students' English skills. In addition, the teacher sometimes answered the students' questions during his office hours, especially the ones being sent

through private messages. One example came from Ruaished who asked the teacher before the exams through private message in WhatsApp and noted how the teacher answered his questions; "He [the teacher] responded one day before the exam, as I asked him two days before it. I think it was 12 or 1 PM." Thus, if the teacher felt burdened by the students' questions he deferred answering until he found a suitable time.

As can be seen, the teacher and students were comfortable in the WhatsApp environment, and their participation transitioned from formal to more informal relationships due to the platform's affordances, thereby facilitating their learning process. The teacher's agency in initiating informal participation in the group made the students comfortable using WhatsApp to learn English. Because the students viewed the teacher as cooperative and friendly, they were relaxed in extending their agency by asking him questions related to the English language and by being more open to learn from their mistakes.

### *6.7.2 English practice*

The ability to informally participate on WhatsApp presented above facilitated the students' agency in learning English or, stated more specifically, in practicing the English language. I observed the students showing more initiative in relation to English language practice, in fact a great deal more than in FTF interaction. Abdullah (0207), also observing this phenomenon, thought that the students' attitudes toward speaking English had changed after the creation of the WhatsApp group. He noted that the students had never spoken English with that level of intensity prior to this:

```
Interviewer:    Well, what do you think about the students
                in the group?
Abdullah:       They have changed a lot.
Interviewer:    How have they changed?
Abdullah:       They had never spoken English like this
                before, but now they started speaking
                English well.
Interviewer:    What do you think is the reason for this?
```

> Abdullah: I think because you made the teacher join us in the group, and the teacher started to interact with the students better than before when he was interacting FTF. (0207)

As stated above, Abdullah opined that the teacher's informal interaction with the students on the WhatsApp group was the primary reason behind their increased agency for practicing English. In contrast to Twitter, where the students reported a lack of teacher support during the last weeks before its activity drop, the teacher was more open in the WhatsApp group, due to the affordances promoted by WhatsApp, which might have contributed to his change in attitude in dealing with his students.

Alsumali supported Abdullah's claims, indicating that WhatsApp might have opened up new opportunities for him to practice his English. By having the teacher with him he improved his English language, thereby improving his confidence in speaking:

> Honestly, when the teacher joined us in the group, we started to speak English. I mean, we started to learn some new vocabulary words. (Alsumali, 0210)

Indeed, this aspect of WhatsApp was so important to him that he attempted to match the teacher's contributions to practicing his English:

> I have participated a lot in English on WhatsApp. I participate every time the teacher becomes available on WhatsApp and writes to us. (Alsumali, 0210)

Alsumali also stated that he always used the WhatsApp platform to practice what he learned in the lecture with the teacher, especially for English grammar:

> Writing, I started to type faster and more grammatically correct. For example, when I write on WhatsApp, I apply grammar rules and put verbs, nouns and objects in the correct order, and I try to keep practicing grammar. (Alsumali, 0210)

As Alsumali's comment makes clear, WhatsApp helped him improve his grammar as it allowed him to apply what he learned in class. This opportunity contributed to improving

his progress indicated in different subjects, not just English, since these subjects were being taught in English as well; his progress in learning English was reflected in corresponding progress in almost all the subjects he was studying in the PYP:

> Without WhatsApp I wouldn't have gotten high grades in the quizzes, WhatsApp helped me in my quizzes a lot. (Alsumali, 0210)

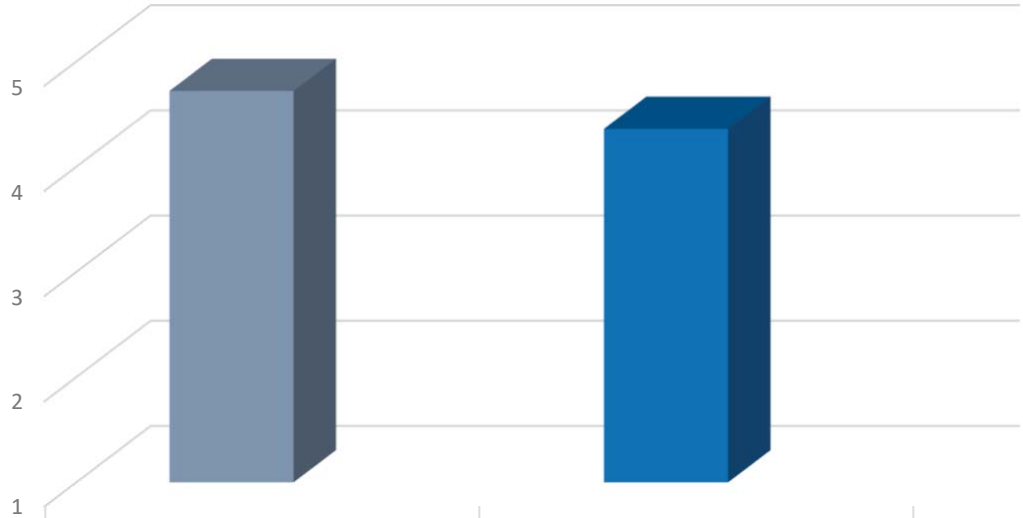
Because of WhatsApp, Alsumali and many of his peers were able to access more knowledge and practice the English language with the teacher or their classmates. Their appreciation of the affordances brought about by the use of WhatsApp influenced the students' agency to practice English in this virtual context, an opportunity they had lacked before.

### *6.7.3 Restructuring the WhatsApp environment to include other subject areas*

The students' success with the use of WhatsApp in learning English might have encouraged them to reshape the WhatsApp environment to include cooperation in learning other subjects, such as physics and computer science, which were referred to in both the quantitative and qualitative data. The study's quantitative findings, as summarized in Figure 6.18, revealed the students' high positive attitudes toward this environmental change in their other subjects. As indicated from the table, all the students agreed that they would like to use WhatsApp for other subjects, which they had actually already done. For example, Alsumali's comment illustrated that his attitude toward using WhatsApp for other subjects had been influenced by his peers as they began to cooperate in the study of physics, which encouraged him to join his peers. He reported:

> Last time I used it, I was motivated to study physics, because some students shared physics problems and questions. (Alsumali, 0210)

Figure 6.18: Students' attitude toward environmental change




| | 21- I would like to use WhatsApp for other subjects. | 22- I will continue to use WhatsApp for the next semester as well. |
|---|---|---|
| Mean | 4.72 | 4.36 |
| S.D. | 0.53 | 0.74 |

Ajlan, who was already using WhatsApp for other subjects including physics, was asked if he would like the physics teacher to join the group; he replied in the affirmative as he felt this teacher's presence would enhance their learning of physics.

> Honestly, I hope so, especially for [that particular science-based subject]. If we had the teacher for [that science-based subject] with us on WhatsApp, most of our problems would have been solved. (Ajlan, 0205)

Bader also reported that he was using WhatsApp for all his other subjects except "Thinking Skills" since it was illustrated in Arabic. His purpose in using WhatsApp was to focus on improving his English language so as to enroll in the medical department.

> Interviewer: Well, for what subjects do you use WhatsApp?
>
> Bader: All the subjects, except for thinking skills subjects.
>
> Interviewer: Why don't you ask questions about thinking skills?

Bader: Because, thinking skills subject is given in Arabic, but whoever joins the medical department will study all in English. (0202)

The students' agency in restructuring their environment through WhatsApp meant it also became an alternative mediator not just for learning English but also other subjects. This is evident in the very high level of their responses to item 22, as shown in Figure 6.18, in which almost all the students agreed that they wanted to use WhatsApp during the next semester. WhatsApp had apparently become embedded in students' study habits, as Mubarak argued when he stated that WhatsApp had now become essential for their learning:

> Of course. It became essential, once the term begins, we will create a group. All the students accepted this. (Mubarak, 0204)

WhatsApp had facilitated an environmental change for the students. Its affordances in changing the teacher-student interactions from formal to informal played a crucial role in extending the students' agency, by giving the students better opportunities to practice their English language skills with the teacher in the context of a virtual classroom. The students' success using WhatsApp for English learning led them to restructure the learning environment to also include their cooperation with other subjects.

## 6.8 Summary

Overall, the students claimed many strong advantages with the use of WhatsApp and indicated a very positive attitude toward its adoption in the English language classroom. WhatsApp could mediate new levels of learning possibilities that were socially constructed through their peers and the teacher. The affordances brought about by the use of WhatsApp created a virtual environment for the students that made them feel comfortable in exercising their agency. The immediacy, cooperation, and entertainment affordances of WhatsApp meant that the students felt as if they were in a context that was superior to their formal classroom due to the increased affordances available to them.

In addition, the multimodal activities possible on WhatsApp assisted the students to bypass the constraints with respect to English proficiency that they had encountered when speaking directly to the teacher (i.e., FTF) to obtain support. WhatsApp also enabled the students to be less anxious than they were in FTF situations and on Twitter due to the private channel available on WhatsApp and also because the students were participating outside of class in more comfortable surroundings. The closed environment of WhatsApp was important in this too. Furthermore, the influence of their communities and peers might have played a crucial role in making the students comfortable in adopting this new virtual context.

As a result of affordances created by the use of WhatsApp, the students felt that their environment might have changed and that their relationship with the teacher might have become less formal. Most importantly, they began to practice and enhance their English skills to a greater degree, an advance they had not previously been able to make due to the barrier formed by their anxiety and fear of making mistakes. Finally, due to their success in using WhatsApp in their English class, they decided to reshape the WhatsApp environment to also include cooperation in the study of their other subjects, indicating the successful implementation and adoption of the tool.

# CHAPTER SEVEN: DISCUSSION

## 7.1 Overview

This chapter provides in-depth discussion of insights into the complexity and dynamics of the material presented in Chapters Four, Five and Six regarding the nature and roles of VSNs in a Saudi tertiary EFL context of students' use trajectory and experiences of Twitter and WhatsApp throughout the implementation stage. The chapter sections correspond to the three research questions within the theoretical and analytical frameworks underpinning the current study 1) What are the nature and role of VSNs in the context of Saudi tertiary EFL learners? 2) How are the students' experiences and use trajectory of Twitter inside the classroom embedded in their EFL learning experiences? 3) How are the students' experiences and use trajectory of WhatsApp outside the classroom embedded in their EFL learning experiences? The chapter begins with a discussion of the data relevant to the first research question, which corresponds to Fullan's initiation phase. The discussion of the second and third questions is divided into two parts that correspond to Fullan's implementation and sustainability phases.

## 7.2 The Nature and Roles of VSNs in a Saudi Tertiary EFL Context

In Chapter Four, I presented and discussed the findings on the use of various types of VSNs within a Saudi EFL context, the use of the features of each type that worked as affordances within this environment to engage the participants, and the findings as to why one particular VSN was preferred over the other. Chapter Four described the first stage of data gathering, and provided the background to understanding the nature and place of VSNs within a Saudi tertiary EFL context. The findings revealed that VSNs are categorized into two types within a Saudi EFL context—private- and public-based—and that their communication modes and uses differ based on the type of VSN. In view of

this, three primary areas concerning the nature and place of the innovation are discussed in this section: the influences of the community on the use and adoption of the innovation, technological characteristics associated with each innovation that determine the effort required to use it, and the influence of its characteristics on the participants' attitudes toward using it for English language learning.

The social factor inherent in each VSN type was one of the main influences on participants' behavior in actively engaging more often with one type than the other. Participants indicated a strong attachment to private-based VSN, in this case WhatsApp, over the public-based VSN, Twitter. One of the main motives for the participants' engagement with the private-based VSN type is its increased affordances in connecting them to their closest communities (such as relatives, family, colleagues and friends) within a closed environment, that is, one where a user interacts only with a closed community of his or her own choosing, as opposed to the public-based VSN, where interaction is open to the public (Rashidi, Vaniea, & Camp, 2016). Participants indicated that this VSN characteristic positively affected their level of engagement with this type of VSN for English learning in general, and, more specifically, for English practice. For example, some of the students actively sought out English accounts on Twitter in order to request that the account owner add them to a WhatsApp group where they could be comfortable with their English practice in a closed environment (a feature offered by WhatsApp), while maintaining privacy in their learning. The privacy issue in public-based VSNs has been reported as having negative effects on language learning (Susilo, 2014). The social attributes associated with different VSN types that attracted the participants in this study to actively seek out and use one type over the other will be discussed in detail in this section.

The widespread use of WhatsApp within the Saudi EFL context evidently influenced the participants' acceptance of the tool and their level of engagement with it according to the findings, which showed that almost all the participants had profiles and were more active in using WhatsApp. What motivated the use of this VSN was its ability to strengthen their social interactions within their communities, specifically their closest community. As teacher trainee (TT) Amar commented, it was "for socializing with relatives and friends.

In the past, people were far away from each other, but, now, they are closer and it has improved their relationships." From an ecological perspective, "the environment includes all physical, social and symbolic affordances that provide grounds for activity" (van Lier, 2004, p. 5). TT Amar's comment emphasizes the importance of social affordances in his use of WhatsApp, which facilitated his contact with his community, making this contact easier than before he began using WhatsApp. Thus, WhatsApp's social affordance fostered and enabled the participants' agency, influencing their decisions to communicate with their closest community.

In addition to the above, the widespread use of WhatsApp within Saudi society influenced other members who prior to this had had no interest in technology to start using it. For example, TT Dawood began using WhatsApp after he saw his closest community of peers using it. Although he disliked VSNs in general, the fact that his closest community used it prompted him to take it up so that he would not feel left behind. These findings in terms of the community's impact on users' decisions to use WhatsApp align with these of Church and Oliveira (2013), who found that their participants were influenced by their friends' actions to adopt WhatsApp and use it. The influence of the community could make the tool appealing to use, thus increasing their activity. Fullan (2007) suggested that "communities can instigate educational change" (p. 77), meaning that the initial stage of investigating the use of an innovation within a specific context is to explore community support for its use. In the current study, the community is seen as instigating individuals' active use of the innovation. The fact that VSNs, by their nature, are designed to be social tools may contribute to the importance of the community in influencing members to begin using them. According to Fullan (2007), an innovation that does not receive sufficient attention from the overall community would be destined to fail in its implementation in educational settings. Connecting with the community was a primary reason for these participants to begin to use a VSN in their learning, and to become active on it.

Other factors that enhanced the community's influence were related to the participants' use of WhatsApp to reshape their real-world activities in terms of collaboration and organizing of meetings. Since WhatsApp afforded the Saudis a closed environment, it influenced their physical environment with respect to privacy. Only those individuals in

the group could see content posted by group members. As evident in the results, this affordance led them to raise their activity level for communications on WhatsApp more than on any other VSN platform. This finding indicates that WhatsApp's nature supports collaboration, as was also found by Aburezeq and Ishtaiwa (2013) and Rambe and Chipunza (2013). This could be one motive that could possibly explain why the students in the implementation stage preferred its use over that of Twitter. Overall, WhatsApp suited the EFL Saudis' needs in facilitating their environment to interact with their closest community more frequently than they did prior to their adoption of WhatsApp, given the closed environment afforded by the tool.

In contrast to a private-based VSN such as WhatsApp, a public-based VSN is used as an official platform to communicate to the wider community, practice hobbies, or seek entertainment. The participants in the present study indicated that they were less active on these types of VSNs than on the private-based VSN WhatsApp. Similarly, Susilo (2014), who used Facebook and WhatsApp in an English learning class, found that the participants were more active on WhatsApp than on Facebook due to the influence of their friends. In the current study, the participants revealed that Facebook and other public-based VSNs were considered outdated, and so were not used by a Saudi EFL community; this perception of these VSNs could have had a negative effect on their engagement with these rarely used tools. Facebook in particular received a very low rating on the questionnaire as well as in the students' classroom scenarios, and when the students were asked to choose one scenario that best fitted their learning styles, almost none of them chose Facebook. Although most had accounts on Facebook, they were not active on this platform due to the low activity levels of their closest community on Facebook. Thus, the data revealed that the frequent use of an innovation by a user's closest community is a major factor that contributes to the success of its implementation, by providing a basis for the user's activity, and thus influencing his decisions to engage with such platforms.

Nevertheless, Twitter received the highest rating of public-based VSNs in the classroom scenarios, and participants' activity levels were also relatively higher on Twitter compared to other public VSNs. Unlike Facebook, Twitter is widely used in Saudi EFL society, but is not used as much as WhatsApp due to its nature of being an open platform,

and for other reasons that were identified here, such as the lack of users' privacy. The participants revealed that they use Twitter for public purposes, i.e., as an official platform, but use WhatsApp for private purposes due to the affordances and constraints of each VSN. Grosseck and Holotescu (2008) point out several potentially negative aspects of Twitter, the main one of which is lack of privacy, which affected users' activity on the platform. Although Twitter has some features that allow a user to implement privacy features, the ability to be private on Twitter is not nearly equivalent to that of WhatsApp, because Twitter was originally designed to be an open platform. In order to gain the maximum benefits from Twitter, the account holder would have to lower his privacy setting, thereby limiting the types of actions and posts that could be made on the platform. The literature does not specifically investigate the relationship between activity on a VSN and the lack of privacy, but it could be, as argued by Al-Saggaf (2011) and Rashidi, Vaniea, and Camp (2016), that maintaining privacy is important for Saudis due to cultural norms, such as reticence in showing their personal photos or giving information to strangers. This confirms research by Binsahl and Chang (2012), who found that the more privacy the public-based VSNs offer, the more that Saudis will be active on them, and hence the platform constraints influenced their actions with regard to how they used it.

Although social influence was an important factor in stimulating participant activity on VSN platforms, other factors influenced their use of the innovation, such as the effort required to access information on these platforms. Fullan (2007) states that access to information is one of the main factors that influence initiation decisions. In the current study, the VSNs played a crucial role in reducing the effort required to connect participants for purposes of gaining information about their community. For example, the participants highly valued the WhatsApp's feature in allowing them to send and receive text messages to and from, respectively, members of a large but nonetheless closed group. This feature was used as an affordance to facilitate their engagement, collaboration, and information-sharing (Aburezeq & Ishtaiwa, 2013; Rambe & Chipunza, 2013). Hence, the lower the level of effort required to access a VSN, the higher the chances that it facilitated the participants' engagement, collaboration, and adoption (Rogers, 2003).

In contrast to WhatsApp, Twitter facilitated the participants' connection and sharing of information with the community as a whole, unlike WhatsApp, which was used to access the closest community. However, this feature of Twitter might provide the trainees and the PYP participants with a constraint that could reduce their activity on this platform. To be more precise, the extra effort involved in creating and using an anonymous account could have constrained their activity on the platform to some extent, and could have been one factor causing them to express a preference for WhatsApp over Twitter on the teacher trainees' questionnaire, and in the classroom scenarios. For example, when the participants wanted to share sensitive information concerning for example religious or political matters, with the community as a whole, they did so using anonymous accounts on Twitter, as shown in TT Fadi's comment: "For people who don't want to use their real names, they now have a chance to express themselves and their thoughts under anonymous nicknames to keep their privacy." In other words, having two accounts on Twitter—a real account to share information with the community as a whole or with their closest community, and another anonymous account to share sensitive information or to express their opinions about political issues—could have a negative influence on their activity, because they would have to keep switching between their accounts; this would entail increased effort to use the platform, and confuse the purposes of using Twitter, as there are multiple ways of using it. This finding is consistent with previous studies, (e.g., Davis, 1986, 1989; Davis, Bagozzi, & Warshaw, 1989; Igbaria, Iivari, & Maragahh, 1995; Lu, Yao, & Yu, 2005; Rogers, 2003), which found that the increased effort required to use the technology could decrease the likelihood of its adoption. The consequence of these features might have led the participants to use Twitter as an official platform, as revealed by TT Yassier, who stated, "WhatsApp is private and personal; however, Twitter is public and I use it in an official way." Thus, treating a platform as an official tool might make it vulnerable to reduced activity. In WhatsApp, they cannot use an anonymous account because it is linked to their phone number, and thus no extra effort is required in using WhatsApp since they have no option but to use one account, and it has to be their official one. The negative influence of the extra effort required was also found in the classroom scenarios, where one participant responded that such a scenario made him "feel

like it is homework, so it is useless" (student comment in Facebook Scenario one); the students disliked homework, as it increased the effort required from the students. The same could be applied to the other VSNs as well: if extra effort was required to use it, they would most likely have disliked it. The results of the implementation stage also support the influence of extra required effort in their attitudes toward platforms. One of the main constraints on the students' agency was having to use anonymous accounts to overcome anxiety arising from their fear of not being able to respond to the teacher in English due to their low English proficiency, but eventually their activity on Twitter declined due to the effort required to switch back and forth between their real accounts and their anonymous ones (see Section 7.3.1).

With respect to English learning, the Saudi EFL environment to some extent constrained the participants' learning of English, leading them to search for alternative ways to improve their proficiency. According to Waters (2009), the first stage in the initiation of an innovation is to find a dissatisfaction with the current *status quo*. As this study's findings reveal, study participants experienced dissatisfaction with the current physical EFL environment with respect to improving their English language skills, exemplified by the following quote: "In our society, we have few who speak English; however, by using VSN you will be able to improve your English language through interacting with English speakers" (questionnaire Item 25). This dissatisfaction led them to use both VSN types to obtain an enhanced virtual environment that would overcome the constraints limiting their efforts in the environment to learn English. However, the technological nature of VSNs influenced their decision to use those platforms for English learning. In other words, the different affordances and constraints associated with the different VSN platforms shaped their roles and the way they responded to and acted on each platform to learn English. For example, they used WhatsApp to practice and learn English, but used Twitter and other public-based VSNs to learn new vocabulary items or to refresh their knowledge concerning words they had already learned. Nevertheless, the participants exhibited positive attitudes to both types of VSN for the learning of English.

As aforementioned, the findings revealed that the participants preferred to practice and learn English through WhatsApp rather than Twitter or other public-based VSNs.

However, they were searching for English accounts on public-based VSNs, particularly Twitter, since it offered them access to the community outside their circle of their closest community. In particular, they were searching for English learners within or outside their communities who had an interest in, or accounts specializing in, the learning of English. However, once they had contacted a Twitter account, they would then request that that account holder invite them to a WhatsApp group. This was the case with TT Khalid, who joined a WhatsApp group for learning English after he "requested to join on Twitter" (TT Khalid, see Section 4.4.1.2). His decision to join the WhatsApp group was possibly influenced by its nature and design in being a closed environment, which could have acted as an affordance whereby he could practice English comfortably. Since Twitter is an open platform, his Twitter interactions in which he practiced his use of English were visible to his followers on Twitter, and thus could have acted to constrain his learning, as he possibly feared negative judgments (primarily by his closest community), on his efforts to write in another language, particularly if he made mistakes. The disadvantage of Twitter's platform is shown in TT Bander's comment: "Everyone replies on Twitter impolitely, even people started to gossip about how someone replied to another one impolitely, and so on." As a result, the fear of making mistakes and of the negative reaction of the community would then generate anxiety and shyness, which most of the participants experienced during their English learning, as indicated in the study findings. A study conducted by Al-Saraj (2013) in the Saudi context found that the fear of negative evaluation is one of the main contributors to students' anxiety. In order to avoid this experience, they preferred to interact within the closed environment provided by the WhatsApp platform with its privacy features, thereby increasing not only their confidence but also the students' collaboration in learning of English.

Anxiety when practicing the English language is a major factor negatively affecting Saudi learners. As the participants demonstrated, they typically prefer to practice English through a VSN because "It removes the shyness phobia" (questionnaire Item 29). The results here confirm those of previous studies (Aburezeq & Ishtaiwa, 2013; Gutierrez-Colon Plana et al., 2016; binti Mistar & Embi, 2016; Warschauer, 1996a, 1996b; Young, 2003), where online communication and VSNs appear to reduce the anxiety that

accompanies practicing English. Although the participants indicated in the results that the use of a VSN could reduce their feeling of negative emotions such as anxiety, it could be argued that the level of anxiety that each VSN could ameliorate varied with the characteristics of each, and how they are being used in the language classroom. For example, in the students' classroom scenario, the WhatsApp scenarios were preferred by the participants because, among many other advantages, it appeared to foster a less anxiety inducing environment as well as collaborative learning, especially in the sense that the WhatsApp scenarios are designed to be used outside the classroom. The Twitter scenarios were less preferred, especially Twitter Scenario two (TST) where it was designed to be used in the classroom, while Twitter Scenario one (TSO) was ranked third in the scenarios, which is better than WhatsApp Scenario two, possibly because TSO is designed to be used outside the classroom. In addition, TST was used in the implementation stage, and the result was that it could not be sustained because one of its main constraints is that it did not completely eliminate the students' anxiety in the classroom (see Section 7.3.2). It can thus be concluded that not all VSNs contribute to reducing learners' anxiety in the Saudi EFL context, as it depends on each VSN's characteristics, and how it is used by the students, and more so by the teacher, to achieve their learning goals.

In addition, the participants were shown to exhibit greater levels of skill and comfort with smartphones rather than computers, laptops, tablets, and so on, and most of the participants had smartphones equipped with cutting-edge technologies at the time of this study. Their use of smartphones was an important factor, as about 95% of the participants stated that they accessed VSNs through their smartphones. Smartphones facilitated participants' access to VSNs due to their interest and expertise in using smartphones. Kolb (2008) believes that, due to their widespread familiarity with these newer features, the present generation of students demonstrates a high level of expertise in smartphone use. In addition, during the implementation phase of Twitter, the students eventually switched to tweeting from their smartphones rather than from their PCs, thus confirming their attachment to smartphone use. The usefulness of smartphones and VSNs seems to be complementary for the participants' activity, as was also found in other studies such

as that of Al-Shehri (2012). The use of smartphones to access VSNs was thus found to facilitate the students' agency.

In summary, the participants were found to prefer private-based VSNs over public-based ones for learning English, possibly because of their increased privacy, closed environment, and the frequent use of this type of VSN in their daily lives, where they were mostly used to connect with their closest community. In addition, the frequent and active use of VSNs in a Saudi community was also found to play a major part in influencing the participants to use and adopt VSNs in general and, most importantly, in learning of English. Other factors, including the effort required to use VSNs, also seemed to be crucial in influencing the participants' decisions about which VSNs to adopt and use: that is, the easier a VSN is to use, and the less effort required to use it, the more active will be its users on the platform. Moreover, the participants used the features of each VSN type to overcome their environments' constraints in terms of English learning, as, for example, using WhatsApp to overcome anxiety associated with speaking English. Overall, both types of VSNs were perceived to be useful for learning English.

## 7.3 The Trajectory and Experiences of the Use of Twitter in the Classroom Embedded in students' EFL Learning Experiences

Several conclusions are presented below regarding the second research question, which examined the experiences and trajectory of the students' use of Twitter in the classroom for learning English language, beginning with a discussion of its affordances and then moving on to the constraints that influenced the students' sustainability phase of Twitter.

### *7.3.1 Twitter's implementation phase*

With respect to the students' experiences and Twitter's use trajectory, the initial conclusion to be drawn from the students' positive use of Twitter during the first 9 weeks after its implementation is that it gave the students a new way to participate in the classroom, thereby increasing their engagement. Specifically, in the first 3 weeks prior to the implementation of WhatsApp, the majority of students were very enthusiastic about

using Twitter in the class, as evidenced by their increased activity in asking the teacher questions. The students' questions were not only about the current lecture, but included whatever difficulties they had had with their English learning. This indicates that the students had a positive reaction toward Twitter in the early weeks of its implementation by taking the opportunity of Twitter's existence in the class to increase their engagement. This action aligns with Fullan's (2007) statement concerning influential factors during the implementation stage of an innovation, that is, that the need for change must be perceived as significant, and that "at least some progress" is being made toward meeting this need (p. 89). The students' engagement with Twitter confirmed that the students were making progress in using Twitter to modify their English learning environment. This finding is consistent with what Junco et al. (2010) found, that Twitter increased students' engagement with English learning. Hence, Twitter mediated and fostered the student's engagement and motivation to progress by allowing them to perform more actions toward the goal of learning English than they would have done without Twitter being available.

Pragmatically speaking, some of the students were uncertain of the advantages of Twitter for their English learning. This is consistent with Greenfield (2003), in that although students may have a pleasant learning experience with an innovation, they may feel uncertain about the possibility of using such an innovation as an intervention to improve their exam-related skills. Indeed, a few students did not engage with Twitter at the very early stage of the implementation phase, especially as the students were under big study pressure to pass PYP and achieve their goal of joining their desired major. However, the potential benefits of Twitter in their efforts to learn English were soon recognized by students, such as Harbi (0101), who was not interested in Twitter at the beginning but later recognized its benefits and the other students' engagement with it. It was normal for some students to feel uncertain about this innovation, as Fullan (2001) describes: "Significant change involves a certain amount of ambiguity, ambivalence, and uncertainty for the individual about the meaning of the change" (p. 72). Indeed, innovation is a process of clarifying the potential contribution and, once the innovation was understood by those students, they pragmatically invested in Twitter and reshaped their environment to enhance it by adding this new communication channel to interact

with the teacher. As a result of their positive use of Twitter, they endeavored to expand the use of Twitter to other subjects in the hope that they would overcome the constraints of other teachers whom they had difficulties approaching. The students' expansion of the use of Twitter included the use of smartphones to access Twitter in the classroom rather than computers, thus indicating their attachment to the smartphone. Although evaluating the effects of using smartphones was not part of this study, it emerged as an important contribution, enabling the students' agency in the use of VSNs. As was also indicated by the teacher trainees' responses to the questionnaire, the majority (95%) of participants revealed that they used smartphones to access VSNs. In the current study, their use of smartphones was at first attributed to the instability that students faced in internet access in their classroom, which negatively impacted their activities on Twitter when their tweets were not sent, or were sometimes delayed. The second reason for the students' use of smartphones could have been the extra time and effort involved in turning on their computers and then entering their usernames and passwords so as to be able to use the computers. As observed previously, when one of the students could not log on to his computer because he had forgotten his password, he continued to try, and so wasted a great deal of time before eventually turning to his smartphone. The students' preference to access Twitter via smartphone could have been due to the increased speed of doing so, the greater Internet stability associated with use of the smartphone, the smaller amount of effort required to use it, and the fact that this represented an extension of an everyday life activity for them. Furthermore, the students' use of smartphones made available other affordances, such as built-in dictionaries to translate words, or sometimes whole sentences, from Arabic to English. This finding is consistent with the findings of Al-Shehri and Gitsaki (2010) and of Lu (2008), who point out that EFL students prefer to use built-in dictionaries for translation, and that this usage has become a common practice in language learning. In the current study, it can be argued that the online dictionaries contributed to enabling the students' actions that their low English proficiency would otherwise have constrained. Because of the students' low English proficiency, they lacked confidence when speaking English in front of an audience (Alrabai, 2014). The fact that their tweets would be visible to everyone else in the classroom was a potential

discouragement to their use; however, some of them were able to overcome that anxiety by using Google Translate. Thus, many students used Google Translate and other translation applications to ensure that their language was free of error and hence to build their confidence, such as with Harbi (0101), who used Google Translate to translate whole questions into English to make sure they were in the appropriate form, so the teacher could comprehend them. Therefore, it could be argued that the use of built-in dictionaries contributed to enabling the students' agency in the classroom.

### *7.3.2 Twitter's sustainability phase*

Despite the above, these advantages of Twitter were gradually constrained by the classroom context, which generated anxiety and limited to some extent their activities on Twitter, until it had declined dramatically by the end of the ninth week. The primary constraint experienced by the students was that use of their real names on their Twitter accounts generated anxiety that the teacher would request that they clarify their questions; even when the teacher was responding to their questions, some were worried that the teacher might request them to reply, which caused them to fear not being able to respond due to their low English proficiency. Even the students who used anonymous accounts to overcome anxiety were pressured by the teacher, which sometimes shifted this feature from an affordance to a constraint on their activity. In other words, if the teacher could not read the question on Twitter, which is usually due to the students' low English proficiency, he often requested the asker to reveal his identity so he could clarify his question. This actions of the teacher were generating anxiety for the students. This is in line with other studies such as that of Alrabai (2016), who states that when Saudi learners "encounter certain external practices, such as responding to their teachers' questions, completing their assignments, taking tests, and having their performances monitored, graded, and reported to their parents, learners may begin to find school anxiety-provoking and psychologically threatening" (p. 22). In addition, Aljumah (2012) stated that when Saudi EFL learners, specifically Qassim University learners, were "asked [face to face] to express their opinions [in English], many were uncomfortable and unable to do so" (p. 109). These anxieties could also be one of the reasons that led some students to hide their

identities through the use of anonymous accounts so as not to confront the teacher when he answered their questions.

The literature does not precisely explore the phenomenon of anxiety and identity-hiding among students using VSNs for learning English. However, Alrabai (2014) states that experiencing anxiety is common among students in the Saudi EFL context. Moreover, previous studies have observed that Saudi EFL learners have low proficiency in speaking skills as well as lack of vocabulary, and usually seem hesitant to speak in English language classes (e.g., Al-Khairy, 2013; Alqahtani, 2011; Alrabai, 2014; Hamouda, 2012). Hamouda (2012) considered factors related to language anxiety such as "the fear of speaking in front of others, fear of negative teacher evaluations, shyness, lack of confidence and preparation, low self-esteem, fear of comparisons with other students, and fear of making mistakes and being laughed at" (p. 17). Indeed, the cases of Harbi (0101) and of Bader (0102), who used anonymous accounts because they feared that they might make mistakes or they might not understand the teacher's response in English when he replied to them, and so be embarrassed in front of the teacher and other students, illustrated that fear of being judged as not proficient in English. Thus, it could be argued that in its early implementation stages, and before the intervention of WhatsApp, Twitter was a positive factor in increasing the students' activity in the classroom, since it was easier for them to avoid making mistakes; this is also supported by the findings of Lomicka and Lord (2012), that Twitter increased the confidence of learners and allowed more learning to occur. However, due to the teacher's inexperience in the use of technology in the Saudi EFL context, the potential advantages of Twitter were limited. Overall, the use of Twitter provided one interesting means of reducing anxiety through hiding the identity of the questioner.

Another possible factor that contributed to some students hiding their identities with anonymous Twitter accounts was the negative influence of the students' closest community. During the early weeks of Twitter's implementation in the class, the students deleted their questions as soon as the lectures ended, making it difficult for me to take photos of their activities for later analysis. Although a clear reason from the students regarding this issue is lacking, since the students were not asked in the interviews about

outside influences on their use of Twitter, Boyd (2008) argues that teens who hide their identity on VSNs frequently do so to avoid being recognized by their parents. However, the use of Twitter in an educational setting could differ in that not only the students' parents, but also other members of the circle of closest community (such as friends and relatives) would recognize them. This is in line with Al-Shehri's (2012) study, which found that students on Facebook would use anonymous accounts so that their parents and friends could not recognize them: that is, to hide their learning progress from them. Due to Twitter's status as an open platform, the activities of the many students who used their real names on their Twitter accounts were visible to all those who followed them on Twitter. One student, Bader (0102), commented that the friends who followed him on Twitter inquired about his tweets in English, and that he responded by telling them these were part of a research project. In the interview, he actually made the point that it was positive for him to show his friends a new way to learn English, but he might later have thought better of it and decided to use an anonymous account to prevent his friends, and also his closest community, from intruding in his English learning and progress. Other students may also have wanted to prevent their closest community from becoming involved with their learning experience. However, although this issue had some negative influence on some of the students' use of Twitter, most of those using Twitter to pose questions to the teacher continued to do so due to their peers' influence during the class itself. For example, Ruaished (0108) continued to use his real name on Twitter because he did not want his peers to be better than him at asking questions, but he was careful to delete his questions later. These behaviors could explain the phenomenon, common among students using their real names account, of deleting their questions after class, and could later have influenced some to adopt anonymous accounts.

Eventually, however, the use of anonymous accounts became burdensome to the students due to the increased effort (that is the number of steps) required to access their accounts in order to ask the teacher questions. Although Twitter was perceived to be easy to use, accessing it required some effort in comparison to WhatsApp. In particular, the students who used anonymous accounts had to switch between these accounts and those in their real names, as well as having to type a hashtag every time they wanted to ask the teacher

a question, all of which seemed to have negatively influenced their willingness to continue using Twitter: as supported in the discussion of the previous question, that the greater the effort required to use an innovation, the greater will be the negative influence on users' decisions to adopt and use the innovation (see Section 7.2). Indeed, evidence of these issues have been reported many times in the data, indicating the significance of its influence on the students. In addition, as is evident from the findings, the introduction of WhatsApp during the implementation of Twitter contributed to the students' declining activity on Twitter because they began comparing the effort required during the use of both tools, as well as their advantages. They apparently concluded that WhatsApp was easier to use than Twitter, and encompassed better advantages in terms of its multimodal activity.

Another important constraint arose from the university's infrastructure. Extremely slow Internet access constrained students' activity to the point that they began using their own private Internet connections through their smartphones. The university-supplied Internet connection was one of the main constraints that caused the students' attitudes toward the long-term viability of Twitter to change. In Fullan's (2001) words, "the main reason that change fails to occur in the first place on any scale, and does not get sustained when it does, is that the infrastructure is weak, unhelpful, or working at cross purposes" (p. 12). In addition, previous research supports the contention that a slow Internet connection is one of the major barriers negatively affecting technology adoption (Al-Daihani, 2010; Atai & Dashtestani, 2013; Butler & Sellbom, 2002). Indeed, the slow Internet connection had lowered the students' activity levels, especially in the last 4 weeks of their use of Twitter, to the point where they could not send their tweets to the teacher via the university's Wi-Fi. Although some students used their own private Internet connection, it was not sufficient for them to continue to use Twitter. The high cost of the private smartphone Internet could have also added an extra burden for the students using Twitter in the class. Kolb (2008) argues that the cost factor of the Internet becomes important when using VSN because of the substantial amount of data download, which might impose a financial burden on the students. In Saudi Arabia, fast smartphone networks such as 3G and 4G are more expensive than home-based Internet connections such as

DSL or fiber. Although the students were not found to complain about the cost of their private smartphone Internet, it was found in previous studies to have a negative influence on the students' use of online communication (e.g., Al-Fahad, 2009; Cochrane, 2005; Kolb, 2008; Nah, 2008).

During the students' use of Twitter, the teachers' support gradually declined, particularly during the final weeks in which the students used it. Based on my classroom observations, several factors could have influenced the teacher's lack of engagement with Twitter in the later weeks, the first being the intervention of WhatsApp, which he thought could replace Twitter, since he was apparently receiving the same types of questions via WhatsApp as he had done via Twitter. The second factor was the environment of the computer lab, which he apparently found uncomfortable due its large size (approximately six times larger than the regular classroom), and its lack of doors, making it accessible to anyone during the lecture. After the students began using their smartphones rather than the university computers, he discussed with me returning to the original classroom several times during this period, indicating that he did not feel comfortable in such an open space. According to Fullan (2001), an innovation will always fail if it does not engage the teachers who attempt to use it. Indeed, the students reported during their second interviews that the teacher's engagement on Twitter was very low in the last few weeks, thereby negatively affecting their engagement.

To sum up, the students initially perceived the use of Twitter as being innovative and as differentiating them from other classes, and these perceptions motivated them to engage in the classroom and so allowed more learning to occur. The findings from both the questionnaires and interviews indicated that the students liked using Twitter. However, due to the constraints that they encountered they were unable to continue using it. Anxiety, the university's infrastructure, and the lack of the teacher support were among the top constraints that the students faced in their use of Twitter.

## 7.4 The Trajectory and Experiences of the Use of WhatsApp Outside of the Classroom Embedded in students' EFL Learning Experiences

In response to the third research question, this section examines the students' experiences and use trajectory of WhatsApp outside of classroom for their English learning.

### *7.4.1 WhatsApp's implementation phase*

WhatsApp's technological features, particularly the ease of use it provided them in accessing their peers and teacher, strengthened the students' engagement with the platform and increased their activity within its virtual classroom environment. The importance of technology's ease of use has been demonstrated in numerous studies and in different contexts to have a positive effect on students' engagement in language learning (binti Mistar & Embi, 2016; Joo & Sang, 2013; Schoonenboom, 2014; Itayem, 2014). In addition, several theories, including UTAUT, DIT, TAM and TAM2, cite the ease of use of a tool as one of the main determinants of user decisions to accept that technology. In the current study, WhatsApp's ease of use facilitated the students' access to the teacher as well as the teacher's access to the students, as evidenced in the study findings. During the exams, the students were able to ask the teacher questions late at night, and the teacher could reply in a timely manner with detailed responses. WhatsApp was easy for the students to use. During the interviews, the students commented that they did not have to go to the university to pose their questions to the teacher, or wait until the next morning. Thus, WhatsApp's virtual environment reduced the effort required to use and access information, as the students and teacher could use the tool anywhere, unconstrained by the university's settings or the time of day, thereby giving them more options for learning English.

Interestingly, another factor that facilitated the students' engagement was the entertainment aspect of WhatsApp, which played a crucial role in engaging the students with the platform and with language learning. WhatsApp's environment was different from their traditional learning environment, and even differed from Twitter, which they could use only to ask questions. In WhatsApp, the students had a free environment where

they could learn and be entertained, in line with van Lier's (2004) comment that "for language learning to occur we need access to the information in the environment. This information cannot just be transmitted to us, we must pick it up while being engaged in meaningful activities" (p. 97). To engage the students in learning a language, therefore, we must first make them active by having them obtain "information from the environment while doing something, in order to do something else" (van Lier, 2004, p. 98). In other words, while the students were sharing photos, videos, and texts and entertaining themselves in both languages, these activities were also making them active in the WhatsApp environment, with their main goal being to engage in language learning. The findings support comments by Abdullah (0207) and Harbi (0201), who described WhatsApp as a tool that they used to learn and entertain themselves, and so become engaged in using it. Thus, it can be argued that the entertainment aspect of WhatsApp allowed the students to act in a meaningful way to enhance their language learning.

WhatsApp's virtual environment enabled the students to share their own learning materials and to learn English collaboratively. The strength of WhatsApp lay in its sharing power, which the students used to maximize their learning to the extent that they began to answer their peers' inquiries rather than waiting for the teacher to respond to them. In the words of van Lier (2004), the WhatsApp's environment could be described as follows:

> The unit of learning is therefore the learner in action in a learnable environment, appropriating meaning (and linguistic forms) in action, and jointly with others building structures of effective functioning. Learners must be engaged, so that the learning emanates from them, rather than being delivered to them. (p. 222)

Indeed, WhatsApp allowed the students to help each other to learn, with the teacher monitoring and answering questions if he had time. On some occasions, I observed the students preferring to ask other students on WhatsApp when they had difficulty with English, as shown in Figure 6.13. In the Figure, Alkhuder is sending a photo of English grammar in his textbook that he has been struggling with, causing him to seek the other students' aid. He received multiple responses that succeeded in answering his question. This finding was also consistent with previous research, in which WhatsApp was found

to enhance collaboration between students in language learning (Aburezeq & Ishtaiwa, 2013; Rambe & Chipunza, 2013). WhatsApp allowed the students to "define the meaning of their own acts within their social context" (van Lier, 2004, p. 8). The presence of all the students in one group, and the multimodal affordances of WhatsApp (that is, photo, video and audio sharing) fostered their English learning collaboration anytime and anywhere. The "anytime, anywhere" features of WhatsApp as available to the students in the current study promoted a community of practice, and helped them manage their participation so that it was at their own convenience.

In addition to the above, the advantage of using the most popular VSN, specifically WhatsApp, in a Saudi EFL context is that the teacher will be online most of the time to check his closest community's discussions, entertainment posts, and other activities, especially as WhatsApp could only be used on a smartphone, meaning he was more accessible irrespective of time and place. Thus, it could be argued that the teacher might not have felt pressured by the students' questions even late at night for two reasons: one was that the teacher was answering the students' question as soon as he opened the app to check his closest community's interaction on WhatsApp; the second was that sometimes the teacher deferred answering the students' questions until his office hours in the university, especially for the questions that were being asked through private message in WhatsApp, as reported by the students. In addition, the students were mindful to not increase the pressure on the teacher. Such was the case with Alkhuder (0206). He had many questions but had to distribute his questions on the days remaining before the exams by asking only one question a day, because "[he] was worried [he] would annoy him, and then [the teacher] would not answer [his] questions." These actions taken by Alkhuder indicate that he and other students were careful not to increase the use effort on the teacher. This could be one of the reasons why the teacher was comfortable with the use of WhatsApp outside the classroom.

The multimodal activity afforded by WhatsApp provided the students with the resources needed to eliminate the constraints attributable to their low proficiency in English. As demonstrated by the study findings, the students used WhatsApp's features (photo-, video-, and audio-sharing) to enhance their learning of English. However, what caught

my attention was their taking photos of the whiteboard and posting these to the WhatsApp group. They did so because their low English proficiency caused most of the students to write slowly, and so they were unable to copy enough of what the teacher wrote on the whiteboard before it was erased. Recent research indicates that the students' current norm is to capture whiteboard contents by taking photos of its contents with smartphones (Klokmose & Bertelsen, 2013; Varona-Marin, 2016). Therefore, what the students did is probably not new; they could have been taking photos of the whiteboard instead of writing down its contents prior to using WhatsApp to save time and to pay relatively more attention to the teacher. However, a new feature with the use of WhatsApp was the ability to send and receive these photos when some of the students had missed class. Photo-taking and sharing created more opportunities for the students to enhance the affordances of the classroom itself.

The influence of the students' closest community, particularly their presence on WhatsApp, was one of the main factors that impacted their decisions to use this platform, reflecting conclusions from other research that the influence of closest community positively impacted students' decisions to use a technology (Polites & Karahanna, 2012; Sánchez & Hueros, 2010; Sicilia, Sáenz-Alvarez, & González-Cutre, 2015). In this study, the students' perceptions of WhatsApp as a result of the influence of their closest community differed from their perceptions of Twitter. The students' use of WhatsApp in their daily lives to keep in touch with their closest community influenced their decisions to be active on WhatsApp, since they could use it to communicate with their peers and the teacher as well as their closest community. This differs from their use of the Twitter platform, which the students used in their daily lives to communicate with the community as a whole, to practice hobbies, be entertained, learn English, and most importantly express their opinion about issues in the community. Moreover, in WhatsApp, the students no longer perceived their closest community as intruders in their language learning as they did with Twitter, but in contrast viewed them as an important factor that motivated them to use and to be active on WhatsApp. This perception of the students could be attributed to the WhatsApp feature that provided them with a closed platform to prevent individuals from outside their learning environment, such as their closest

community, from accessing their activities there, and hence afforded them the privacy they needed for learning, which increased their comfort level with the tool.

The students' use of WhatsApp also increased their sense of community and belonging within the language-learning context, especially for learning outside the classroom, helping them develop autonomy and take control of their own actions. Van Lier (2004) states that the use of the Internet and technology is an excellent way to "create a sense of community and to share linguistic information, create dictionaries, collect stories and myths, in general, to have [students'] voice heard" (p. 174). Indeed, as indicated above, the students in the current study used WhatsApp to build relationships through collaboration and entertainment, positively reflecting their sense of community. For example, Oreny (0209) built his relationship with his peers by taking every opportunity possible to communicate with the group, helping the other students and engaging in discussions with group members to keep himself motivated. By doing so, Oreny was clearly taking control of his actions, developing autonomy and demonstrating his sense of identity. According to van Lier (2004), when the students "speak or write, they must be able to connect their self to the language, express their own identities, and voice their thoughts effectively. Only in this way does their language use become authentic" (p. 191). Thanks to WhatsApp, the students developed their own interests and made their own choices as to how they learned. They took every opportunity to communicate in English with the teacher, such as in the case of Alsumali (0210), who was forcing the teacher to participate every time he went online. However, this was not only with the teacher but also with the other students, such as Oreny (0209), who made use of WhatsApp's voice chat to speak in English. This environment is fostering language-learning competence and motivation, and facilitating their English-language achievements. The utilization of WhatsApp played a crucial role in maintaining a positive sense of community and authentic learning opportunities outside of class.

The students' use of WhatsApp to build their relationship also fostered competition between peers, which was an important factor in enhancing their engagement and exercise of agency outside the classroom. The advantage of competition among peers is evident in the comment by Abdullah, who started to translate every vocabulary item that he did

not know about when his peers communicated in English in WhatsApp, because he believes that since he is in the same class, then all the students are "supposed to have the same English level" (Abdullah, 0207). Although some studies have found that peer competition could have a negative effect on the students' progress in language learning, due to the feeling of anxiety that could emanate from the pressure they encounter from their peers' comments, feedback or even comparison between their skills or achievements (Bailey, 1983; Lin & Ho, 2009; Yan & Horwitz, 2008). However, many other studies have found that peer competition is a strong motivator to enable the students to act to learn English (Azarnoosh, 2014; Dörnyei & Murphey, 2004; Gao, 2008; Kanno & Cromley, 2013). Indeed, peer competition on WhatsApp was reported by the students in the interviews to have increased their activity in learning English, especially the fact that they were communicating through a virtual environment (that is, WhatsApp), rather than face to face. The different viewpoints of those studies could be further illustrated in Zuo's (2011) words:

> Some researches show that under the pressure of peers' competition the learners are always more anxious and nervous than inferior to the students in the cooperative learning groups. However, harmonious and relaxing classroom atmosphere can provide students safety, warmth, empathy, help, genuineness and respect. In such an atmosphere, the affective filtering is weakened to a lower degree. Students are encouraged to perform in their own way without worrying about negative social evaluation, their anxiety is relieved, motivation internalized, and they are likely to participate in learning and encourage each other to achieve goals actively. (p. 988)

The affordances of the WhatsApp platform provided the students with a comfortable and relaxed environment in which to take advantage of competition with their peers to improve their achievements. The affordances of WhatsApp's feature here also strengthened by the students' use of this platform outside the classroom and inside their comfort zones. This could explain why the students felt comfortable using their real names on WhatsApp as opposed to on Twitter. In view of this, it could be stated that the WhatsApp environment provided the students with healthy and safe peer competition

outside the classroom that could foster their activity to increase their achievements in English learning.

With respect to language-learning anxiety, the students felt less anxious when communicating in English on WhatsApp than in face-to-face communication or on Twitter. Studies by Mufanti and Susilo (2016) and binti Mistar and Embi (2016) demonstrated that the use of WhatsApp in learning generated less anxiety than face-to-face interactions. In this study, several advantages of WhatsApp were found to generate less anxiety, the first of which was that the use of WhatsApp's chat feature created more room for the students to make mistakes and to not be anxious. Reduced anxiety due to using WhatsApp could have been attributable to the students' communication through written text, as supported by Ruaished (0208) when he was asked in the interview why he would feel less anxious using WhatsApp, and replied; "because I will not be talking face to face, so these feelings disappear." This is also in line with previous research that found that online text-based communication generated less pressure and lower anxiety (e.g., Chan, 2010; Roed, 2003; Satar & Özdener, 2008; Warschauer, 1996a). This low-anxiety environment allowed the students to increase their participation in English learning outside the classroom.

The private channel afforded by WhatsApp was another factor that enhanced the students' confidence and lowered their anxiety levels, allowing them to be more active on the platform. The students no longer had to hide their identities by creating anonymous accounts, as they had on Twitter. Unlike on Twitter, on WhatsApp the students could contact the teacher through private chat, allowing them to keep private their "sensitive questions" or weak understandings of course materials without any extra effort (i.e., switching from anonymous to non-anonymous accounts, and *vice versa*). In contrast to Twitter, contacting the teacher privately was as simple as clicking on the teacher's name instead of the group's name to open a conversation. Although Twitter also offered a private chat option, the students did not report having used it, and their reasons for not doing so are still unclear. However, it could be argued that the students might not have felt comfortable using Twitter, especially since some students experienced anxiety when using it. In addition, the intervention of WhatsApp replaced Twitter largely because of its

enhanced privacy features, its multimodal and sharing activity, and its widespread presence in their daily lives. As a result, the students might have felt more comfortable using WhatsApp's private chat feature rather than Twitter's.

In addition to this, WhatsApp created an environment that fostered informal relationships, allowing the students and the teacher to break the emotional and cultural barriers that had previously constrained their interactions and engagement. The formality of student–teacher relationships is typical in the Saudi educational context (Kojima, 2012), and such formality has caused some students to experience difficulty in drawing the teacher's attention to their English learning (Al-Shehri, 2012). This is because this kind of formal relationship generates anxiety for the students when initiating their questions; as Alrabai (2014) found, "The strict and formal learning environment in Saudi Arabia is a fundamental factor in learner anxiety" (p. 91). This issue of formality in the Saudi EFL context was also found to create extremely stressful language learning conditions in Tanveer's (2007) study. The present study's findings reveal that WhatsApp has created a platform where the students could build informal relationships to comfortably interact and collaborate in English with each other and with the teacher. Although there is no clear evidence that enhanced learning has occurred, the students' increased activity on WhatsApp rather than face to face or on Twitter could indicate that the students had many opportunities to exercise their agency. Van Lier (2004) argues that language classrooms "tend to be very linguistic and formal, so that there is almost no opportunity to develop a Firstness[13], a relation of emotional mutuality with the language" (p. 72). Thus, the use of WhatsApp provided a means for the students to learn English comfortably through informal interaction with each other and with the teacher. This finding is supported by other researchers, who also found that the informal relationship fostered by VSNs enhanced language learning (Arnold, Ducate, & Kost, 2009; Kessler & Bikowski, 2010; Kessler, 2009). In this study, the informal relationship modified the students' environments by allowing them to build relationships and become closer to one another,

[13] For clarity van Lier (2004) defines Firstness as a quality that relates to "feeling, or possibility" (p. 66)

thus providing more opportunities for the students to express their identities and to feel comfortable when interacting with one other and also with the teacher.

What is more, based on this researcher's experience, and as also indicated by the study findings, not all the teachers welcome students' questions and arguments, as was the case with one science-based teacher, whom the students asked to allow WhatsApp and Twitter in his class so that they could contact him for help when they had difficulty with a topic. For example, Abdullah (0107) expressed his experience with a particular science based subject stating; "This teacher is well-known among the students. I mean, as a student, it is my right to ask! I am afraid to ask questions because I don't want to be abused in front of the other students," while Ajlan (0205) stated he wanted to use WhatsApp to solve their problem in approaching the teacher, as shown in his reply; "Honestly, I hope so, especially for [that particular science-based subject]. If we had the teacher for [that science-based subject]with us on WhatsApp, most of our problems would have been solved." The cause of this attitude of the teacher and the students could be the formality in their relationship, which could primarily be attributed to the students' fear of failing the subject if they were unable to please the teacher. For example, when I asked Alsumali (0210) in the interviews why they did not complain about this teacher to the administration, he replied, "the problem is that we feel afraid if we complained to the administration, he might know who did this." Thus, if the teacher knew who had complained about him, the students thought that he might fail them on the subject, or give them low grades. This fear of the teacher reduces their activity in the classroom, and as a result they do nothing that could discomfort the teacher with them. Another example came from Harbi (0101), who wanted to participate on Twitter because he wanted the teacher to "give [him] more attention and higher marks." Harbi's comment is twofold: firstly, to show the teacher that he is a diligent student, and secondly that he was thinking that the teacher could raise his marks if he pleased him, or if he showed himself to be a diligent student. This indicates that some students believe that the teacher controls the marks, and could raise or lower their marks based on the relationships between them. This is consistent with Algarfi's (2010) findings, in that the students believe that the teacher has the ultimate power regarding all matters to do with test scores and exams. Hence, some

students tend to keep their relationship with the teacher formal, to the extent that some of them prefer not to participate in the class for the entire semester so that the teacher does not recognize them, in order to avoid a negative relationship.

Another issue that could lead to formality was that the academic staff would not expect their students to call them by their first names, but rather by titles such as "Doctor" (Al-Shehri, 2012). Therefore, some teachers might also purposely increase the formality of their relationships with the students. The cultural barriers arising from the formal relationship between the teacher and students negatively shaped the students' actions in this context, so that they sometimes struggled to gain the teacher's attention to obtain help when they experienced difficulty in learning. The affordances of WhatsApp created an opportunity to change their existing realities and to increase their opportunity to learn by bypassing these cultural constraints, as they would not be asking the teacher face to face, but through a mediator (that is, WhatsApp) to ask the teacher indirectly outside the classroom and within their comfort zone. Furthermore, the informal relationship fostered by WhatsApp was not only advantageous for the students but also for the teacher, who appeared to enjoy informal interaction with his students. WhatsApp allowed him to reveal more of his personality to the students by sharing information about his culture through pictures, by conversing with them, and by simply having fun with them to a greater degree than he did in the classroom setting. The teacher's agency provided a means of breaking down cultural barriers that were constraining the students from actively exercising their agency, such as shyness in speaking to an elder in an informal manner (Algarfi, 2010), fear of losing face, and negative evaluation (Al-Khairy, 2013; Al-Saraj, 2013; Alqahtani, 2011; Alrabai, 2014; Hamouda, 2012). The teachers' actions in WhatsApp contributed greatly to reshaping the students' environment and allowing them to practice their English. WhatsApp was thus found by the students and teachers to be a new setting that effectively contributed to strengthening their relationships, making them less formal and thereby facilitating increased levels of learning.

### *7.4.2 WhatsApp's sustainability phase*

With respect to WhatsApp's sustainability, the students' behavior confirmed WhatsApp's long-term usefulness. As previously mentioned, Fullan's (2007) perception of successful sustainability is based on whether participants sustain an innovation within a specified timeframe. In this study, WhatsApp was used with great success until the end of the semester. The students and the teacher decided on their own to continue using it until the end of the semester, even though they knew that the study was finished (5 weeks before the end of semester); hence, the students' and teachers' behavior in using WhatsApp until the end indicates that sustainability of WhatsApp was successfully achieved.

According to Fullan (2007), an entire school system, including principals, administrators, teachers, students, and government officials, contribute to the sustainability of innovation, and that sustainability is successfully achieved once the innovation becomes embedded within the school system. The presence of VSNs as an official platform through which the university communicated with the students might have facilitated the introduction of WhatsApp. Moreover, the existence of VSNs in the daily lives of the students also played a crucial role in attaining sustainability for WhatsApp. It was, however, very much an individual initiative, and the importance of the affordances themselves appealing to participants that led to sustainability of WhatsApp. The findings of the present study in relation to sustainability provided a slightly different perspective on the innovation achieving sustainability within the current context. Therefore, in this section, I will discuss student behaviors that were facilitated by WhatsApp's affordances, and that had a positive influence on the WhatsApp's sustainability phase.

The sustainability phase consists of actions taken by individuals to ensure that the benefits of an innovation initiative continue to be available over the long term (Holmes, Clement, & Albright, 2013). The first action taken by the students was to use WhatsApp until the end of the semester, not only for English learning but also to collaborate with one another in other subjects, such as computer science and chemistry, but more extensively in physics, since they had difficulties in approaching the teacher. They also decided to use WhatsApp on their own without involving the teachers. This behavior allowed them to become more autonomous in their learning, and is consistent with findings from previous

studies that VSNs fostered learner autonomy (e.g., Alm, 2009; Zourou, Potalia, & Zourou 2017). In addition, as mentioned in the discussion of the second research question, Waters (2009) states that for innovative projects to have a wider and longer-lasting impact, the innovation should be available for multiple subjects. WhatsApp's affordances provided the motivations for the students to be more independent in their learning in general, and not just in the English language. The study's quantitative findings revealed a strong positive attitude toward using WhatsApp in other subjects. The students' responses to Item 21 had a mean of 4.72/5 with an S.D of 0.53, indicating strong agreement regarding the benefits they perceived themselves as gaining from using WhatsApp in other subjects. Using it in other subjects increased their activity levels to the extent that, on some days during the exam period, the students posted between 500 and 1,000 messages. Thus, the students' use of WhatsApp for other subjects strengthened their decisions to accept and adopt it, and increased their level of engagement.

The students' decision to use WhatsApp until the end of the semester testified to the value they placed on it, in contrast with Twitter, which the students dropped even before the end of the study. The students' actions show that they needed WhatsApp to facilitate their learning, and that the teacher was enjoying his increased contact with the students and the resultant ability to help them. The students had witnessed and experienced WhatsApp's benefits, not just with respect to their learning of English, but also for other subjects as well. They also expressed their intentions to continue using WhatsApp during the next semester, as their responses to Item 22 of the questionnaire strongly show. This item, which asked whether they intended to continue using WhatsApp during the next semester, had a mean of 4.36/5 with an S.D of 0.74. In addition, as discussed in the first research question in section 7.2, the teacher trainees revealed that they were already using WhatsApp to collaborate with regard to their learning. Also in this longitudinal study, some of the students had revealed that they were using WhatsApp for learning, and specifically for English learning. One such was Ajlan (0205), as discussed in section 6.5.1, who stated he was using WhatsApp as a platform to practice English because he was aware of its benefits. This action by the students and teacher trainees indicates that there is a high possibility that the students will initiate the creation of the WhatsApp group

on their own initiative, and possibly invite the teachers into the group. It could, therefore, be argued that WhatsApp was successfully sustained in this study by the students' own choices, even without the interference from what Fullan terms local characteristics and external factors (in this case, the principal, the district, the government and other agencies, who had no influence on the students' decision to use WhatsApp).

In general, the findings showed that the students' attitudes toward WhatsApp were very positive. WhatsApp's affordances allowed the students to exercise their agency more comfortably than with face-to-face interactions or on Twitter. WhatsApp not only supported collaboration and community of practice and overcame constraints related to low English proficiency and anxiety, but also fostered students' individual creativity, competitiveness and informal interaction in the student–teacher relationships, thereby positively influencing their achievements in learning English. The social and technological factors that emerged from their interactions in and use of WhatsApp played interrelating roles to enhance and support the students' agency. Finally, with all of WhatsApp's benefits and characteristics, the students were able to sustain this innovation even without the support of external, and some of the local, factors as described by Fullan (2001, 2007, 2016).

## 7.5 Summary

This chapter constitutes a response to the research questions and was based on interpreting the study's findings in light of accepted theoretical and analytical frameworks. It was revealed that the agency of the Saudi EFL students was further exercised within private-based VSNs due to this type of VSN's affordances in facilitating social relationships, collaboration, and privacy, and also due its widespread use in the society. These affordances positively influenced the students' agency for English learning, and created an environment wherein they could practice the English language with others.

The findings of the longitudinal study in the implementation and sustainability phases further confirm the students' preference for this type of VSN. In Twitter, the tool was

found to be motivational for the students, allowing them to engage to a greater extent with the English language than in the physical classroom environment without access to a VSN. However, the students were hiding their identities through anonymous accounts due to the fear of negative responses on the part of the other students and their closest community should the student be unable to respond well to the teacher in English. In addition, the use of Twitter required more effort on the students' parts than they could handle in the classroom, especially with the use of computers. Although, the students used smartphones to reduce the level of effort, using Twitter nonetheless required more effort due to the need to switch accounts from anonymous to non-anonymous, and then to employ a hashtag. Moreover, the university's infrastructure in terms of Internet and Wi-Fi was unstable during the late stage of Twitter's implementation, increasing pressure on the students to switch to WhatsApp on their smartphones. As a result of all of these constraints on the students, Twitter's sustainability was difficult to achieve.

However, sustainability was successfully achieved on the WhatsApp platform. All of the constraints that the students faced during their Twitter's use trajectory were eliminated in the WhatsApp environment, a collaborative environment in which they could learn English at their convenience outside of the classroom. WhatsApp's nature within Saudi society played a crucial role in facilitating the students' acceptance of the tool for their English learning outside of class. Moreover, the affordances of WhatsApp increased the students' confidence, helped overcome their low English proficiency, and allowed more interaction to occur which supported their language learning.

# CHAPTER EIGHT: CONCLUSION

## 8.1 Overview

This concluding chapter begins by revisiting the research questions with respect to the nature and role of VSN in a Saudi EFL context as well as the use and experience of Twitter and WhatsApp in a Saudi EFL classroom from a longitudinal study. Next, the theoretical, methodological, and pedagogical implications of the study are presented. The chapter then discusses the study's limitations and directions for future research within the field. A final word from the researcher then concludes the thesis.

## 8.2 Revisiting the Research Questions

The purpose of this study was to examine Saudi EFL students' experiences with the novel use of VSN as an environment in which to collaborate and practice their use of the English language. As described in the methodology chapter, the study's research questions were aligned with the two data-collection stages: with respect to the first stage, research question one concerned understanding the nature and roles of VSNs in the Saudi EFL context, and research questions two and three related to the implementation stage of Twitter and WhatsApp, exploring the students' experiences with and VSNs' use trajectory over time. These stages align with Fullan's change theory. In this section, the three questions are revisited.

### *8.2.1 Research question one*

What are the nature and role of VSNs in the contexts of Saudi tertiary EFL students?

The first research question was intended to provide a background understanding of how VSN technology operates in the Saudi EFL context, that is, how Saudis interact with it, how common is its use, and for what purposes the technology is used. The results obtained

relating to this question reveal the nature and role of VSN technology in general, hence enabling appropriate VSN to be used for English learning based on their alignment with Saudi cultural norms. The findings related to this research question would also support those related to the second and third research questions.

In line with my expectations, the features of VSNs were used as affordances to enhance collaboration, overcome anxiety, and provide learners with platforms to practice the English language. These findings of VSNs are also in line with the literature in terms of a positive effect of the students' ability to act (e.g., Al-Shehri, 2012; Aburezeq & Ishtaiwa, 2013; binti Mistar & Embi 2016; Gutierrez-Colon Plana et al., 2016; Mufanti & Susilo, 2016; Rambe & Chipunza, 2013). However, unexpected was how social factors and a particular VSN's technological features shaped participant attitudes to use and accept one VSN over another. The social factor played the role of either a constraint or an affordance with respect to the participants' use of VSN, dependent on the VSN type. In relation to a public-based VSN, the participants were not active on Facebook and other public VSNs primarily because there was no social activity with their closest community (e.g., friends, relatives, family, parents, classmates and colleagues) or from their community as a whole which in turn negatively influenced their level of activity on and acceptance of these platforms. Interestingly, though, the community social activity was not in itself enough. Instagram, which offered social activity from their community as a whole and their closest community, was not preferred because of its limited technological features (e.g., limited images and short videos of up to 15 seconds at that time), lack of privacy and also because of their perception of it as for entertainment only. Thus, participants' prior perceptions of the platform affected their level of engagement with it. Hence, investigating participants' prior experiences with and attitudes toward an innovation before implementing it is important in increasing the chances of its broader impact over the longest period of time.

In the study, Twitter was the only public-based VSN type that elicited a positive response from both the teacher trainees and the PYP students when applied in the language classroom. In fact, the participants indicated that they had used Twitter for English learning prior to the study. Like Instagram, the participants also already had a social

outreach on Twitter prior to the study, although not to the same degree as with WhatsApp, which was perceived as far more acceptable than Twitter for English learning. While both Twitter and Instagram had the same levels of social outreach, Twitter was preferred for educational purposes, possibly due to the participants' prior perceptions of the platforms. For example, Twitter was perceived to be more of an official platform rather than being for entertainment, since its features permitted expressing users' thoughts to a wider audience for purposes of, for instance, practicing hobbies or indulging in educational pursuits in general and more specifically for English learning. Therefore, Twitter was a better fit for English learning than Instagram for the participants.

Private-based VSNs, particularly WhatsApp, were viewed as far superior to the other, public-based VSNs in all aspects, both socially and technologically. This was one of the unexpected findings that helped me determine the appropriate VSN for outside-of-class English learning after the pilot study. In terms of social outreach, the participants indicated that their activity levels were higher on WhatsApp than on all the other VSNs. The social use of WhatsApp was mainly to stay connected with individuals with whom they had close personal relationships. The social activity from their personal relationship increased their attachment to WhatsApp and activities on this platform. Moreover, WhatsApp's technological features also played a crucial role in fostering participants' engagement levels there. WhatsApp is a closed platform, that is, posts sent within a group can be viewed only by group members. This feature together with its sharing power (e.g., allowing the share of unlimited length of voice, post and video, as well as images) made it appealing to the participants for English learning. Based on the findings, participants sought out others with whom they could practice English on the public-based VSN but then, once they had found such a person, they moved to WhatsApp to practice English, because they felt more comfortable there. In general, answering the first research question provided detailed insights into the appropriate way to investigate the nature and roles of an innovation prior to implementing it.

### *8.2.2 Research question two*

How are the students' experiences and use trajectory of Twitter in the classroom embedded in their EFL learning experiences?

Research question two explored the complexity and dynamic nature of the students' experiences and use trajectory with Twitter over time. Through a series of post-project questionnaire items, individual interviews, research log and classroom and online observations, I was able to achieve a deeper understanding of their behavior on Twitter. Twitter motivated the students' agentic systems to engage with English learning as they made use of its features as affordances to overcome difficulties associated with approaching the teacher. Moreover, their use of Twitter allowed for the emergence of other affordances, such as the use of smartphones and online dictionaries. The Twitter environment in the early weeks of its implementation and before the intervention of WhatsApp allowed the students to be more active in the classroom and thus increased their gains from the material of their English classes.

In spite of Twitter's affordances in positively engaging the students with English learning, the contextual constraints associated with it as well as WhatsApp's superior advantages prevented Twitter from achieving successful sustainability. Tension arising from the students' anxiety concerning loss of face and negative evaluations by their peers, their teacher, and their close friends and family from not being able to understand the teacher's response to their questions due to their low levels of English proficiency caused the decline in their Twitter activity by the ninth week. The issue of anxiety meant that some students created an anonymous account to overcome this issue. However, even though some of the students tried to avoid these issues by employing anonymous accounts, their questions were sometimes unclear to the teacher. In this case, the teacher usually asked the questioners to reveal their identities to clarify his question, thus putting them under anxiety pressure. In this way, the teacher's role with the use of Twitter might have negatively influenced the students' activity, due to the teacher's lack of experience in using Twitter in a language classroom. However, it seems to represent a decision based on his idea of being a good teacher and making sure that he was meeting the need

expressed in the question, but without taking account of student face. Anxiety arising from the use of Twitter could have been avoided with training for the teacher in how to use it and how to deal with difficult situations, such as those the students encountered in the course of this study.

Other primary contextual constraints such as the university's limited Internet access played an important role in shifting the students' agency to WhatsApp. Although the students tried to avoid this constraint by accessing the Internet via their private smartphones (i.e., 3G and 4G), the effort exerted to switch from anonymous to real Twitter accounts on their smartphone (logging out from their real account to their anonymous account until the lecture is over then switching back to the real account) exerted extra pressure on their agency. Because of these constraints, the students went through a series of ups and downs throughout the implementation phase until they reached a complete switchover to WhatsApp; both the students and teacher recognized that WhatsApp did not have the constraints present on Twitter, especially as it was intended to be used outside the classroom while Twitter's purpose is to be used inside the classroom (see Section 3.5). This issue could also have been avoided if Qassim University, which is rapidly improving its network system, had offered higher speed Internet access at that time.

### *8.2.3 Research question three*

How are the students' experiences and use trajectory of WhatsApp outside the classroom embedded in their EFL learning experiences?

Similarly, the purpose of the third research question was to investigate the complexity and dynamic nature of the students' experiences and trajectory with respect to use of WhatsApp outside of classroom over time. The students' agency was explored in-depth through semi-structured individual interviews, post-project questionnaires, research log and observation of the students' interactions with WhatsApp. The students' and the teacher's interactions with WhatsApp were beyond my expectations. Use of WhatsApp not only eliminated most of the constraints that the students had encountered with Twitter

but it also provided them with new affordances that they utilized to change their environments, including the capability for informal learning and its affordance in allowing multimodal activity that fostered the students' engagement with the tool and their study of English. In addition, WhatsApp's virtual environment provided the students with more opportunities to engage and be linked to the classroom more often than just during lectures. The students' appraisals of WhatsApp's affordances indicated that they enjoyed their experiences with it outside the classroom

The students' dynamic activity in WhatsApp differed from that in Twitter; in WhatsApp, the students expanded and improved their use of the affordances over time and continued searching for ways to use the tool to enhance their learning. For example, the students included their collaboration in other subjects besides the English language, thus demonstrating a high degree of agency and autonomy with respect to their studies that the WhatsApp environment's affordances helped foster. Furthermore, in the Saudi-style classroom environment, as discussed in the literature review, the teacher oftentimes plays the greater role and the students the lesser in almost all aspects of learning. The use of WhatsApp showed the students that they could rely on themselves rather than relying on the teacher as the only source of information. Although the students could ask the teacher for support on WhatsApp, they nonetheless asked other students to aid them in their English learning difficulties, especially those who lacked confidence in writing in English to the teacher. More importantly, WhatsApp succeeded in creating an environment for the students to practice and improve their use of the English language. As shown by the findings, the students took advantage of every opportunity to converse in English, either with the teacher or the other students. All in all, WhatsApp provided a pleasant experience for the students and was successfully sustained until the end of the semester, with the students indicating that they would continue its use in the next semester.

## 8.3 Implications

### *8.3.1 Theoretical implications*

Given the lack of research into VSNs as an innovation for language learning and approaching agency from an ecological perspective, I carried out the current study in a Saudi social and cultural context of language learning. Agency theory opens the door to exploration of the language learner's actions from Fullan's three-phase change perspective, providing insights into the nature and role of VSNs in a Saudi tertiary EFL context and the complexity and dynamics of the learners' use of the innovation. Results drawn from the present study informed by agency theory as the analytical framework allowed for a deeper understanding of the role of affordances and constraints in the learners' decision-making to act and adopt an innovation in a Saudi language classroom's environment. Theoretical implications of the present study include the learners' agency in the use trajectory of VSN over time and the roles of the innovation's phases (i.e., initiation, implementation, and sustainability) in creating a wider and longer impact.

Within the study, the ongoing interaction between the students and the learning contexts' affordances and constraints were the primary drivers for the dynamics of their agency through their use of VSN. Van Lier (2004) states that the availability of affordances in learning contexts enables further actions. While much research has endeavored to explore students' behavioral intentions in the use of an innovation, less attention has been paid to the role of their agency and their interactions with an innovation's affordances and constraints within their sociocultural settings over a period of time. In this study, the moment-by-moment longitudinal study involving both Twitter and WhatsApp showed that the students' adoption of an innovation in a language-learning context was a complex, dynamic process, driven and expanded by the emergence of affordances in the environment that enabled actions or, through contextual constraints, prevented actions by them. Thus, the theoretical contribution of this study consisted of broadening the scope of an investigation of a language-learning innovation. Rather than the focus being on the overall results of the innovation, this study instead looked at the process of its acceptance

and use over time within the learners' sociocultural context, with particular emphasis on the technological affordances that enabled learners' agency or constraints associated with its use that prevented its adoption.

In addition, the present study allowed for a deeper understanding of the complexities of the students and teacher from a slightly different perspective through Fullan's innovation phases, i.e., initiation, implementation, and sustainability. In the literature (Fullan, 2007; Waters, 2009), stakeholders such as government officials, school authorities, and members of the political, administrative, and institutional system can be included as factors influencing the implementation and sustainability of an innovation. However, the focus of this study was on the emerging factors between the classroom and its cultural and educational context. A focus on the students' and teacher's perception and process of VSN within the EFL classroom rather than on stakeholders that were at a further remove from the classroom, such as stakeholders such as government officials, school authorities, and members of the political, administrative, and institutional system. As van Lier (2004) argues, "the real issue is to take a hard and critical look at what actually happens in classrooms and in students' lives with technology" (p. 187). In this study, doing so allowed for a deeper understanding of the innovation process situated in the classroom and the impact of cultural and educational contexts on participants' use of VSN technology. Furthermore, employing agency theory as the study's analytical framework allowed for the exploration of new factors associated with and the characteristics of an innovation that significantly impacted participant decisions to use VSN.

### *8.3.2 Methodological implications*

The application of a mixed method approach is increasingly accepted and encouraged in research related to language learning and teaching (Dörnyei, 2007; Riazi, 2017). This research adopted a mixed methods approach for data gathering to gain deeper insights into the complex nature of VSNs in the Saudi tertiary EFL context and to follow the students VSNs' use trajectory within the language learning classroom environment. This allowed the researcher to delve into the complex and dynamic nature of the participants' agency from an ecological perspective. The value of the triangulation between the

instruments of quantitative and qualitative methods (discussed further below) is that it increases the validity and reliability of the data analysis. Overall, the use of a mixed methods approach in the present study is one of its strengths.

Another contribution of this study is its division of data gathering into two stages. The first provided background into the nature and roles of VSN, and the second investigated implementation of an innovation in the language classroom using two different tools. This method not only allowed deeper understanding of the innovation to be gained but also suggested new ways for data collection and analysis within innovation research.

In this study, each stage had its own set of methods for data gathering. In the first data-gathering stage, the set of data collection instruments included classroom scenarios, questionnaires, and interviews. The focus of this stage was on quantitative instruments, with qualitative ones playing a supporting role in triangulation with the quantitative data to validate findings. In the classroom scenarios, the combined use of quantitative and qualitative methods not only aided the participants in effectively choosing and commenting on their preferred scenarios but also facilitated visions of what an innovation might be like in their language learning environment and confirmed the findings of the interviews and the questionnaire. Moreover, the data collection instruments employed in this stage were not applied in only one setting but in multiple settings and on multiple samples that included different but relevant age groups and educational levels including students at Qassim University's main campus and its branches throughout Qassim state. This stage also helped in confirming and validating the findings in the second stage, which constituted the longitudinal study (that is, the implementation stage).

The goal of the second data gathering stage was to capture the students' experience and use trajectory of VSNs over time. The longitudinal study provided in-depth insights into the students' language-learning experiences with VSN and how a particular environment's affordances and constraints shaped and reshaped their agency through time. Although both data collection methods, quantitative and qualitative, were used in this stage, the qualitative instruments—interviews and observations inside and outside the classroom—played the primary role, with the questionnaire playing a supporting role in triangulating the qualitative data. Observations, from both a quantitative and a

qualitative perspective, to be precise, allowed the students' trajectories of their uses of WhatsApp and Twitter to be tracked and their ups and downs. To be exact, I was able to observe closely how the students and the teacher interacted with Twitter and WhatsApp, taking photos and notes of their experiences on a day-by-day basis. Even after the study was finished, the students and teacher continued using WhatsApp, and I continued observing them even when I returned to New Zealand until the end of the semester. In addition, conducting two series of semi-structured interviews over the trajectory, two with each participating student in the interview, allowed me to discover the students' perception of an innovation across different points in time, to better investigate the students' experiences and how their agency changed over time. The first interviews were conducted at the outset of Twitter's implementation, in and around the first week of its implementation in particular, and so enabling me to capture the students' initial experiences with this tool. The second interviews were conducted at almost the end of the study during the eleventh week, giving the students the opportunity to sum up their overall experiences with the use of both VSNs. Observations together with semi-structured interviews provided in-depth insights into the dynamics and complexity of the students' experiences and use trajectory of VSNs.

### *8.3.3 Pedagogical implications*

The present study confirmed the view that the application of VSN technology in and out of the EFL classroom is feasible to provide students with a comfortable and collaborative environment in which to practice the language under study. The pedagogical implications of this use of VSN are promising and suggest great potential in aiding the Saudi Ministry of Education in its endeavors to introduce innovations in Saudi learning in general and in the study of English language, in particular. Several sources of this pedagogical potential with respect to Saudi EFL classroom practice include the innovation's affordances in overcoming constraints associated with the context, particularly affective ones, modifying the teacher's role, and enhancing social interaction between the students and the teacher.

However, Saudi contextual and VSN technological constraints need to be considered prior to the implementation of VSN technology to ensure an efficient application of the innovation in the Saudi EFL classroom. The present study revealed that constraints based on contextual and technological features can, to some extent, limit the potential benefits of the innovation or possibly limit its sustainability. In regard to contextual constraints, the implications of a learner's emotional and cultural characteristics should be carefully gauged prior to a VSN technology's implementation, especially for an open platform such as a public-based VSN. In addition, the institution's infrastructure capacity in terms of network speed and stability should be carefully investigated to avoid a negative impact on the innovation's sustainability. Furthermore, educators should be aware of a VSN's specific technological affordances so as to use these appropriately within their curriculums to bring about changes in the learning context. For example, a private-based VSN such as WhatsApp offers learners a closed environment and could provide them with multimodal activity due to its sharing features. The three innovation phases of Fullan's change theory applied in the present study (initiation, implementation, and sustainability) could help guide Saudi EFL educators in how to proceed with implementation. Thus, educators need to adjust their plans of action accordingly with respect to the technological affordances of particular VSN technologies and their associated contextual constraints.

As was discussed previously, some students who used their real names on Twitter accounts developed language learning anxiety, mainly because of fear of negative evaluation by their peers or fear of not being able to understand the teacher's English due to their own low English proficiency. This fear caused them to resist the use of Twitter in the classroom. However, students who did not experience anxiety or who used anonymous Twitter accounts perceived advantages of using Twitter, and these advantages motivated them to engage with English learning in the classroom. Thus, teachers using public-based VSNs in the classroom should encourage students to participate from anonymous accounts to keep their identities hidden and to avoid the students becoming anxious because "language anxiety has consistently shown a negative correlation with second language achievement and with the perception of second language proficiency"

(MacIntyre, 1999, p. 41). This is because in-class participation usually carries more tension on the students since they are afraid of the teacher or even the students' reaction when making mistakes in the class (Al-Khairy, 2013; Alqahtani, 2011; Alrabai, 2014; Hamouda, 2012). However, another issue possibly emerging from use of anonymous accounts is that the students would not only have to set them up in addition to those under their real names but would also have to go to the trouble of switching between the two accounts. Allowing the students to use Twitter outside of the classroom as well could help in reducing the effort of using Twitter because it will provide the students with more than just the period of the lecture to switch between their accounts whenever they felt comfortable doing so. This strategy might even reduce the anxiety to some extent for some students since those students could ask questions outside the classroom at their leisure (Al-Shehri, 2012). Hence, to increase the practicality of Twitter or other public-based VSNs in the classroom and to increase their long-term impact, the teacher needs to take into consideration the emotional impact of the innovation on EFL learners' agency and to employ these emotions as a resource to fuel the students' engagement in the classroom.

With respect to private-based VSNs, particularly WhatsApp, anxiety did not emerge from the students' and teacher's interactions with this platform because of the platform's technological affordances and uses. In particular, WhatsApp afforded the students a closed environment and, most importantly, was used in this study outside of the classroom which allowed the students to participate at a time that suited them. In this environment, all the students used accounts registered under their real phone numbers to interact with one another and with the teacher in English and did not display signs of anxiety. As was evident in the study, their comfort with this platform was attributable to the lack of face-to-face communication involved in using it, which allowed them to avoid the anxiety associated with lack of proficiency in speaking English during face-to-face interactions (Aljumah, 2012; Hamouda, 2012; Hammick & Lee, 2014). Erwin, Turk, Heimberg, Fresco, and Hantula (2004) state that ''for socially anxious individuals, communicating with others on the Internet in a text-based manner (i.e., email, chat rooms, or instant messaging) may allow them to avoid aspects of social situations they fear (e.g., blushing,

stammering, other's reactions to perceived physical or social shortcomings)" (p. 630). WhatsApp provided opportunities for the students to practice the English language outside the classroom, and thus, based on this study's findings, using a private-based VSN might be better suited than a public-based one, especially for a sociocultural context such as Saudi Arabia, where anxiety is common among students with low English proficiency (Alrabai, 2014).

Social influence is another important pedagogical implication associated with the use of VSN technology in this context. The present study's findings reveal that the more active and widespread the use of this innovation in the Saudi context, the more likely it will be used and adopted for English learning. The social influence is, however, a double-edge sword; that is, it can be negative or positive depending on the technological features of the particular VSN. On one hand, the social influence associated with open VSNs such as Twitter and Instagram could have a negative influence on students' activity and acceptance of the VSN, especially for those students using accounts registered under their real names. This negative influence is due to the open nature of the VSN platform, which allows those with whom the students have personal relationships to be able to view communications on the platform that concern their studies. Thus, using anonymous accounts might help in avoiding these issues for the Saudi EFL learners.

On the other hand, in the private-based VSN WhatsApp, social influence played a crucial role in motivating and engaging the students with their English learning because of (1) the presence and intense activity on WhatsApp of the students' circle of friends and family and, at the same time, (2) the ability to screen their educational use of WhatsApp from this circle because of the closed environment the platform provided. Thus, WhatsApp facilitated the students' engagement with English but eliminated the concern that those outside of their educational lives could view their collaboration with other students in studying English. Moreover, social interactions on WhatsApp enhanced the students' sense of responsibility toward their peers' learning and motivated them to support one another, thus encouraging them to practice English and display their skills. WhatsApp could be used by a Saudi EFL teacher as a tool to encourage student collaboration and so boost their agency in English learning.

Implementing WhatsApp in the current study contributed in transitioning the teacher's role from transmitter of knowledge to facilitator and mediator within the learning process. White (2012) states that, with technology utilization in the language classroom, "learning is no longer hermetically sealed within the classroom, with the teacher and the textbook as the sole or principal source of target language texts and learning opportunities" (p. 8). Indeed, the present study demonstrated that the students developed autonomous learning in the WhatsApp environment with respect to learning not just English but also other subjects that they were studying, possibly because the students' collaboration in effect transferred some of the teacher's power to the students. Collaborative learning in a technological environment allowed the learners to "exert a greater degree of choice and discretion about what and how they should learn" (Sanprasert, 2009, p. 111). The empirical evidence of WhatsApp's effectiveness outside the classroom in both the qualitative and quantitative data reveals that it can enhance student engagement and collaboration and autonomy in the Saudi EFL context. Therefore, the application of WhatsApp in the Saudi language classroom is strongly recommended.

Finally, to increase the long-term impact of VSNs in learning English, it is important for teachers to be open to the use of the site set up for their own class for emergent methods of student use including discussion from other subjects they are studying and, to allow the use of any device with which the students are comfortable to access VSN, and to allow and encourage entertainment activities on the platform also. These emergent practices allow students to be more active and comfortable with the VSN's use which empowers their agency within the learning environment (van Lier, 2004). As was evident in the study, using the platform for other subjects increased the students' advantages, collaboration, autonomy, and attachment to the platform. Furthermore, allowing the use of any device with which the students are comfortable contributes to reducing their levels of effort in using the VSN. All these factors could aid teachers in their use of VSNs in the Saudi EFL context to achieve VSN sustainability in the EFL classroom for a longer time period.

## 8.4 Limitations of the Study

While the study proved its value theoretically, methodologically, and pedagogically, it was not without its limitation. These limitations concerned the selection, sampling, and gender of the participants in the longitudinal study and, together with time constraints, could affect the generalizability of the study's findings to other contexts.

The time available to complete the research was limited to twelve weeks due to Saudi postgraduate regulation by Saudi Arabia's Ministry of Education. This constraint made it difficult for me to observe and capture all aspects in the longitudinal study due to the large sample size of the first background stage (the non-longitudinal stage) which encompassed the data gathering from the other institutions at Qassim University. For example, I had to miss some opportunities to observe the students' use of Twitter in lectures, because I was at that time gathering data from the teacher trainees. Also, interviewing the teacher to obtain his experience and perception of Twitter and WhatsApp would have strengthened the findings of the longitudinal study. However, time constraints prevented me from finding a suitable time to do this. While my observation of the teacher's behavior and the students' responses in the interviews seems to answer part of the teacher's attitude toward the implementation of VSN, interviewing him would have been better to investigate his attitude.

Another limitation concerned the selection of the participants in the longitudinal study, which was not random. Clearly, this selection was dependent on the teacher who agreed to participate in the study. Each teacher was already assigned to his group of students prior to implementation of the study, and thus I was automatically referred to Group Two students since they were the selected teacher's students. Of course, the students' consent was taken prior to the implementation of the study (see Section 3.5). In addition, the education system in the Saudi context segregates students by gender, and so female participants were excluded from the longitudinal study due to difficulty of access. Furthermore, the study's report on the VSNs' use trajectory and experiences with respect to one class of 25 male students who were taking *English Reading and Writing* in the Preparatory Year Program (PYP) at the main campus of Qassim University, thereby, the

findings of the present study are relevant to this specific group of male students in this sociocultural context and are not necessarily directly generalizable to other types of groups within other contexts.

Although this study used a mixed methods approach, measuring language development was not the focus of the study. However, the study findings do demonstrate that the students appreciated the use of Twitter and WhatsApp in their language learning, and their responses revealed that the platforms helped them to better understand English. However, no correlations can be made between the students' use of Twitter and WhatsApp and their levels of English language achievement. This limitation could form the aim of future research and could therefore add to our understanding of the potential of VSN technology in enhancing the linguistic achievements within the Saudi EFL context.

These limitations make it harder for the study to be generalized to other EFL contexts. In fact, the value of an VSN implementation on EFL education would certainly differ from one context to another, because (1) every culture differs from another in terms of social norms that could affect the study context and (2) each country has a differing perception and approach of innovation in education (Fullan, 2016). However, future researchers in comparable EFL contexts could find some information obtained from this research useful and applicable to their own study settings.

## 8.5 Directions for Future Research

The present study could be a point of departure for new research investigating the interaction of innovation and agency on language learners from an ecological perspective. However, such research would need to eliminate the shortcomings identified in this study so as to raise the level of generalizability to other contexts. For example, whereas this longitudinal study included male university students, future research could include a sample of female students, be conducted in a mixed-gender environment, or include a larger sample as well as follow the student participants over a longer period of time. Furthermore, further research is recommended to move beyond the students' agency to

explore the teachers' agency and their perceptions of the use of VSN in and outside the classroom.

An investigation of the potential of VSN technology's affordances in enhancing student language achievement could be another significant contribution of future research. Employing a mixed method approach to such a study is recommended as is including pre- and post-test control group design to measure the students' performance in language learning before and after the VSN's implementation. Future research might also consider exploring different language skills such as speaking and listening that were also not part of this study.

Further recommendation for future research would be exploring Saudi students' agency in a VSN's environment from a dialogical perspective to investigate in-depth the role of emotion on the students' agency. As was evident from the findings, the students' emotions contributed to a great extent to the success of WhatsApp and also to the decline of Twitter. Insights into students' emotional reactions with respect to their use of a VSN would certainly highlight new aspects of their agency and how it flows along the pathway of their language learning. Hence, it is recommended that future research in the Saudi context should employ a dialogical perspective on learners' agency with respect to their engagement with an innovation, specifically VSN technology, and this could be useful in exploring learners' agency.

Finally, empirical research on an innovation's impact on learners' language learning in the Saudi sociocultural context is still in its infancy. This study has only captured one dimension of introducing such an innovation in language learning within the Saudi context. Much more research is recommended to explore other dimensions of introducing innovations in the near future, especially as the Saudi Ministry of Education is endeavoring to encourage the introduction of innovations to learning in general.

## 8.6 A Last Word

The purpose of this study is not to substitute VSN technology in Saudi EFL classes for face-to-face communication in and outside the classroom but rather to explore ways to

facilitate and create communication opportunities for Saudi English learners and teachers. The Saudi English-speaking environment is part of the expanding circle of nations in which English is being taught as a foreign and international language (Kachru, 1992). The primary use of English in this context is for international purposes but not for use in everyday lives (Canagarajah, 2006), and thus Saudi learners' and teachers' access to English is lacking. It is hoped that the findings of this study will contribute to the development of an innovative environment where learners and their teacher could comfortably improve their English language competence. In addition, the investigation of Saudi perceptions and experiences with respect to VSN technology has contributed new insights to the pedagogical development of language education in the Saudi context. Overall, the impact of new technologies on young Saudi students and teachers cannot be underestimated and needs to be taken advantage of within educational settings.

# References

Abdul Fattah, S. F. E. S. (2015). The effectiveness of using WhatsApp messenger as one of mobile learning techniques to develop students' writing skills. *Journal of Education and Practice, 6*(32), 115-127.

Aburezeq, I. M., & Ishtaiwa, F. F. (2013). The impact of WhatsApp on interaction in an Arabic language teaching course. *International Journal of Arts & Sciences, 6*(3), 165-180.

Acar, A., & Kimura, N. (2012). Twitter as a tool for language learning: The case of Japanese learners of English. In S. Charmonman (Ed.), *The eighth international conference on elearning for knowledge-based society* (Vol. 20, pp. 1-14). Bangkok, Thailand: Siam Technology Press.

Ahearn, L. M. (2001). Language and agency. *Annual Review of Anthropology, 30*, 109-137.

Ahmed, M. A. E. A. S. (2015). The effect of Twitter on developing writing skill in English as a foreign language. *Arab World English Journal, 2*, 134-149.

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), *Action Control: From Cognition to Behavior* (pp. 11-39). Heidelberg, Germany: Springer.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes, 50*(2), 179-211.

Ajzen, I., & Fishbein, M. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley Publications.

Akour, H. (2009). *Determinants of mobile learning acceptance: An empirical investigation in higher education.* (Doctoral dissertation, Oklahoma State

University, Stillwater, OK). Retrieved from http://digital.library.okstate.edu/etd/Akour_okstate_0664D_10760.pdf

Al-Ahaydib, M. E. A. (1986). *Teaching English as a foreign language in the intermediate and secondary schools of Saudi Arabia: Diagnostic study*. Lawrence, KS: University of Kansas.

Al-Asmari, A. M. (2005). *The use of the Internet among EFL teachers at the colleges of technology in Saudi Arabia.* (Unpublished doctoral dissertation), Ohio State University, Columbus, OH.

Al-Asmari, A. M., & Khan, M. (2014). World Englishes in the EFL teaching in Saudi Arabia. *Arab World English Journal (AWEJ), 5*(1), 316 -325.

Al-Daihani, S. (2010). Exploring the use of social software by master of library and information science students. *Library Review, 59*(2), 117-131.

Al-Fahad, F. N. (2009). Students' attitudes and perceptions towards the effectiveness of mobile learning in King Saud University, Saudi Arabia. *The Turkish Online Journal of Educational Technology, 8*(2), 1-9.

Al-Harbi, S. S., & Alshumaimeri, Y. A. (2016). The flipped classroom impact in grammar class on EFL Saudi secondary school students' performances and attitudes. *English Language Teaching, 9*(10), 60-80.

Al-Johani, H. M. (2009). *Finding a way forward: The impact of teachers' strategies, beliefs and knowledge on teaching English as a foreign language in Saudi Arabia.* (Doctoral dissertation, University of Strathclyde, Glasgow, Scotland, UK). Retrieved from http://ethos.bl.uk/ProcessOrderDetailsDirect.do

Al-Khairy, M. H. (2013). English as a foreign language learning demotivational factors as perceived by Saudi undergraduates. *European Scientific Journal, 9*(32), 365-382.

Al-Omary, A., El-Medany, W. M., & Isa, K. J. E. (2015). *The Impact of SNS in Higher Education: A Case Study of Using WhatsApp in the University of Bahrain.* Paper

presented at the Fifth International Conference on e-Learning (ECONF 2015), Manama, Bahrain.

Al-Saggaf, Y. (2011). Saudi females on Facebook: An ethnographic study. *International Journal of Emerging Technologies and Society, 9*(1), 1-19.

Al-Saraj, T. M. (2013). Foreign language anxiety in female Arabs learning English: Case studies. *Innovation in Language Learning and Teaching, 8*(3), 257-278.

Al-Seghayer, K. (2014). The four most common constraints affecting English teaching in Saudi Arabia. *International Journal of English Linguistics, 4*(5), 17-26.

Al-Shehri, S. (2012). *Contextual language learning: The educational potential of mobile technologies and social media.* (Unpublished doctoral dissertation), University of Queensland, Brisbane, Australia.

Al-Shehri, S., & Gitsaki, C. (2010). Online reading: a preliminary study of the impact of integrated and split-attention formats on L2 students' cognitive load. *ReCALL, 22*(3), 356-375.

Al-Yahya, S. A., Mahmood, A., & Lele, U. (2012). QU Bulletin 2012 - Humanitarian and Community. Retrieved from http://www.qu.edu.sa/en/quDocuments/QUManual/QU Bulletin 2012 - Humanitarian and Community.pdf

Albugami, S., & Ahmed, V. (2015, June). *Towards successful implementation of ICT in Saudi schools (literature review)*. Paper presented at the 12th International postgraduate research conference, Salford, Greater Manchester, UK.

Aldosari, H. (1992). *A sociolinguistic of the attitudes of Muslims students, teachers and religious officials on learning and teaching English as a foreign language in Saudi Arabia.* (Unpublished doctoral dissertation), Pennsylvania State University, PA.

Algarfi, A. (2010). *Teachers' and pupils' perceptions of and responses to cooperative learning methods within the Islamic culture courses in one secondary school in*

*Saudi Arabia.* (Doctoral dissertation, University of Southampton, Southampton, UK).

Alghazo, Y. M., & Nash, J. A. (2017). The effect of social media usage on course achievement and behavior. *Journal of Education and Practice, 8*(2), 161-167.

Alharbi, H. (2015). Improving students' English speaking proficiency in Saudi public schools. *International Journal of Instruction, 8*(1), 105-116.

Alharbi, S., & Drew, S. (2014). Using the technology acceptance model in understanding academics' behavioural intention to use learning management systems. *International Journal of Advanced Computer Science and Applications, 5*(1), 143-155.

Alhawsawi, S. (2013). *Investigating student experiences of learning English as a foreign language in a preparatory programme in a Saudi university.* (Doctoral dissertation, University of Sussex, Sussex, UK). Retrieved from http://sro.sussex.ac.uk/48752/1/Alhawsawi%2C_Sajjadllah.pdf

Aljumah, F. H. (2012). Saudi learner perceptions and attitudes towards the use of blogs in teaching English writing course for EFL majors at Qassim University. *English Language Teaching, 5*(1), 100-116.

Alm, A. (2009). Blogging for self-determination with L2 learner journals. In M. Thomas (Ed.), *Handbook of Research on Web 2.0 and Second Language Learning*. Hershey, NY: IGI Global.

Almekhlafy, S. S. A., & Alzubi, A. A. F. (2016). Mobile-mediated communication a tool for language exposure in EFL informal learning settings. *Arab World English Journal (AWEJ), 7*(1), 388-407.

Alothman, M., Robertson, J., & Michaelson, G. (2017). Computer usage and attitudes among Saudi Arabian undergraduate students. *Computers & Education, 110*, 127-142.

Alqahtani, M. (2011). *An investigation into the language needs of Saudi students studying in British postgraduate programmes and the cultural differences impacting on*

*them.* (Doctoral dissertation, University of Southampton, Southampton, UK). Retrieved from https://eprints.soton.ac.uk/198175/1/Binder1.pdf

Alrabai, F. (2014). A model of foreign language anxiety in the Saudi EFL context. *English Language Teaching, 7*(7), 82-101.

Alrabai, F. (2016). Factors underlying low achievement of Saudi EFL learners. *International Journal of English Linguistics, 6*(3), 21-37.

Alresheed, S., Leask, M., & Raiker, A. (2015). Integrating Computer-Assisted Language Learning in Saudi schools: A change model. *The Turkish Online Journal of Educational Technology, 14*(4), 69-77.

Alrumaih, A. (2004). *Multimedia instructional applications for pronunciation instruction in English as a foreign language setting in Saudi Arabia: A study of attitudes, beliefs and pedagogies.* (Unpublished doctoral dissertation), Kansas State University, Manhattan, KS.

Alsaleem, B. I. A. (2013). The effect of" WhatsApp" electronic dialogue journaling on improving writing vocabulary word choice and voice of EFL undergraduate Saudi students. *Arab World English Journal, 4*(3), 213-225.

Alshammari, A. K. (2015). Developing the English curriculum in the Kingdom of Saudi Arabia: Possibilities and challenges. *Arab World English Journal (AWEJ), 6*(4), 365 – 372.

Antenos-Conforti, E. (2009). Microblogging on Twitter: Social networking in intermediate Italian classes. In L. Lomicka & G. Lord (Eds.), *The next generation: Social networking and online collaboration in foreign language learning* (pp. 59-90). San Marcos, TX: Computer Assisted Language Instruction Consortium.

Arnold, N., Ducate, L., & Kost, C. (2009). Collaborative writing in wikis: Insights from culture projects in intermediate German classes. In L. Lomicka & G. Lord (Eds.), *The next generation: Social networking and online collaboration in foreign language learning* (pp. 115-144).

Asiri, R. M. M. (2014). The religious objectives of English curriculum in Saudi Arabia. *King Khalid University*, 1-19.

Asur, S., & Huberman, B. A. (2010). *Predicting the future with social media*. Paper presented at the IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology, Los Alamitos, CA.

Atai, M. R., & Dashtestani, R. (2013). Iranian English for academic purposes (EAP) stakeholders' attitudes toward using the Internet in EAP courses for civil engineering students: promises and challenges. *Computer Assisted Language Learning, 26*(1), 21-38.

Awada, G. (2016). Effect of WhatsApp on critique writing proficiency and perceptions toward learning. *Cogent Education, 3*(1), 1-25.

Azarnoosh, M. (2014). When learning English is compulsory at school: Fluctuations in L2 Motivational Self System. *International Journal of Applied Linguistics and English Literature, 3*(6), 102-112.

Bahrani, T., & Sim, T. S. (2012). Informal language learning setting: Technology or social interaction? *The Turkish Online Journal of Educational Technology, 11*(2), 142-149.

Bailey, K. M. (1983). Competitiveness and anxiety in adult second language learning: Looking at and through the diary studies. In H. W. Seliger & M. H. Long (Eds.), *Classroom oriented research in second language acquisition* (pp. 67-102). Rowley, MA: Newbury House.

Bakhtin, M. (1986). *Speech genres and other late essays* (V. W. McGee, Trans. C. Emerson & M. Holquist Eds.). Austin, TX: University of Texas Press.

Bakhtin, M. (1990). *Art and answerability: early philosophical essays* (V. Liapunov & K. Bostrum, Trans. M. Holquist & V. Liapunov Eds.). Austin, TX: University of Texas Press.

Bandura, A. (1986). *Social foundations thought and behaviour: Social cognitive theory*. Englewood-Cliffs, NJ: Prentice-Hall.

Beltman, S., & Volet, S. (2007). Exploring the complex and dynamic nature of sustained motivation. *European psychologist, 12*(4), 314-323.

Bhardwaj, R. K. (2014). Use of social networking sites by LIS professionals in higher education institutions in India: A study. *The Reference Librarian, 55*(1), 74-88.

Bicen, H. (2014). Student opinions regarding Twitter usage with mobile applications for educational purposes. *Procedia-Social and Behavioral Sciences, 136*, 385-390.

Binsahl, H., & Chang, S. (2012). *International Saudi female students in Australia and social networking sites: What are the motivations and barriers to communication*. Paper presented at the 23rd ISANA International Education Association Conference, Auckland, New Zealand.

binti Mistar, I., & Embi, M. A. (2016). Students' perception on the use of WhatsApp as a learning tool in ESL classroom. *Journal of Education and Social Sciences, 4*(1).

Black, R. (2008). *Adolescents and online fan fiction*. New York, NY: Peter Lang.

Black, R. W. (2005). Access and affiliation: The literacy and composition practices of English-language learners in an online fanfiction community. *Journal of Adolescent & Adult Literacy, 49*(2), 118-128.

Blattner, G., Dalola, A., & Lomicka, L. (2015). Tweetsmarts: A pragmatic analysis of well-known native speaker Tweeters. In D. E & T. M (Eds.), *Researching language learner interactions online: From social media to MOOCs* (pp. 213-236). San Marcos, TX: Computer Assisted Language Instruction Consortium.

Blessing, S. B., Blessing, J. S., & Fleck, B. K. (2012). Using Twitter to reinforce classroom concepts. *Teaching of Psychology, 39*(4), 268-271.

Borau, K., Ullrich, C., Feng, J., & Shen, R. (2009, August). *Microblogging for language learning: Using twitter to train communicative and cultural competence.* Paper presented at the International Conference on Web-based Learning, Berlin, Heidelberg, Germany.

Bouhnik, D., & Deshen, M. (2014). WhatsApp goes to school: Mobile instant messaging between teachers and students. *Journal of Information Technology Education: Research, 13*, 217-231.

Boyd, D. M. (2008). *Taken out of context: American teen sociality in networked publics.* (Unpublished doctoral dissertation), University of California, Berkeley, CA.

Brien, L. O. (2012). Six ways to use social media in education. Retrieved from https://cit.duke.edu/blog/2012/04/six-ways-to-use-social-media-in-education/

Butler, D. L., & Sellbom, M. (2002). Barriers to adopting technology. *Educause Quarterly, 2*(1), 22-28.

Buzzetto-More, N. A. (2012). Social networking in undergraduate education. *Interdisciplinary Journal of Information, Knowledge, and Management, 7*(1), 63-90.

Calvó-Armengol, A., Patacchini, E., & Zenou, Y. (2009). Peer effects and social networks in education. *The Review of Economic Studies, 76*(4), 1239-1267.

Canagarajah, S. (2006). Changing communicative needs, revised assessment objectives: Testing English as an international language. *Language Assessment Quarterly: An International Journal, 3*(3), 229-242.

Candlin, C. N., & Sarangi, S. (2004). Making applied linguistics matter [Editorial]. *Journal of Applied Linguistics, 1*(1), 1-8.

Cavallo, D. (2000). Emergent design and learning environments: Building on indigenous knowledge. *IBM Systems Journal, 39*, 768-781.

Cerniglia, M.-A. (2013). 9 ways to use social media in your classroom. Retrieved from https://blog.sewickley.org/9-ways-to-use-social-media-in-your-classroom

Chan, M. (2011). Shyness, sociability, and the role of media synchronicity in the use of computer-mediated communication for interpersonal communication. *Asian Journal of Social Psychology, 14*(1), 84-90.

Chelliah, J., & Clarke, E. (2011). Collaborative teaching and learning: overcoming the digital divide? *On the Horizon, 19*(4), 276-285.

Chen, P. (2008). Strategic leadership and school reform in Taiwan. *School Effectiveness and School Improvement, 19*(3), 293-318.

Cho, Y. S. (2012). *Exploring second language (L2) learners' language learning experiences in social networking environments.* (Unpublished doctoral dissertation), State University of New York, Buffalo, NY.

Church, K., & de Oliveira, R. (2013, August). *What's up with WhatsApp? Comparing mobile instant messaging behaviors with traditional SMS.* Paper presented at the Proceedings of the 15th International Conference on Human-computer Interaction with Mobile Devices and Services, Munich, Germany.

Cigdem, H., Ozturk, M., & Topcu, A. (2016). Vocational college students' acceptance of web-based summative listening comprehension test in an EFL course. *Computers in Human Behavior, 61*, 522-531.

Clark, V. L. P., & Creswell, J. W. (2008). *The mixed methods reader*. Thousand Oaks, CA: SAGE Publications.

Cochrane, T. (2005). *Mobilising learning: A primer for utilising wireless palm devices to facilitate a collaborative learning environment.* Paper presented at the proceedings of the ASCILITE 2005 conference, Brisbane, Australia.

Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th ed.). Abingdon, Oxon, UK: Routledge.

Compeau, D., Higgins, C. A., & Huff, S. (1999). Social cognitive theory and individual reactions to computing technology: A longitudinal study. *MIS Quarterly, 23*(2), 145-158.

Compeau, D. R., & Higgins, C. A. (1995). Application of social cognitive theory to training for computer skills. *Information Systems Research, 6*(2), 118-143.

Corbin, J., & Strauss, A. (2015). *Basics of qualitative research* (4th ed.). Thousand Oaks, CA: SAGE Publications.

Cox, C., Burgess, S., Sellitto, C., & Buultjens, J. (2009). The role of user-generated content in tourists' travel planning behavior. *Journal of Hospitality Marketing & Management, 18*(8), 743-764.

Creswell, J. W., & Clark, V. L. P. (2007). *Designing and conducting mixed methods research*. Thousands Oaks, CA: SAGE Publications.

Creswell, J. W., & Clark, V. L. P. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousands Oaks, CA: SAGE Publications.

Daly, J., Kellehear, A., & Gliksman, M. (1997). *The public health researcher: A methodological approach*. Melbourne, Australia: Oxford University Press.

Damanpour, F. (1996). Organizational complexity and innovation: developing and testing multiple contingency models. *Management Science, 42*(5), 693-716.

Davis, F. D. (1986). *A technology acceptance model for empirically testing new end-user information systems: Theory and results.* (Doctoral dissertation, Massachusetts Institute of Technology, Cambridge, MA). Retrieved from https://www.researchgate.net/publication/35465050_A_Technology_Acceptance_Model_for_Empirically_Testing_New_End-User_Information_Systems

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319-340.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management Science, 35*(8), 982-1003.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and intrinsic motivation to use computers in the workplace. *Journal of Applied Social Psychology, 22*(14), 1111-1132.

De Lano, L., Riley, L., & Crookes, G. (1994). The meaning of innovation for ESL teachers. *System, 22*(4), 487-496.

De Valck, K., Van Bruggen, G. H., & Wierenga, B. (2009). Virtual communities: A marketing perspective. *Decision Support Systems, 47*(3), 185-203.

Deanship of Community Service. (2016). Postgraduate Diploma. Retrieved from http://www.dcs.qu.edu.sa/content/p/58/%D8%AF%D8%A8%D9%84%D9%88%D9%85-%D8%A7%D9%84%D8%AA%D8%B1%D8%A8%D9%8A%D8%A9-%D8%A7%D9%84%D8%B9%D8%A7%D9%85

Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality, 19*(2), 109-134.

Denzin, N. K., & Lincoln, Y. S. (2008). *The landscape of qualitative research* (3rd ed.). Thousand Oaks, CA: SAGE Publications.

Deters, P., Gao, X., Miller, E. R., & Vitanova, G. (2015). Introduction to theorizing and analyzing agency in second language learning: Interdisciplinary approaches. In P. Deters, X. Gao, E. R. Miller, & G. Vitanova (Eds.), *Theorizing and analyzing agency in second language learning: Interdisciplinary approaches* (pp. 1-13). Bristol, UK: Multilingual Matters.

DiNucci, D. (1999). Fragmented future. *Print, 53*(4), 221–222. Retrieved from http://darcyd.com/fragmented_future.pdf

Dörnyei, Z. (2001). *Motivational strategies in the language classroom*. Cambridge, UK: Cambridge University Press.

Dörnyei, Z. (2007). *Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies*. Oxford, UK: Oxford University Press.

Dörnyei, Z., & Murphey, T. (2004). *Group dynamics in the language classroom*. Cambridge, UK: Cambridge University Press.

Dörnyei, Z., & Ushioda, E. (2011). *Teaching and researching motivation*. Harlow, London, UK: Pearson Education.

Dotan, A., & Zaphiris, P. (2010). A cross-cultural analysis of Flickr users from Peru, Israel, Iran, Taiwan and the UK. *International Journal of Web Based Communities, 6*(3), 284-302.

Ducate, L., & Lomicka, L. (2013). Going mobile: Language learning with an iPod touch in intermediate French and German classes. *Foreign Language Annals, 46*(3), 445-468.

Duff, P. (2012). Identity, agency, and second language acquisition. *The Routledge handbook of second language acquisition, 14*, 410-441.

Dunlap, J. C., & Lowenthal, P. R. (2009). Tweeting the night away: Using Twitter to enhance social presence. *Journal of Information Systems Education, 20*(2), 129-135.

Duranti, A. (2004). Agency in language. In A. Duranti (Ed.), *A Companion to Linguistic Anthropology* (pp. 451-473). Oxford, UK: Blackwell Publishing.

Dwyer, C., Hiltz, S., & Passerini, K. (2007, August). *Trust and privacy concern within social networking sites: A comparison of Facebook and MySpace*. Paper presented at the Proceedings of the Thirteenth Americas Conference on Information Systems, Keystone, CO. http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1849&context=amcis2007

Ebner, M., Lienhardt, C., Rohs, M., & Meyer, I. (2010). Microblogs in Higher Education–A chance to facilitate informal and process-oriented learning? *Computers & Education, 55*(1), 92-100.

Erwin, B. A., Turk, C. L., Heimberg, R. G., Fresco, D. M., & Hantula, D. A. (2004). The Internet: home to a severe population of individuals with social anxiety disorder? *Journal of Anxiety Disorders, 18*(5), 629-646.

Evans, R. (1996). *The Human Side of School Change: Reform, Resistance, and the Real-Life Problems of Innovation.* . San Francisco, CA: Jossey-Bass Publishers.

Eyers, D., Freudenreich, T., Margara, A., Frischbier, S., Pietzuch, P., & Eugster, P. (2012, April). *Living in the present: on-the-fly information processing in scalable web architectures*. Paper presented at the 2nd International Workshop on Cloud Computing Platforms, Bern, Switzerland.

http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.411.4670&rep=rep1&type=pdf

Ferdig, R. E. (2007). Editorial: Examining social software in teacher education. *Journal of Technology and Teacher Education, 15*(1), 5-10.

Fischer, E., & Reuber, A. R. (2011). Social interaction via new social media:(How) can interactions on Twitter affect effectual thinking and behavior? *Journal of Business Venturing, 26*(1), 1-18.

Ford, N., Nunes, J. M. B., & Zafeiriou, G. (2001). Using students' perceptions of participation in collaborative learning activities in the design of online learning environments. *Education for Information, 19*(2), 83-106.

Fox, K. (2013). Twitter in the Classroom. *Center for Learning & Teaching, 13*(1), 1-3.

Fullan, M. (1982). *The meaning of educational change*. New York, NY: Teachers' College Press.

Fullan, M. (1993). The complexity of the change process *Change Forces: Probing the Depth of Educational Reform* (pp. 19-41). London, UK: The Flamer Press.

Fullan, M. (1999). Leading change in professional learning communities. *Education Update, 41*(8), 1-4.

Fullan, M. (2001). *The new meaning of educational change* (3rd ed.). New York, NY: Teacher College Press.

Fullan, M. (2007). *The new meaning of educational change* (4th ed.). New York, NY: Teachers College Press.

Fullan, M. (2016). *The new meaning of educational change* (5th ed.). New York, NY: Teachers College Press.

Fullan, M., & Stiegelbauer, S. M. (1991). *The new meaning of educational change*. New York, NY: Teachers' College Press.

Gao, X. (2008). You had to work hard 'cause you didn't know whether you were going to wear shoes or straw sandals. *Journal of Language, Identity, and Education, 7*(3-4), 169-187.

George, D., & Mallery, P. (2016). *IBM SPSS statistics 23 step by step: A simple guide and reference* (14th ed.). Boston, MA: Allyn & Bacon.

Gibson, J. J. (1986). *The ecological approach to visual perception*. London, UK: Lawrence Erlbaum.

Gikas, J., & Grant, M. M. (2013). Mobile computing devices in higher education: Student perspectives on learning with cellphones, smartphones & social media. *The Internet and Higher Education, 19*, 18-26.

Gon, S., & Rawekar, A. (2017). Effectivity of e-Learning through WhatsApp as a teaching learning tool. *MVP Journal of Medical Sciences, 4*(1), 19-25.

Gordon, J., & Patterson, J. A. (2008). "It's what we've always been doing." Exploring tensions between school culture and change. *Journal of Educational Change, 9*(1), 17-35.

Greenfield, R. (2003). Collaborative e-mail exchange for teaching secondary ESL: A case study in Hong Kong. *Language Learning & Technology, 7*(1), 46-70.

Griffith, S., & Liyanage, L. (2008, June). *An introduction to the potential of social networking sites in education.* Paper presented at the Proceedings of the Emerging Technologies Conference, Wollongong, Australia.

Grosseck, G., & Holotescu, C. (2008, April). *Can we use Twitter for educational activities?* Paper presented at the 4th International Scientific Conference, eLearning and Software for Education, Bucharest, Romania.

Gruber, T. (2008). Collective knowledge systems: Where the social web meets the semantic web. *Web Semantics Science Services And Agents On The World Wide Web, 6*(1), 4-13.

Gutierrez-Colon Plana, M., Gimeno, A., Appel, C., & Hopkins, J. (2016). Improving learners' reading skills through instant short messages: A sample study using

WhatsApp. In A. Gimeno-Sanz, M. Levy, F. Blin, & D. Barr (Eds.), *WorldCALL: Sustainability and computer-assisted language learning*. London, UK: Bloomsbury Publishing.

Hale, J., Householder, B., & Greene, K. (2002). The theory of reasoned action. In J. P. Dillard & L. Shen (Eds.), *The persuasion handbook: Developments in theory and practice* (2nd ed., pp. 259-286). Thousand Oaks, CA: SAGE Publications.

Hamdan, A. K. (2014). The reciprocal and correlative relationship between learning culture and online education: A case from Saudi Arabia. *The International Review of Research in Open and Distributed Learning, 15*(1), 310-336.

Hammick, J. K., & Lee, M. J. (2014). Do shy people feel less communication apprehension online? The effects of virtual reality on the relationship between personality characteristics and communication outcomes. *Computers in Human Behavior, 33*, 302-310.

Hammond, M., & Gamlo, N. H. (2015). How and why do language teachers use ICT in a University in Saudi Arabia? *Global Conference on Learning and Technology "The Local Global Conference",* (pp. 248-257). Berlin, Germany: Proceedings of Global Learn.

Hamouda, A. (2012). An exploration of causes of Saudi students' reluctance to participate in the English language classroom. *International Journal of English Language Education, 1*(1), 1-34.

Hargreaves, A., Earl, L., Moore, S., & Manning, S. (2001). *Learning to change: Teaching beyond subjects and standards*. San Francisco, CA: Wiley.

Harrison, R., & Thomas, M. (2009). Identity in online communities: Social networking sites and language learning. *International Journal of Emerging Technologies and Society, 7*(2), 109-124.

Hattem, D. (2012). The practice of microblogging. *Journal of Second Language Teaching & Research, 1*(2), 38-70.

Hattem, D. (2014). Microblogging activities: Language play and tool transformation. *Language Learning and Technology, 18*(2), 151–174.

Holmes, K., Clement, J., & Albright, J. (2013). The complex task of leading educational change in schools. *School Leadership & Management, 33*(3), 270-283.

Holotescu, C., & Grosseck, G. (2009). Using microblogging for collaborative learning. In A. Szucs (Ed.), *New Technology platforms for learning - revisted. LOGOS Open Conference on strengthening the integration of ICT research effort* (pp. 71-80). Budapest, Hungary: European Distance and E-learning Network.

Hrastinski, S. (2006). The relationship between adopting a synchronous medium and participation in online group work: An explorative study. *Interactive Learning Environments, 14*(2), 137-152.

Hsu, H., & Chang, Y. (2012). *A Blog Acceptance Model: An Exploratory Study of Course Blogs in an EFL Learning Environment*. Paper presented at the Society for Information Technology & Teacher Education International Conference, Austin, TX. https://www.learntechlib.org/p/39857

Huberman, A., & Miles, M. (1984). *Innovation up close: How school improvement works*. New York, NY: Plenum Press.

Huberman, M. (1992). Teacher development and instructional mastery. In A. Hargreaves & M. Fullan (Eds.), *Understanding teacher development* (pp. 122–142). New York, NY: Teachers College Press.

Hubona, G. S., & Kennick, E. (1996, January). *The influence of external variables on information technology usage behavior.* Paper presented at the 29th Proceedings of Hawaii International Conference on System Sciences, Maui, HI.

Igbaria, M., Iivari, J., & Maragahh, H. (1995). Why do individuals use computer technology? A Finnish case study. *Information & Management, 29*(5), 227-238.

Itayem, G. (2014). *Using the iPad in language learning: Perceptions of college students.* (Doctoral dissertation, The University of Toledo, Toledo, OH). Retrieved from

http://utdr.utoledo.edu/cgi/viewcontent.cgi?article=2714&context=theses-dissertations

Jansen, B. J., Zhang, M., Sobel, K., & Chowdury, A. (2009). Twitter power: Tweets as electronic word of mouth. *Journal of the American Society for Information Science and Technology, 60*(11), 2169-2188.

Johnson, B., & Turner, L. A. (2003). Data collection strategies in mixed methods research. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 297-320). Thousand Oaks, CA: Sage Publications, Inc.

Joo, J., & Sang, Y. (2013). Exploring Koreans' smartphone usage: An integrated model of the technology acceptance model and uses and gratifications theory. *Computers in Human Behavior, 29*(6), 2512-2518.

Junco, R., Heiberger, G., & Loken, E. (2010). The effect of Twitter on college student engagement and grades. *Journal of Computer Assisted Learning, 27*(2), 119-132.

Kachru, B. B. (1992). Teaching world Englishes. In B. B. Kachru (Ed.), *The other tongue: English across cultures* (pp. 355-365). Urbana, IL: University of Illinois Press.

Kalaja, P., Barcelos, A. M. F., Aro, M., & Ruohotie-Lyhty, M. (2015). *Beliefs, agency and identity in foreign language learning and teaching*. Basingstoke, Hampshire, UK: Palgrave Macmillan.

Kanno, Y., & Cromley, J. G. (2013). English language learners' access to and attainment in postsecondary education. *Tesol Quarterly, 47*(1), 89-121.

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons, 53*(1), 59-68.

Kaplan, A. M., & Haenlein, M. (2011). Two hearts in three-quarter time: How to waltz the social media/viral marketing dance. *Business Horizons, 54*(3), 253-263.

Kennedy, C. (1999a). Introduction – learning to change. In C. Kennedy, P. Doyle, & C. M. Goh (Eds.), *Exploring change in English language teaching* (pp. iv–viii). Oxford, UK: Macmillan.

Kessler, G. (2009). Student-initiated attention to form in wiki-based collaborative writing. *Language Learning & Technology, 13*(1), 79-95.

Kessler, G., & Bikowski, D. (2010). Developing collaborative autonomous learning abilities in computer mediated language learning: Attention to meaning among students in wiki space. *Computer Assisted Language Learning, 23*(1), 41-58.

Khan, I. (2011). Learning difficulties in English: Diagnosis and pedagogy in Saudi Arabia. *Educational Research, 2*(7), 1248-1257.

Kim, E.-Y., Park, S.-M., & Baek, S.-H. (2011). Twitter and implications for its use in EFL learning. *Multimedia-Assisted Language Learning, 14*(2), 113-137.

Kim, H. (2010). Three teachers' initial efforts to use Twitter for teaching English in public schools. *Multimedia Assisted Language Learning, 13*(2), 129-154.

Kim, S., & Lim, K. (2010). A case study on the effects of microblogging as a learning activity to enhance ESL students' cultural knowledge and motivation to write in English. *Multimedia-Assisted Language Learning, 13*(3), 155-174.

Kim, W., Jeong, O.-R., & Lee, S.-W. (2010). On social Web sites. *Information Systems, 35*(2), 215-236.

Klokmose, C., & Bertelsen, O. (2013, September). *The mysterious whiteboard.* Paper presented at the 14th International Conference on Human-Computer Interaction (INTERACT), Cape Town, South Africa.

Kojima, N. (2012). The importance of understanding students' first classroom culture. *Polyglossia, 23*(1), 15-20.

Kolb, L. (2008). *Toys to tools: Connecting student cell phones to education*. Washington, WA: International Society for Technology in Education.

Kutbi, A. I. (2015). *How undergraduate female students in the Kingdom of Saudi Arabia perceive social media as a learning tool: An exploratory study.* (Masters dissertation, University of Windsor, Windsor, Ontario, Canada). Retrieved from http://scholar.uwindsor.ca/cgi/viewcontent.cgi?article=6289&context=etd

Laire, D., Casteleyn, J., & Mottart, A. (2012). Social media's learning outcomes within writing instruction in the EFL classroom: Exploring, implementing and analyzing storify. *Procedia-Social and Behavioral Sciences, 69*, 442-448.

Lamie, J. (2005). *Evaluating change in English language teaching*. Basingstoke, Hampshire, UK: Macmillan.

Lantolf, J. P., & Pavlenko, A. (2001). (S)econd (L)anguage (A)ctivity theory: Understanding second language learners as people. In M. P. Breen (Ed.), *Learner contributions to language learning: New directions in research* (pp. 141-158). London, UK: Pearson Education.

Lantolf, J. P., & Thorne, S. L. (2006). *Sociocultural theory and the genesis of second language development*. Oxford, UK: Oxford University Press.

Lawrence, B. A. (2016). IPad acceptance by English learners in Saudi Arabia. *English Language Teaching, 9*(12), 34-46.

Layder, D. (1997). *Modern social theory: Key debates and new directions*. London, UK: UCL Press.

Lee, M. J., & McLoughlin, C. (2008, June). *Harnessing the affordances of Web 2.0 and social software tools: Can we finally make" student-centered" learning a reality?* Paper presented at the World Conference on Educational Multimedia, Hypermedia and Telecommunications, Vienna, Austria.

Lin, G. H. C., & Ho, M. M. S. (2009, April). *An Exploration into foreign language writing anxiety from Taiwanese university students' perspectives*. Paper presented at the NCUE Fourth Annual Conference on Language, Teaching, Literature, Linguistics, Translations and Interpretation, Taiwan.

Liu, C.-C., Wang, P.-C., & Tai, S.-J. D. (2016). An analysis of student engagement patterns in language learning facilitated by Web 2.0 technologies. *ReCALL, 28*(2), 104-122.

Liu, Y. (2010). Social media tools as a learning resource. *Journal of Educational Technology Development and Exchange (JETDE), 3*(1), 101-114.

Lomicka, L., & Lord, G. (2012). A tale of tweets: Analyzing microblogging among language learners. *System, 40*(1), 48-63.

Lowe, B., & Laffey, D. (2011). Is Twitter for the birds? Using Twitter to enhance student learning in a marketing course. *Journal of Marketing Education, 33*(2), 183-192.

Lu, H. K., Lin, P. C., & Fan, S. M. (2013). Using the UTAUT Model to Explore University Student Acceptance towards Moodle Reader. In M. L. Li & G. W. Zhang (Eds.), *Advanced Materials Research* (Vol. 765-767, pp. 1541-1545). Switzerland: Trans Tech Publication.

Lu, J., Yao, J. E., & Yu, C.-S. (2005). Personal innovativeness, social influences and adoption of wireless Internet services via mobile technology. *The Journal of Strategic Information Systems, 14*(3), 245-268.

Lu, M. (2008). Effectiveness of vocabulary learning via mobile phone. *Journal of Computer Assisted Learning, 24*(6), 515-525.

MacIntyre, P. (1999). Language anxiety: A review of the research for language teachers. In D. J. Young (Ed.), *Affect in foreign language and second language learning: A practical guide to creating a low-anxiety classroom atmosphere* (pp. 24-45). Amsterdam, Netherlands: John Benjamins Publishing Company.

Mackey, A., Gass, S., & Ross-Feldman, L. (2005). Task-based interactions in classroom and laboratory settings. *Language Learning, 55*(4), 575-611.

Mahapatra, A. (2013). *A computational approach to detection of conceptual incongruity in text and its applications.* (Doctoral dissertation, University of Minnesota, Minneapolis, MN).

Mahmoud, S. S. (2014). Email and Face book to promote foundation year students' EFL writing at king Abdul-Aziz University. *International Review of Social Sciences and Humanities, 6*(2), 157-172

Mallia, G. (2013). *The social classroom: Integrating social network use in education*: IGI Global.

Mangold, W. G., & Faulds, D. J. (2009). Social media: The new hybrid element of the promotion mix. *Business Horizons, 52*(4), 357-365.

Markee, N. (1997). *Managing curricular innovation*. Cambridge, UK: Cambridge University Press.

Markee, N. (2001). The diffusion of innovation in language teaching. In D. Hall & A. Hewings (Eds.), *Innovation in English language teaching: A reader* (pp. 118-126). London, UK: Routledge.

Marsh, C. (2009). *Key concepts for understanding curriculum* (4th ed.). London, UK: Routledge.

McConnell, B., & Huba, J. (2007). *Citizen marketers: When people are the message*. Bedford, MA: Kaplan Publishing.

McLoughlin, C., & Lee, M. J. (2007). *Social software and participatory learning: Pedagogical choices with technology affordances in the Web 2.0 era.* Paper presented at the Ascilite, Singapore.

Mellati, M., & Khademi, M. (2015). The impacts of distance interactivity on learners' achievements in online mobile language learning: Social software and participatory learning. *International Journal of Web-Based Learning and Teaching Technologies (IJWLTT), 10*(3), 19-35.

Mercer, S. (2011). Understanding learner agency as a complex dynamic system. *System, 39*(4), 427-436.

Merino, G. S. (2016). The social web: A new communication medium and scientific evaluation tool. *Physica Medica, 32*, 184-187.

Miguéns, J., Baggio, R., & Costa, C. (2008). Social media and tourism destinations: TripAdvisor case study. *Advances in Tourism Research, 26*(28), 1-6.

Miller, D. (2012). Social networking sites. In D. Miller & H. Horst (Eds.), *Digital Anthropology* (pp. 156-161). Oxford, UK: Berg.

Ministry of Communication and Information Technology. (2009). *National Plan for Information Communication Technology*. Riyadh, Kingdom of Saudi Arabia: MOCIT Press.

Ministry of Education (MOE). (2017). Retrieved from https://www.moe.gov.sa/ar/news/Pages/future-gate-launch.aspx

Mitchell, B., & Alfuraih, A. (2017). English language teaching in the Kingdom of Saudi Arabia: Past, present and beyond. *Mediterranean Journal of Social Sciences, 8*(2), 317-325.

Mompean, J. A., & Fouz-González, J. (2016). Twitter-based EFL pronunciation instruction. *Language Learning and Technology, 20*(1), 166–190.

Mufanti, R., & Susilo, A. (2016, September). *Establishing a WhatsApp conversation: One of innovations in English language teaching*. Paper presented at the Proceedings of the 63rd TEFLIN International Conference, Surabaya, Indonesia.

Nah, K. C. (2009). *Language learning through mobile phones: Design and trial of a wireless application protocol (WAP) site model for learning English as a foreign language (EFL) listening skills in Korea.* (Unpublished doctoral dissertation), The University of Queensland, Brisbane, Australia.

Naidoo, J., & Kopung, K. J. (2016). Exploring the use of WhatsApp in mathematics learning: A case study. *Journal of Communication, 7*(2), 266-273.

Nicholls, A. (1983). *Managing educational innovations*. London, UK: Allen & Unwin.

Nirgude, M., & Naik, A. (2017). WhatsApp application: An effective tool for out-of-Class activity. *Journal of Engineering Education Transformations*. Retrieved from http://www.journaleet.org/index.php/jeet/article/view/111759

O'Connor, P. (2010). Managing a hotel's image on TripAdvisor. *Journal of Hospitality Marketing & Management, 19*(7), 754-772.

O'Donovan, F. T., Fournelle, C., Gaffigan, S., Brdiczka, O., Shen, J., Liu, J., & Moore, K. E. (2013, July). *Characterizing user behavior and information propagation on*

*a social multimedia network.* Paper presented at the International Conference on Multimedia and Expo Workshops (ICMEW), San Jose, CA.

O'Reilly, T. (2005). *What is web 2.0? Design patterns and business models for the next generation of software*. Accessed 21 Feburary 2017. Retrieved from http://www.oreilly.com/pub/a/web2/archive/what-is-web-20.html?page%20=%201

O'Reilly, T. (2007). What is web 2.0: Design patterns and business models for the next generations software. *Communications & Strategies, 1*(65), 17-37.

Osgerby, J., & Rush, D. (2015). An exploratory case study examining undergraduate accounting students' perceptions of using Twitter as a learning support tool. *The International Journal of Management Education, 13*(3), 337-348.

Parmaxi, A., & Zaphiris, P. (2016). Web 2.0 in computer-assisted language learning: a research synthesis and implications for instructional design and educational practice. *Interactive Learning Environments, 25*(6), 704-716.

Pasfield-Neofitou, S. (2011). Online domains of language use: Second language learners' experiences of virtual community and foreignness. *Language Learning & Technology, 15*(2), 92-108.

Picard, E. K. (2010). *A radical relational agency: Foucault, complexity theory and environmental resistances.* (Doctoral dissertation, University of Nottingham, Nottingham, UK). Retrieved from http://eprints.nottingham.ac.uk/11450/1/Thesis.pdf

Polites, G. L., & Karahanna, E. (2012). Shackled to the status quo: The inhibiting effects of incumbent system habit, switching costs, and inertia on new system acceptance. *MIS Quarterly, 36*(1).

Poore, M. (2012). *Using social media in the classroom: A best practice guide*. Thousand Oaks, CA: SAGE Publications.

Rajab, H. (2013). Developing speaking and writing skills of L1 Arabic EFL learners through teaching of IPA phonetic codes. *Theory and Practice in Language Studies, 3*(4), 653-659.

Rambe, P., & Chipunza, C. (2013, August). *Using mobile devices to leverage student access to collaboratively-generated resources: A case of WhatsApp instant messaging at a South African University*. Paper presented at the International Conference on Advanced Information and Communication Technology for Education, Hainan, China.

Rashidi, Y., Vaniea, K., & Camp, L. J. (2016, February). *Understanding Saudis' privacy concerns when using WhatsApp*. Paper presented at the the Workshop on Usable Security San Diego, CA.

Ratten, V. (2013). Cloud computing: A social cognitive perspective of ethics, entrepreneurship, technology marketing, computer self-efficacy and outcome expectancy on behavioural intentions. *Australasian Marketing Journal (AMJ), 21*(3), 137-146.

Reams, P., & Twale, D. (2008). The promise of mixed methods: Discovering conflicting realities in the data. *International Journal of Research & Method in Education, 31*(2), 133-142.

Rennie, F., & Morrison, T. (2013). *E-learning and social networking handbook: Resources for higher education* (2nd ed.). New York, NY: Routledge.

Riazi, A. M. (2017). *Mixed Methods Research in Language Teaching and Learning*. Sheffield, UK: Equinox Publishing Limited.

Rice, P. L., & Ezzy, D. (1999). *Qualitative research methods: A health focus*. Melbourne, Australia: Oxford University Press.

Roblyer, M. D., McDaniel, M., Webb, M., Herman, J., & Witty, J. V. (2010). Findings on Facebook in higher education: A comparison of college faculty and student uses and perceptions of social networking sites. *The Internet and Higher Education, 13*(3), 134-140.

Roed, J. (2003). Language learner behaviour in a virtual environment. *Computer Assisted Language Learning, 16*(2-3), 155-172.

Rogers, A. (2007). Looking again at non-formal and informal education – towards a new paradigm. In M. Kamil (Ed.), *Appeal of non formal education paradigm* (pp. 1-9). Tsukuba, Japan: Center for Research in Internatiopnal Cooperation In Educational Development.

Rogers, E. M. (1962). *Diffusion of innovations* (1st ed.). New York, NY: The Free Press of Glencoe.

Rogers, E. M. (1983). *Diffusion of innovations* (3rd ed.). New York, NY: Free Press.

Rogers, E. M. (1995). *Diffusion of innovations* (4th ed.). New York, NY: Free Press.

Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York, NY: Free Press.

Rogers, E. M., & Shoemaker, F. F. (1971). *Communication of Innovations; A Cross-Cultural Approach*. New York, NY: Free Press.

Safko, L. (2010). *The social media bible: tactics, tools, and strategies for business success*. Hoboken, NJ: John Wiley & Sons.

Şahan, Ö., Çoban, M., & Razı, S. (2016). Students learn English idioms through WhatsApp: Extensive use of smartphones. *Erzincan Üniversitesi Eğitim Fakültesi Dergisi Cilt-Sayi, 18*(2), 1230-1251.

Sánchez, R. A., & Hueros, A. D. (2010). Motivational factors that influence the acceptance of Moodle using TAM. *Computers in Human Behavior, 26*(6), 1632-1640.

Sanprasert, N. (2009). The application of a course management system to enhance autonomy in learning English as a foreign language. *System, 38*(1), 109-123.

Saqlain, N., Al-Qarni, F., & Ghadi, N. (2013). Are English language teachers in Saudi Arabia ready to integrate technology? *Procedia-Social and Behavioral Sciences, 103*, 146-153.

Satar, H., & Özdener, N. (2008). The effects of synchronous CMC on speaking proficiency and anxiety: Text versus voice chat. *The Modern Language Journal, 92*(4), 595-613.

Sayan, H. (2016). Affecting higher students learning activity by using whatsapp. *European Journal of Research and Reflection in Educational Sciences Vol, 4*(3), 88-93.

Schoonenboom, J. (2014). Using an adapted, task-level technology acceptance model to explain why instructors in higher education intend to use some learning management system tools more than others. *Computers & Education, 71*(1), 247-256.

Selwyn, N. (2010). Looking beyond learning: Notes towards the critical study of educational technology. *Journal of Computer Assisted Learning, 26*(1), 65-73.

Shaabi, I. (2010). *ESP community in transition: A study of ICT use in a tertiary context in Saudi Arabia.* (Doctoral dissertation, University of Wollongong, Wollongong, Australia). Retrieved from http://ro.uow.edu.au/cgi/viewcontent.cgi?article=4136&context=theses

Shao, G. (2009). Understanding the appeal of user-generated media: a uses and gratification perspective. *Internet Research, 19*(1), 7-25.

Shih, R.-C. (2011). Can Web 2.0 technology assist college students in learning English writing? Integrating Facebook and peer assessment with blended learning. *Australasian Journal of Educational Technology, 27*(5), 829-845.

Sicilia, Á., Sáenz-Alvarez, P., González-Cutre, D., & Ferriz, R. (2015). Analysing the Influence of Autonomous and Controlling Social Factors Within the Theory of Planned Behaviour. *Australian Psychologist, 50*(1), 70-79.

Sim, J. (1998). Collecting and analysing qualitative data: Issues raised by the focus group. *Journal of Advanced Nursing, 28*(2), 345-352.

Simon, M. (Accessed 23 October 2016). *The role of the researcher*. Retrieved from http://www.dissertationrecipes.com/wp-content/uploads/2011/04/Role-of-the-Researcher.pdf

Singh, B. (2010). Difference Between Web 1.0, Web 2.0, & Web 3.0. Retrieved from http://ezinearticles.com/?Difference-Between-Web-1.0,-Web-2.0,-and-Web-3.0---With-Examples&id=3683790

Smith, T. (2009). The social media revolution. *International Journal of Market Research, 51*(4), 559-561.

Staines, Z., & Lauchs, M. (2013). Students' engagement with Facebook in a university undergraduate policing unit. *Australasian Journal of Educational Technology, 29*(6), 792-805.

Stanciu, A., Aleca, O., & Mihai, F. (2012). Social networking as an alternative environment for education. *Accounting and Management Information Systems, 11*(1), 56-75.

Stoller, F. (1997). The catalyst for change and innovation. In M. Christison & E. Stoller (Eds.), *A handbook for Language Program Administrators* (pp. 33-48). Burlinegame, CA: ALTA Book Center.

Susilo, A. (2014). Exploring Facebook and WhatsApp as supporting social network applications for English learning in higher education. *Applications for English Learning in Higher Education*, 10-24.

Suwannasom, T. (2010). *Teacher cognition about technology-mediated EFL instruction in the Thai tertiary context.* (Doctoral dissertation, Massey University, Palmerston North, New Zealand). Retrieved from https://mro-massey-ac-nz.ezproxy.massey.ac.nz/xmlui/bitstream/handle/10179/1853/02_whole.pdf

Tanveer, M. (2007). *Investigation of the factors that cause language anxiety for ESL/EFL learners in learning speaking skills and the influence it casts on communication in the target language.* (Master's thesis, University of Glasgow, Scotland, UK). Retrieved from

https://www.researchgate.net/publication/293263722_Investigation_of_the_factors_that_cause_language_anxiety_for_ESLEFL_learners_in_learning_speaking_skills_and_the_influence_it_casts_on_communication_in_the_target_language

Tashakkori, A., & Teddlie, C. (1998). *Mixed methodology: Combining qualitative and quantitative approaches* (Vol. 46). Thousands Oaks, CA: SAGE Publications.

Taylor, S., & Todd, P. (1995a). Assessing IT usage: The role of prior experience. *MIS Quarterly*, 561-570.

Thevenot, G. (2007). Blogging as a social media. *Tourism and Hospitality Research, 7*(3-4), 287-289.

Thomas, M., & Thomas, H. (2012). Using new social media and Web 2.0 technologies in business school teaching and learning. *Journal of Management Development, 31*(4), 358-367.

Thompson, R. L., Higgins, C. A., & Howell, J. M. (1991). Personal computing: toward a conceptual model of utilization. *MIS Quarterly, 15*(1), 125-143.

TOEFL iBT. (2017). Test and score data summary for TOEFL iBT® tests. Retrieved 17 August 2017 https://www.ets.org/s/toefl/pdf/94227_unlweb.pdf

Toetenel, L. (2014). Social networking: a collaborative open educational resource. *Computer Assisted Language Learning, 27*(2), 149-162.

Triandis, H. C. (1971). *Attitude and attitude change*. New York, NY: Wiley.

Trochim, M. K. (2002). What is the Research Methods Knowledge Base? Retrieved from http://www.anatomyfacts.com/research/researchmethodsknowledgebase.pdf

Trueman, M. S., & Miles, D. G. (2011). Twitter in the classroom: Twenty-first century flash cards. *Nurse Educator, 36*(5), 183-186.

Van Lier, L. (2004). *The ecology and semiotics of language learning: A sociocultural perspective*. Boston, MA: Kluwer Academic Publishers.

Van Lier, L. (2008). Agency in the classroom. In J. P. Lantolf & M. E. Poehner (Eds.), *Sociocultural Theory and the Teaching of Second Languages* (pp. 163-186). London, OH: Equinox Publishing Ltd.

van Lier, L. (2010). Forward: Agency, self and identity in language learning. In B. O'Rourke & L. Carson (Eds.), *Language Learner Autonomy: Policy, Curriculum, Classroom* (pp. ix-xiv). Switzerland: International Academic Publishers.

Varona-Marin, D. (2016). *The Lifecycle of a whiteboard photo: Post-meeting usage of whiteboard content captured with mobile devices.* (Master's thesis, University of Waterloo, Ontario, Canada). Retrieved from https://uwspace.uwaterloo.ca/bitstream/handle/10012/10546/varonamarin_daniel.pdf?sequence=1

Venkatesh, V., & Bala, H. (2008). Technology acceptance model 3 and a research agenda on interventions. *Decision Sciences, 39*(2), 273-315.

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science, 46*(2), 186-204.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27*(3), 425-478.

Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS Quarterly, 36*(1), 157-178.

Vygotsky, L. S. (1978). *Mind in society: The development of higher mental process*. Cambridge, MA: Harvard University Press.

Vygotsky, L. S. (1986). *Thought and language* (Revised edition ed.). Cambridge, MA: MIT Press.

Wang, S., & Vasquez, C. (2012). Web 2.0 and second language learning: What does the research tell us? *CALICO Journal, 29*(3), 412-430.

Warschauer, M. (1996a). Comparing face-to-face and electronic discussion in the second language classroom. *CALICO Journal, 13*(2-3), 7-26.

Warschauer, M. (1996b). Motivational aspects of using computers for writing and communication. In M. Warschauer (Ed.), *Telecollaboration in Foreign Language Learning* (pp. 29-46). Honolulu, HI: University of Hawai'i Press.

Waters, A. (2009). Managing innovation in English language education. *Language Teaching, 42*(4), 421-458.

Wedell, M. (2009). *Planning for educational change: Putting people and their contexts first*. London, UK: Continuum International Publishing Group.

Wertsch, J. V., Tulviste, P., & Hagstrom, F. (1993). A sociocultural approach to agency. In E. A. Forman, N. Minick, & C. A. Stone (Eds.), *Contexts for Learning: Sociocultural Dynamics in Children's Development* (pp. 336-356). Oxford, UK: Oxford University Press.

White, C. (2012). Emerging opportunities in new learning spaces: Teacher, learner and researcher perspectives. *The TESOLANZ Journal, 20*, 8-21.

White, C. (2018). Language teacher agency. In S. Mercer & A. Kostoulas (Eds.), *Psychology in Language Teaching* (pp. 196-210): Multilingual Matters.

White, R. (1988). *The ELT curriculum: Design, innovation and management*. Oxford, UK: Blackwell.

Wiersma, W. (2000). *Research methods in education: An introduction* (7th ed.). Boston, MA: Allyn & Bacon.

Wu, H.-J., & Wu, P.-L. (2011). Learners' Perceptions on the Use of Blogs for EFL Learning. *Online Submission, 3*(1), 323-330.

Wu, Y.-L., Tao, Y.-H., & Yang, P.-C. (2008). The use of unified theory of acceptance and use of technology to confer the behavioral model of 3G mobile telecommunication users. *Journal of Statistics and Management Systems, 11*(5), 919-949.

Yan, J. X., & Horwitz, E. K. (2008). Learners' perceptions of how anxiety interacts with personal and instructional factors to influence their achievement in English: A qualitative analysis of EFL learners in China. *Language Learning, 58*(1), 151-183.

Yavuz, F. (2016). Do smartphones spur or deter learning: A WhatsApp case study. *International Journal of Science Education, 15*(3), 408-415.

Young, K. (2009). Online social networking: An Australian perspective. *International Journal of Emerging Technologies and Society, 7*(1), 39-57.

Young, S. S.-C. (2003). Integrating ICT into second language education in a vocational high school. *Journal of Computer Assisted Learning, 19*(4), 447-461.

Zohrabi, M. (2013). Mixed method research: Instruments, validity, reliability and reporting findings. *Theory and Practice in Language Studies, 3*(2), 254-262.

Zourou, K., Potolia, A., & Zourou, F. (2017). Informal Social Networking for Language Learning : Insights into autonomy stances. In T. Lewis, A. Rivens Mompean, & T. Cappellini (Eds.), *Learner autonomy and Web 2.0* (pp. 141-167). San Marcos, TX: CALICO.

Zuo, W. (2011). The Effects of cooperative learning on improving college students' reading comprehension. *Theory & Practice in Language Studies, 1*(8), 986-989.

# APPENDICES

## Appendix A: SACM Letter

بسم الله الرحمن الرحيم

ROYAL CONSULATE GENERAL OF SAUDI ARABIA
CULTURAL OFFICE
AUCKLAND

القنصلية العامة للمملكة العربية السعودية
الملحقية الثقافية
أوكلاند

**خطاب تعريف**

| | | | |
|---|---|---|---|
| الاسم | فهد حمد عبد الرحمن الغشام | | |
| رقم الملف | NZ10213631 | رقم السجل المدني | 1073332387 |
| جهة الابتعاث | وزارة التعليم العالي | الجامعة | ماسي |
| المرحلة | دكتوراه | التخصص | Second Language Teaching |
| تاريخ بداية البعثة حسب القرار | 1435/08/21هـ | تاريخ نهاية البعثة الحالي | 1438/09/24هـ |

سعادة وكيل جامعة القصيم للبحث العلمي والدراسات العليا حفظه الله

السلام عليكم ورحمة الله وبركاته

تهديكم الملحقية الثقافية السعودية فى نيوزيلندا أطيب تحياتها وتفيد سعادتكم بأنه تقدم الينا الطالب فهد حمد عبدالرحمن الغشام رقم هوية وطنية 1073332387 المبتعث لمرحلة الدكتوراه بجامعة ماسي ( Massey University) للقيام برحلة علمية للمملكة لمدة ثلاث أشهر كحد أقصي فى حال موافقة وزارة التعليم العالى على طلبه لجمع بيانات بحث الدكتوراه تحت عنوان ( تعلم اللغة الأنجليزية بواسطة شبكة التواصل الأجتماعية الأفتراضية كلغة اجنبية فى نطاق التعليم العالى فى المملكة : التحفيز والتغيير)

وقد تم منحه هذا الخطاب بناء على طلبه دون ادنى مسؤوليه تجاه الملحقية .

حرر بتاريخ 2014/12/16م

وتقبلوا تحياتي ،،،

الملحق الثقافي في نيوزيلندا

عنه

د. سطام بن بخيت العتيبي

الملحق الثقافي السعودي في نيوزيلندا
SAUDI CULTURAL BUREAU NEWZEALAND

الرقم : دات ٥٥٥ التاريخ : ١٤/١٢/١٦ الموافق : ٢٠١٤/١٢/١٦ المرفقات :

E-mail : info@nz.mohe.gov.sa

## Appendix B: Qassim University Human Ethics Approval

١٠٣٣٣٧

٦ ٠٢ ٢٦

مواطئة الجامعة على طلب الملحق الثقافي بنيوزيلندا
لتطبيق المبتعث فهد الغشام الدراسة بالجامعة

سعادة الملحق الثقافي السعودي بنيوزيلندا

السلام عليكم ورحمة الله وبركاته ،وبعد

إشارة إلى خطاب سعادتكم رقم ٥ / ت ٥٥٥ بتاريخ ١٦/ ١٢ / ٢٠١٤ م والمتضمن الطلب المقدم من الطالب والمبتعث على برنامج خادم الحرمين الشريفين لدرجة الدكتوراه / فهد بن حمد عبد الرحمن الغشام في تخصص اللغويات التطبيقية في جامعة ماسي في نيوزيلندا، والذي يرغب بتطبيق أداة الدراسة بالبحث تحت عنوان " تعلم اللغة الإنجليزية بواسطة شبكة التواصل الاجتماعية الافتراضية كلغة أجنبية في نطاق التعليم العالي في السعودية : التحفيز والتغيير " Virtual social networking mediated English Language Learning in Saudi Tertiary EFL Context: MOtivation and Change".

نفيد سعادتكم بالموافقة على ذلك على أن يباشر بنفسه وفريق العمل تطبيق الدراسة والالتزام بالأمانة العلمية وأخلاقيات البحث العلمي في تطبيق مثل هذه الدراسات وتزويد عمادة البحث العلمي بجامعة القصيم بنسخة من الدراسة.

ولسعادتكم خالص التحية والتقدير

وكيل الجامعة للدراسات العليا والبحث العلمي

عبد الرحمن بن صالح الواصل

١٤٣٦/٠٢/٢٦

## Appendix C: Information Sheet

Research Project:
Virtual social networking mediated English language learning in the Saudi tertiary EFL context: Motivation and change

Information for Participants

**What is the project about?**

This study will look virtual social networking as a motivational tool for English language learning. We will investigate its use in the society and link that to language learning in the Saudi classroom. We'll also look at the students' and teachers' attitude towards it.

**Who are the researchers?**

My name is Fahd Alqasham. I am currently doing a PhD in applied linguistics at Massey University. My work is being supervised by Professor Cynthia J. White and Dr Leonel Alvarado.

**Why are you being asked to participate?**

You are being asked because you are a learner in the preparatory year program and your help is important to reach the objectives of the research.

**What will you be asked to do?**

You will be asked to fill out a questionnaire, and some of you will participate in the interviews about VSN as an motivational tool for English language learning.

**What will happen to my information?**

At the end of the project Fahd will take the learner information and discuss the things you wrote and spoke in the interviews in his thesis.

**Will other people know who I am?**

No. In the thesis you will only be called a "learner" and your name and/or contact details will not be in there. I also will not be giving your details to any other peopl, to make sure that information stays confidential.

**What if I agree to participate and then change my mind?**

You may withdraw from the study at any time during the project. Any information recorded about you will be removed from the records. You may still have to take part in the classroom activities, but your information will not be counted for the study.

**How can I find out about the results from the study?**

Fahd will discuss your information and the results with you if you prefer at the end of the project.

**Who can I speak to about participation in this project?**

1

You can speak to Fahd directly about activities and participation or through email f.alqasham@gmail.com.

### Will I be asked to sign anything?

Yes. The consent form is attached.

### What do I need to do now?

If you would like to participate in this study, please tell me now or before 5 February. We will discuss the research in detail in class this week and you can take time to decide if you want to be part of it.

### Contact Information:

**Fahd Alqasham**

Ph. 966562384773 or speak to me in class;

**Prof. Cynthia White**

Ph. 646 356 9099 ext 81141; email: cjwhite@massey.ac.nz;

**Dr Leonel Alvarado**

Ph. 646 356 9099 ext 81143; email: l.alvarado@massey.ac.nz

**مشروع البحث:**

**تعلم اللغة الإنجليزية بواسطة شبكات التواصل الاجتماعية الافتراضية كلغة اجنبية في نطاق التعليم العالي في السعودية: التحفيز والتغيير**

**معلومات الطلاب**

**ما هي هذه الدراسة؟**

وهذه الدراسة تبدو الشبكات الاجتماعية الافتراضية كأداة تحفيزية لتعلم اللغة الإنجليزية. سوف نقوم بالتحقيق استخدامه في المجتمع، .وربط ذلك لتعلم اللغة في الفصول الدراسية السعودي. ونحن سوف ننظر أيضا في الطلاب والمعلمين موقف تجاهها

**من هم الباحثون؟**

اسمي فهد الغشام. انا حاليا باحث دكتوراه في اللغويات التطبيقية في جامعة ماسي. ويشرف على بحثي الدكتوره سينثيا والدكتور ليونيل

**لماذا يطلب منك المشاركة؟**

لأنك طالب في برنامج السنة التحضيرية ومساعدتك مهمه للوصول لأهداف البحث.

**ما سوف يطلب منك أن تفعل؟**

سوف يطلب منك ان تشارك بالاستبيانات والبعض منكم سيشارك في المقابلات عن استخدام شبكة التواصل الاجتماعية كأداة تحفيزية في تعلم اللغة الإنجليزية

2

**ماذا سيحدث لمعلوماتي؟**

الباحث سوف يأخذ معلوماتك ويناقشها في بحث الدكتوراه

**هل الآخرين سيعرفون من أنا؟**

لا. في البحث سيكتب عنك بانك (الطالب) فقط. واسمك ومعلوماتك الشخصية لن تكون ظاهرة في البحث. انا أيضا لن اعطي معلوماتك لأي شخص للحفاظ على سرية المعلومات.

**ماذا لو كنت وافقت على المشاركة وبعد ذلك غيرت رأيي؟**

تستطيع الانسحاب من الدراسة في أي وقت أثناء تنفيذ البحث. سيتم إزالة أي معلومات مسجلة عنك من السجلات. سوف تكون في الفصل .مع الطلاب، ولكن لن تحسب المعلومات الخاصة بك في البحث.

**كيف يمكنني معرفة نتائج دراسة البحث؟**

فهد سوف يناقش معك المعلومات ونتائج البحث إذا رغبت بعد الانتهاء من الدراسة.

**من أستطيع مناقشة المشاركة في الفصل معه؟**

تستطيع مناقشة المشاركة والنشاطات لي مباشرة أو عن طريق الإيميل

f.alqasham@gmail.com

**هل سيطلب مني أن التوقيع على أوراق؟**

نعم. سيتم إرفاق استمارة الموافقة.

**ما الذي علي فعله الآن؟**

إذا كنت ترغب في المشاركة في هذه الدراسة، من فضلك قل لي الآن أو قبل ٥ فبراير. وسوف نناقش البحث بالتفصيل في الفصل هذا الأسبوع، ويمكنك أن تأخذ الوقت لتقرر ما إذا كنت تريد أن تكون جزءا من البحث أو لا.

**معلومات الاتصال:**

فهد الغشام

Ph. 966562384773 email:f.alqasham@gmail.com

الدكتوره سينثيا

Ph. 646 356 9099 ext 81141; email: cjwhite@massey.ac.nz;

الدكتور ليونيل

Ph. 646 356 9099 ext 81143; email: l.alvarado@massey.ac.nz

## Appendix D: Consent Form

***Virtual social networking mediated English language learning in the Saudi tertiary EFL context: Motivation and change***

**PARTICIPANT CONSENT FORM - INDIVIDUAL**

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree to participate in this study under the conditions set out in the Information Sheet.

**Signature:** ..... **Date:** .....

**Full Name** .....

**تعلم اللغة الإنجليزية بواسطة شبكات التواصل الاجتماعية الافتراضية كلغة اجنبية في نطاق التعليم العالي في السعودية: التحفيز والتغيير**

نموذج الطلاب للموافقة على الدراسة

لقد قرأت جميع المعلومات عن البحث وكل شيء شرح لي. جميع أسئلتي تم الإجابة عليها وأنا أفهم أنه أستطيع أن أسأل عن أي شيء في أي وقت أنا أوافق على المشاركة في هذه الدراسة بناء على الشروط الواردة في ورقة المعلومات.

التوقيع: ..... التاريخ:.....

الاسم كامل:.....

## Appendix E: Human Ethics Approval Massey University

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA

8 January 2015

Fahd Alquasham
Apartment 304
Quest Serviced Apartments
1-17 Fitzherbert Avenue
**PALMERSTON NORTH 4410**

Dear Fahd

**Re: Virtual Social Networking Mediated English Language Learning in the Saudi Tertiary EFL Context: Motivation and Change**

Thank you for your Low Risk Notification which was received on 19 December 2014.

Your project has been recorded on the Low Risk Database which is reported in the Annual Report of the Massey University Human Ethics Committees.

You are reminded that staff researchers and supervisors are fully responsible for ensuring that the information in the low risk notification has met the requirements and guidelines for submission of a low risk notification.

The low risk notification for this project is valid for a maximum of three years.

Please notify me if situations subsequently occur which cause you to reconsider your initial ethical analysis that it is safe to proceed without approval by one of the University's Human Ethics Committees.

Please note that travel undertaken by students must be approved by the supervisor and the relevant Pro Vice-Chancellor and be in accordance with the Policy and Procedures for Course-Related Student Travel Overseas. In addition, the supervisor must advise the University's Insurance Officer.

**A reminder to include the following statement on all public documents:**

> *"This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.*
>
> *If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Professor John O'Neill, Director (Research Ethics), telephone 06 350 5249, e-mail humanethics@massey.ac.nz".*

Please note that if a sponsoring organisation, funding authority or a journal in which you wish to publish requires evidence of committee approval (with an approval number), you will have to provide a full application to one of the University's Human Ethics Committees. You should also note that such an approval can only be provided prior to the commencement of the research.

Yours sincerely

J. O'Neill

John G O'Neill (Professor)
**Chair, Human Ethics Chairs' Committee and**
**Director (Research Ethics)**

cc Prof Cynthia White
School of Humanities
**PN242**

Dr Leonel Alvarado
School of Humanities
**PN242**

Dr Kerry Taylor, HoS
School of Humanities
**PN242**

**Massey University Human Ethics Committee**
**Accredited by the Health Research Council**

**Research Ethics Office, Research and Enterprise**
Massey University, Private Bag 11222, Palmerston North 4442, New Zealand T 06 3505573; 06 3505575 F 06 350 5622
E humanethics@massey.ac.nz; animalethics@massey.ac.nz; gtc@massey.ac.nz **www.massey.ac.nz**

## Appendix F: Students' Classroom Scenarios

**Students' classroom scenarios**

1. Students' Classroom Scenario

**Directions: Please read each of the classroom scenarios and mark the situation that would fit into your learning style. At the end of the scenarios, please choose one scenario that is most relevant to your learning orientation and another scenario that is least relevant to your learning orientation.**

**Consent: I agree to provide information to the researcher by participating in these classroom scenarios.**

1. Name:

2. Group:

3. Signature:

4. Please rate how well would these scenarios fit into your learning style.

| | Definitely not fit | Probably not fit | Probably fit | Definitely fit |
|---|---|---|---|---|
| Fahd is studying English. In order to motivate himself to learn he made a WhatsApp group with his classmates. His intention is to make a study environment with other students to discuss their homework and exams. Also to practice their English language from time to time. | ○ | ○ | ○ | ○ |

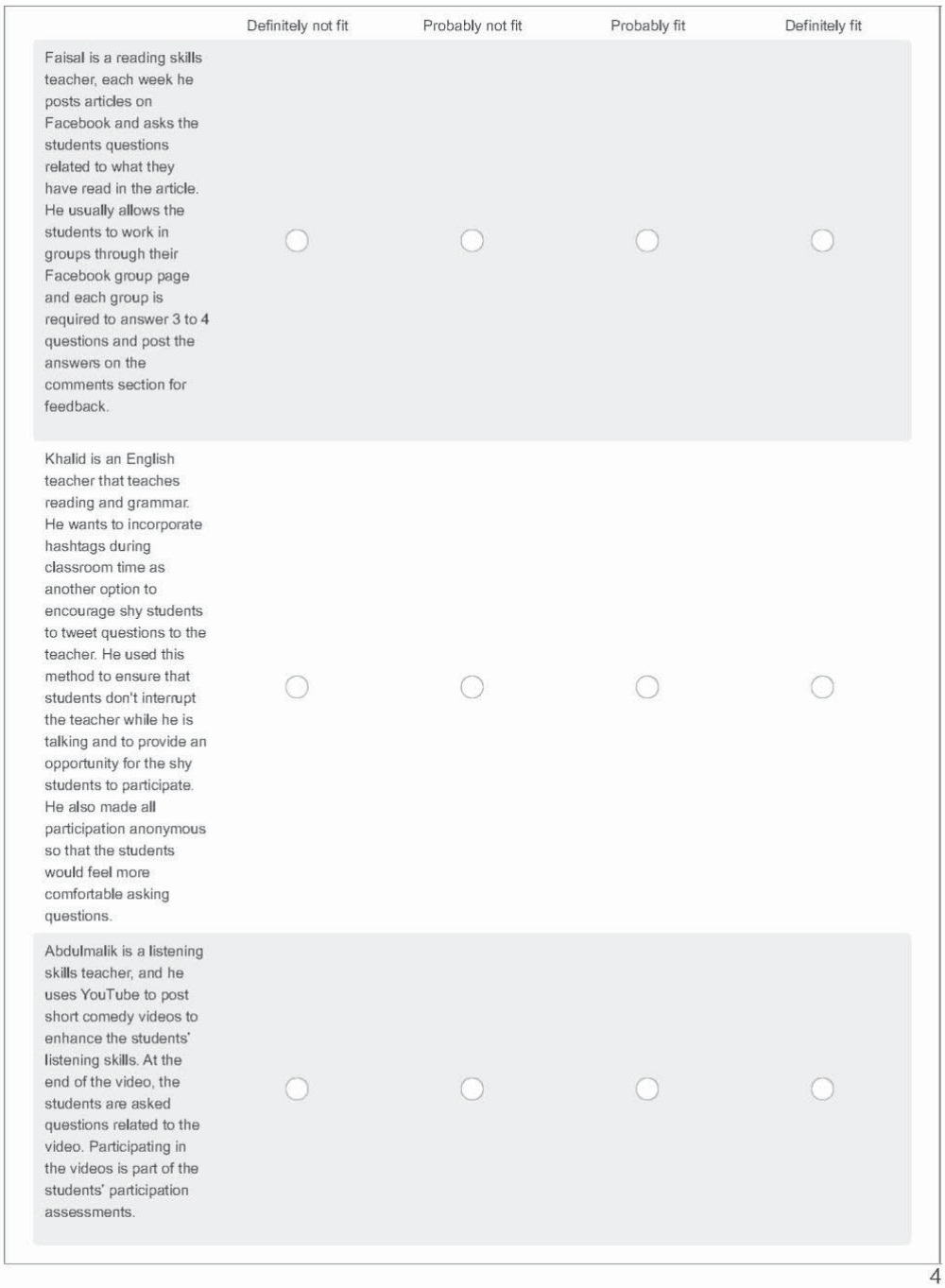
1

| | Definitely not fit | Probably not fit | Probably fit | Definitely fit |
|---|---|---|---|---|
| Abdulrahman is studying the English language, and in order for him to improve his reading, grammar and vocabulary as fast as he can, he posts short stories weekly on WhatsApp and discusses them with his classmates through their WhatsApp group. His aim is to extend his English language learning through discussing what he has learned from the short stories. | ○ | ○ | ○ | ○ |
| Omar is studying English grammar and he is a shy student who may not want to approach his teacher after class or during office hours to ask a question about a grammar point he didn't understand. So, his teacher created a Twitter account and had all the students "Follow" his account so that they could ask questions freely and anonymously. Omar now is comfortable asking any question about grammar and can more easily enhance his competence in English grammar. | ○ | ○ | ○ | ○ |

2

| | Definitely not fit | Probably not fit | Probably fit | Definitely fit |
|---|---|---|---|---|
| Mohammad is studying English reading skills. So, to improve his reading, the teacher created a Facebook group page and made an activity for him and his classmates in which each student is asked to post a paragraph each week about a certain topic that's decided by the teacher. Then the student who posted the paragraph is required to post three questions related to the paragraph. His classmates should answer the student's questions weekly and this will be counted as participation marks. | ○ | ○ | ○ | ○ |
| Hamad is studying the English language, and he's struggling with memorizing vocabulary. When he learns a word today he forgets it the next day. So, to solve this issue, he decided to create a WhatsApp group with his classmates to practice the new vocabulary. He thinks that practicing the new words will help him memorize them better. | ○ | ○ | ○ | ○ |
| Sulaiman and his classmates want to learn new vocabulary and grammar collaboratively, so they decided to follow each other on Instagram, and each one is required to post an image daily or weekly that contains a new word or grammar point to his classmates to maximize their vocabulary and grammar learning. | ○ | ○ | ○ | ○ |

3



| | Definitely not fit | Probably not fit | Probably fit | Definitely fit |
|---|---|---|---|---|
| Faisal is a reading skills teacher, each week he posts articles on Facebook and asks the students questions related to what they have read in the article. He usually allows the students to work in groups through their Facebook group page and each group is required to answer 3 to 4 questions and post the answers on the comments section for feedback. | ○ | ○ | ○ | ○ |
| Khalid is an English teacher that teaches reading and grammar. He wants to incorporate hashtags during classroom time as another option to encourage shy students to tweet questions to the teacher. He used this method to ensure that students don't interrupt the teacher while he is talking and to provide an opportunity for the shy students to participate. He also made all participation anonymous so that the students would feel more comfortable asking questions. | ○ | ○ | ○ | ○ |
| Abdulmalik is a listening skills teacher, and he uses YouTube to post short comedy videos to enhance the students' listening skills. At the end of the video, the students are asked questions related to the video. Participating in the videos is part of the students' participation assessments. | ○ | ○ | ○ | ○ |

4

5. Please select the best from the above scenarios that are the most relevant to your learning orientation (Please choose one scenario only). Please write an explanation for your choices.

"I choose the classroom scenario of _____ (the student's or teacher's name)"

- [ ] Fahd
- [ ] Abdulrahman
- [ ] Omar
- [ ] Mohammad
- [ ] Hamad
- [ ] Sulaiman
- [ ] Faisal
- [ ] Khalid
- [ ] Abdulmalik

My reasons:

5

6. Please select the worst from the above scenarios that are the most relevant to your learning orientation (Please choose one scenario only). Please write an explanation for your choices.

"I choose the classroom scenario of _____ (the student's or teacher's name)"

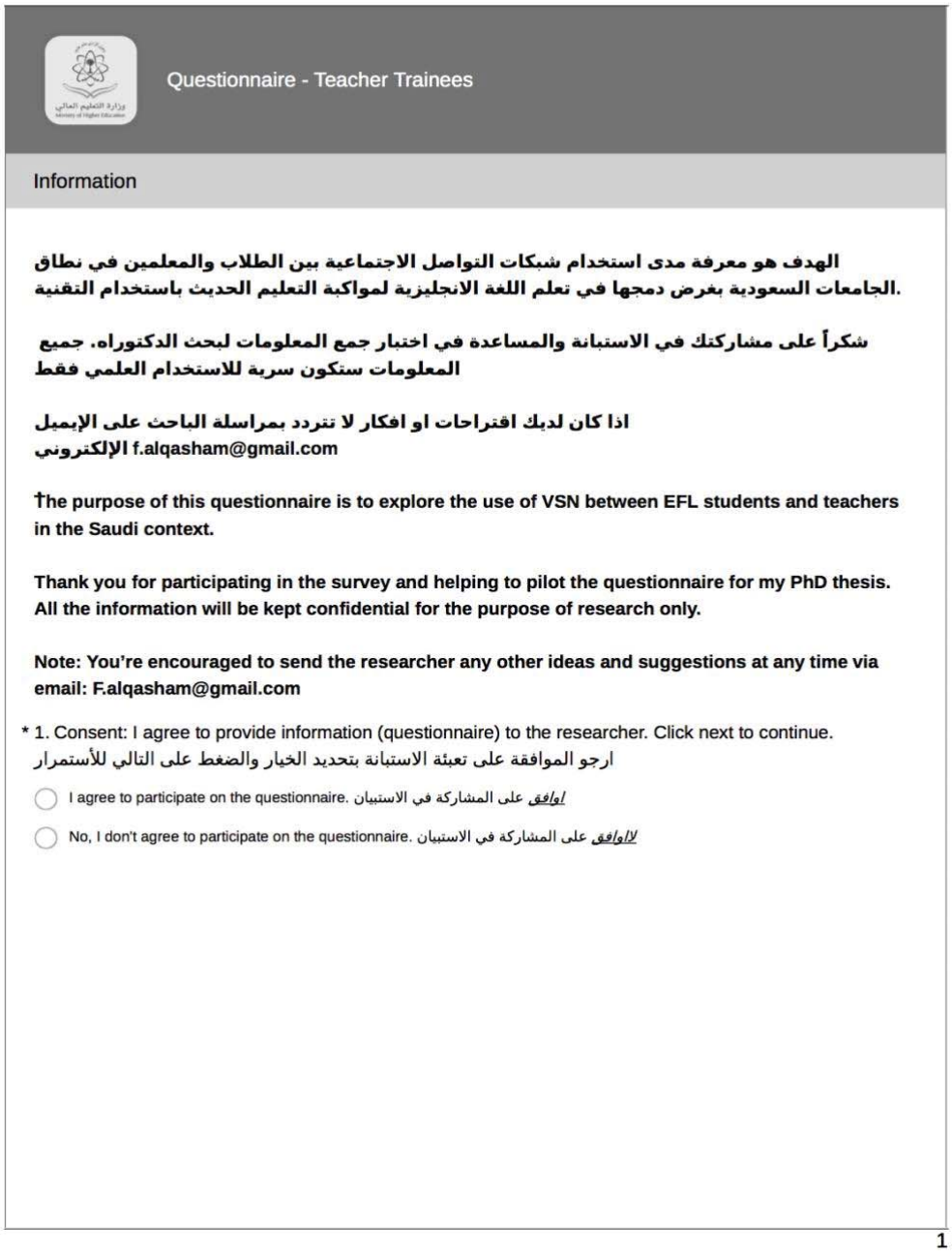
- ☐ Fahd
- ☐ Abdulrahman
- ☐ Omar
- ☐ Mohammad
- ☐ Hamad
- ☐ Sulaiman
- ☐ Faisal
- ☐ Khalid
- ☐ Abdulmalik

My reasons:

7. Would you like to add any other comments?

6

## Appendix G: Teacher Trainees' Questionnaire



Questionnaire - Teacher Trainees

Information

**الهدف هو معرفة مدى استخدام شبكات التواصل الاجتماعية بين الطلاب والمعلمين في نطاق الجامعات السعودية بغرض دمجها في تعلم اللغة الانجليزية لمواكبة التعليم الحديث باستخدام التقنية.**

**شكراً على مشاركتك في الاستبانة والمساعدة في اختبار جمع المعلومات لبحث الدكتوراه. جميع المعلومات ستكون سرية للاستخدام العلمي فقط**

**اذا كان لديك اقتراحات او افكار لا تتردد بمراسلة الباحث على الإيميل الإلكتروني f.alqasham@gmail.com**

**The purpose of this questionnaire is to explore the use of VSN between EFL students and teachers in the Saudi context.**

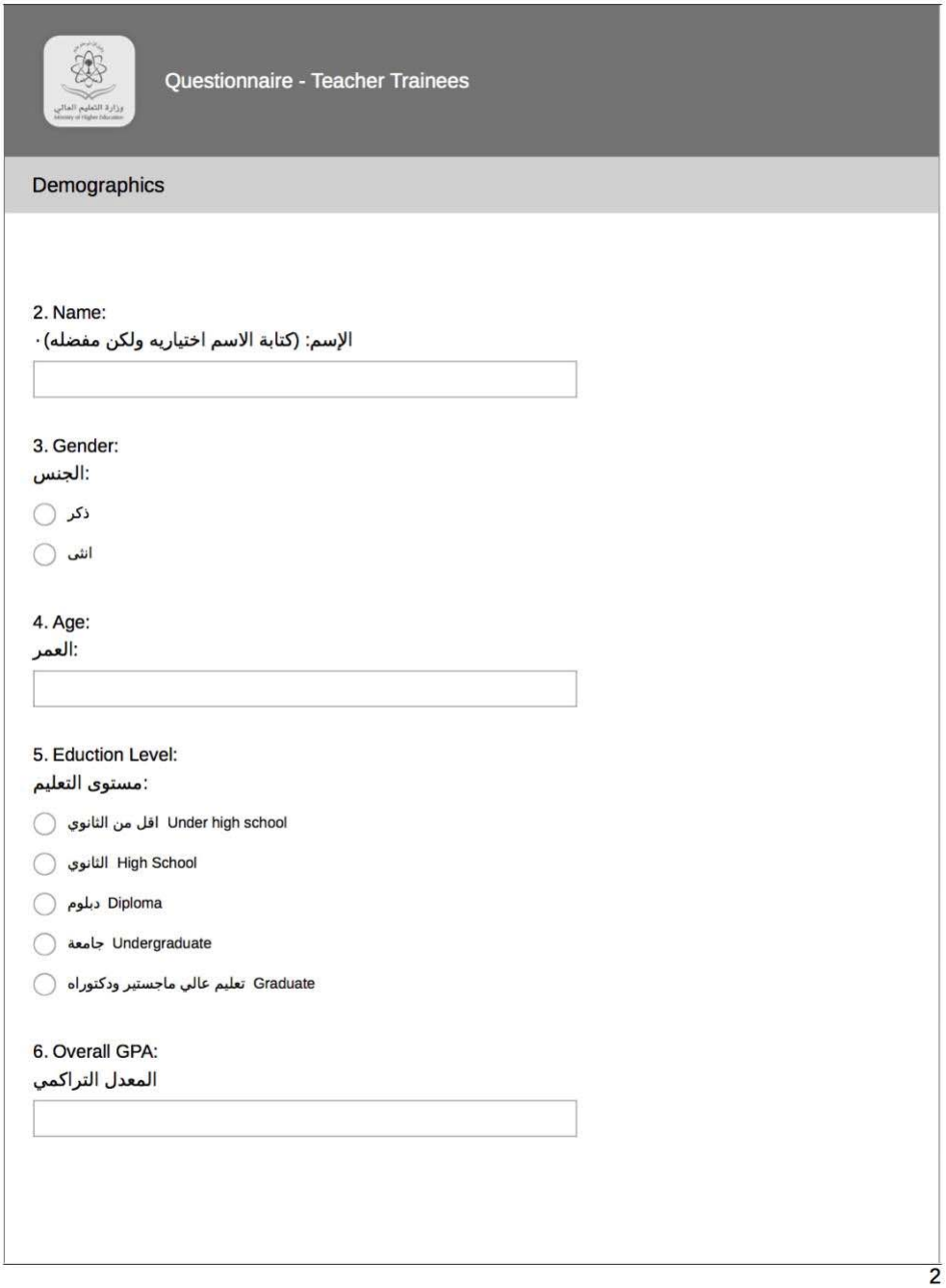
**Thank you for participating in the survey and helping to pilot the questionnaire for my PhD thesis. All the information will be kept confidential for the purpose of research only.**

**Note: You're encouraged to send the researcher any other ideas and suggestions at any time via email: F.alqasham@gmail.com**

* 1. Consent: I agree to provide information (questionnaire) to the researcher. Click next to continue.
ارجو الموافقة على تعبئة الاستبانة بتحديد الخيار والضغط على التالي للأستمرار

- I agree to participate on the questionnaire. *أوافق* على المشاركة في الاستبيان
- No, I don't agree to participate on the questionnaire. *لاأوافق* على المشاركة في الاستبيان

1



Questionnaire - Teacher Trainees

Demographics

2. Name:
الإسم: (كتابة الاسم اختياريه ولكن مفضله)·

3. Gender:
الجنس:

- ذكر
- انثى

4. Age:
العمر:

5. Eduction Level:
مستوى التعليم:

- اقل من الثانوي Under high school
- الثانوي High School
- دبلوم Diploma
- جامعة Undergraduate
- تعليم عالي ماجستير ودكتوراه Graduate

6. Overall GPA:
المعدل التراكمي

2

7. How long have you been studying English?
منذ متى وانت تتعلم اللغة الأنجليزية؟

- ○ اقل من سنة Less than one year
- ○ 1-2 years سنوات
- ○ 3-4 years سنوات
- ○ اكثر من خمس سنوات More than 5 years
- ○ لم اتعلم اللغة الأنجليزية ابدا I never learned English

8. What other languages do you know?
ماهي اللغات الأخرى التي تعرفها؟

9. Do you consider yourself as ....
هل تعتبر نفسك ك ....

- ☐ انطوائي Introvert
- ☐ منبسط Extrovert
- ☐ Both (If so, please explain:.....)
جميعها؟ اذا كان كذلك ارجو التوضيح

3

Questionnaire - Teacher Trainees

VSNs' use in the Saudi society.

**استخدام شبكات التواصل الأجتماعية في المجتمع السعودي**

* 10.
Do you use Social Networking Sites (e.g. Facebook, Twitter, whatsapp, etc.)?
هل انت من مستخدمي شبكات التواصل الإجتماعية (مثل الفيسبوك، التويتر، والواتس اب)؟

- ◯ نعم Yes
- ◯ لا No

* 11. How long have you been using social networking sites?
منذ متى وانت تستخدم شبكات التواصل الاجتماعية؟

- ◯ اقل من شهر Less than a Month.
- ◯ من شهر الى 6 اشهر From 1 month to 6 months.
- ◯ من 6 اشهر الى سنة From 6 months to 1 year.
- ◯ من سنة الى سنتين From 1 to 2 years.
- ◯ اكثر من سنتين More than 2 years.

* 12. Do you have your profile on any of the following social networking services? (Multiple answers are allowed)
هل يوجد لديك حساب بأي من مواقع شبكة التواصل الاجتماعية التالية؟ (مسموح تحديد أكثر من خيار)٠

- ☐ فيسبوك Facebook
- ☐ تويتر Twitter
- ☐ انستقرام Instagram
- ☐ لينكدان Linkedin
- ☐ واتس اب Whatsapp
- ☐ اخرى (آرجو ذكر الموقع او المواقع)٠ Other (please specify)

4

* 13. If you are NOT actively using any of VSN, what is the main reason? (Multiple answers are allowed)
ما هو السبب الرئيسي لعدم استخدامك بنشاط أي من مواقع شبكات التواصل الاجتماعية؟ (مسموح تحديد إجابات متعددة)·

- [ ] ليس لدي الوقت I don't have time
- [ ] انها مملة بالنسبة لي It is boring for me
- [ ] اريد الحفاظ على خصوصيتي I want to keep my privacy
- [ ] انها ليست سهلة الاستعمال It is not user friendly
- [ ] نشاط ليس له قيمة It is useless activity
- [ ] هذا السؤال لا ينطبق علي لأنني مستخدم نشط This question is not applicable because I am active user
- [ ] اخرى (آرجو ذكر السبب)· Other (please specify)

* 14. Which of these VSN you're most active on? (Multiple answers are permitted)
في اي من مواقع شبكات التواصل التالية تعتبر نفسك نشيطاً فيها؟ (يسمح بتحديد اكثر من اجابة)·

- [ ] فيسبوك Facebook
- [ ] تويتر Twitter
- [ ] انستقرام Instagram
- [ ] لينكدان Linkedin
- [ ] واتس اب Whatsapp
- [ ] يوتوب Youtube
- [ ] كيك Keek
- [ ] اخرى (ارجو التحديد)· Other (please specify)

5

* 15. Ease of Using the VSN?
هل استخدام شبكات التواصل الإجتماعية سهلة بالنسبة لك؟

- ◯ سهلة جداً Very Easy
- ◯ سهلة Easy
- ◯ معتدلة السهولة Moderately Easy
- ◯ صعبة Difficult
- ◯ صعبة جداً Very Difficult

* 16. How many ("Friends", "Followers") do you have on VSN?
كم عدد "المتابعين" او "الاصدقاء" لديك؟

- ◯ اقل من 10 Less than 10
- ◯ 10–49
- ◯ 50–99
- ◯ 100-199
- ◯ اكثر من 200 More than 200

* 17. How many groups are you a member of in VSN (e.g. WhatsApp, BlackBerry Messenger, etc.)?
كم عدد المجموعات التي عندك في شبكة التواصل الاجتماعية (مثل الواتس اب والبلاك بيري الخ)؟

- ◯ None - لايوجد
- ◯ From 1 to 3 - من ١ الى ٣
- ◯ From 4 to 8 - من ٤ الى ٨
- ◯ From 9 to 14 - من ٩ الى ١٤
- ◯ More than 15 - ١٥ و اكثر

* 18. Are you a member of any WhatsApp group related to your university?
هل أنت عضوا في أي مجموعة متعلقة بجامعتك؟

- ☐ نعم، مع طلاب بشكل غير رسمي Yes, unofficial student groups
- ☐ نعم، بشكل رسمي في الجامعة Yes, official Institutional Profile
- ☐ مع مجموعة الخريجين Alumni group on SNS
- ☐ لا No
- ☐ انا لست طالبا I am not a student.

6

* 19. Are you a member of any WhatsApp group related to your workplace?
هل انت عضو في اي مجموعة متعلقة بعملك؟

- [ ] نعم، مع الموظفين بشكل غير رسمي Yes, unofficial staff group
- [ ] نعم، بشكل رسمي Yes, official group
- [ ] لا No
- [ ] لست موظفا I am not employed

* 20. What is the key reason that you have joined a group on VSN (e.g., WhatsApp, BlackBerry Messenger)? (Multiple answers are allowed)
ماهي الأسباب التي جعلتك تنظم الى المجموعات (مثل واتس اب والبلاك بيري الخ)؟ (مسموح تحديد اكثر من خيار)٠

- [ ] For entertainment - لترفيه
- [ ] It helps me to stay up-to-date with the community news, more particularly friends and relatives - لتواصل مع المجتمع والاطلاع على اخباره وخصوصاً الاصدقاء والاهل
- [ ] It helps me to get new useful connections with new people - تساعدني في ايجاد اصدقاء جدد
- [ ] To develop my skills in teaching - لتطوير مهاراتي في التدريس
- [ ] Other (please specify)
اخرى (ارجو ذكر السبب)٠

7

* 21. Please specify the reasons that encouraged you to connect with “Friends”, "Followers" on VSN (e.g., Facebook, Twitter, Instagram, etc.). (Multiple answers are allowed)
ماهي الأسباب التي شجعتك على التواصل مع "الأصدقاء"، "والمتابعين" في شبكة التواصل الأجتماعية (مثل فيسبوك، تويتر، انستقرام الخ)٠

- [ ] It helps me to stay up-to-date with the community news, more particularly friends and relatives - لتواصل مع المجتمع والاطلاع على اخباره وخصوصاً الاصدقاء والاهل
- [ ] To develop my skills in teaching - تساعدني في ايجاد اصدقاء جدد
- [ ] For entertainment - لترفيه
- [ ] It helps me to get new useful connections with new people - لتطوير مهاراتي في التدريس
- [ ] Other (please specify)
اخرى (ارجو ذكر السبب)٠

* 22. How the use of VSN influences your life (benefits)? (Multiple answers are permitted)
ماهو تاثير استخدام شبكة التواصل الإجتماعية على حياتك (الفوائد)٠

- [ ] تطوير مهارات القراءة والكتابة Develop read and write skills
- [ ] تساعد في البحث والتعلم Helps in research and learning
- [ ] زيادة الثقة بالنفس Increase self-esteem
- [ ] اخرى (ارجو التعليل)٠ Other (please specify)

8

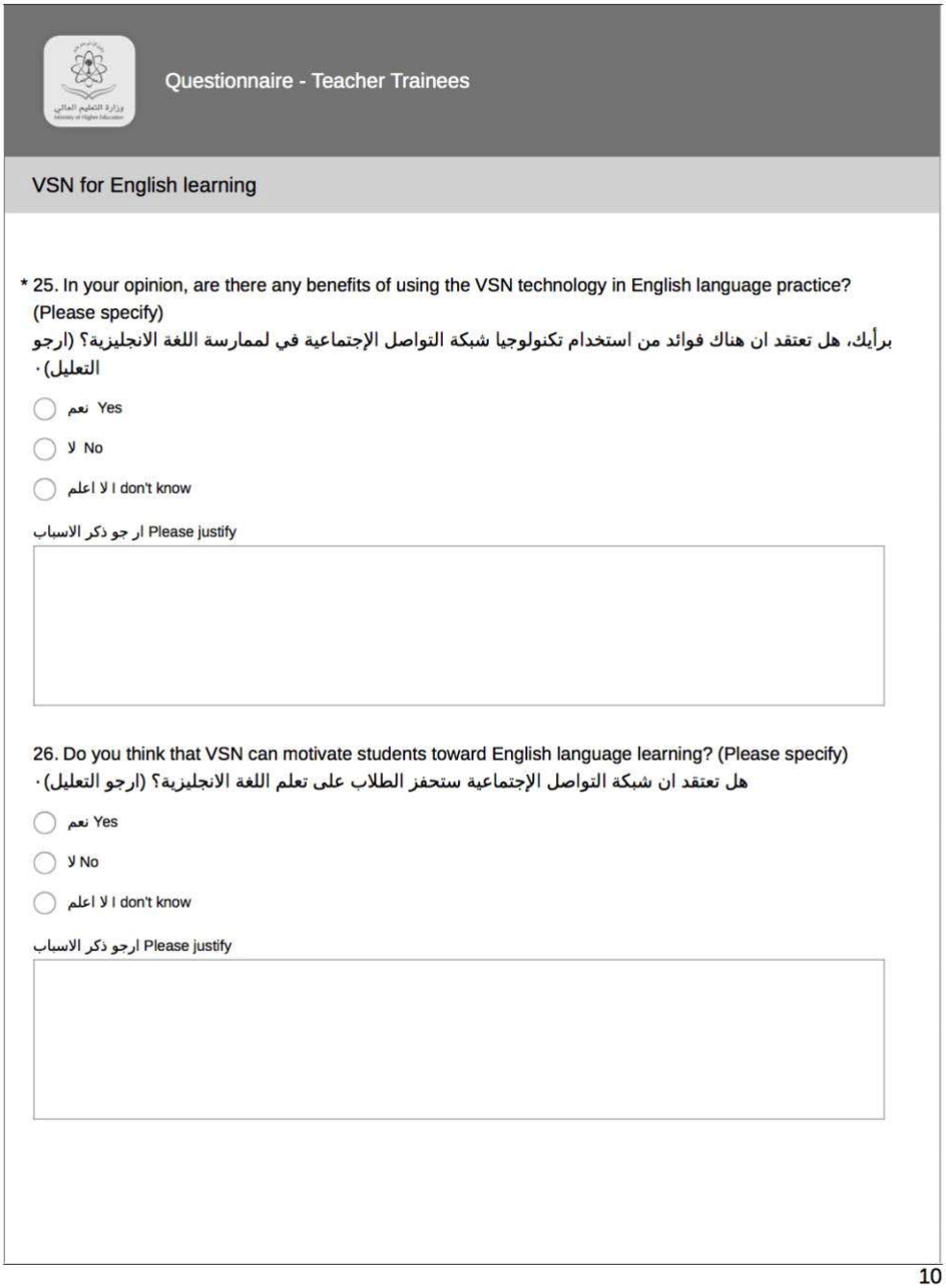
* 23. Do you use VSN to connect to people from other countries?
هل تستخدم شبكات التواصل الإجتماعية للتواصل مع اشخاص في دول اخرى؟

- [ ] نعم Yes
- [ ] لا No
- [ ] اذا كانت اجابتك بنعم، ارجو ذكر الهدف .... If yes, for what purpose? .....

* 24. What devices do you use a lot to access VSN?
ماهي الاجهزة اللتي تستخدمها بكثرة لتصفح شبكات التواصل الإجتماعية؟

- [ ] جوال Smart phones
- [ ] الاب توب Laptop
- [ ] الكمبيوتر المكتبي PC desktop
- [ ] الألواح الألكترونية، مثل الأيباد Tablet
- [ ] اخرى، ارجو ذكر الاجهزه Other (please specify)

9



Questionnaire - Teacher Trainees

VSN for English learning

* 25. In your opinion, are there any benefits of using the VSN technology in English language practice? (Please specify)
برأيك، هل تعتقد ان هناك فوائد من استخدام تكنولوجيا شبكة التواصل الإجتماعية في لممارسة اللغة الانجليزية؟ (ارجو التعليل)٠

- نعم Yes
- لا No
- لا اعلم I don't know

ار جو ذكر الاسباب Please justify

26. Do you think that VSN can motivate students toward English language learning? (Please specify)
هل تعتقد ان شبكة التواصل الإجتماعية ستحفز الطلاب على تعلم اللغة الانجليزية؟ (ارجو التعليل)٠

- نعم Yes
- لا No
- لا اعلم I don't know

ارجو ذكر الاسباب Please justify

10

27. Do you think there are constraints of learning English through VSN? (Please specify)
(برأيك، هل تعتقد ان هناك عوائق في تعلم اللغة الانجليزية بواسطة شبكة التواصل الإجتماعية؟ (ارجو ذكر العوائق

- ◯ نعم Yes
- ◯ لا No
- ◯ لا اعلم I don't know

ار جو ذكر الاسباب Please justify

28. Do you think that you're able to practice English through VSN more easily? Please justify.
هل تشعر بارتياح اكثر في ممارسة اللغة الانجليزية في شبكة التواصل الإجتماعية؟ ارجو التعليل

- ◯ نعم Yes
- ◯ لا No
- ◯ لا اعلم I don't know

ارجو ذكر الاسباب Please Justify

29. ارجو منك ذكر ثلاث نقاط تلخص فيها تجربتك في تعلم اللغة الانجليزية بواسطة شبكة التواصل الاجتماعية؟ To summaries can you tell three things about your experience with VSN in your English language learning?

11

## Appendix H: Post-project questionnaire

Post-project questionnaire

Post-project questionnaire

**الهدف من الاستبانة هو معرفة تجربتكم في استخدام شبكات التواصل الاجتماعية في تعلم اللغة الانجليزية.**

**شكراً على مشاركتك في الاستبانة والمساعدة في جمع المعلومات لبحث الدكتوراه. جميع المعلومات ستكون سرية للاستخدام العلمي فقط**

**اذا كان لديك اقتراحات او افكار لا تتردد بمراسلة الباحث على الإيميل الإلكتروني f.alqasham@gmail.com**

**The purpose of this questionnaire is to investigate your overall experiences with the application of VSN in and outside the classroom.**
**Thank you for participating in the questionnaire for my PhD thesis. All the information will be kept confidential for the purpose of research only.**

**Note: You're encouraged to send me any other ideas and suggestions at any time via email: F.alqasham@gmail.com**

1. Consent: I agree to provide information (questionnaire) to the researcher.
الموافقة: انا موافق على تقديم المعلومات للباحث عن طريق المشاركة في الاستبيان

- ◯ I agree to participate on the questionnaire. على المشاركة في الاستبيان *اوافق*
- ◯ No, I don't agree to participate on the questionnaire. على المشاركة في الاستبيان *لااوافق*

Post-project questionnaire

Demographics

2. Full Name:

3. Email:

4. Group:

1

* 5. Evaluate the following statements for Twitter application.

| | لا اوافق بشدة Strongly Disagree | لا اوافق Disagree | محايد Neutral | موافق Agree | موافق بشدة Strongly Agree |
|---|---|---|---|---|---|
| انا احب تعلم اللغة الانجليزية لان باستخدام التويتر I like learning English now with Twitter. | ○ | ○ | ○ | ○ | ○ |
| شعرت بمزيد من الثقة في السؤال في التويتر I felt more confident in asking questions on Twitter. | ○ | ○ | ○ | ○ | ○ |
| بشكل عام تويتر يحفزني على تعلم اللغة الانجليزية The Twitter project motivates me to learn English. | ○ | ○ | ○ | ○ | ○ |
| تعلمت الكثير من اسئلة زملائي خلال المحاضرة في التويتر I learned a lot from my classmates' questions during the lecture on Twitter. | ○ | ○ | ○ | ○ | ○ |
| مشاركة الأعضاء في السؤال في الفصل هي متساوية بعد استخدام التويتر Members' contributions in asking questions in the classroom are equal after using Twitter. | ○ | ○ | ○ | ○ | ○ |
| العمل على التويتر سهل It is easy to work on Twitter. | ○ | ○ | ○ | ○ | ○ |
| استخدام التويتر يستغرق وقت طويل The Twitter project took up too much time. | ○ | ○ | ○ | ○ | ○ |
| اسئلتي للمعلم ساعدتني كثير في فهم المادة Asking the teacher on Twitter in the classroom helped me understand more about the subject. | ○ | ○ | ○ | ○ | ○ |
| بشكل عام تويتر مفيد بالنسبة لي The Twitter project was beneficial to me. | ○ | ○ | ○ | ○ | ○ |

2

| | لا اوافق بشدة Strongly Disagree | لا اوافق Disagree | محايد Neutral | موافق Agree | موافق بشدة Strongly Agree |
|---|---|---|---|---|---|
| اود استخدام تويتر في مواد اخرى I would like to use Twitter in other subjects. | ○ | ○ | ○ | ○ | ○ |
| سوف استمر في استخدام التويتر حتى بعد نهاية الفصل الدراسي I will continue to use Twitter for the next semester as well. | ○ | ○ | ○ | ○ | ○ |

* 6. Evaluate the following statements for WhatsApp application

| | لا اوافق بشدة Strongly Disagree | لا اوافق Disagree | محايد Neutral | موافق Agree | موافق بشدة Strongly Agree |
|---|---|---|---|---|---|
| انا احب تعلم اللغة الانجليزية لان باستخدام الواتس اب I like learning English now with WhatsApp. | ○ | ○ | ○ | ○ | ○ |
| شعرت بمزيد من الثقة في مشاركة أفكاري مع فريق المناقشة في الواتس اب I felt more confident in sharing my knowledge about the English language with my classmates in WhatsApp. | ○ | ○ | ○ | ○ | ○ |
| بشكل عام الواتس اب يحفزني على تعلم اللغة الانجليزية The WhatsApp project motivates me to learn English. | ○ | ○ | ○ | ○ | ○ |
| تعلمت الكثير من رسائل وتعليقات زملائي عن اللغة الانجليزية في الواتس اب I learned a lot from my classmates' discussion on WhatsApp. | ○ | ○ | ○ | ○ | ○ |
| المناقشة في الواتس اب ساعدتني في فهم الماده اكثر Discussion in the WhatsApp group helped me understand more about the subject. | ○ | ○ | ○ | ○ | ○ |

3

| | لا اوافق بشدة Strongly Disagree | لا اوافق Disagree | محايد Neutral | موافق Agree | موافق بشدة Strongly Agree |
|---|---|---|---|---|---|
| المشاركة بين الطلاب في النقاش في الواتس اب هي متساوية Members' contributions in the discussion on WhatsApp are equal. | ○ | ○ | ○ | ○ | ○ |
| العمل على الواتس اب سهل It is easy to work on WhatsApp. | ○ | ○ | ○ | ○ | ○ |
| استخدام الواتس اب يستغرق وقت طويل The WhatsApp project took up too much time. | ○ | ○ | ○ | ○ | ○ |
| بشكل عام الواتس اب مفيد بالنسبة لي The WhatsApp project was beneficial to me. | ○ | ○ | ○ | ○ | ○ |
| اود استخدام الواتس اب في مواد اخرى I would like to use WhatsApp in other subjects. | ○ | ○ | ○ | ○ | ○ |
| سوف استمر في استخدام الواتس اب حتى بعد نهاية الفصل الدراسي I will continue to use WhatsApp for the next semester as well. | ○ | ○ | ○ | ○ | ○ |

4

* 7. Evaluate the following statements for your overall experiences with the use of VSN in and outside the classroom.

| | لا اوافق بشدة Strongly Disagree | لا اوافق Disagree | محايد Neutral | موافق Agree | موافق بشدة Strongly Agree |
|---|---|---|---|---|---|
| اكتشفت طرق جديدة للتعلم من خلال شبكة التواصل الاجتماعية I gained new ways of learning through VSN. | ○ | ○ | ○ | ○ | ○ |
| لغتي الانجليزية تتحسن مع استخدام شبكة التواصل الاجتماعية My English improved with the use of VSN. | ○ | ○ | ○ | ○ | ○ |
| تعلمي لمفردات اللغة الانجليزية تحسنت مع استخدام شبكة التواصل الاجتماعية My vocabulary improved with the use of VSN. | ○ | ○ | ○ | ○ | ○ |
| تعلمي لقواعد اللغة الانجليزية تحسنت مع استخدام شبكة التواصل الاجتماعية My grammar improved with the use of VSN. | ○ | ○ | ○ | ○ | ○ |
| تحسنت قدراتي في كتابة اللغة الانجليزية بستخدام شبكة التواصل الاجتماعية My writing improved with the use of VSN. | ○ | ○ | ○ | ○ | ○ |

8. قبل ان تبدا الدراسة في الجامعة، ماذا كان تصورك لتعلم اللغة الانجليزية؟ Before you come to the university, what did you imagine learning English would be like?

9. ماذا كانت توقعاتك لتعلم اللغة الانجليزية باستخدام شبكة التواصل الاجتماعية في البداية؟ ارجو الشرح. What did you expect learning English with VSN would be like? Please explain

5

10. هل واجهت فترة انخفض لديك الحماس في تعلم اللغة الانجليزية بواسطة شبكة التواصل الاجتماعية؟ ممكن تحدثني كيف حصل هذا ومتى حصل؟ Have you had experiences to lose your motivation to study English with VSN? Can you tell me about it? and When did it happen?

11. ماهي الجوانب المفيدة في تعلم اللغة الانجليزية بواسطة شبكة التواصل الاجتماعية؟ What are the most useful aspects of VSN?

12. ماهي الجوانب الاقل فائدة في تعلم اللغة الانجليزية بواسطة شبكة التواصل الاجتماعية؟ What are the least useful aspects of VSN?

6

**Appendix I: Teacher trainees interviews**

INTERVIEW SCHEDUALE

(Individual semi-structured interviews and a focus group aimed for the teacher trainees. There will be 8-10 participants for individual interviews, the interview is expected to last 30 minutes.)

Full name:……

Email:……

1- Which VSN do you use?
2- How often do you use it?
3- Why do you use this particular VSN?
4- Why do you use different types of VSN?
5- Why do you think our community use VSN?
6- What are the advantages and disadvantages?
7- Do you use it in specific circumstances? Or do you use it whenever you have the time?
8- Do you use VSN mainly to interact with the community or just browsing? Why?
9- Do you have groups/friends or do you join groups in VSN? Why?
10- In your opinion, can we use VSN in education?
11- What are the benefits of using VSN in education to our students and teacher?
12- What about English language learning? Do you think it will be advantageous for the students and teachers?
13- What do you think about technology use in our schools and universities?
14- Do you think we're lacking something in our schools? What is it?

Note: You're encouraged to send the researcher any other ideas and suggestions at any time via email: F.alqasham@massey.ac.nz

Thank you for your cooperation

**Appendix J: First-round interviews**

FIRST-ROUND INTERVIEW

(This semi-structured interview is aimed at the students in the VSN class right after the first class to investigate their initial experience with VSN. The individual interview is expected to last 30 minutes each)

Full name:……

Email:……

Group:……

1- How was your initial experience in using Twitter in the class?
2- Was this class different from other classes you have taken in the past? If so, how was it different?
3- Did Twitter motivate you to learn English? How?
4- Have you had experiences to lose or decrease your motivation to study English? Was it because of Twitter?
5- Is it comfortable to ask the teacher about what you didn't understand in the classroom through Twitter?
6- Do your questions on Twitter help you learn English?
7- What do you like about Twitter?
8- Are there any things that you don't like about using Twitter in your English learning?
9- Do you have any issues that could affect your studies or English language learning?
10- To summaries can you tell three things about your experience with Twitter in your English learning?

A)……..

B)……..

C)……..

Note: You're encouraged to send the researcher any other ideas and suggestions at any time via email: F.alqasham@massey.ac.nz

Thank you for your cooperation.

**Appendix K: Post-project interviews**

POST-PROJECT INTERVIEWS

(This semi-structured interview is aimed at the students in the VSN class right after the first class to investigate their initial experience with VSN. The individual interview is expected to last 30 minutes each and the focus group is expected to last 1 hour.)

Full name:……

Email:……

Group:……

1- Overall, what do you think of your English studies with the assistance of Twitter and WhatsApp? How would you describe it?
2- What do you like most about it? In Twitter and WhatsApp?
3- Is there anything you don't like in this class?
4- Which one do you prefer, Twitter or WhatsApp? Why?
5- Do you think Twitter and WhatsApp help you improve your English? How?
6- What language skills do you think you developed most?
7- Which activities of this course were the most helpful for learning English?
8- Did you encounter any motivation change in learning English with Twitter and WhatsApp from the beginning of the course and then at the end of the course? Yes / No
9- If "Yes" When did it happen?
10- What happened to lower your motivation?
11- What was your reaction to it?
12- How did this experience change you?
13- Is there anything you do to keep motivated in your English study?
14- Would like to attend another similar class with Twitter and WhatsApp in the future?
15- Overall, do you think VSN are beneficial for learning English?
16- To summaries can you tell three things about your experience with VSN in your English language learning?

Note: You're encouraged to send the researcher any other ideas and suggestions at any time via email: F.alqasham@massey.ac.nz

Thank you for your cooperation.

## Appendix L: English Department Certificate

Kingdom of Saudi Arabia
Ministry of Higher Education
Qassim University
College of Arabic Language & Social Studies
Department of English & Translation

المملكة العربية السعودية
وزارة التعليم العالي
جامعة القصيم
كلية اللغة العربية والدراسات الاجتماعية
قسم اللغة الانجليزية والترجمة
(٠٤٠)

No: ..... Date: ..... Attachments: .....  ..... المرفقات : ..... التاريخ : ..... الرقم :

**TO WHOM IT MAY CONCERN**

This is to certify that Mr **ALQASHAM, FAHD HAMAD A** conducted a research using questionnaires and classroom scenarios on level eight students in the Department of English and Translation, Qassim University, KSA, where his research focused on "Virtual Social Networking Mediated English Language Learning in the Saudi Tertiary EFL Context: Motivation and Change" from 1/2/2015 to 1/3/2015.

**Head of the Department of English and Translation**

**Dr. Abdullah Hamoud Alfauzan**

Qassim University
Dept. of English & Translation

P.O.Box: 6611 - Buraidah: - Tel:(06) 3220518 - Fax:(06) 3220112 ص.ب: ٦٦١١ – بريدة: – هاتف: ٣٢٢٠٥١٨ (٠٦) – فاكس: ٣٢٢٠١١٢ (٠٦)

## Appendix M: Preparatory Year Program

Kingdom of Saudi Arabia
Ministry of Higher Education
Qassim University
Deanship of Educational Service

بسم الله الرحمن الرحيم

Qassim University جامعة القصيم

المملكة العربية السعودية
وزارة التعليم العالي
جامعة القصيم
عمادة الخدمات التعليمية
(٠٤٠)

الرقم :
التاريخ : ٧ / ٧ / ١٤٣٦ هـ
المرفقات :
الموضوع :

### TO WHOM IT MAY CONCERN

This is to certify that **Mr. ALQASHAM, FAHD HAMAD A.** applied to the Deanship of Educational Services to conduct an experimental study on level one students at the Preparatory Year Program for his PhD research **"Virtual social networking mediated English language learning in the Saudi tertiary EFL context: Motivation and change"**. The application has been approved and he has been provided with a classroom at level one to conduct his experimental study for three months from the period of the 25th of January to the 25th of April 2015. The data collection tools for his research include Interviews, students' classroom scenarios, classroom observation, questionnaires and focus group interviews. He has also been given the permission to collect data through the student classroom scenarios from the other classes as well. He has been given this certificate upon his request.

**ELU Director**

**Dr. Abdel-Mohsin El-Sherif**

**Dean of Deanship of Educational Services**

**Dr. Faisal Mohammed Aljasser**

عمادة الخدمات التعليمية
Deanship of Educational Service

Tel: 3801862 - Fax: 3801728 - P.O.Box: 6595 - Code No Buraidah: 51452

مباشر: ٣٨٠١٨٦٢ – ف: ٣٨٠١٧٢٨ – ص.ب: ٦٥٩٥ – الرمز البريدي: ٥١٤٥٢

## Appendix N: Deanship of Community Services

بسم الله الرحمن الرحيم

المملكة العربية السعودية
وزارة التعليم العالي
جامعة القصيم
عمادة خدمة المجتمع
(٠٤٠)

Qassim University جامعة القصيم

الرقم : التاريخ : / / ١٤٣ هـ

المرفقات : الموضوع :

**TO WHOM IT MAY CONCERN**

This is to certify that Mr. ALQASHAM, FAHD HAMAD A, has conducted his data collection at the Deanship of Community Service for his PhD research titled " Virtual social networking mediated English language learning at the Saudi tertiary EFL context: Motivation and change" from the 1st of March 2015 to the 2nd of April 2015. The data collection tools that has been used include questionnaires, classroom scenarios and interviews. The participants for the study were English language teacher trainees whom are doing their Higher Diploma in Education to give them the necessary training for teaching the English language.

**Dean of the Deanship of Community Service**

**Prof . Ahmed Ibrahim Alturki**

عمادة خدمة المجتمع
Qassim University جامعة القصيم
Community Service Deanship

ص.ب: ٣٠٣٠٦ – بريدة: ٥١٤٧٧ – هاتف: ٣٨٣٤٤٢٤ (٠١٦) – فاكس: ٣٨٣٤٩٥٠ (٠١٦)