Saudi Women Students and Educational Uses of Twitter: Practices, Perceptions, and Identities

By

Hibah Khalid Aladsani

The University of Sheffield
School of Education
Sheffield
UK

Submission Date

November 2018

Saudi Women Students and Educational Uses of Twitter: Practices, Perceptions, and Identities

By

Hibah Khalid Aladsani

A thesis submitted in partial fulfilment of the requirements for the degree of
Doctor of Philosophy

November 2018

The University of Sheffield
School of Education
Sheffield
UK

Abstract

This thesis explores how Saudi female university students use Twitter for educational purposes and their opinions about its educational potential. In addition, it examines how students use Twitter to present their academic identities and how Twitter affects their academic discourse. I focused on female students because I wanted to investigate how Twitter affects how they communicate with the opposite gender in general and in particular academically, and how it could help Saudi women make their voices heard in a society largely dominated by men.

This study used a qualitative methodology. The data were collected through semi-structured interviews with 15 participants from King Faisal University (KFU) and a content analysis of their Twitter posts. The data were thematically analysed using NVivo.

This study found that the students' use of Twitter was mainly student-directed; for the most part, they did not use Twitter because teachers requested them to. Moreover, the participants used Twitter for educational purposes in two ways: to support their university studies and to support their language learning.

The study also found that the participants typically presented three components of their academic identities: They shared their academic disciplines, identified themselves as students at KFU, and used academic hashtags. While interpreting the findings of this research question, I found Goffman's (1959) theories to be helpful for understanding how the students used Twitter to present the academic aspects of their identities. Furthermore, Goffman's theories were also useful for interpreting the findings of the first research question.

The participants identified several ways that Twitter expanded the sphere of their academic discourse: They followed and interacted with teachers and students from their university and from other universities, reached particular audiences, and communicated with

people of the opposite gender. In addition, they used Twitter to engage in several types of academic interactions. These included requesting and offering academic assistance, interactions that reinforcing academic relationships, and engaging in academic discussions. The findings showed that Saudi culture impacted how the students used Twitter and that, simultaneously, Twitter impacted Saudi culture.

Moreover, using the constructivist paradigm to study social phenomena without any predeveloped assumptions or theories revealed some interesting and unexpecting findings. An example of this is the strategies the participants used to learn a foreign language. A further example is the creative strategies they used to follow and interact with academics on Twitter.

These findings contribute to our understanding of how students use Twitter in their academic lives to support their education, to present their academic identities, and to engage in academic discourse. This research offers valuable insights into how Twitter is and can be used for formal and informal learning. The research also provides some recommendations for future studies.

Acknowledgements

Table of Contents

List of Tables

List of Figures

Chapter One: Introduction

1.0 Introduction

This study explores how Saudi female university students use Twitter for educational purposes and their opinions about using it. The study presents their academic identities and looks at how Twitter impacts their academic discourse. This chapter starts with an overview of the topic, and then it addresses the study's context. This is followed by descriptions of the purpose of the research, the research questions, the significance of the research, and the structure of the study.

1.1 Overview of the Study

Web 2.0 applications allow users to interact and collaborate with others on the Internet (Davies & Merchant, 2009). Social network sites (SNSs), as a part of Web 2.0, are popular among Internet users and have influenced the ways that people communicate, learn, and exchange knowledge. SNSs have captured people's attention in many areas of society, including education (Davies & Merchant, 2009).

Twitter is a free SNS that was launched in 2006 (O'Reilly & Milstein, 2011). Before late 2017, this website allowed users to share short posts of no more than 140 characters in real time (McFedries, 2007). The character limit was increased to 280 in November 2017 (Rosen & Ihara, 2017). Many studies have explored Twitter's role in communicating with others and sharing information and news (Gleason, 2016; Java et al., 2007; O'Reilly & Milstein, 2011; Zhao & Rosson, 2009). However, most pertinent to this study are the debates about whether or not Twitter is an appropriate educational tool. Previous studies have left the

question unsettled, identifying both advantages (Abdelmalak, 2015; Waller, 2010) and disadvantages (Markham & Belkasim, 2011; Rinaldo et al., 2011).

My study focuses on the perspectives and uses of female students at a Saudi university about the use of Twitter as an educational tool. To understand these students' views, it is helpful to understand how Twitter impacts the students' academic discourse and their practices of academic self-presentation.

Self-presentation, as discussed by Goffman (1959), occurs when, while communicating with other people, a person manages the impression that he or she leaves on the audience by changing their behaviour or their appearance. At the same time, audience members gather information to determine if they want to continue interacting with the person and to understand how they should treat him or her, what they can expect from the person, and what he or she may expect from them. Twitter, as an SNS, can be viewed as a tool that allows users to present themselves online by displaying their opinions, thoughts, and feelings.

Self-presentation involves two stages: the front, where the show is seen by the audience, and the back, where the show is prepared (Goffman, 1959). Twitter can be viewed as a front stage; users present themselves to others in ways that convey how they want others to see them (Kuo et al., 2013). Twitter can also be viewed as a back stage where users feel free to talk and act without fearing the others' judgment (Chen et al., 2014). Moreover, users are able to present themselves in various identities, depending on the situation and the audience. According to Rui and Stefanone (2013), offline cultural norms influence online self-presentation. Similarly, Ahmed, A. (2015) points out that there is a need for more studies that explore cultural and social differences in online self-presentations and how traditional and modern cultures overlap in online self-presentations.

Some studies have found that Twitter offers students a sense of academic community (Becker & Bishop, 2016; Grosseck & Holotescu, 2008; Junco et al., 2011; Lomicka & Lord,

2012). This academic community involves connecting and communicating with classmates, students from other departments or universities, and teachers and university members from the students' universities or beyond. Some studies have also found that this academic community assists improving the students' learning outcomes and academic skills (Dunlap & Lowenthal, 2009; Warren, 2016).

Therefore, examining how Saudi female university students present their academic identities and contribute to academic discourse on Twitter merits further investigation from a cultural perspective. The following section discusses the context of the study and includes a brief explanation of Saudi culture.

1.2 The Context of the Study

In this section, I provide a brief overview of how Saudi female university students use Twitter. It begins by highlighting the importance of Twitter for Saudi citizens and is followed by a brief description of women's status in Saudi society and on Twitter. Finally, it illustrates how Saudi universities use Twitter for educational purposes.

1.2.1 The Importance of Twitter for Saudi Citizens

Saudi Arabia is a conservative community that strives to preserve its traditions, culture, and religion. Its citizens have close relationships with their friends and families, and reputations are greatly valued (Al-Jabri et al., 2015; Al-Tawil, 2001). A person behaving inappropriately dishonours not only him - or herself but also all of his or her extended family (Guta & Karolak, 2015). However, Saudi Arabia has changed slightly, though importantly, in its policies, society, and education and the influence of SNSs was one of many reasons of this change. According to Al-Jenaibi (2016), SNSs have changed the social and political fabric of

Saudi society. This is due, in large part, to people's ability to report news and events on Twitter in real time. Reporting events is no longer limited only to traditional journalists; with Twitter and other SNSs, any user is able to report an event and post his or her opinion (Al-Jenaibi, 2016).

Twitter is one of the most popular SNSs in Saudi Arabia. Saudi citizens comprise 40% of total Twitter users in the Middle East and North Africa, and women constitute 51% of Saudi users (Baghdadi, 2015; The Social Clinic, 2015). In addition, the number of Twitter users in Saudi Arabia increased by 80% between 2013 and 2015 (Baghdadi, 2015), resulting in 5.4 million Twitter users who tweet more than 210 million times per month (The Social Clinic, 2015) and average five tweets per day (Baghdadi, 2015).
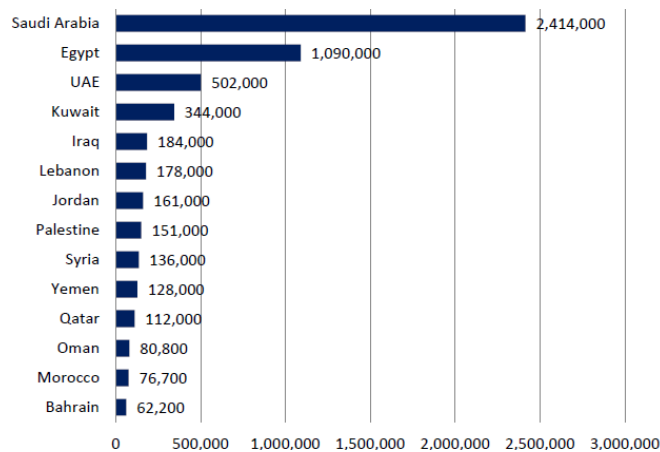
Figure 1.1 Number of Active Twitter Users in the Arab Region (March 2014): Countries with over 50,000 Users (Adapted from Mourtada and Salem, 2014).

The BBC created the hashtag, #Why_did_Twitter_succeed_in_Saudi_Arabia to explore why its popularity grew so quickly, and BBC Monitoring collected many responses. Several pointed out that Twitter allows citizens to express themselves freely in the restricted nation, and others said that Twitter is a great venue for free speech in the Arab world, where the offline world is less likely to be democratic (Hebblethwaite, 2014). Al-Jabri et al. (2015)

and Noman et al. (2015) point out that Twitter allows Saudi users to safely participate in social and political discourse.

Twitter may be a more successful media platform in Saudi Arabia than traditional media platforms such as newspaper. Al-Jabri et al. (2015) identify several differences between traditional media and SNSs, finding that traditional Arab media platforms are typically censored and restricted by the state, whereas Twitter has remained an independent channel. While these views may be correct, Noman et al. (2015) hold another perspective that Twitter users censor their tweets to protect themselves from going against social norms or the Saudi government. The government can use offensive tweets as evidence in court (Kutbi, 2014). Consequently, Saudi users are forced to keep in mind that the freedom of speech on Twitter comes with costs, such as arrest or libel, for those who take the risk of tweeting critically about the Saudi royal family (Al-Jenaibi, 2016). Some users avoid talking frankly about sensitive topics, while others who do discuss controversial issues prefer to remain anonymous (Noman et al., 2015), using pseudonyms etc.

In my experience with Twitter, even though people are afraid of causing conflict, Twitter remains a semi-open window that provides Saudi citizens with the fresh air of the relative freedom of speech and allows them to express their opinions and sentiments about political and social issues. I am interested in exploring others' views.

1.2.2 The Status of Women in Saudi Society and on Twitter

This study concentrates on female university students in particular, because in Saudi Arabia, the birthplace of Islam—the source of the Kingdom's laws and culture—strict segregation between the genders is applied in educational institutions and in most workplaces, and there are many places where it is unacceptable for women to communicate with men to whom they are not related (Guta & Karolak, 2015). Female-only campuses allow

limited communication between the genders using TV monitors that are designed to enable one-way video and two-way audio from the teacher, who is located at a male-only campus, to the female students (Alebaikan, 2010).

This segregation has led the Western media to assume that Saudi women are passive, persecuted, and subordinate to men (Guta & Karolak, 2015). However, I argue that this view is unfair because it could be the view of a non-Muslim culture that does not understand privacy and exclusiveness in Islamic society. Islam legislates that men and women have equal rights but in a way that provides women with what they really need. According to Khan and Al-Hilali (2007), in Surah 2 (Al-Baqarah), the God said:

> They (women) have rights (over their husbands as regards living expenses) similar (to those of their husbands) over them (as regards obedience and respect) to what is reasonable, but men have a degree (of responsibility) over them. And Allah is All-Mighty, All-Wise (p. 60).

It seems that the Internet has changed the lifestyles of Saudi citizens in general and the lifestyles of Saudi women in particular. For example, offline, men's voices are more dominant than women's voices in Arab Gulf states, and women's opinions are marginalised. Thus, women may avoid raising their voices offline because of their fear of being socially isolated (Dashti et al., 2015). Twitter gives women a safe space to express themselves, and it also satisfies their desire for privacy, allowing them to present themselves as they want and overcome the boundaries ordinarily imposed on them by social and cultural norms in non-Internet spaces (Dashti et al., 2015; Guta & Karolak, 2015). In addition, Al-Jenaibi (2016) indicates that Twitter has changed how people express their opinions. Saudi women, who benefit from the public nature of Twitter, are able to make their voices heard on issues concerning their rights and circumstances.

Despite Twitter's relative security compared to offline life, some Saudi women still prefer to use particular tactics to ensure their families or friends cannot identify them (Guta &

Karolak, 2015). For example, it is common for Saudi women to use nicknames or only their initials in their Twitter handles, and some users establish multiple accounts (Guta & Karolak, 2015).

Due to the influence of Islam and Saudi traditions and culture, the ways that Saudi women communicate on Twitter may differ from how other women from different parts of the world communicate. For example, though Haferkamp et al. (2012) found that German women preferred posting pictures of their faces (though not their bodies) on SNS accounts, Aifan (2015) found that publicly sharing personal photos online is prohibited for most Saudi women. Segregation of the genders, which is deemed to be a religious and cultural duty, may be sustained both online and offline. There are many views about the propriety of sharing selfies or communicating with people of the other gender online, and, consequently, these points require more explanation. Moreover, it is worth investigating how Saudi female students communicate with others on Twitter, including those of the opposite gender.

1.2.3 Saudi Universities' Educational Use of Twitter

The Saudi Communications and Information Technology Commission (CITC) (2015) found that 47.5% of SNS users are Twitter users, and 45.6% of Twitter users are women aged 20–29 years old. Thus, it is likely that there is a significant number of female university students who have joined or will join Twitter.

The Saudi Ministry of Education supports creating an e-learning community to satisfy the educational demands of a growing population that cannot be satisfied by traditional universities (Al-Khalifa, 2010). This e-learning community has increasingly captured the attention of academics who have encouraged undergraduate and postgraduate students to use Twitter to learn beyond the classroom and create lifelong learning experiences (Bista, 2015).

Consequently, investigating how Twitter can enrich the formal and informal education of female students may be worthwhile.

Several studies have pointed out that Saudi students use Twitter for educational purposes. For example, Malki (2015) found that 90% of the students and teachers at Taibah University used Twitter for educational purposes. Similarly, Aifan (2015) examined the educational use of Twitter from a cultural perspective, explaining how information impacts the religious, privacy, and online security issues of students. Moreover, Al-Khalifa and Garcia (2013) found that Twitter helps students build academic communities and to collaborate with other students, which could improve their learning experiences.

It seems that higher education in Saudi Arabia is an environment that is actively influenced by the confluence of technologies, education, and social relations. Thus, investigating how Twitter can support the education of female students at Saudi universities may be worthwhile.

1.3 The Purpose of the Research

The purpose of this research, which was conducted as a qualitative case study, is to explore how Saudi female university students use Twitter for educational purposes, why they use it, and how effective they believe it is for helping them learn. The research also investigated how these students present their academic identities and engage in academic discourse on Twitter with both male and female university staff and students.

Reviewing the existing literature helped me identify the prevailing need for an extensive investigation into how students use Twitter to learn. In this study, I focused on female students because, as discussed earlier, I believe that Twitter could help Saudi women make their voices heard in a society largely dominated by men. Broadly speaking, this

research aimed to explore how Twitter could benefit Saudi female students in terms of their education, academic self-presentation, and participation in academic discourse.

1.4 Research Questions

The following research questions guided my study:

1. How do Saudi female students use and perceive the educational use of Twitter in learning?

2. How do Saudi female students present their academic identities on Twitter?

3. What is the influence of Twitter on the academic discourse of Saudi female students?

1.5 The Significance of the Research

This study is significant because it clarifies how female university students in Saudi Arabia use Twitter for educational purposes. The research topic provides significant contribution to knowledge because there is scant research about how Saudi female students use Twitter in educational contexts and how Twitter impacts their academic self-presentations and how they communicate. The topic has rarely been studied in the Saudi context, and, by using a qualitative approach that involved interviews and a content analysis of participants' Twitter posts, this study contributes a rich description of the nature of their usage to the literature.

It is my hope that this study's findings will serve as an important contribution to contemporary debates and the literature and possibly serve as the foundation for further research in this field. Moreover, I hope that my research helps students use Twitter in their education. Understanding the perspectives of Saudi students about using Twitter for educational purposes may provide Saudi educational institutions (the Saudi Ministry of Education, in particular) with resources that could help educational planners, policymakers,

parents, students, and teachers understand how to utilise technologies and SNSs to improve students' educations.

1.6 The Structure of the Thesis

This thesis consists of five chapters:

- Chapter One is the introduction. It presents an overview of the research topic and descriptions of the Saudi context, the purpose of the research, the research questions, and the significance of the research.

- Chapter Two is the literature review. It outlines the relevant literature, identifies the theoretical basis of the research, and highlights the gaps that the research will address.

- Chapter Three addresses the methodology. It highlights my positionality and the methodological approach. In addition, it describes the research aims and questions and discusses the methods and techniques of data analysis.

- Chapter Four presents and discusses the findings of the data collected through the qualitative methods, which included interviews and a content analysis of the participants' Twitter accounts. I prefer to combine the findings and discussion in a single chapter, rather than two separate chapters, to address the research questions in a detailed and concentrated manner and to avoid repeating information.

- Chapter Five is the conclusion. It provides a summary of the main research findings and includes a discussion of the study's contribution, implications, limitations and recommendations for future studies.

In summary, this research uses a qualitative case study to explore and understand how Saudi female university students use Twitter for educational purposes and to present their academic identities and, ultimately, how Twitter impacts academic discourse. In this chapter, I offered an overview of the research topic and a brief description of the Saudi context. In addition, I explained the purpose of the research, the research questions, and the study's significance. The following chapter discusses the existing literature relevant to the research objectives and questions.

Chapter Two: Literature Review

2.0 Introduction

This chapter provides an overview of the literature on the use of Twitter for educational purposes. It is divided into two sections. The first section focuses on the use of Twitter for learning. This section introduces the relevant definitions, structure and features of Twitter and then discusses the use of Twitter in learning spaces in detail. The second section discusses the theoretical orientation of this study: self-presentation theory. This section presents the main concepts of Goffman's theory (1959), and addresses online self-presentation on SNSs including Twitter.

2.1 The Use of Twitter for Learning

Twitter is a popular social network site (SNS). Although people often use it for personal communication, Twitter has attracted the attention of academics, who use it for educational purposes. In the following sections, I talk about the background of Twitter and its features. Then, I discuss the ongoing debate surrounding using Twitter in the learning space.

2.1.1 What is Twitter?

In order to explain Twitter, it is necessary to first explain the meaning of social network sites (SNSs), which are defined as:

> Web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site (boyd & Ellison, 2007, p. 211).

Gurcan's definition (2015) states that SNSs are electronic pathways for sharing information, ideas or daily activities online using communication sites such as Twitter, Facebook and YouTube.

Twitter was developed in 2006 and evolved from a blog to a microblog style (Hattem, 2014; O'Reilly & Milstein, 2011). At that time, Twitter could be defined as an online tool that offers users the opportunity to send or read short messages known as *tweets* that consist of no more than 140 characters per posting, with tweets displayed on a profile page and delivered to followers (Hattem, 2014; Lomicka & Lord, 2012; McFedries, 2007; O'Reilly & Milstein, 2011). However, in November of 2017, during the writing of this thesis and after the collection and analysis of its data, Twitter extended the length of its tweets to 280 characters.

According to Rosen and Ihara (2017), who work for Twitter, the character limit is problematic for some languages and some users who are unable to express their thoughts in only 140 characters. Therefore, Twitter has provided its users with more characters to make it possible for users in any languages to tweet and express themselves fully.

The stream of incoming tweets is called a *timeline*, on which tweets are displayed for other users to view (boyd et al., 2010; O'Reilly & Milstein, 2011). A user can update his or her profile to *private*, at which only his or her followers have access to the account to see his or her posts, while unauthorised users will not be able to see any information about this private account (Java et al., 2007). A user's public profile usually displays a brief personal description that represents the user, including details such as a name, location, Web page or another personal SNS account. The user's tweets, as well as their followers and accounts they follow, are also listed (Kwak et al., 2010). This means that users can display as little personal information as they want because, unlike Facebook, Twitter does not require as much information to create an account (Java et al., 2007). This choice could allow users to present

themselves on Twitter in a particular way. (I explain this point in detail in the section entitled 'Twitter and Self-Presentation'). On this platform, users are called *Twitter users*, and users who follow a person's account are called *followers* (McFedries, 2007). When an individual is followed by other users, the group of other users is called a *following* (Kwak et al., 2010). There is no reciprocation required between following and being followed on Twitter, and this differs from other SNSs like Facebook or Myspace. In other words, a Twitter user can follow another user, but the other user does not need to follow back (Kwak et al., 2010; O'Reilly & Milstein, 2011). In the timeline of the user, he or she can read the tweets that are tweeted, retweeted or liked by his or her following. The user's posts, in turn, are seen by his or her followers (O'Reilly & Milstein, 2011).

'What are you doing?' was the simple question found in a tweet's dialogue box (Waller, 2010), which could have been answered by sharing information, news, images, audio, videos and URLs, or just used for daily chatting (Hattem, 2014; Lomicka & Lord, 2012; O'Reilly & Milstein, 2011). However, from my experience as an active Twitter user, I noticed that the question has been changed to 'What's happening?'. This new question has produced discussion about the reason for the change. Stone (2009) writes that the previous question 'What are you doing?' met Twitter's first objective, which was to foster communication with friends and family. He demonstrates that individuals and organisations quickly began using Twitter to share information, breaking news or events and simply ignored Twitter's personal question, 'What are you doing?'. Since 2009, therefore, the question has been 'What's happening?', which not only makes Twitter an SNS for personal status updates but also helps users gather information about things that are happening anywhere in the world. In addition, it seems that Twitter as a Web 2.0 site has responded to the way Twitter users have been using the site, which suggests that Twitter works in a way that partly shapes its use but is also shaped by its users (Davies & Merchant, 2009).

Twitter has become one of the key channels for conveying and sharing opinions, experience, daily life activities, trends, news, and all aspects of life including the political, commercial, educational and social lives of people (O'Reilly & Milstein, 2011). Twitter is also utilised to connect and communicate with friends and family and to follow people who have similar interests, so followers can acquire useful information related to their personal or professional pursuits (Zhao & Rosson, 2009). Twitter users use it to chat with others, reply to posts, make conversation, and share interests and information (Gleason, 2016; Java et al., 2007; O'Reilly & Milstein, 2011; Zhao & Rosson, 2009).

In summary, Twitter is a social microblogging site for sharing personal, academic, entertaining, professional, national and international information. The site offers a significant number of valuable features which could be used effectively in learning processes, which is discussed in the second part of this section.

2.1.2 The Structure and Features of Twitter

Users interact in various ways: by writing a tweet for a general audience, replying directly to a specific person's message using the @ symbol followed by the user's Twitter handle, retweeting or quoting a tweet, liking something using the red heart symbol, voting or creating a survey using the Twitter poll, and sending a private message, which is also called direct message (DM). Moreover, hashtags, which use the octothorpe (#), allow Twitter users to post their tweets in specific tracks (Hattem, 2014; Kwak et al., 2010; Lomicka & Lord, 2012; O'Reilly & Milstein, 2011). Additionally, Twitter tracks trending topics including words, phrases and hashtags that are most frequently posted or mentioned at a particular time (Kwak et al., 2010; O'Reilly & Milstein, 2011).

In this section, I discuss the use of each feature in more detail and some potential uses in education. However, the use of these features in learning is discussed more fully in the section on using Twitter in learning spaces.

2.1.2.1 Tweet

A tweet is a message a Twitter user posts using his or her account. According to Gleason (2016), there are many reasons for posting an original tweet. The most popular is to be a part of a community and to communicate with followers, who may be friends, family or other users. Another reason for tweeting is to document and record one's experiences and share them with followers. Gleason (2016) indicates that young people enjoy expressing their feelings and share elements of their daily experiences on Twitter for expressive, communicative and documentary reasons; in other words, to memorialise these events.

2.1.2.2 Retweet

To retweet means to repost someone else's tweet on one's own Twitter page. This displays the tweet to the retweeter's followers (O'Reilly & Milstein, 2011). Clicking the retweet icon shows two options: original retweet, which allows the user to repost the tweet as it is, and quotation retweet, which allows the user to retweet the tweet and add his or her own comment to it (boyd et al., 2010; O'Reilly & Milstein, 2011).

According to boyd et al. (2010) and Gleason (2016), several purposes might be served by the retweet feature. The user might want to demonstrate agreement with the tweet, or indeed may feel that the tweet expresses the user's feelings better than he or she could do in an original tweet. Another function of the retweet is to support friends and to maintain

friendships. Retweeting can also be done to entertain followers or to inform them of new information, breaking news or other details. Moreover, Gleason (2016) indicates that the retweet feature could present the retweeter's identities and their interests, which could benefit them by helping them connect with other users who share the same interests. boyd et al. (2010) discuss other purposes as well, such as gaining potential new followers as a result of retweets and storing retweets to read them later or to keep them for reference.

boyd et al. (2010, p. 7) also indicate that Twitter has 'power as a "crowdsourcing" mechanism' to spur social action by retweeting a specific message in a certain topic to create a trend. boyd et al. suggest that an attempt to inspire such social action is likely to succeed when the message is retweeted by celebrities or other users with many followers. Another benefit of the retweet feature is to assist users in reaching new audiences, when one or more of their followers retweets their tweet, leading other users to read it, and perhaps retweet it again. Because of such retweets, a tweet could reach an audience much larger than the sender's actual followers (Brynge et al., 2015).

Retweeting also could serve educational purposes when, for instance, a student or a teacher retweets academic information that may benefit his or her followers. According to Brynge et al. (2015), the retweet feature supports discussions of academic reading when users retweet tweets and comments about a specific book, encouraging others to read this book and/or become involved in the discussion.

2.1.2.3 The @ Symbol

The @ symbol followed by a user's Twitter handle serves two functions: the *Mention* and the *Reply* (O'Reilly & Milstein, 2011). A user can use @ to introduce or tag someone on Twitter or to reply directly to a specific person's tweet. Gleason (2016) indicates that the @

symbol could be used when the user wants to make direct contact with another specific user on Twitter. boyd et al. (2010) suggest that a user might use the @ symbol to attract someone's attention to their tweet or to attract the attention of other users to someone mentioned in the tweet.

The Reply feature can enrich conversations on Twitter as the reply is linked to the original tweet, gathering the conversation thread in one place and making it easier to follow (Brynge et al., 2015). Moreover, the @ symbol could open up a closed conversation between two users to invite other users to participate in the discussion (Gleason, 2016).

2.1.2.4 Like

The red heart symbol under each tweet is called the Like icon. Gorrell and Bontcheva (2014) discuss five purposes of using the Like icon on Twitter. The most common purpose is to show the user's agreement with or appreciation of the tweet. The use of Like here is similar to the use of the Like icon on Facebook. Second, some users like their own tweets to store them on their Like lists in order to promote themselves. This happens when other users browse the user's Like lists, read his or her own tweets and get an overview of the user's interests. Third, some users use the Like icon as a part of their conversation with others by clicking the Like icon instead of sending a reply. The user may also like a tweet to thank its author for writing it (Gorrell & Bontcheva, 2014). Similarly, Gleason (2016) found that some users click the Like icon to thank the tweet's author or to support him or her as a part of their friendships. The final purpose of using the Like icon, discussed by Gorrell and Bontcheva (2014), is as a bookmark for a tweet they want to keep for reference or to read later. This is also discussed by Brynge et al (2015); Gleason (2016); and O'Reilly and Milstein (2011), who have suggested use of the Like feature as a bookmark to store tweets to read later.

Consequently, this function could also serve educational purposes by harvesting and saving tweets relevant to the student's discipline to support his or her university study.

2.1.2.5 Direct Message (DM)

The DM system allows users on Twitter to send private tweets to a particular user (Murthy, 2013). A private message can be read only by the sender and the recipient; no one else can see it (O'Reilly & Milstein, 2011). The system requires that both the sender and the recipient follow each other. If the users do not follow each other, neither of them can send a DM to the other unless the intended recipient opens his or her DMs to public access. In this case, anyone can send him or her a DM even users he or she does not follow (O'Reilly & Milstein, 2011). DMs were limited to 140 characters (O'Reilly & Milstein, 2011), until they were opened to unlimited lengths in 2015 (Agarwal, 2015; Logghe et al, 2016).

There are several reasons for using DMs on Twitter. For example, some users prefer to use a DM if the conversation relates to a sensitive topic (Jefferis, 2016). Logghe et al (2016) indicate that DMs are also a powerful tool with which to communicate with others and build and strengthen relationships. They argue that their study itself is a form of collaborative writing that used private messages on Twitter to communicate with each other, conduct private person-to-person interactions and group conversations as well. Furthermore, Perifanou (2009) suggests that DMs could be a useful tool for students to communicate with their teachers or with peers, by sending questions and receiving answers or comments on their work.

2.1.2.6 Hashtag (#)

The hashtag is a combination of the (#) symbol and a word or words that group conversations into themes or categories. boyd et al. (2010) explain that the hashtag symbol (#) may derive from computer programmers who use symbols such as (*) and (#) to identify the anchor points of a computer language. Chang and Iyer (2012) state that the hashtag is a system aimed at organising and archiving Twitter content beneath a specific title that is created by a user. They explain that hashtags help users organise items that are related to each other, find new resources that are tagged under a specific category improve the connection between users and resources, communicate with other users who tweet in the same hashtag, and connect with new people who may have the same interests (Chang & Iyer, 2012). Strangers could become connected by joining a conversation under a certain hashtag. Ultimately, hashtags may offer users opportunities to make friends who have similar interests (Brynge et al., 2015; Weller, 2014), or to move a conversation between a few users into a more public arena where many people may simultaneously participate in the conversation (Brynge et al., 2015). Hashtags also provide users with lively interactions that can take place between a very large number of users who post their tweets or their replies to others under the same hashtag (Brynge et al., 2015). Some hashtags involve millions of tweets that create a thread very quickly if the hashtag becomes a trend on Twitter and attract more people to participate in it. Therefore, participating in hashtag discussions could be a good way to collect new followers, as Eva (2013) points out. Hashtags also can be used as a storage place where users searching for relevant information or updates on the trend can find news or resources as other users add to the hashtag (Brynge et al., 2015; Chang & Iyer, 2012).

From an educational point of view, Gleason (2016) studied students' use of Twitter and found that there are further uses of the hashtag feature on Twitter. First, the students used hashtags to present their identities and to find people who share their interests. They also

used hashtags to participate in youth culture and identify themselves as aficionados of a current trend in popular culture, by participating, for instance, in film or music hashtags. Moreover, they used hashtags to share information with others or to inform others with new or updated information.

The use of hashtags may provide students with a sense of academic community, a larger academic network and supportive academic interaction. I discuss this effect of the hashtag feature in the section describing the academic connection and communication on Twitter.

2.1.2.7 Twitter Poll

Twitter has introduced polls; this is a way in which users can engage with their followers and explore their audience's opinions. This feature allows a user to create his or her own poll that remains live for 24 hours, after which the poll closes (Sherman, 2015). Users can also participate in polls privately, so their choices are not seen by anyone else (Sherman, 2015). According to Read (2016), the implementation of polls on Twitter is not an entirely new concept because users already use either the retweet or Like features to vote. However, the Twitter poll feature provides users with an easy way to create their own simple surveys to gather votes from their audience. When a user votes, the result of the survey is immediately displayed (Read, 2016).

From the reviewed literature, it seems that Twitter's features could also serve an educational purpose. In Chapter Four of my thesis, I present and discuss the educational use

of these features by my participants to support their learning, present their academic identities and engage in academic discourse.

2.1.3 Twitter in Learning Spaces

As mentioned previously in this chapter, Twitter is frequently used as a SNS to communicate with others and to be updated on events, news and information. However, although Twitter is used commonly for social purposes, many studies have discussed the use of Twitter for educational purposes. This section examines the attitudes of students regarding using Twitter for learning purposes, potential uses of Twitter for learning, some challenges that may limit its use for learning, as well as some solutions for these challenges and the academic connection and communication on Twitter.

2.1.3.1 Students' Attitudes towards Using Twitter for Learning

Many scholarly studies have found that students have a positive attitude towards using Twitter in their learning. These studies also have discussed the reasons for this perspective. Early studies attributed this perspective to the students' excitement about using a fresh technology such as Twitter. Perifanou (2009), who conducted his study three years after the establishment of Twitter, found that students enjoyed practicing their Italian language learning on Twitter because it was a new, exciting and creative way to learn a language. They liked the course-related Twitter activities, felt that the work went more quickly when they learned using Twitter, and suggested Twitter be used in other courses as well. Rinaldo et al (2011) found that the students had positive attitudes towards Twitter as an educational tool because they were using it for the first time. Even in later studies, when Twitter was no

longer new, students found Twitter an enjoyable, new and fun way to learn compared with traditional classroom instruction (Hamid et al., 2015; Kutbi, 2014).

While one educational use for Twitter is as a teaching and learning tool, another is its potential as a tool for communication with and by academic staff and students. Lingard et al. (2017) indicate that despite the common perception that Twitter is used as a social site to communicate with friends and family, their students surprised them by following and communicating with academic peers and teachers on Twitter more than friends. Moreover, the participants had a positive attitude towards using Twitter for learning even though most of them were using it for the first time in their lives. Their positive opinions could be because of the opportunities Twitter provides them to communicate with other academics. While the researchers in the study of Lingard et al. (2017) assumed that Twitter is usually employed for social purposes rather than academic, the students in the study of Bista (2015) were under a similar assumption, but the study found that these students changed their opinions about Twitter, from a negative view that did not consider Twitter a valuable learning tool to a positive attitude after using Twitter in their module with Bista. The students found that Twitter supported their collaborative learning and communication with each other. They also recommended using Twitter in other courses. More studies have stated that students had positive perspectives towards using Twitter in education because it is an enjoyable way of learning and communicating with classmates and teachers outside the class, sharing information and exchanging knowledge (Aifan, 2015; Hsu & Ching, 2012). Communicating with academics on Twitter helps the students build a strong educational community between them (Junco et al., 2011) and make them feel that they are a part of the academic community on Twitter (Hsu & Ching, 2012).

Studies cite other reasons for students' positive attitudes towards Twitter as well. For instance, Kutbi (2014), who studied the perspectives of 25 undergraduate Saudi female

students, interviewing them regarding their educational use of SNSs, indicates that most of her students said Twitter was a part of their daily activities, which could make it suitable for use in learning. Students also reported loving the freedom of speech afforded by Twitter and the ability to write whatever they wanted as it was information related to their course and no one was imposing on them what they should write. Twitter also assisted shy students who were uncomfortable speaking in front of other people, offering them to present their opinions without the fear of having to speak in public (Kutbi, 2014).

2.1.3.2 Can Twitter Support Learning?

There is an ongoing argument amongst researchers regarding the use of Twitter for learning purposes both inside and outside the classroom. This section begins by discussing studies that found Twitter to be an effective tool for facilitating and supporting learning.

Many studies have revealed that Twitter enhances students' learning motivation, collaboration and educational outcomes. The most often cited reason for this discussed in the literature is the nature of Twitter as a SNS which can offer students opportunities to communicate and become involved in discussions with academics, including peers and teachers.

Some unique features on Twitter could further facilitate the academic discussion, such as hashtag, Reply and DM features. Rowell et al. (2016) studied the #LTHEchat hashtag, which was created as a weekly virtual meeting for people involved in the higher education community. This online meeting discussed different academic topics or themes for one hour every week. Rowell et al. (2016), who used surveys and interviews, found that #LTHEchat has produced a collaborative project amongst users to share information and participate in the furtherance of knowledge. Moreover, they found that sharing links to blogs or articles can

improve the depth of this shared knowledge. They also indicate that this hashtag encouraged the informal learning environment in which students and teachers communicated in an open and friendly environment.

While the study of Rowell et al, 2016 analysed the academic discussions and communications between academics from different universities, the studies of Becker and Bishop (2016); and Hunter and Caraway (2014) examined the communication of students amongst themselves. Hunter and Caraway (2014) indicate that students' involvement in discussions of the readings on Twitter can motivate them to read and reread the book or books being discussed so they can feel prepared to ask a question about it, present their opinions or answer someone else's query. Hunter and Caraway (2014) also found that students usually need a motivation to read, which could be offered by the Twitter discussions between peers. According to Becker and Bishop (2016), Twitter can be utilised in education in many ways. For example, the Reply feature can be used to comment on other students' tweets or to create discussions about specific topics, sharing thoughts and presenting assessments of each other's tweets. Another feature used in their study was the hashtag, which enables students to categorise their tweets in specific groups that link relevant tweets in one place, making them easier to reference when the students want to explore other tweets in the same topic. The Poll feature was also used in their study. This feature enables students to see the various answers chosen by other students. This could assist students in evaluating their opinions by comparing them to those of their peers. The Poll feature also allows teachers to evaluate the students' understanding of the lesson related to the Poll question. Another study, conducted by Strafford (2016), indicates that the Twitter Poll feature could help students as a self-assessment tool. Strafford suggests that a teacher could present multiple choice questions using the Poll, asking students to vote to find out the answer chosen most by other students. The teacher should tweet the correct answer after the vote has

been taken so the students can assess themselves based on whether they answered the questions correctly or not. Strafford found that using Twitter Poll could encourage the informal learning of students outside the classroom to support and reinforce the formal learning they receive at schools or universities.

Regarding the effect of Twitter on the students' academic achievements, Bista (2015) found that Twitter had a positive impact on students' educational outcomes and their collaborative learning because of their engagement in the class discussions and the required activities on Twitter. Similarly, Ahmed, M. (2015) found that the Saudi undergraduate students in the experimental groups earned higher marks than those in the control group who did not use Twitter in their learning. Ahmed, M. suggests that the improvement of the students' writing skills in English as a foreign language resulted from their use of Twitter in their learning. She attributed this improvement to several factors, including receiving feedback from their teacher publicly or privately via DMs, involvement in peer discussions, and continuing the academic conversation after the class session.

Alotibi (2013) studied the effect of Twitter on the educational outcomes and cooperative learning skills of Saudi female students in computer curriculum. She used a quasi-experimental approach. The students worked in groups, each of which had to search for information from different websites or resources and prepare and organise this information to post as tweets. Alotibi found that Twitter had a positive effect on the academic achievements of students as well as their research, cooperative learning and communication skills. She cites several contributing factors, such as the ease of using Twitter, immediate feedback from the teacher, the teacher's retweeting of students' tweets, and the nature of Twitter as a SNS that encourages interaction between students.

Hunter and Caraway (2014) studied the use of Twitter in transforming learning and literacy engagement for thirty high school students. Early in the study, the researchers were

worried that the students' use of Twitter might shift away from academic-related discussions. However, they noted that most of the students' conversations were academic. Their findings further indicated that Twitter assisted the students in their preparation for the exam as they returned to Twitter to review the tweets and discussions with others regarding the module content they studied. The students consequently gained a deeper understanding of the module and earned higher marks, enhancing their overall academic achievement. In this vein, Kutbi (2014) found that some of her students mentioned that they learnt from their classmates' tweets, and even studied these tweets for their exams to ensure they had not overlooked anything the teacher had said. Kutbi (2014) also indicates that communication, interaction and sharing information with peers, teachers and other academics from around the world improved the students' learning.

Hamid et al. (2015) and Warren (2016) have pointed out that Twitter supports communication between students and their peers and between students and teachers, which is the heart of the learning process. They have written that Twitter as a new technology is an effective tool that could be employed by teachers to encourage peer learning in which a student shares information relevant to the course with other students. According to them, engagement in broader academic discussions with peers or teachers on Twitter could enhance students' mastery of course content and improving their educational outcomes.

Student communications on Twitter could also support other aspects of students' lives. For instance, Borau et al. (2009) and Plutino (2017) argue that Twitter could help students learn about the culture of a language they are studying when they practice their language skills by communicating on Twitter with other students who speak this language. Another aspect is career preparation. Rinaldo et al. (2011), who conducted three studies over the course of two semesters using quantitative and qualitative methods, found that beyond the improvement in students' academic achievements as a result of their communications with

teachers on Twitter, Twitter interactions also supported them in preparing for future careers in marketing, the discipline of the students in the studies. Similarly, Clarke and Nelson (2012) suggest that Twitter could provide the students with an opportunity to execute an actual direct marketing campaign directed at consumers on Twitter, which helps them establish their own personal brands in the future. However, they found that the group who used Twitter did not achieve higher marks in perceived learning than the non-Twitter group. The researchers attribute this finding to the views of students about Twitter as a communication tool rather than an educational one.

Another initiative that can improve student learning is Twitter out-of-class activities. As Junco et al. (2011) suggest, Twitter could be used to provide students with extra activities outside the classroom and motivate them to engage in these activities because it is an exciting tool for communication. The study also found that these activities on Twitter helped the students to enhance their academic grades. Twitter could support formal learning as well, reinforcing what students learn inside the classroom with informal and fun learning through extracurricular course-relevant activities or resources (Gurcan, 2015; Hsu & Ching, 2012; Perifanou, 2009). Blessing (2012) suggests that Twitter could help students retain concepts learnt in class. Sixty-three undergraduate students received course-relative tweets once per day, then had a cued recall task regarding the psychology course about which they had received tweets. The researchers found that the students who received the tweets earned higher marks in the recall task than the students in the control group who did not receive the tweets.

Twitter is also used in language learning activities to improve students' language skills. According to Juniardi and Utami (2018), Twitter writing activities helps students to improve their writing skills in English language learning. Their participants reported that language learning on Twitter was more enjoyable than traditional learning methods. The

researchers noticed that the students used complex grammartical structure and varied vocabulary in their tweets, which enhanced their writing skills in general.

Some studies have revealed that the possibility of unlimited resources available on Twitter may enhance students' academic achievements (Dunlap & Lowenthal, 2009; Ebner & Maurer, 2009; Kutbi, 2014; Veletsianos, 2012). Students can follow libraries' or teachers' accounts to receive updates on new books, articles or academic events (Grosseck & Holotescu, 2008). Moreover, reading others' writing helped the students improve their own writing when they compared their work with that in the articles or blog posts that were linked to tweets (Becker & Bishop, 2016).

Studies have also shown that feedback on Twitter helps students improve their academic achievements and learning motivation. Students feel more motivated when their learning activities and personal learning progress are monitored and reviewed by others (Ebner et al., 2010; Hamid et al., 2015; Retelny et al., 2012; Waller, 2010). According to Waller (2010), Twitter enhances the quality of students' writing quality through receiving feedback offered by other users. Feedback usually improves performance, and Twitter offers a good opportunity to receive immediate feedback from peers, teachers or anyone on the site (Abdelmalak, 2015; Alotibi, 2013; Ebner et al., 2010; Veletsianos, 2012).

Kutbi (2014) indicates that her students had improved their English language skills because of the monitoring of their teacher, who usually commented on their tweets. Because of this monitoring, the students reviewed their tweets to check their grammar and spelling before posting them and, through that process, improving their English language skills. Similarly, Perifanou (2009) points out that Twitter encourages students to put more effort into their studies because of the immediate feedback they receive from their teachers motivating them to do their best.

Furthermore, feedback could come from academics outside the students' school or university. Bista (2015) writes that Twitter improves the professional network amongst the students themselves and between students and teachers or professors from outside the classroom. Receiving feedback from other educators as well as the students' own teachers could encourage students to seek and receive academic assistance to support the learning process and improve their academic achievements.

Besides the feedback that motivates students in their learning, some studies have discussed displaying the students' tweets inside the classroom as a further motivation to encourage students to use Twitter in their learning. According to Hunter and Caraway (2014), displaying the students' tweets in a formal classroom setting via overhead projector or interactive board can increase the students' excitement to use Twitter in their learning and to tweet regularly to get their tweets displayed in the class in front of their classmates. Additionally, using the smart board to display the students' posts provides them with the opportunity to see all the students' tweets and replies and compare their own tweets with others, examining the variety of thoughts and views (Becker & Bishop, 2016). This could increase student engagement during lectures as well, encouraging them to prepare beforehand, which would enhance their positive attitude regarding using Twitter in their education (Retelny et al., 2012). Waller (2010) used Twitter with students in year two who did not like writing tasks. He used Twitter as a motivational tool to encourage students to write more. He noticed that Twitter prompted the students to write more as he displayed their tweets on the classroom's interactive board, leading the students to understand that they were writing for an audience not only of their peers in the classroom but of Twitter users as well. Writing for a large audience instilled in the students a sense of pride in their writing.

Findings from various studies have concluded that Twitter provides students with additional opportunities to interact with their teachers outside the classroom and outside

normal teaching hours, exceeding potential teacher/student contact time as well as softening the emotional barriers that some shy or introverted students might face in offline interactions with their teachers (Grosseck & Holotescu, 2008; Hamid et al., 2015; Junco et al., 2011). Students could use Twitter to contact their teachers out of the usual office hours, including communicating with them on weekends and holidays, regarding assignments or other academic tasks (Gurcan, 2015). The increase e of interactions outside the classroom with both teachers and peers could be exciting for students (Alotibi, 2013; Lomicka & Lord, 2012), maximising their task time and allowing them to continue their discussion about the lecturer's lessons (Junco et al., 2011; Plutino, 2017). On the other hand, Hamid et al. (2015) points out that this increase in outside normal working hours could lead to overworked teachers who find themselves replying to their students on Twitter all the time.

With regard to the potential uses of Twitter for educators, some studies showed that Twitter is a fast way to send academic announcements, reminders and educational content that teachers want to deliver to their students (Bahner et al., 2012; Ebner & Maurer, 2009; Grosseck & Holotescu, 2008). Twitter could also be a tool for quickly addressing some students' issues, such as difficult questions regarding assignments, exams, content, or problems with a team member (Dunlap & Lowenthal, 2009; Retelny et al., 2012; Rinaldo et al., 2011). Twitter's ability to offer immediate updates allows teachers to contact all their students at once with one tweet, which allows one-to-many or many-to-many avenues to assist with building an academic community (McArthur & Bostedo-Conway, 2012).

Some studies have claimed that to improve students' educational outcomes and engagement with Twitter activities, the use of Twitter must be a mandatory course requirement. For example, Junco et al. (2013) conducted two studies. In the first study 125 students and their teacher were required to use Twitter based on a specific theoretical framework, while in the second study, there was no requirement that the 135 students and

their teacher use Twitter, and any use in which they did engage was self-led, without using the framework required in the first study. The researchers found that requiring the use of Twitter had a positive impact on the students' educational outcomes and on their engagement in the course activities. Moreover, the teachers' engagement in communicating with the students on Twitter increased the students' engagement and improved their educational outcomes. The students in the second study did not achieve the same benefits that were gained by the first study's students.

Similarly, Lomicka and Lord (2012) found that students who used Twitter as a mandatory requirement on their course were more active on the network and built a sense of community amongst themselves as Twitter strengthened this academic relationship between them. The researchers' aim was to connect students in the United States who were studying French with students in France. However, this was unsuccessful because the French students tended not to communicate on Twitter. While Twitter was mandatory for the American students, it was not mandatory for the French students. The researchers found that only three out of fifteen students in France used Twitter while almost all the students in the U.S. used Twitter frequently.

To motivate the students to engage in the Twitter activities, Bista (2015) established some marks that would be counted in the final course grade and would be awarded to the students who participated in Twitter-based activities. Bista found that his participants had positive perspectives and experiences of using Twitter in their education.

From another perspective, however, Cacchione (2015) maintains that making use of Twitter in a course as an optional choice provided students with opportunities to be creative in their learning and improve their self-directed and personalised study. Self-learning on Twitter occurs when a student takes responsibility for his or her study and chooses what, when and where he or she wants to learn without a teacher's interventions (Hunter &

Caraway, 2014). In the self-directed learning, the student learns without any pressure to ask questions (Junco et al., 2011), constraints, or specific learning objectives (Ebner et al., 2010). The student also can search for extra information relevant to the course and build his or her knowledge independently (Hamid et al., 2015).

Hamid et al. (2015) suggest that the use of Twitter in the course should be mandatory but with wide freedom for the students to choose the information they post on Twitter and how to find it. Their findings indicated that Twitter expanded the students' learning and improved their critical thinking skills. Hamid et al. (2015) also point out that the strict requirement that students participate in the Twitter relative-course activities could be exhausting and time-consuming-for the students. Moreover, teachers may experience workload issues due to the added interactions with students on Twitter, a result of which may be that students expect their teachers to be available to respond to the students' queries at all times, even outside normal working hours.

From this reviewed literature, it seems that most of these studies focus on the result of experiments or the researchers or teachers' perspectives, but not the students'. Therefore, it could be worthwhile to investigate the students' perspectives regarding the use of Twitter in the university courses as a mandatory requirement or an optional choice. My study goes further to investigate the students' use and perspectives regarding the use of Twitter in their learning with and without the direction or request from their teachers.

2.1.3.3 The Challenges of Using Twitter for Learning

The previous section discussed literature that has demonstrated that Twitter facilitates and supports learning. Other studies, however, have found that Twitter presents some

challenges that could limit its use in learning or even make it an unsuitable tool for learning. Some literature has suggested solutions to some of these challenges.

As is the case with many other online sites, privacy has been raised as a challenge for using Twitter in learning. The openness and visibility of Twitter posts means that anyone can see a tweet, with no requirement to obtain permission before following or being followed by another user. This could lead to privacy concerns (Rinaldo et al., 2011; Zhao & Rosson, 2009). Some students and teachers might be hesitant to use Twitter in their learning or teaching (Mills & Chandra, 2011; Rinaldo et al., 2011). For the same reason, some schools and universities prohibit access to Twitter and other SNSs via their own networks (Becker & Bishop, 2016; Mills & Chandra, 2011).

While it might be true that privacy issues on Twitter could be a disadvantage, Gurcan (2015) suggests that teachers, admissions officers and parents should support student awareness of how to use Twitter and other SNSs in safe environment. Gurcan also suggests that students should be polite and respect others' opinions and thoughts, should not send or download inappropriate content and should guard their privacy and security online. Moreover, Dunlap and Lowenthal (2009) argue that as a public tool, Twitter differs from other SNSs that request much more personal information. Therefore, it may help students to be sensitive and decide which information should be shared publicly and which should remain private.

The 140-character limit on tweet length was a point of controversy in the literature in two aspects: the flood of tweets on the user's timeline and the limited space for writing. (It is important to note that during the writing of this thesis and after the data collection and analysis processes, Twitter extended the length of its tweets from 140 characters to 280 characters.) Some studies have shown that the small number of characters in a tweet could

mean a huge number of posts appearing on a user's timeline. Information overload occurs when a user follows many users and those users' updates are presented in an endless stream, making it almost impossible to read the huge number of tweets and retweets (Ebner et al., 2010). The endless stream of tweets could be stressful for students trying to follow a teacher's updates on Twitter between other tweets, especially if a student attends on a part-time basis and has other duties that could limit his or her use of Twitter (Bista, 2015). Moreover, because Twitter is free and easy to use, students could become addicted to or distracted by social media use (Alqahtani, 2016; Becker & Bishop 2016; Grosseck & Holotescu, 2008; Rinaldo et al., 2011).

Some studies have suggested, however, that responsible and moderate use of Twitter could help students manage their time on the site (Rinaldo et al., 2011). Furthermore, Kutbi (2014) argues that her participants did not find Twitter time-consuming. However, they blamed technical problems on the Internet for wasting their time trying to solve these problems. While Bista (2015) indicates that some students could feel stress while trying to find their teachers' posts amid endless stream of tweets on their timeline, Brynge et al. (2015) argue that although huge numbers of tweets can disappear quickly every day, users can still find tweets even long after they were posted by using the search tool on Twitter or other websites such as Storify.

The second element of the controversy over the 140-character limit is the space available for a tweet. Although the early studies have expressed appreciation for this limit and assumed that a user on Twitter as a microblog does not need much time to think to write a tweet composed of only 140 characters (Borau et al., 2009; Ebner & Schiefner, 2008; Java et al., 2007), other studies have argued that students faced other difficulties because of this limit. For instance, Brynge et al. (2015) demonstrate that it is sometimes difficult to

abbreviate an idea in only 140 characters because such a concise tweet could take a long time to be written well on Twitter. Moreover, the limit on tweet length could negatively influence the thread discussion, which might affect the meaning or distract the readers (Brynge et al., 2015). Similarly, Ebner et al. (2010) indicate that the 140-character limit could create some disadvantages, such as the lack and disruption of meaning, especially when expressing complex thoughts. Moreover, Bista (2015) found that the participants who used Facebook found some difficulties with the 140-character limit of Twitter restricting their ability to share educational information with other users.

Although these studies discussed the 140-character limit as a technological disadvantage, the technology was often used in ways that the designers did not originally envision. For example, Brynge et al. (2015) discuss some difficulties of the 140-character limit and suggest some ideas to work around the character limit, such as including links to longer pieces of writing, or writing across a series of tweets. Similarly, Kutbi (2014) found that some of her participants wrote out their tweets of more than 140 characters, took screenshots of these tweets, then posted them as images — not text tweets.

Other studies have argued that the 140-character limit could be considered a great feature that encourages students to focus on a particular topic and write more concisely and clearly (Dunlap & Lowenthal, 2009; Grosseck & Holotescu, 2008; Retelny et al., 2012; Wright, 2010; Zhao & Rosson, 2009). Plutino (2017) found that the 140-character limit had positive effects that improved the students' discursive grammar and their ability to summarise. According to Brynge et al. (2015) and Mills and Chandra (2011), the 140-character limit could improve the users' brevity as they are forced to condense their thoughts into a limited number of characters. Moreover, the brevity feature assists both the writer and the reader as the writer does not need much time to write the tweet and the reader does not need much time to read the tweets on his or her timeline tweets (Zhao & Rosson, 2009).

Some studies have presented other challenges that could limit the use of Twitter in learning. Kutbi (2014), for instance, indicates that some students might not like to use Twitter in their learning because it is new to them and they are not familiar with it, which means they must consult their teachers or peers and spend more time learning how to use it. Another challenge is discussed by Aifan (2015) and Becker and Bishop (2016), who have indicated that one of the challenges of using Twitter in learning is the possibility of inappropriate content such as offensive tweets (Becker & Bishop, 2016) or tweets that are in conflict with students' religion or belief, such as atheistic and pornographic materials that are against Islamic religion for example (Aifan, 2015).

2.1.3.4 The Academic Connection and Communication on Twitter

Many scholarly studies have found that Twitter provides students with a sense of academic community. This academic community involves connection and communication with users who are considered to be a unit because of their common interests, in this case, academic interests. Involving classmates, students from other departments or universities, teachers and university members from inside or outside the students' university. These studies have also discussed how Twitter provides and supports students' engagement in this community.

Beginning with the learner-learner interaction type, Lomicka and Lord (2012) indicate that Twitter provides students with a sense of academic community with their classmates. In Lomicka and Lord's study, this community was initially developed in the classroom, then continued to build on Twitter. Lomicka and Lord also note that Twitter improved the sense of community between students more quickly than traditional classroom methods. Clarke and Nelson (2012), Grosseck and Holotescu (2008) and Lomicka and Lord (2012) have indicated

that Twitter could establish a sense of community for a group of students, both inside and outside the classroom, because Twitter can extend the limited face-to-face interactions in the classroom to a more enjoyable experience in a fun and interactive environment. Abdelmalak (2015) explains how using Twitter in learning provided her students with a sense of participating in an academic community. Abdelmalak clarifies that Twitter enabled the students to present their thoughts and read the thoughts of others. Twitter also helped students to connect with people who have similar interests beyond the classroom, consequently building and extending their academic network. Abdelmak's participants discussed how Twitter strengthened their feeling of belonging to an academic community via sharing their work and ideas, reading others' work and receiving feedback—not only from their classmates but also from other universities' students. Similarly, Markham and Belkasim (2011) indicate that sharing interests and opinions with others on Twitter may extend the academic community to any user who shares similar interests. Markham and Belkasim also state that Twitter could be a fruitful tool to enhance academic collaboration among students because it helps students not only to communicate with students in the same class but also with other students worldwide.

Junco et al. (2011) conducted an experimental study with 125 male and female American students in their first university year and found that communication on Twitter allowed students to find common interests with other students in the classroom. As a result, the students developed friendships within the class between them, which was less likely to happen in the traditional classroom. Junco et al. discuss how students became involved in the academic community by asking questions related to courses they studied in university. Junco et al. also mention that Twitter encourages emotional support between students, such as when students faced stress or overwork, tweeted about and received emotional support from other students. Junco et al. clarify that this support could lead to a stronger feeling of belonging to

the academic community as well as strengthening relationships between students who support each other on Twitter.

However, Alqahtani (2016) has a different perspective from that of Junco et al. (2011). Alqahtani conducted an online survey with 100 students—41 men and 59 women—to study Saudi perceptions towards using Twitter and Facebook in everyday life and higher education. He found that creating new friendships via Twitter was not important for Saudi students. Alqahtani justifies that because Saudi users do not trust Twitter as a space to develop friendships. Alqahtani also found that his study participants did not use Twitter as an emotional support tool for study-related stress, explaining that students might see Twitter as a distraction that could increase their stress. Nevertheless, Alqahtani indicates that students' main reasons for using Twitter were to communicate with peers from other universities and to learn new information and news.

The differences in findings between Junco et al. (2011) and Alqahtani (2016) could be due to cultural impact since Junco et al.'s study was conducted with American students while Alqahtani studied Saudi students. Another reason may be that Junco et al. and Alqahtani used different research methods. While Alqahtani used only an online survey, Junco et al. used a Twitter-based approach for 14 weeks with the experimental group. Junco et al. also used Twitter to continue the class discussion, provide academic and personal support and create a collaborative project. Moreover, all experimental group students completed several required Twitter assignments, such as tweeting and replying to other students' tweets. Therefore, as reported by Junco et al., their protocol had encouraged students to support each other emotionally and build friendships.

The idea that completing required Twitter assignments increases the students' sense of academic community could also be consistent with Rohr and Costello's findings (2015),

who used an online survey with 226 students to examine the effect of Twitter as an assessment tool and Twitter's effect on students' social presence in large online courses. Rohr and Costello specified that students were to complete two Twitter events: to post at least one tweet, and to reply to another student's tweet. Rohr and Costello found that Twitter helped students increase their sense of community in large online classrooms. The students also appreciated the ability to see the immediate updates of their peers in the same online course (Rohr & Costello, 2015). The argument regarding whether teachers should use Twitter as a mandatory course requirement or an optional choice is discussed in more depth in section 2.1.3.2 in the literature review chapter.

The second type of interaction found on Twitter is learner-teacher interaction. Dunlap and Lowenthal (2009) and Junco et al. (2011) have indicated that Twitter improves communication between students and faculty members. Becker and Bishop (2016) note that Twitter expands the students' audience beyond their classmates in a specific course. Not only did students interact with their peers on Twitter, but they also interacted with teachers and organisations. Moreover, Malki (2015), who studied the Twitter communications of a Saudi university's students and faculty, indicates that more than 90% of the university's academic staff and students, who use Twitter, used it as a channel for academic communications. Malki (2015) found that teachers used Twitter as a way to provide reminders and to announce the course's academic requirements. Twitter was also used by students as an after-class discussion, both among the students themselves and between the students and their teachers. These Twitter discussions helped the students build a sense of an online academic community and to develop friendships with other students and strengthen their relationships with teachers and university deans. Similarly, Prestridge (2014) studied students' interactions on Twitter. She found that learner-teacher interaction was the primary type of interaction compared to the learner-learner interaction, which almost never happened in Prestridge's study even though

she encouraged the students to help each other on Twitter. Prestridge found that the students in her study were largely lurkers who only read and browsed Twitter but did not participate.

In the literature reviewed above, the researchers explained how Twitter builds and extends the students' academic community. In the following literature review, I present studies highlighting a specific Twitter feature - the hashtag-used to build and support the academic community. Some studies have shown that the hashtag can be powerful in creating academic communications, building students' sense of belonging to the academic community and extending the students' academic network. For example, Abdelmalak (2015) indicates that the hashtag could be an excellent way to create an academic community via sharing links, comments, advice or discussion of a specific academic topic.

Murthy (2013) explains how Twitter extends the students' academic network. Murthy notes that Twitter users often prefer to follow users who have similar interests but not those with different interests. However, the use of hashtags allows users to discover views contrary to their own beliefs. Therefore, Twitter offers users a way to expand their communications with others, even those who have different or opposite interests (Murthy, 2013). Moreover, Murthy states that Twitter conversation is similar to a face-to-face conversation in a room where we do not know who may be listening in secret behind the door or who may pop up suddenly in the room and join the conversation. Additionally, Murthy highlights a special power of hashtags that helps users become effective contributors. Murthy explains that when users of Twitter participate in a hashtag by presenting their opinions and encouraging others to adopt the same position, these Twitter users can create change.

These studies and others have also discussed the benefits of academic interaction on Twitter, including both the learner-learner and learner-teacher interaction types. Some studies

have revealed that students' engagement within the academic community by connecting and communicating with others may improve students' academic outcomes. For example, Kutbi (2014) indicates that communication and interaction with academic people from around the world could improve students' learning outcomes by interacting and exchanging ideas and experiences. Moreover, Dunlap and Lowenthal (2009) note that Twitter extends the academic community of students to include professionals, such as textbook authors, which provides the students with great opportunities to ask questions, receive answers and feedback and improve students' understanding and educational performance. Similarly, Warren (2016) found that students' academic interaction on Twitter helped to improve their academic skills, such as critical thinking, information searching and collaboration work. Warren states that engagement in the local and broader academic community may also affect the students' learning positively. Warren emphasises that Twitter does not teach by itself but instead facilitates academic communication and interaction that assists the students' learning. McArthur and Bostedo-Conway (2012) state that Twitter could support communication between teachers and their students as a one-to-many or many-to-many communication channel, which could improve the students' communication efficiency and, consequently, their learning.

Besides improving students' learning outcomes, academic interaction with teachers on Twitter could assist students in preparing for future careers (Rinaldo et al., 2011). Similarly, Buck (2017) indicates that Twitter could help graduate students to participate in conferences and find academic staff or students who share similar interests. Buck also indicates that Twitter plays a significant role in the communication between graduate students and researchers in their field through the opportunity to build new connections with researchers or academics through online conversations. Additionally, Buck emphasises that presenting an academic identity on Twitter is not enough to build and develop the

professional academic identity of graduate students; instead, Twitter communication with academic staff and students develops this identity.

Another benefit of academic interaction on Twitter is the potential to create ongoing relationships among students and between students and their teachers after the course is over. These continuing relationships allow both students and teachers to learn from each other and share useful information and academic advice (Dunlap & Lowenthal, 2009).

Other benefits have been discussed in some studies, such as Froment et al. (2017), who conducted a literature review regarding academic communication between teachers and their students on SNSs, including Twitter. Froment et al. found that communication on SNSs helps students to learn more about the personal identities of their teachers, which may break barriers between the students and their teachers, reflect positively on their academic relationships and improve the students' learning outcomes. However, an inappropriate use of SNSs by teachers or students may negatively affect the academic relationship between teachers and students, especially the teacher's professional stature. Therefore, teachers should use SNSs responsibly to safeguard their academic relationship with their students (Froment et al., 2017).

Borau et al. (2009) indicate that Twitter offers learners who cannot participate in physical classrooms the opportunity to integrate themselves into the online academic community to benefit from an academic discussion about the information presented in the physical classrooms. Additionally, Gurcan (2015) mentions that Twitter provides students with an opportunity to meet and interact with people from other countries and cultures. Similarly, Murthy (2013, p. 19) indicates that a significant aspect of Twitter is the possibility of 'far-reaching unintended audience' that connects to, and communicates with, users from around the world.

In general, the literature reviewed above indicates that most of these studies focus on the effect of Twitter regarding the students' development of a sense of academic community and the benefits of becoming involved in this community. However, scant attention has been paid to how students build and extend this community by following and interacting with academic users and expanding their discourse with other students and with teachers from their university or another university. Further, the present study investigates how Saudi female students expand their academic discourse on Twitter and the reasons to follow university teachers and students, using a qualitative research method to gain a deep, rich understanding of the data. Another concept largely absent from the literature is an understanding of the types of students' academic interaction on Twitter that are investigated in this study.

2.2 Self-Presentation Theory

While the previous section gave an overview of Twitter, its features, and the potential use of Twitter in the learning space (including the benefits and challenges), this section discusses the theoretical orientation of this study: self-presentation theory (Goffman, 1959). This theory offers theoretical perspectives on how individuals present themselves to audience, how they adjust their behaviours based on the responses of their audience and how individuals present different aspects of their identity, including the academic facet, which might help us understand how students use Twitter for learning.

In this section, I discuss the main concepts of self-presentation theory, including (1) impression management, (2) given and given off expressions, and (3) front and back stages. This section is organised as follows: first, I discuss self-presentation theory with a focus on the three concepts listed above. Next, I address online self-presentation, including (1) online

impression management, (2) multiple online identities, (3) the reasons for multiple online identities, and (4) online front and back stages. In the findings and discussion chapter, I examine and discuss findings regarding students' use of Twitter for learning, framed by self-presentation theory perspectives.

The concept of online and offline worlds is as explained by Marsh (2014): the online world refers to periods when users use the Internet, while the offline world refers to periods when they are not engaged in using the Internet. However, Davies (2013) explains that online and offline worlds are strongly correlated; both worlds affect the relationships and interactions that are established online from the offline space, and vice versa.

2.2.1 Overview

My study focuses on the use and perspectives of female students at a Saudi university about the use of Twitter as an educational tool. To understand these students' use and views, it is helpful to understand how the students practice of academic self-presentation on Twitter.

To understand how students present their academic identities on Twitter, it could be useful to understand the general self-presentation of an individual in his or her daily life. *The Presentation of Self in Everyday Life* (Goffman, 1959) is the first of Goffman's books to discuss human interaction through a sociological lens. Goffman (1959) states that when an individual communicates with other individuals, he or she will begin to manage the impression on his or her audience through changes in appearance, situation and behaviour. At the same time, the audience communicating with the individual will gather information to decide whether they want to continue communicating and interacting to understand how they should treat him or her, what they may expect from this individual and what he or she may expect from them.

Additionally, this book describes social interaction as a theatrical performance, and 'the social world becomes filled with "impression management" and team performances, as each of us is transformed into a cynical role player who hides behind an array of performance masks' (Manning, 1992, p. 8).

The theory of self-presentation has been employed in several disciplines such as psychology and education, including those that address the online presentation of self (Hogan, 2010). For example, Rui and Stefanone (2013) studied online self-presentation on SNSs, saying:

> Internet-based communication tools provide new opportunities for self-presentation, especially via social networking sites, which allow users to strategically create custom profile pages. Here, users provide information about themselves via a variety of different modes of communication, ranging from using plain text to report personal information, update status and write comments on friends' profile pages, to sharing a prolific amount of images (p. 110).

Consequently, from a developmental point of view, Twitter—as an SNS—may be considered as a tool that helps users to present themselves online by displaying their opinions, thoughts and feelings. Moreover, users could manage their impressions and presentations on Twitter if they consider it as a public region performance in which the audience takes users' behaviours seriously and judgmentally. Twitter is also utilised as a private region, via using private accounts or DMs, in which users feel free to complain and present their opinions without the fear of judgment.

In the following sections, I discuss the concepts of this theory, followed by the literature review that has studied the online self-presentation generally and on Twitter specifically.

2.2.2 Self-Presentation Theory Concepts

2.2.2.1 Impression Management

Goffman (1959) demonstrates that in everyday life, an individual tries to present him or herself in a specific way to convey a particular impression to the audience. However, this performance is not always interpreted by the audience as the individual expects. As a result, the individual adjusts his or her performance according to others' reactions to his or her first behaviour. Goffman calls this process 'impression management' (p. 203).

Goffman (1959) indicates that interaction between people is similar to a play in a theatre where the actor or actress performs for the audience. Thus, individuals understand that they are seen by others and constantly change their performance based on the situation and feedback received from the audience (Goffman, 1959).

Goffman also mentions that individuals play different roles in their lives, depending on the situation and audience. There are several reasons why individuals present multiple identities. First, traditions and societal norms affect the individual's presentation when he or she wants to feel accepted by the audience. Second, the individual sometimes endeavours to present an ideal identity of self and therefore conceals some aspects of his or her identity that may disagree with or contradict his or her claim (Goffman,1959). Similarly, Baumeister and Hutton (1987, p. 71) discuss two reasons for multiple identities, which are (1) 'self-construction' in which the person presents his or her ideal self, and (2) 'pleasing the audience' in which the person presents the self that is expected and preferred by the audience.

2.2.2.2 Given and Given Off Expressions

Goffman (1956, p. 14) explains two components of social interaction between people, described as '*given*' and '*given off*' expressions. The given expression is explicit information

that includes verbal expression and its substitutes, such as spoken language and body language (Ellison et al., 2006). This type of expression is usually used as a tool to purposefully, or intentionally convey information or an impression to others. In contrast, the given off expression is the unconscious information that is conveyed unintentionally to others: for example, the contradiction between what the individual says and does, nonverbal or unintentional communication or body language that the individual cannot control (Ellison et al., 2006). Another example of given off expression is provided by Jacobsen (2010) who explains that a spy must have extensive training and plan thoroughly to cover the given off cues in his or her performance to avoid inadvertently exposing him or herself. This type is usually unmanageable. Moreover, while the given expression is traditional and narrow, the given off expression has a wider sense because these signs have more meaning than only the information conveyed (Goffman, 1956).

2.2.2.3 Front and Back Stages

Goffman's concepts include '*front*' and '*back*' stage performances (1959, p. 32). In the front stage, individuals perform for an audience and present the image they want others to see. They also present their desires and appearance. However, in the back stage, individuals relax and act without the pressure of being seen by an audience. Individuals in the back stage display more spontaneous action. Consider a situation involving a mother who receives a call from her daughters while she is eating at a restaurant; her daughters ask her to help resolve a conflict between them. The mother's performance at the restaurant will be front stage: her performance is seen, heard, and judged by others. Since she is in the public eye, she is unable to 'exercise her full range of maternal negotiating skills', which she could if she were back stage in the privacy of her home with her daughters (Jacobsen, 2010, p. 278).

Furthermore, Goffman explains that access to the front and back stages is not controlled by the performer alone but also by the audience. Sometimes, an audience member enters the back stage region where the performers relax. This unexpected entrance changes the area into a front stage because the performers feel that they are seen by the intruder, even when the performers are in the back stage. Thus, they adjust their performance to be compatible with the impression they want to give their audience in the front stage region (Goffman, 1959). Consequently, the front and back stage regions could overlap in many cases.

2.2.3 Twitter and Self-Presentation

Although Goffman's theory was developed to study an individual's performance in physical environments, his theory could be applied in online settings where there are no physical interactions between the performer and the audience (Vaast, 2007).

2.2.3.1 Online Impression Management

As discussed previously, individuals consciously and unconsciously present themselves to create specific impressions on their audience. Individuals in the offline world utilise tools that may assist their self-presentation, such as clothes, body language, hairstyle and behaviour (Goffman, 1959). However, the Internet allows users to be selective in their self-presentation, especially in the absence of visual elements and lack of verbal and nonverbal signals. The lack of these elements and signals online could also affect the credibility of a specific self-presentation (Ellison et al., 2006).

There is an argument amongst researchers regarding the manageability of self-presentation in the online versus the offline world. Vaast (2007) theorises that online

environments might limit the ability of individuals to manage their self-presentation or control their impression on the audience compared to the physical environment. In face-to-face physical settings, there are many items that individuals can rely upon for their self-presentation, such as clothes and body language, while these items are absent in online settings. As a result, Vaast claims that offline self-presentation may be more manageable.

In contrast, boyd (2007) and Krämer and Winter (2008) have suggested that online self-presentation could be more manageable than offline presentation because an individual can carefully choose the information presented to others in the absence of the body and other physical cues. Similarly, Ellison et al. (2006) indicate that users can choose the aspects of their identities that they want to present online and the photos they post for their audience.

Learning impression management is important in developing an individual's social identity. Online self-presentation can be complicated because it is sometimes performed for an anonymous and varied audience (boyd, 2007). Twitter users may face an unknown audience, but they try to write what they think is suitable for their imagined audience. This situation is similar to that of a writer who imagines his or her audience and what they like, since they are unknown to the writer. However, on Twitter, the writer can interact directly with the imagined audience and adjust his or her writing based on the audience's responses and comments. This interaction may invite influence from the audience regarding the writer's choices. In this way, the imagined audience becomes known to the writer (Marwick & boyd, 2010).

2.2.3.2 Multiple Identities Online

Goffman (1959) writes that in face-to-face human interactions, individuals present multiple identities depending on the variety of audiences and situations. For example, one's

self-presentation as a parent differs from one's self-presentation as an employee (Suler, 2002). Similarly, people present themselves in various ways online, such as creating one Facebook page for friends and another for parents (Mendelson & Papacharissi, 2010; Zhao et al., 2008). Although people in face-to-face interactions might hide their personalities to create different identities amongst strangers, these multiple self-presentations are restricted by the limits of embodiment (Zhao et al., 2008).

However, multiple online self-presentations are unlimited for numerous reasons. First, the Internet offers individuals the ability to 'deconstruct' (Suler, 2002, p. 455) or fragment themselves online. Individuals can choose the role they want to play and present different aspects of identity that could be disconnected from other online and offline aspects (Suler, 2002; Turkle, 1995).

Focusing on one or more aspects of their identities to present online may help individuals express and explore facets of their identities and experience different interests beyond the offline world's limitations (boyd, 2002; Suler, 2002; Zhao et al., 2008). Zhao et al. (2008) and Suler (2002) have indicated that online and offline self-presentations are not completely separate, but affect each other.

Second, the online world provides individuals with the opportunity for mystery and anonymity (Vaast, 2007). Users easily achieve anonymity because they can choose how much personal information to present in their profiles (Suler, 2002; Turkle, 1995; Zhao et al., 2008). This online audio-visual anonymity lets users control their self-presentation by choosing to present only verbal information or to enrich their profiles with personal pictures, voices and videos (Valkenburg & Peter, 2011). As a result, users can produce multiple self-presentations, present a limited amount of their private lives, show misleading information regarding their identities or reveal their actual offline personal details.

Being anonymous could also help students to focus on and improve specific aspects of their identities, such as academic identity. Hunter and Caraway (2014) discuss an unexpected finding in their study: the impact of Twitter on students' academic identities. The researchers note that students used pseudonyms on Twitter. Pseudonyms allowed access to obscuring other aspects of their identity – e.g. their offline name; this feature provided the students with some freedom to practice their use of the language, such as practicing new vocabulary or complicated grammar. The anonymity on Twitter also motivated the students to present academic ideas that they had hesitated to present in the traditional classroom. Moreover, the researchers found that Twitter provided shy students with an alternative way to interact in class activities. Hunter and Caraway (2014) suggest that Twitter encourages students to present and share their opinions with others, which helps them show their academic identities to others. Moreover, the researchers found that these communications help students to strengthen relationships with classmates, even those who are not close friends.

Furthermore, the interaction with literacy specialists on Twitter provides the students with an opportunity to improve their academic identities and enhance their sense of belonging to a broader academic literacy community (Hunter & Caraway, 2014). Similarly, Lomicka and Lord (2012) found that participants' interaction with other students or educators, established a sense of community that could have positive effects by enhancing their academic performance.

Thirdly, Suler (2002) discusses another reason for multiple online self-presentations: the variety of online sites that require different levels of disclosure of the person's actual identity. Some sites, such as professional email lists, require users to present their actual offline identities and not pretend to be someone else. However, other sites, such as game environments, allow users to choose or create imaginary avatars and hide their actual offline

identities. Furthermore, other sites require a mixture of reality and fantasy in which the user can pretend to be another person completely or present his or her actual offline identity with some changes (Suler, 2002).

boyd (2002) indicates that people present themselves differently in diverse situations, not because they want to hide something or create a misleading identity but because they want to present a positive image or focus on a specific aspect of an identity. boyd mentions that multiple identities also represent the individual's ability to manage their self-presentation because they evaluate the situation and decide which convenient aspect of their identities they should present.

2.2.3.3 The Reasons for Multiple Online Identities

Goffman (1959) highlights two reasons for multiple identities in the everyday life: the need to be accepted by society and to present an ideal self-identity (see the previous section 'Impression Management' in the section of self-presentation theory concepts).

Similarly, in the online world, users present multiple identities for the same reasons. First, a user may present the online self as a different person who is deemed to be acceptable in a specific group (boyd, 2002; Feizy, 2010). Feizy (2010) explains that individuals may hide some truths because of a fear of rejection by society, but they also hide some personal views to protect themselves in dangerous or complicated situations. boyd (2007) indicates that over time, the individual learns to understand others' responses and adjusts his or her behaviour to fit what others expect from him or her. Similarly, Marwick and boyd (2010) explain that Twitter users who aim to increase their number of followers usually emphasise their impression management; that is, they monitor their followers' expectations and adjust their behaviours accordingly to gain more followers.

Moreover, the offline culture norms of the society affect the individual's self-presentation online (Zhao et al., 2008; Rui & Stefanone, 2013). For example, controversial topics, such as political, religious or social activities, are discussed carefully on Twitter by some users because of a fear of judgment or loss of respect from followers (Gleason, 2016).

Another example of investigation of online self-presentation and its relationship to the offline culture norms is the study conducted by Guta and Karolak (2015). The researchers studied the self-presentation and online negotiations of seven Saudi female undergraduate students. The researchers found that the Saudi culture affected online self-presentation, even though the Internet helped these students surpass the traditional and cultural boundaries imposed on women, especially regarding interactions with the opposite gender. Guta and Karolak identified tactics that their participants used in their online self-presentations. Some participants used nicknames or only their first names to avoid being recognised by others, especially their families. Moreover, creating multiple accounts was popular amongst the participants. Other participants had two online identities: one for their family and the other for their friends or other users (Guta & Karolak, 2015).

Guta and Karolak (2015) indicate that their participants describe their behaviour online as having multiple identities or being anonymous because they, as women in the Saudi culture, represent not only themselves but also their family names. Thus, some participants said that they used only their first name without mentioning their family name because this disconnect from the family gave them more freedom to express themselves online without being monitored. This freedom allowed them to protect themselves and discover new interests that could not be discussed in public.

The findings of Guta and Karolak (2015) can be supported by those of Yurchisin et al. (2005), who demonstrate that the latent desire of individuals to be anonymous in the online world could safely help them to explore some facets of their identity that cannot be explored

in the offline world or in front of those who might recognise them. Anonymity might also reflect the need to hide aspects of their identities that are unwise to display in public with a specific group or society (Suler, 2002).

Furthermore, Guta and Karolak (2015) indicate that due to the cultural norms in Saudi Arabia that require women to cover their faces fully with niqab, their participants did not publish their personal photos online, even those who did not wear niqab in the offline world. Instead, the participants used photos of their family's children or images of landscapes (Guta & Karolak, 2015). Similarly, Ahmed, A. (2015) studied the use of SNSs in the United Arab Emirates, which shares some cultural norms with Saudi Arabia. Ahmed, A. indicates that female users chose not to share their personal photos online because it is unacceptable in the Arab tradition. However, male users had no objection regarding the sharing of their personal photos online (Ahmed, A., 2015). Ahmed, A. also suggests that there is a need for more studies that explore how traditional and modern cultures overlap in online self-presentations, as well as cultural and social differences in online self-presentations.

Moreover, Guta and Karolak (2015) suggest that SNSs, with the opportunity for anonymity and the absence of personal photos and family gatekeepers, open new channels for Saudi women to present and identify themselves as they are, not what their society wants them to be. Saudi women could use SNSs as a free space or a second life that they can conveniently present, or create their desired identity and surpass some traditional and cultural boundaries.

Nevertheless, cultural norms cannot be the only reason for the users' preference for conceal their personal photos online. For example, Vaast (2007) found that several participants, who are American, did not use their personal photos on their profiles on an occupational site. They did, however, upload images of nature or animals as their avatars on their profiles. Vaast indicates that users can manage their identities online and identify the

level of mystification of their self-presentation. Thus, their choice to hide their personal photos could be to keep a degree of anonymity in their presentation and interaction on the occupational site. Moreover, Vaast found that his participants used this site as a front stage region, as discussed below.

Although Guta and Karolak (2015) studied the online self-presentation of Saudi female students, their study investigated how these students used SNSs to express their identities in general. My study goes further to investigate a specific aspect of Saudi university students' identities: their academic identities in a specific SNS, Twitter. In Chapter Four of my thesis, I present and discuss how my participants present their academic identities on Twitter and the effects of the Islamic and Saudi cultures on their presentation of their academic identities.

The second reason to have multiple online identities is to present the ideal identity of the self. boyd (2007) indicates that individuals may present the most important aspects of their identities in their online profiles, or they present what they think others will like about them. Ellison et al. (2006) indicate that users could face some difficulties in their online self-presentation due to their conflicting needs of being honest in their presentation and being presented positively. Therefore, Ellison et al. suggest that presenting the ideal self, which is the potential version of their future self, in their online profiles could balance these needs. Yurchisin et al. (2005, p. 738) describe the ideal self as the 'hoped-for possible self'; in this case, an individual wears a mask of his or her ideal self that is socially desirable, even though it is neither fully true nor fake (Zhao et al., 2008, p. 1832). Furthermore, Zhao et al. (2008) suggest individuals choose to present the identity that shows them in a positive light, regardless of whether it is true or not. Moreover, even with the use of personal photos, users

tend to present photos that show their positive aspects, such as their educational level or sport performance (Ellison et al., 2006).

2.2.3.4 Online Front and Back Stages

As explained previously, Goffman (1959) defines two regions of an individual's self-presentation: back and front stages. The back region is where the routine is prepared, while the front is where the show is presented to an audience. In recent years, SNSs could be considered as either a front or back stage, depending on the situation in which individuals establish their impressions and presentations (Kuo et al., 2013). Marwick and boyd (2011) argue that despite the consideration of life's intimate details as a back stage, the front and back stages sometimes overlap in the Twitter environment. Therefore, as the examples below show, self-presentation on Twitter is complicated and varied due to multiple audiences, situations and contexts (Marwick & boyd, 2011). Marwick and boyd also indicate that the front and back stages are relative because they usually depend on the audience and situation. According to Marwick and boyd, the presentation of professional information and interaction is usually considered as a front stage performance, while the presentation of personal information and interaction could be deemed the back stage performance. Similarly, Linvill et al. (2018) indicate that Twitter could be applied to both the front and back stages for the same individual, but in different contexts of his or her life. Linvill et al. explain that Twitter could be employed in the social context as a front stage and the academic context as a back stage for the same student.

In the following sections, I describe the studies that found self-presentation on SNSs to be a front stage performance. I then discuss those that found it to be a back stage performance.

Kuo et al. (2013) view SNSs as a front stage because individuals adjust their online performance according to their followers' reactions to their behaviour. Moreover, SNSs features allows the users to manage or limit personal information and choose the images they want others to see (Kuo et al., 2013).

Similarly, Vaast (2007), who studied how individuals present themselves on an occupational social site, found that his participants employed this site as a front stage to present themselves. Vaast also states that some of the participants presented themselves in the online occupational forum in the same way their presentation of self in the offline workplace while others presented their self as different people online. Vaast discusses how the participants in his study utilised a sense of freedom that the online space provided them with, by playing around with how they presented themselves through their profiles. He emphasises that providing the true information about the individual's identity on his or her profile could encourage other users to trust him or her.

Even though it could be difficult to verify this information, online users usually unknowingly leave digital footprints. Thus, it is possible to discover someone's online identity despite the attempt at mystery.

In other studies, findings show that Twitter is used as a back stage region. For example, Chen et al. (2014) indicate that Twitter could be considered as the back stage of the students' space, where they feel comfortable in expressing their feelings and thoughts about their study compared to traditional classroom environments. As Goffman notes, individuals feel more relaxed and throw out their masks in the back stage rather than the front stage. Thus, the information that students publish on SNSs could be more valuable and authentic. The findings of Chen et al.'s study reveals that the students used Twitter as a back stage space to complain about the difficulties and problems they faced in their engineering studies,

such as sleeping and social engagements. Twitter and other SNSs could be a good channel for students to express negative emotions regarding their studies and to seek social support.

Linvill et al. (2018) describe the students' use of Twitter as a back stage channel to discuss their teachers' ideology. Linvill et al. found that students used Twitter as a back stage space to express their disagreements or dissatisfaction regarding their teachers' ideology or teaching and to identify their own identities. The students also used Twitter as a way to vent about the instructional dissent of their teachers, such as having an opposite opinion to those of their teachers or expressing their concerns regarding their grades while sometimes supporting their teachers' methods of teaching or conversation with students. Students also used Twitter to seek sympathy from their followers regarding their teachers' ideology or mistakes (Linvill et al., 2018).

Linvill et al. mention that the students employed Twitter as a space to express their opinions because Twitter could be a private space where their teachers are not present. This space was used to discuss their opinions of their teachers' teaching or behaviours. When students have different opinions or beliefs than their teachers, they do not usually express these opinions in the classroom. Instead, they present these opinions and thoughts on Twitter, out of sight of their teachers (Linvill et al., 2018). Therefore, the back stage region on Twitter may help students to express their opinions regarding their teachers, an opportunity not available in the past, to express and discuss their dissent (Linvill et al., 2018).

Moreover, the back stage region on Twitter may help the users to learn some aspects of people's lives that usually appear in the back stage but not in public view, which 'means to get to know people at a more multidimensional level' or to get more truthful illustrations of these aspects (Murthy, 2013, p. 17). When a user, for instance, follows an academic whom he or she met at a conference, the user may learn some concealed aspect of this academic that is not revealed at the conference—a front stage and public space—such as the academic's

interests in music or food (Murthy, 2013). Similarly, Plutino (2017) indicates that Twitter helps students to understand their teachers' identities outside the classroom walls. Zhao and Rosson (2009) state that Twitter helps users to learn more about the identity of someone whom they follow and to read tweets that might show some personal aspects of his or her identity. Thus, users could discover similar interests, which may assist them in collaboration or in choosing the team members with whom they want to work.

Generally speaking, this literature review has shown that most studies about online self-presentation suggest that users present multiple identities online and that users try to manage their impression in complex ways. However, scant attention seems to be paid to specifically investigating the academic self-presentation of students on Twitter including: how students manage their academic self-presentation and control their impression on their audience, and how they use Twitter as a front and a back stage to present their academic identities. Therefore, my research aims to contribute to the literature by studying the academic self-presentation of university students on Twitter.

In summary, from the reviewed literature above, it seems that most of the literature focused on examining experiments conducted by researchers using Twitter with groups of selected participants. To this researcher's knowledge, few studies have been done, either in a Saudi context or worldwide, that explore how students are at the centre of their learning experience on Twitter: students' use of Twitter as a student-directed learning method without any requests or guidance from their teachers. Therefore, it could be worthwhile to investigate students' educational use of Twitter as a student-directed learning method without any directions or requests from their teachers or the researcher.

Moreover, scholars disagree on whether Twitter is a useful educational tool. While many studies have revealed that Twitter enhances students' learning motivation,

collaboration and educational outcomes, other studies have found that Twitter presents some challenges that could limit its use in learning, or even make it an unsuitable tool for learning. Therefore, it could be worthwhile to investigate this point from students' perspectives, exploring the benefits of using Twitter to support their learning, the challenges they may face during their learning on Twitter, and how they deal with these challenges. In the first section of my findings and discussion chapter, I present and discuss students' use of Twitter for learning, the benefits of Twitter, their challenges and how they solve these challenges.

Additionally, many studies have discussed how Twitter provides students with a sense of academic community. However, it seems that more research is needed regarding how Twitter assists students in expanding their academic discourse: their academic-related search for teachers or students on Twitter, as well as their reasons for and the benefits of following and interacting with those Twitter accounts.

Furthermore, Twitter and other SNSs provide new opportunities for individuals to present their identities online. Some researchers have studied the presentation of self in the online world as viewed through the lens of Goffman's (1959) theory. Most of these studies have focused on how individuals present different aspects of their identities. However, it seems that more research is needed to study a specific aspect of students' identities: their academic identities. Therefore, one of my thesis objectives is studying how students present their academic identities on Twitter. The next chapter discusses the methodology used in this study.

Chapter Three: Methodology

3.0 Introduction

This chapter provides an overview of the methodology that I used to address the research objectives and questions. I discuss how I conducted the research, why I chose the research paradigm, what my positionality is, why I chose particular methods, whom I selected as participants, how I selected the participants, and how I analysed the data. This chapter also addresses ethical concerns and the research's trustworthiness.

The research sought to explore how students used Twitter for educational purposes and their perspectives about this particular usage. It also examined how students use Twitter to present their academic identities and how Twitter impacts their academic discourse. The following questions guided my research:

1. How do Saudi female students use and perceive the educational use of Twitter in learning?

2. How do Saudi female students present their academic identities on Twitter?

3. What is the influence of Twitter on the academic discourse of Saudi female students?

3.1 The Research Paradigm

3.1.1 The Constructivist Paradigm

A research paradigm is a 'basic belief system' built by responding to three types of concepts: ontology, epistemology, and methodology (Guba & Lincoln, 1994, p. 107). Ontology is 'the study of being, that is, the nature of existence and what constitutes reality'. In contrast, 'epistemology tries to understand what it means to know' (Gray, 2014, p. 19); it is the relationship between the research and how reality is seen and known 'through the

subjective experience of people' (Creswell & Poth, 2018, p. 21). Methodology includes ways of discovering knowledge about the world (Lincoln et al., 2011).

Since social scientists work with different aspects of human beliefs, expressions, and behaviours, social science research assumes no single reality. Consequently, my ontological perspective assumes that there are multiple realities that people construct through their social interactions (Creswell & Poth, 2018; Wellington, 2015). In addition, I assume that knowledge does not exist in an external world; rather, knowledge is created by humans as they interact with the world (Gray, 2014; Wellington, 2015).

Creswell and Poth (2018) provide a helpful definition of the constructivist paradigm:

> In social constructivism, individuals seek understanding of the world in which they live and work. They develop subjective meanings of their experiences—meanings directed toward certain objects or things. These meanings are varied and multiple, leading the researcher to look for the complexity of views rather than narrow the meanings into a few categories or ideas. The goal of research, then, is to rely as much as possible on the participants' views of the situation. Often these subjective meanings are negotiated socially and historically. In other words, they are not simply imprinted on individuals but are formed through interaction with others (hence social construction) and through historical and cultural norms that operate in individuals' lives. Rather than starting with a theory (as in postpositivism), inquirers generate or inductively develop a theory or pattern of meaning (p. 24).

Since I sought to understand specific social phenomena, i.e. how students used Twitter in their learning processes, for presenting their academic identities, and for producing academic discourse, a constructivist paradigm could be suitable because the researcher is not coming to the phenomena with predeveloped theories. In addition, this paradigm fits my ontological and epistemological understanding, which I explained previously. Creswell and Poth (2018) indicate that constructivist paradigm holds that 'reality is constructed between the researcher and the researched and shaped by individual experience' (p. 35). Not only do the research objectives and questions affect which research design is chosen, the researcher's positionality also affects the choice.

3.1.2. My Positionality

Positionality refers to the researcher's pre-existing knowledge and philosophical position (Sikes, 2004). This positionality guides the researcher in choosing the study's aim, objectives, and methodology. Wellington et al. (2005) suggest that 'the methodology and methods selected will be influenced by a variety of factors, including the personal predilections, interests and disciplinary background of the researcher' (p. 99). I will justify my choice of research subject, design, and methodology by describing my background.

I have been an active Twitter user since 2012, and Twitter has been valuable in every part of my life. It has been influential in, for example, improving my ability to present myself, in my education and business relations, and in my ability to communicate with others. Twitter has given me opportunities to improve these skills and engage in self-reflection. I have been able to learn from different perspectives, and I feel that I participate in the knowledge building by providing my opinion and experience through tweets, retweets, and hashtags.

As a lecturer at King Faisal University (KFU) in Saudi Arabia, I have used Twitter to share course news, such as exam reminders, with my students. I also conducted an informal survey with my students regarding their opinions about using Twitter for educational purposes. Their responses led me to conclude that more research is needed about precisely this subject.

In 2015, while I was studying English in the U.K., I created another Twitter account solely for the purpose of learning the language. On this account, I tweeted only in English, participated in English hashtags, and followed people who tweeted in English. This was so successful in improving my language skills that I was inspired to research how students used Twitter to support their learning processes, whether for university study, language learning, or lifelong learning.

As a woman and an academic, Twitter has given me opportunities to present myself. I have four Twitter accounts in Arabic and English. I use multiple accounts to avoid confrontations about sensitive topics, and, consequently, I am cautious when using my formal accounts; they show my full name. Most of my tweets from my formal accounts reflect my academic identity, while my anonymous accounts are used to debate with other people.

In summary, my experiences with Twitter have inspired me to research how Twitter impacts students' learning processes, self-presentations, and academic discourse.

3.1.3 The Qualitative Research Design

A researcher's epistemological and ontological perspectives influence the choice of methodology; this, in turn, affects which data collection methods are chosen (Gray, 2014). With this study's nature and objectives in mind, I chose to conduct a qualitative case study. A qualitative methodology usually seeks to understand people's perspectives and emotions, and it is appropriate for showing, in detail, how and why things happen; they provide much more than a mere snapshot (Carter & Little, 2007; Gray, 2014). Creswell and Poth (2018) indicate that qualitative research gathers particularly detailed information because the researcher is able to connect with the participants in their context.

Qualitative research has been criticised for a lack of generalisability; it is often based on a single context and on a few of participants (Gray, 2014). While this criticism may be valid, Lincoln (1985) argues that many qualitative researchers are not concerned with producing generalisations. Moreover, even though quantitative research has a considerable potential for producing generalisations, it typically gathers only superficial information from a wide range of people. In contrast, qualitative research looks more deeply at how and why people perceive, interact, and reflect as they do (Baker & Edwards, 2012).

65

Quantitative research has been the subject of much criticism as well. Quantitative research often limits ideas and hypotheses about the research aims in advance, whereas the aims of qualitative research are more exploratory, open-ended, and dynamic (Baker & Edwards, 2012). Similarly, Creswell and Poth (2018) explain that qualitative research can provide uniquely rich and valuable information. Creswell and Poth explain how qualitative researchers focus on the participants' diverse views about the study's problem; they are not as concerned with their own view or the views of the literature. Therefore, while quantitative research often limits its findings, qualitative research is rich with multiple perspectives and unexpected information.

In addition, qualitative researchers are able to talk directly to the participants, observe them in their homes and workplaces, and encourage them to narrate their stories without judgment (Creswell & Poth, 2018). The direct connection between the researcher and the participants results in a more in-depth understanding of an issue than quantitative research can provide.

Gary (2014) identifies another limitation of quantitative research: 'statistical correlations may be based upon variables that are arbitrarily defined by the researchers themselves' (p. 161). Similarly, Wellington (2015) writes that quantitative researchers often cannot control their research variables, and this absence of control may produce misleading results.

I did not use quantitative data because I wanted to gain a detailed understanding of how Saudi female students use Twitter for educational purposes, their perspectives about its educational potential, how they exchange knowledge on Twitter, and how Twitter impacts on their self-presentation and their academic discourse. My research focused on a single university (KFU) in Saudi Arabia, and I do not intend to generalise the findings for other universities.

I was also interested in learning how and why students used Twitter to support their learning processes, and I did not want their responses to be affected by my own views or the literature I have read. Furthermore, I was not interested in learning how many students used Twitter for educational purposes or in statistically examining their practices and attitudes about the educational potential of Twitter; many other studies have already studied this issue (e.g. Aifan, 2015; Alotibi, 2013; Alqahtani, 2016). In addition, I also believe that it is important to understand how Saudi female students present their academic identities on Twitter; ultimately, I sought to understand how they used Twitter to connect academically, communicate, and interact.

It is important to understand the nature of students' self-presentations and academic discourses because it could reveal better ways we, as teachers, policymakers, parents, or students, can use Twitter in education. To understand these issues in depth, it is necessary to form direct connections with the participants, and, thus, qualitative methods are essential. Though quantitative approaches provide researchers with valuable information, this kind of information would not be able to address my research questions.

3.1.4 The Case Study

Case studies are typically used to 'examine contemporary real-life situations and provide the basis for the application of ideas and extension of methods' (Yin, 2013, p. 23). A *case* can be an object, an event, an individual, a process (Yin, 2013), or a group or organisation (Robson, 2011; Wellington, 2015). My case study involved Saudi female students at KFU. This university was chosen for its accessibility. I am a lecturer at this university, and I am familiar with its administrative procedures. In addition, it was easier to receive approval to conduct my research at KFU than at other less-familiar universities. Furthermore, I preferred to start with my own university to build a basic framework for my

research topic. In future studies, perhaps, I might broaden the scope to include other Saudi universities and international universities.

The case study method is ideal for addressing a 'how' or 'why' question about an issue over which a researcher has no control (Baxter & Jack, 2008; Gray, 2014; Wellington, 2015). In particular, a case study is appropriate when the research is examining how people perceive a specific subject (Baxter & Jack, 2008). Case studies obtain multiple perspectives through several data collection methods to enrich one's knowledge about a context (Gray, 2014). Consequently, I used two qualitative methods: semi-structured interviews and a content analysis of the participants' Twitter posts.

3.2 The Data Collection Procedures

In this section, I present and discuss the methods used to collect the data. Semi-structured interviews and content analyses of the participants' Twitter posts were most suitable for addressing by my research objectives and questions. As Wellington (2015) emphasises, 'it should always be a case of questions first, methods later' (p. 108).

3.2.1 Semi-structured Interviews

Interviews are a valuable research method because they allow a researcher to gather information, such as the participants' thoughts, feelings, and/or values, that cannot be gathered by other methods, e.g. questionnaires or content analyses (Wellington, 2015). Robson (2011) suggests that 'to find out what [people] think, feel and/or believe, use interviews' (p. 232). According to Gray (2014), interviews allow a researcher to explore people's perspectives about a particular issue and collect data about their attitudes, values,

experiences, and preferences. I conducted interviews with each student individually to obtain broad views of their experiences and perspectives.

Semi-structured interviews allow respondents to expand on their views and opinions and give the researcher the flexibility to add questions during the interview itself (Gray, 2014). In my research, the semi-structured interview format allowed the participants to openly explain their experiences with, and perspectives about, using Twitter for education and how Twitter impacted their practices of academic self-presentation and academic discourse. In particular, I wanted to explore how female students presented their academic identities and opinions on Twitter, especially within the strict social norms of Saudi culture.

I began the interviews by asking open-ended questions about the students' experiences with Twitter for education, with or without their teachers' direction. I also asked them to explain how they used Twitter to present their identities in general and their academic identities in particular. I also sought to organise the interviews around the subject of how Twitter allowed them to communicate with their teachers and other students (see Appendix A). The semi-structured format allowed me to develop questions in response to the participants' responses. For example, I initially asked the participants to share their perspectives about Twitter's 140-character limit. However, the first three students explained that they had their own ways to deal with the 140-character limit. This information interested me, and I was able to modify the questions and ask the other participants about how they dealt with the 140-character limit.

Semi-structured interviews, held either face to face (f2f) or via online audio using LINE application or mobile phone (depending on the participant's circumstances), were conducted with 15 female students at KFU in Al-Ahsa, Saudi Arabia. I contacted the participants via email or Twitter DM to arrange convenient dates, times, and methods for the interviews. The interviews were conducted during August and September 2016. The shortest

interview lasted for 20 minutes, the longest lasted for 60 minutes, and the average length was 40 minutes. The participants were informed beforehand about how long the interviews were expected to last. The interviews were conducted in Arabic language because, as the participants' mother tongue, it was more comfortable for them. In addition, only a few spoke English.

Some students preferred to be interviewed via online audio or mobile phone, while others preferred f2f interviews (see Table 3.3). Conducting different types of interviews was useful because each method had its advantages and disadvantages. The f2f interviews allowed me to engage with the participants personally, while the online audio and the mobile phone interviews gave the participants anonymity, which may have encouraged them to speak more freely and frankly (Creswell, 2013). In addition, the online audio and the mobile phone interviews gave me the ability to interview participants who would otherwise not have been able to attend the f2f interviews. The participants were not actively attending university at that time, the summer holidays.

Originally, I had planned to conduct the f2f interviews in my office, but I ended up conducting them in the university cafe. This change was necessary because the participants needed to feel comfortable, and the office might have made them uncomfortable, especially if they had been one of my students or could be one of my students in the future. Consequently, I sought out alternative venues that would be neutral to both parties, and, ultimately, the university cafe was the most convenient option. Moreover, because the interviews took place during the summer holidays, the cafe was quiet. I conducted one interview in a waiting room which was near the entrance because the cafe was too crowded that day. I insisted on conducting the f2f interviews at the university because it was safer than other places for me and the participants.

During the interviews, I took both notes and audio recordings (using a Zoom H1 Handy recorder and my mobile phone's recorder) to improve the data's accuracy and to obtain a lot of data (Wellington, 2015). I saved the data on my personal computer and backed it up on Google Drive for security.

Moreover, I went back to a few participants to conduct follow-up interviews to collect more data about questions that arose during the initial analysis of the data. For example, four participants tweeted and talked about their experiences with Twitter reading groups, and, wanting to learn more about the topic, I held second interviews with them. These follow-up interviews were conducted using WhatsApp. I limited my questions only to the points that required more explanation to avoid bothering the participants with an excessive number of questions.

3.2.2 The Content Analysis of the Twitter Posts

Paulus et al. (2014) state that 'social networking sites can be viewed as sources of qualitative data and/or a means by which to interact with research participants' (p. 77). Linvill et al. (2018) indicate that content analysis of Twitter posts could reveal important information that could not otherwise be found through traditional methods such as surveys or interviews. In their study, Linvill et al. (2018) found that Twitter analysis method helped them to examine the students' communication about their instructors' ideology.

In my study, Twitter was an immensely valuable source of data. The Twitter data supported the interview data, and it allowed me to closely observe how the students used Twitter for learning, presenting their academic identities, and engaging in academic discourse. The content analysis of the Twitter posts allowed me to investigate issues that I could not investigate during the interviews.

The Twitter posts were collected from the participants' Twitter accounts and included their profiles, tweets, retweets, quotes, likes, direct replies, and DMs (as screenshots) that the participants provided to me. The Twitter posts were collected from the accounts of the 15 participants over a two-month period (from September to October 2016).

3.2.3 Software for the Collection of the Twitter Posts

Storify and NCapture were used to collect, archive, and organise the Twitter posts. Storify (https://storify.com/) was a SNS that allowed users to create and organise stories imported from SNSs such as Twitter, Facebook, Instagram, and YouTube (Barnard, 2016). However, Storify was shut down on May 16, 2018, during the writing of this thesis and after the data collection and analysis. NCapture is a web browser extension that captures from SNSs and imports them as datasets for coding and analysis in NVivo 11 (Bazeley & Jackson, 2014).

Each software programme had strengths and weaknesses. Table 3.1 explains the differences between NCapture of NVivo and Storify as tools to collect Twitter posts.

Table 3.1: Comparing NCapture and Storify

Feature	NCapture	Storify
Pricing	Free from the university website; otherwise, it would have had to be purchased.	Free
Privacy and security	Yes. It is a private program, and it offers a sharing service.	No. I clicked Draft to view my story on a new web page. Then I saved each story as a PDF file on my laptop for the analysis. I never publicly published the stories due to ethical concerns and to respect the participants' privacy.
Type of Twitter data that could be collected	Tweets and retweets.	Tweets, retweets, and likes.
Searching for a user's data	Typing a participant's Twitter handle in the search box.	Typing a participant's Twitter handle in the search box.
The ability to import specific tweets and retweets.	No. I encountered a problem with the number of posts because NCapture downloaded tweets and retweets beyond the dates that I wanted. To stop the process and limit the number of posts, I clicked on the Show capture progress page. Nevertheless, NCapture still downloaded more posts than I needed. I connected my laptop wirelessly to my mobile phone's personal hotspot to slow the progress and stop the download at the required point.	Yes. Storify imports 20 results per search and displays a 'Show more results' link at the bottom of the results column. I clicked this link until I collected all the participants' posts between September and October 2016. Storify offers two ways to drag elements into the user's own Storify story timelines: dragging and dropping individual posts or adding them all by clicking a link. I used the second method to save time. If I found a post that was beyond the desired date range, I deleted it by clicking the X button on the left side.
Type of import format for Twitter data	Dataset sources.	PDF file.
Displays image	No. Only showed the image link.	Yes.
Plays video	No.	Yes. I could play and watch videos on the Storify page.

In addition, I saved the participants' profile pictures and the DMs, that were sent as screenshots by the participants, stored them as images on my laptop. In total, I collected 5,731 posts. The distribution of the types of posts is presented in Table 3.2. (Section 2.1.2 in Chapter Two discusses the definition and the function of each type.)

Table 3.2 The distribution of posts

Type of Post	Number of Posts
Tweets and Retweets	3856
Likes	1830
Direct Messages	45

3.3 The Population and the Sample

3.3.1 The Population

This study focused on KFU, a public university located in eastern Saudi Arabia. The study's population consisted of every female student in the university (about 24,591, as of 2016). Of these, 22,794 were undergraduates, 812 were postgraduates, and 985 were diploma students (King Faisal University, 2017).

3.3.2 The Sample

It is difficult to ensure that a sample accurately represents a population (Gray, 2014). I sought a sample that accounted for the population's key characteristics and represented the subjects that people studied at the university and the different types of study, i.e. full-time or long-distance learning. The sample was also affected by availability, i.e. those who agreed to participate in the study. Purposive and snowball sampling techniques were used to find the

students who were most likely to provide the richest information that could be helpful in addressing the research questions (Etikan, 2016). A *purposive sample* is a sample chosen purposely to serve the study's objectives; in other words, it 'involves using or making a contact with a specific purpose in mind' (Wellington, 2015, p. 117). *Snowball sampling* is a sampling method that involves reaching out to people who are suggested by interviewees (Wellington, 2015). In the following section, I explain how I found the sample that I thought would be most useful for my study (Gray, 2014).

3.3.3 Selecting the Sample

After I finished my confirmation review and received the research-ethics approval letter, I contacted KFU and asked them to send an email that asked for participants to every female student. This email would have had a survey link that included information about my research, my contact information, and the consent letter. However, the university would not distribute my email, saying that the distribution would be too complicated and take too long.

Consequently, I disseminated the electronic invitation and the survey link via my Twitter account, asking for women who were students at KFU. My tweet was retweeted 20 times and liked 3 times. Most of the users who had engaged with the tweet were educators or students at KFU. I also shared the survey link with my WhatsApp contacts and asked them to share the link with their contacts. Moreover, I used the snowball sampling approach and asked a few participants during their interviews to share the survey link with students who they thought were similar to them and who might be willing to participate in the study (Matthews & Ross, 2010).

The survey invitation was created as a Google Form. It began with the student consent form and the information letter, which required participants to consent to participate in the semi-structured interviews and provide their Twitter accounts for analysis. Moreover, the

form asked the participants to provide information about their Twitter pseudonyms, their areas of study, the type of study (full-time or long-distance), whether they were undergraduate or postgraduate students, their Twitter accounts, and a convenient date and time for the interview. The survey invitation is reproduced in (Appendix B).

I received 39 responses from people who were interested in participating. The number of responses allowed me to carefully choose the best candidates. The participants were selected based on the following inclusion criteria: they had to agree to participate in the interviews and provide their Twitter data; they must have provided valid Twitter handles or email addresses that I could use to contact them; and they had to be active Twitter users, posting at least once per week (Java et al., 2007). The selection process is illustrated in Figure 3.1.
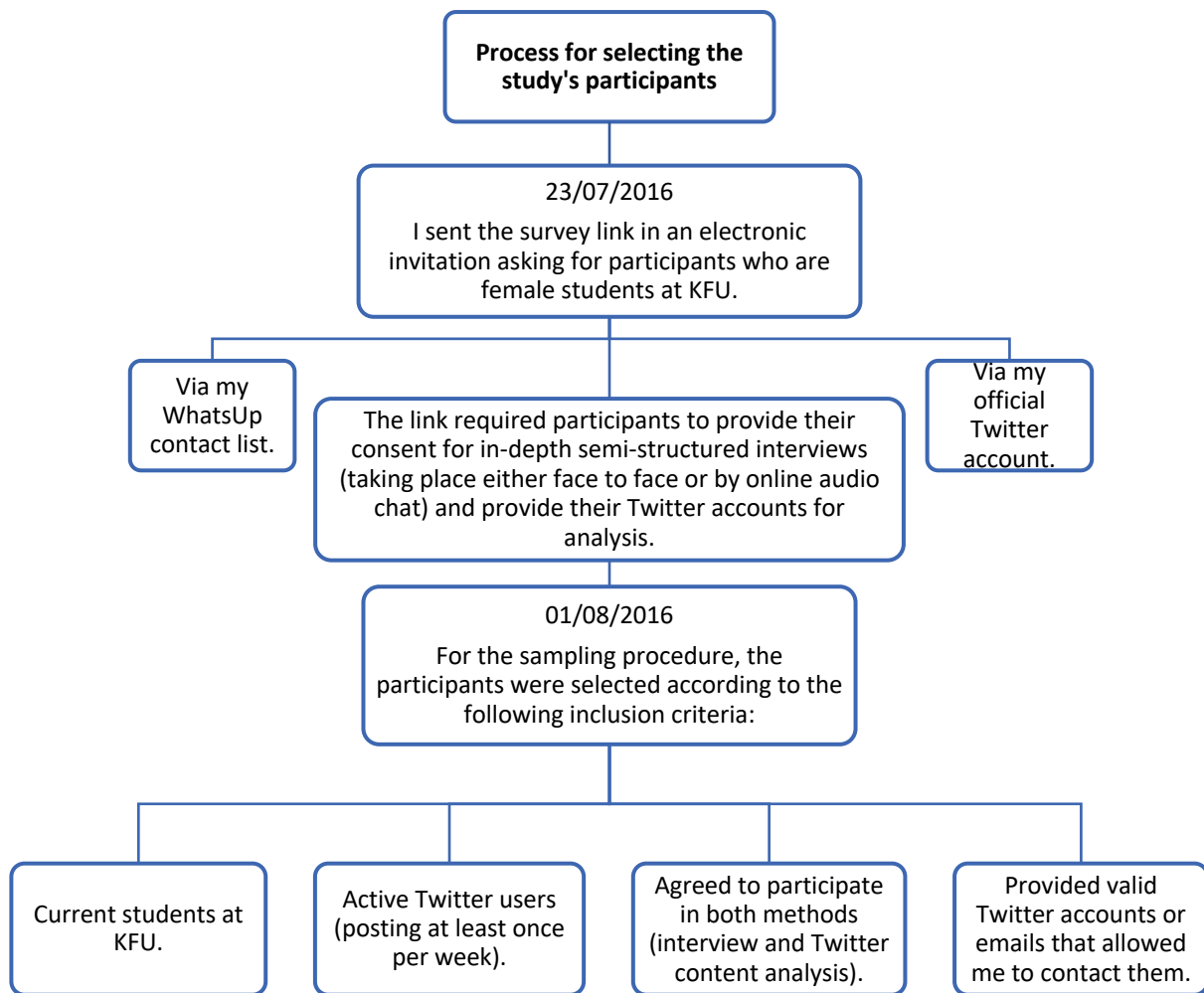
Figure 3.1 Selecting the Participants.

Fifteen students fulfilled these criteria. Though this number is perhaps small, their Twitter posts, in total, amounted to 5,731 posts. As case studies do not aim to generalise findings but to collect rich detail about a case (Creswell, 2013), this sample size was large enough to serve as a rich source of information. In addition, sample size usually corresponds to the time available to conduct research, and I am a scholarship student with very limited time. Table 3.3 summarises the participants' backgrounds.

Table 3.3 The Participants' Backgrounds

N	Pseudonyms Created by the Students	Type of Study	Degree	College	Subject of study	Age	Meeting tool
1	B.M.	Full-time (FT)	Master	School of Arts	Arabic language	25	LINE
2	Marym-Q	FT	Undergraduate	School of Education	Not yet determined	19	f2f (at the School of Education)
3	Maryam-302	FT	Undergraduate	School of Arts	Arabic language	21	LINE
4	Ra65	FT	Undergraduate	Agricultural Sciences and Food	Nutrition	21	LINE
5	Eiman	FT	Undergraduate	Management School	Marketing	22	LINE
6	Afnan	FT	Undergraduate	Management School	Human Resource Management	20	LINE
7	Ruyuf	FT	Undergraduate	Management School	Not yet determined	19	LINE
8	Mariam-99	FT	Undergraduate	Management School	Not yet determined	19	LINE
9	Alghamdi-1	FT	Master	College of Computer Science and Information Technology	Computer Information Systems	24	LINE
10	Halaa	Distance Learning	Undergraduate	School of Arts	Sociology and Community Service	23	f2f
11	Maryam-S	FT	Undergraduate	Agricultural Sciences and Food	Agricultural Economics	21	f2f
12	Mashael	FT	Undergraduate	School of Nursing and Midwifery	Nursing	21	LINE
13	Aisha	FT	Undergraduate	School of Education	Education Technology	20	Mobile Phone
14	Zainab	FT	Undergraduate	Medical School	General Medicine and Surgery	20	Mobile Phone
15	Munirah	FT	Master	School of Arts	History	24	Mobile Phone

3.3.4 The Pilot Study

I tested the interview method online with a master's student. This gave me the opportunity to learn how to conduct an interview. Although I have read books and articles about conducting interviews, I knew that the experience would be different in practice. Later, when I listened to the recording of the interview, I realised that I had repeated some questions in slightly different ways. I also discovered that I had interrupted the student to ask her about an interesting point; however, though she answered that question, she forgot to finish answering the original question. In addition, I discovered that some of my questions were difficult to answer, so I made them clearer and more coherent. For example, I narrowed one question that was so broad that it confused the participant. In general, I sought to avoid these mistakes in the other interviews.

3.4 Ethical Considerations

Ethics are moral rules or norms that guide how a person behaves (Blumberg et al., 2005). Gray (2014) defines *ethics* as 'a philosophical term derived from the Greek word ethos, which means character or custom' (p. 67). Although social science research is much less likely to harm participants than, for example, the medical sciences, social science research deals with people who could be influenced by the research (Gray, 2014). Therefore, it is essential to establish guidelines to protect participants from risks. I followed the ethical guidelines published by the British Educational Research Association (BERA, 2011), and the Association of Internet Researchers Guide (AoIR) (Markham & Buchanan, 2012). Ethics approval was granted by the University of Sheffield on 22/06/2016 (see Appendix C) and by KFU in 2016 (see Appendix D).

Gray (2014) sorts research ethical principles into four categories, which provide a detailed understanding by describing the different aspects of ethics: preserving the participants' privacy, ensuring informed consent, avoiding risk, and avoiding deception. I discuss these issues in the following sections.

3.4.1 Preserving the Participants' Privacy

'The right to privacy is one of the basic tenets of living in a democratic society' (Gray, 2014, p. 78). Before I began the research process, I received the participants' informed consent. Throughout the study, they had the right to decline to answer any question and to withdraw from the project at any time. I informed the participants that I did not need their real names. I used the pseudonyms that they suggested to refer to them in the research. In addition, I obtained their permission to publish parts of my research in a peer-reviewed journal or a conference. The participants' Twitter posts were stored and archived for a two-month period (September to October 2016); I stopped tracking and storing posts after this time.

The research data were securely stored on my laptop's hard drive and on the Google Cloud Platform (using the University of Sheffield's Google Drive system) to protect the data. Because I came across some challenges during the data analysis (see Table 3.4), I had to print a hard copy of the data. I stored this copy in my personal university locker, which was securely locked, and no one else could access the data.

3.4.2 Informed Consent

It is important to provide participants with a sufficient amount of information about the research, including its aims, the time required from the participants, the voluntary nature of their contributions, and assurances of their anonymity (Gray, 2014).

First, I sent an official letter to KFU to request permission to contact students and to send an email asking for participants. As mentioned earlier, the university would not distribute my email and, instead, I disseminated the electronic invitation and survey link via my Twitter account. Then, I contacted the potential participants by email or Twitter and provided them with an information sheet and consent form. They had to sign these before the research process could begin (see Appendixes E and F). I explained, in simple Arabic language, the research's purpose and how long it was expected to take. I ensured their anonymity by not asking for their real names. I also informed them that they had the right to withdraw at any time and that whatever data they had offered would be excluded from the analysis. However, none of the participants refused to answer any questions and all of them completed their participating in the project.

3.4.3 Avoiding Risk

Risk can indicate physical, psychological, and/or emotional risk (Gray, 2014). In my research, I tried to maximise the research's benefits and minimise potential risks. Thus, to ensure that the participants were aware of how long the interviews would take, I had the participants sign the consent forms beforehand so that they were aware of the expected timeframe. In addition, I tried politely to keep the conversation focused on the research aim, avoiding extraneous discussion.

I had expected that some students would be hesitant to participate because the interviews could be time-consuming or because they had concerns about privacy. With this in mind, I purchased £10 Jarir Bookstore vouchers to encourage students to participate. However, some refused to take the vouchers, saying that they wanted to help deepen general knowledge about Saudi women's experiences in academia. Moreover, one of the participants travelled from her city, which is nearly two hours away, to meet with me in person, even though I offered her an online interview. She wanted to meet me personally and become friends, which we now are. Her insistence meeting me in person caused me to wonder what it was about my research that she embraced so vigorously.

Her interview reflected her interest in my research topic. She explained that she used Twitter as part of her learning process and found it especially useful because she was a long-distance learner. She enthusiastically spoke about Twitter's power to help Saudi women present themselves in a male-dominated society. She talked about how she presented her identity as an educated woman on Twitter, how she communicated with other users, and how Twitter gave her the opportunity to be heard. Another reason that she insisted on meeting me in person was because she wanted to talk about applying for postgraduate study.

I also thought that students would be hesitant to speak with me because they might consider self-presentation on Twitter to be a private issue, especially since Saudi Arabia is a conservative society with strict traditions and social norms. Many Saudi users avoid talking frankly about sensitive topics on Twitter, while others who discuss controversial issues prefer to remain anonymous. To help the students feel comfortable, I did not ask for their real names, and I removed their identifying information and geographic locations from their Twitter data. The online and mobile phone interviews offered the participants anonymity, which could be why most of the participants did not want to be interviewed in person (as explained in '3.2.1 Semi-Structured Interviews') The face-to-face interviews were conducted

on KFU's campus because it was a safe place. I interviewed the students who were unable to attend in person using an online app or over the phone (explained in detail in '3.2.1 Semi-Structured Interviews').

3.4.4 Avoiding Deception

Deception refers to representing research misleadingly (Gray, 2014). In this study, I informed the participants in advance that the interviews would likely take between 40 and 60 minutes. They were informed that the interviews would be recorded unless they withheld their consent. I explained to them that I would be the only one would could access their data and that I would use only their pseudonyms.

The participants had to consent to allowing me to conduct the content analysis of their Twitter posts. Transparency avoided research methods that could have harmed me or the respondents (Gray, 2014). The participants were informed that their Twitter accounts would be tracked, and their data gathered for only two months (September–October 2016). After that, I would stop tracking their accounts.

3.5 Ensuring Trustworthiness

Trustworthiness is used instead of positivist theoretical perspectives of *validity* and *reliability* (Robson, 2011). Trustworthiness is defined as 'how can an inquirer persuade his or her audience (including self) that the findings of an inquiry are worth paying attention to, worth taking account of?' (Lincoln & Guba, 1985, p. 290).

Several strategies were used to ensure that the research was trustworthy and that the findings and interpretations were credible. First, I analysed and compared the data from the interviews and the content analysis; using multiple data sources in a case study can enhance

the data's trustworthiness (Yin, 2013). Combining different methods can also enrich the research because one method can compensate for the limitations of other methods (Shenton, 2004). Furthermore, I compared my findings to the findings of the existing literature, which can improve the evaluation criteria and the quality of the research data and findings (Gray, 2014; Shenton, 2004).

In addition, I endeavoured to document each stage of the research process, beginning with the research design and continuing with the data collection, analysis, and reporting. I kept a detailed record of my research procedures and the raw data, which included audio recordings and transcripts of the interviews, PDF files of the students' Twitter data, and my reflective notes. This documentation makes the research more accurate and clearly describes the research findings and interpretations for the readers (Shenton, 2004). Valuable feedback from my supervisors helped me refine my work and strengthen my arguments (Shenton, 2004). I also engaged in 'peer scrutiny of the research project' (Shenton, 2004, p. 67) by discussing the raw data, themes, and procedures of data analysis with my peers and colleagues.

3.6 The Procedures of Data Analysis

Qualitative data analysis is defined by Creswell (2013) as:

[P]reparing and organising the data (i.e., text data as in transcripts, or image data as in photographs) for analysis, then reducing the data into themes through a process of coding and condensing the codes, and finally representing the data in figures, tables, or a discussion (p. 180).

Data analysis aims to make the data meaningful by breaking them down into themes and connecting different concepts (Gray, 2014).

3.6.1 The Phases of Data Analysis

In this section, I explain my plan for analysing the qualitative data. Several phases of my plan drew inspiration from the previous literature. This plan had four phases.

3.6.1.1 Phase 1: Preparing for the Data Analysis

During this phase, I read books and articles about qualitative analysis, e.g. Braun and Clarke (2006, 2012), Gray (2014), Saldaña (2016), and Wellington (2015), as well as dissertations, theses, and peer-reviewed articles that had used qualitative research methods. Then, I transcribed the recorded interviews using Microsoft Word. Almost all of my interviews were transcribed in Arabic on the same day that they were conducted or a few days later. Moreover, in this phase, I made some decisions about my data analysis. For the method of analysis, I chose to conduct a thematic analysis (TA). Second, I decided to use NVivo as the software program for analysis.

3.6.1.2 Phase 2: Organising the Data

To prepare for the analysis, I created six folders for the data: (1) interviews, which were saved as Microsoft Word files; (2) Twitter likes; (3) DMs; and (4) profile pictures, which were saved as .jpeg files. The remaining Twitter data, including tweets, retweets, and replies, were stored in two folders: (5) Twitter data (saved as PDF files) that were imported using Storify, and (6) the Twitter data (saved as a social media dataset) and imported using NCapture. I imported all of these six folders into the NVivo software programme, which will be explained in more detail later. Because of the challenges encountered while using NVivo, I printed a hard copy of the Twitter data and re-analysed it manually.

3.6.1.3 Phase 3: Choosing the Method of Analysis: Thematic Analysis

TA is a method for analysing qualitative data. It involves organising data around categories or themes to make the data meaningful (Braun & Clarke, 2006). In this study, I used TA because it is convenient and flexible for researchers who are unaccustomed to qualitative data analysis and who have large, vague, and complicated data sets (Braun & Clarke, 2012). I followed the six phases of TA provided by Braun and Clarke (2006). First, I immersed myself in the data, conducting the interviews and the analysis of the Twitter data myself. Moreover, I transcribed the interviews, listened to the recorded interviews multiple times, wrote them down and checked the transcriptions and familiarised myself with the data.

During the second phase of TA, which involved generating the initial codes, I used *descriptive coding*, which 'summarises in a word or short phrase—most often as a noun—the basic topic of a passage of qualitative data' (Saldaña, 2016, p. 102). Thus, the initial codes were generated from my first impression of the data. Occasionally, one extract could be summarised with a single code, while others needed more than one code. Braun and Clarke (2006) advise researchers to generate as many codes as possible during this phase. I generated more than 100 codes during the first cycle of coding (see Figure 3.2).
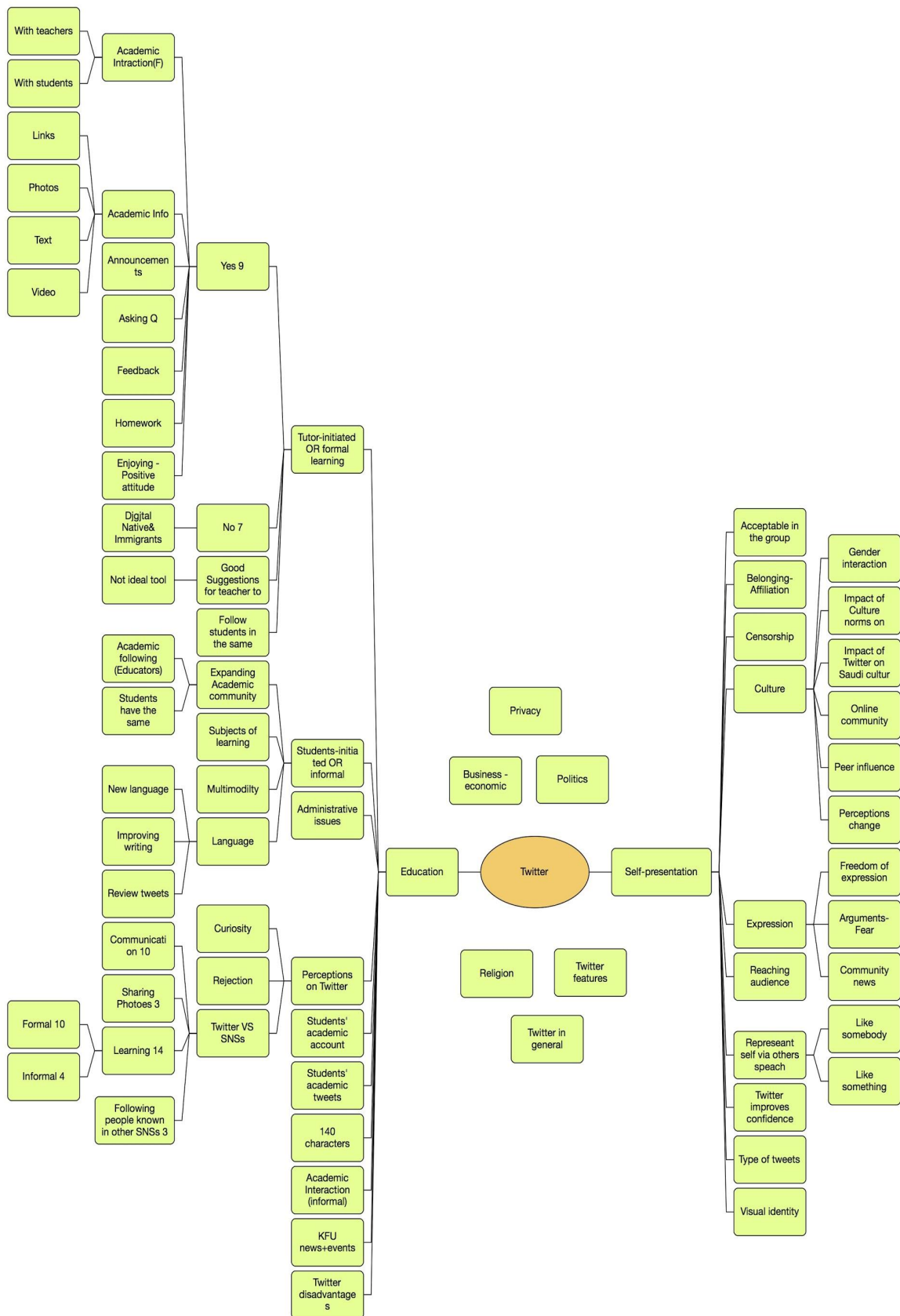
Figure 3.2. The Codes in the First Cycle of Coding.

I coded the interviews, analysing each interview separately. The interviews were analysed in the order in which they were conducted. After coding the interviews, I analysed the Twitter posts of each participant separately, starting with the Tweets and Retweets folder, moving to their Likes and DMs folders, and concluding with their Profile Pictures folder. As I mentioned previously that Twitter data supported the interviews' data and gave me an opportunity to closely examine the students' uses and perspectives of Twitter in education. At the beginning of the analysis process, I used the codes from the interview data as a guide to analyse the Twitter data. There were several reasons for this. First, most of the interviews were conducted before the Twitter data was collected. Second, the volume of interview data was small compared to the Twitter data. Moreover, the interview data was firmly related to my research questions and more specific than the Twitter data which was produced by the students themselves without any direction from me as a researcher. The Twitter data was extensive and broad and contained a substantial volume of information, some of which was related to my research questions and objectives and some of which was not. However, there were some codes that emerged from the Twitter data in the first place, which led me to re-examine the interviews to search for similar codes. Generally, all of my research questions' themes emerged from both the interviews and the Twitter data, except the theme 'using Twitter in teacher-directed learning', which came only from the interview data. I explain this in Chapter 4 when I address the first research question. NVivo assisted me to look across the data resources which were interviews and Twitter, compare them and organise the data underneath suitable codes then themes gradually.

In the first cycle of coding, I coded the actual data extracts, even those that did not seem to be directly connected to my research questions (in case they were important later) (Saldaña, 2016). The second cycle of coding involved reviewing the initial codes and converting them into themes (Saldaña, 2016). During this process, I combined two phases of

TA: searching for and reviewing the themes (Braun & Clarke, 2006). This phase involved rereading each code's extracts and ensuring that they were coded correctly. Meanwhile, I looked for connections between the codes. As a result, I renamed some codes, merged similar codes, and related some codes to other codes by making families of codes: a parent (theme), children (sub-themes), and sometimes grandchildren (sub-sub-themes).

I also discarded codes that seemed to be unrelated to my research questions. However, I kept them in a folder named 'For future studies' to keep them for future research. I searched for and reviewed the themes even during the write-up stage; I changed the names of some themes, combined themes, and broke down other themes. Saldaña (2016) says that the second cycle of coding can often be challenging for researchers because classifying and building themes require advanced analytical skills. Finally, I organised the themes in the order of the research questions.

Moving from the codes in the first cycle of coding (see Figure 3.2) to the final themes (see Figures 4.1, 4.15 and 4.22) was a long process, and it required much time and effort to establish the final form of the themes. During this process, I began thinking of each code and its relationships to other codes and I considered how I could combine them under potential themes. NVivo was useful for creating themes that involved several codes, moving codes from one theme to another, or breaking a theme down into several codes. The initial codes were very broad and unorganised and consisted of one or two words. The final themes and subthemes, however, as presented in Chapter 4, were more specific, related to one another and to the research questions and written as complete, comprehensible sentences. For example, the 'education' code in Figure 3.2, which is a very broad term, was transformed into the specific and fully phrased themes 'using Twitter to support the students' university studies' and 'using Twitter to support language learning' in relation to the first research

question. These themes were created after rereading and reflecting on the data during the analysis and writing process.

The fifth phase of TA consisted of defining the themes. Braun and Clarke (2006) write that '[o]ne test for this [defining the themes] is to see whether you can describe the scope and content of each theme in a couple of sentences' (p. 92). After coding and developing the themes, I wrote approximately 4,300 words that described my themes and sub-themes, and I sent this summary to my supervisors. This writing assignment helped me during the write-up stage because it included my first impressions of the data.

The final phase of TA involves producing a report, which will be manifested in the writing of my findings and discussion chapter.

Before moving to phase four, I wish to highlight the rationale for selecting some of images that I captured from Twitter data to illustrate my thesis. Although the Twitter data had a huge number of images that could be used to support the findings, I preferred to limit the number of images for two reasons. First, I chose ones that well illustrated my points. Second, I did not wish to trouble the reader with excessive Arabic, which is the language in which my participants tweeted.

3.6.1.4 Phase 4: Selecting the Software Programme

In my study, NVivo, Version 11 (QSR International, Australia) was used to analyse the interviews and the Twitter data. NVivo helped me store, manage, organise, and analyse the qualitative data. Although computer-assisted programmes facilitate data storage and analysis, they are unable to generate codes or interpret the data themselves (Gray, 2014; Wellington, 2015). This, ultimately, is the researcher's responsibility.

There were several reasons for using NVivo. It helps researchers manage raw data files that come from different sources, such as interviews, observations, and SNSs and multimedia data—which include text messages, images, videos, and webpages—and combine them in one place (Bazeley & Jackson, 2014). NVivo also helps researchers look for patterns in the data, to link ideas using, for example, the annotation feature, and to create visualisations of the data, e.g. mind maps or word clouds (Bazeley & Jackson, 2014). Moreover, NVivo allows users to easily create codes and themes (called nodes), move these nodes around, and create coding categories (Creswell, 2017). The NCapture module in NVivo also allows users to import data from webpages and SNSs (Bazeley & Jackson, 2014). In addition, Sheffield University allows students to download NVivo from its website for free, and the university hosts workshops, which I attended, that teach researchers how to use the programme. I also watched a series of 'NVivo for Mac' video tutorials created by QSR and distributed on YouTube (NVivo by QSR, 2014). These videos were more useful than the workshops because they provided me with richly detailed information and step-by-step tutorials.

I did not translate the data into English immediately after transcription because I wanted to identify the meanings and themes in Arabic. I believed that analysing Arabic data in Arabic would ultimately be more accurate because it is our native language. Moreover, Bryman (2012) suggests that translating data from one language to another may result in the loss of important data because of the differences between the languages' cultural contexts. I sent the translated students' quotations to a proof-reader to ensure that the responses were coherent, and their meaning was clear in the English language. If I had more time, I would send the original data and its translation to an Arabic speaker to check the meaning in that language. In NVivo, I named the codes and themes with English titles and wrote my annotations in English; however, I did not translate the extracts into English until later.

Although NVivo was useful because it helped me store and analyse the data, I faced several issues. These were primarily related to language support; NVivo does not support Arabic properly. In addition, I had issues with NVivo while analysing the Twitter data. In the following sections, I present the benefits and challenges of NVivo.

3.6.1.4.1 NVivo's Benefits

First, NVivo aids researchers in storing, organising, and categorising qualitative data for analysis. Second, it facilitates the analysis of Twitter data gathered using NCapture. Third, NVivo can be downloaded from for free from Sheffield University's website. Fourth, NVivo displays the source of the data within each code, which is particularly useful for studies that have different types of data sources (see Figure 3.3).
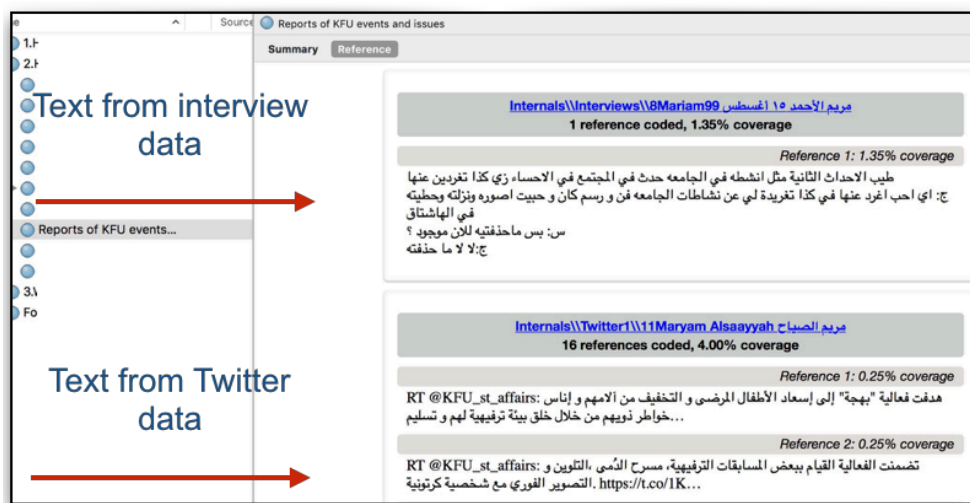
Figure 3.3 NVivo Displaying the Source of the Data within each Code.

3.6.1.4.2 NVivo's Challenges

The first problem was that NVivo does not support Arabic properly. It was easy to create nodes from a Word file; however, coding from a PDF file was impossible. NVivo makes Arabic sentences unreadable (see Figures 3.4 and 3.5).

Figure 3.4 Text Coded from a Word File.
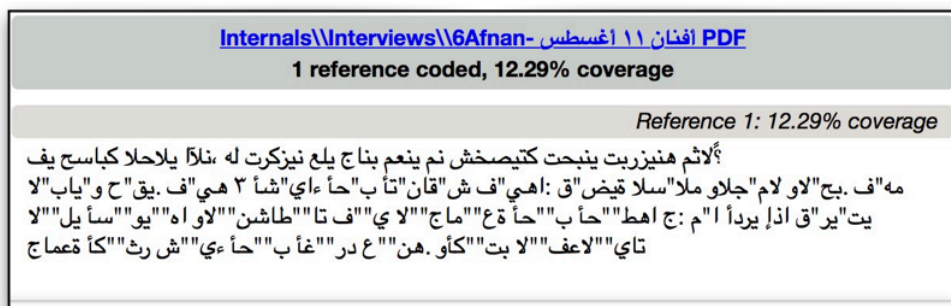
Figure 3.5 Text Coded from a PDF File.

The second problem was that NVivo did not display the full text of longer tweets/retweets. This forced me to refer to the original Twitter page to understand the tweet's meaning (see Figure 3.6).
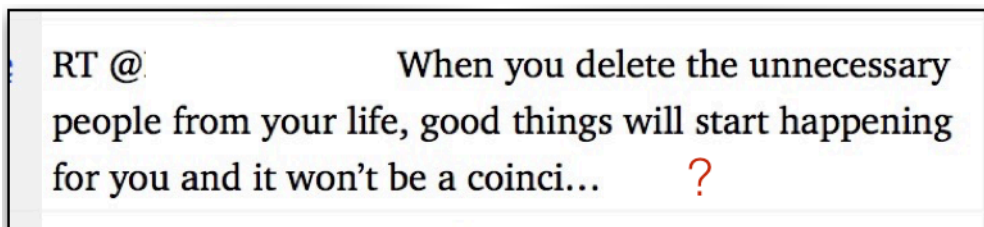
Figure 3.6 Missing Text from a Long Tweet in NVivo.

The third problem was that NVivo did not display the whole series of tweets and replies, which made it difficult to study conversations between users.

These challenges and how I addressed them are detailed in Table 3.4.

Table 3.4 Challenges Involved in Analysing the Data

Kind of Challenge	Data Analysis Challenge	Solutions
Supporting Arabic	Selecting Arabic characters for coding was difficult because NVivo does not select Arabic text properly.	I selected the text many times until NVivo highlighted the text that I wanted.
	Coding Arabic text from PDF format was problematic because NVivo made Arabic text unreadable in nodes (see Figure 3.5).	I saved all the interview transcriptions in Microsoft Word format that could be read in the nodes. I also exported the PDF files of the Twitter data as .jpegs.
Supporting the analysis of the Twitter data	Although the .jpeg image format overcame the language limitations, the images on the nodes were too small to read.	I printed out the Twitter data to analyse it manually as an additional analysis method alongside NVivo.
	Long tweets and retweets were not displayed completely on the Internal Sources and Nodes sections in NVivo (see Figure 3.6).	(1) I used Storify. It displayed the entirety of the tweets regardless of their length. (2) I looked back at the original Twitter page to understand the meaning of the tweet.
	NVivo does not display images or videos attached to tweets; it only shows the links.	I used Storify. It displayed images and videos. On Storify, I was able to see the images and play the videos that were attached to the tweets.
	NVivo and Storify do not display all of the tweets and the replies, which made it difficult to study and understand conversations between users.	I looked back at the original Twitter page. I copied the tweet and pasted it into the Twitter search box to read the complete dialogue between my participants and other users.

During the write-up stage, I utilised NVivo, Storify, Twitter, and hard copies of the PDF files printed from Storify.

In summary, in this chapter, I discussed the research paradigm, explained why I chose the constructivist paradigm, and highlighted why a qualitative research methodology was appropriate for my research aims. Moreover, I discussed the semi-structured interview format and the content analysis of the Twitter posts and included a detailed comparison of NCapture and Storify as tools for collecting Twitter data. I also explained how I selected my sample and the pilot study that I conducted before beginning the data collection. Ethical issues were also discussed. Finally, I presented my personal pathway during the data analysis and explained how I personally responded to challenges during the data analysis. The next chapter presents the study's findings and discussion.

Chapter Four: Findings and Discussion

4.0 Introduction

In the previous chapter, I discussed the research methodology, the data collection procedures, the techniques for selecting the sample, the ethical considerations, and the data analysis procedures. In this chapter, I present, analyse, and discuss the findings from the semi-structured interviews and the content analysis of Twitter posts. I prefer to present the research findings and the discussion in a single chapter, rather than in two separate chapters, because I believe that it is easier to read the interpretation of a finding immediately after the finding is presented. In addition, including the findings and the discussion in a single chapter reduces the repetition that often occurs when they are written as separate chapters.

The themes are organised based on their relation to the research questions. I present and discuss the themes and their subthemes in separate sections. This study's aim was to explore how students employed Twitter for educational purposes and to present their academic identities and their perspectives about this use. In addition, it sought to discover how Twitter impacted their academic discourse.

The research questions are as follows:

1. How do Saudi female students use and perceive the educational use of Twitter in learning?

2. How do Saudi female students present their academic identities on Twitter?

3. What is the influence of Twitter on the academic discourse of Saudi female students?

4.1 The Themes of the First Research Question

The students' uses and perceptions of Twitter as an educational tool fall under two themes: 'support university studies' and 'support language learning'. Each theme has two sub-themes (illustrated in Figure 4.1).
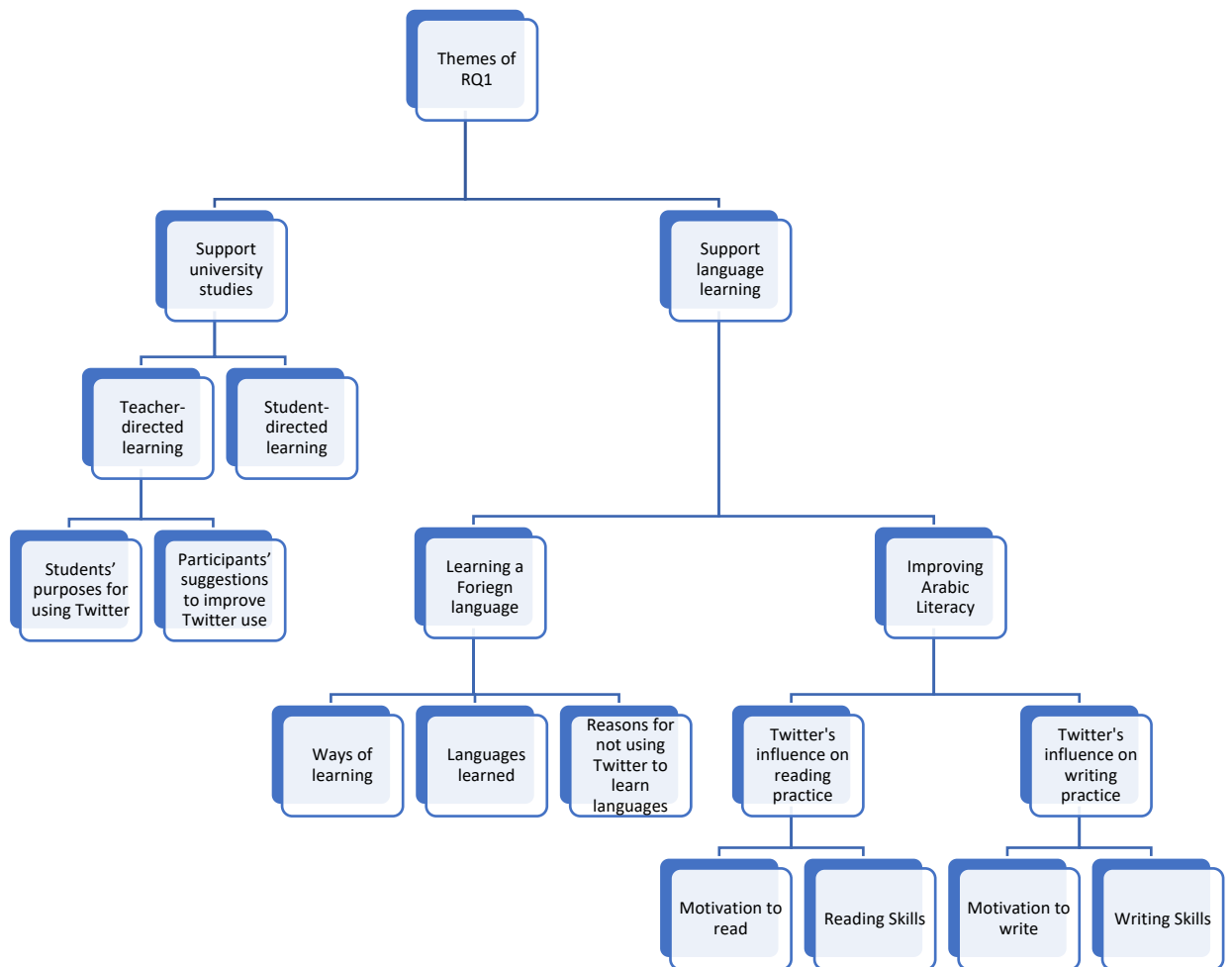
Figure 4.1 The Themes and Subthemes of the First Research Question.

4.1.1 Using Twitter to Support the Students' University Studies

As shown in Figure 4.1, the theme 'support university studies' includes two subthemes: 'using Twitter in teacher-directed learning' and 'using Twitter in student-directed

learning'. 'Using Twitter in teacher-directed learning' occurred when teachers asked their students to follow and interact with them on Twitter, while 'using Twitter in student-directed learning' occurred when the students took responsibility for their education; the students chose what they wanted to learn on Twitter without being directed by their teachers.

4.1.1.1 Using Twitter in Teacher-Directed Learning

This subtheme appeared only during the interviews; it did not appear on the students' Twitter posts. This could be because teachers were not teaching (and, hence, could not use Twitter in their courses) while I collected the Twitter data (September–October 2016); in Saudi Arabia, September is a holiday month and October is the first month of the academic year. In the following sections, I discuss why the participants used Twitter in teacher-directed learning and their suggestions about improving the use of Twitter in teacher-directed learning.

4.1.1.1.1 Why the Participants Used Twitter in Teacher-Directed Learning Environments

Nine of fifteen participants had taken part in teacher-directed learning on Twitter. Most of them had used Twitter at their teachers' request. For example, Maryam-302 said that she created a Twitter account because two of her teachers required their students to follow them on Twitter to receive and send tasks. Others indicated that they initiated discussions with their teachers on Twitter. For example, Afnan explained how her use of Twitter encouraged her professor to start using it with other students:

I could not find a way to communicate with my professor to ask him about the lecture hall. However, I searched for his name on Twitter and found his account. I asked him, and he replied. After that, the professor used Twitter to communicate with us.

The participants said that Twitter served four main purposes in teacher-directed learning: receiving academic announcements from their teachers, posting academic queries, receiving multimedia content that enriched their education, and participating in post-lecture activities.

4.1.1.1.1.1 Using Twitter as a Reminder and Announcement Tool

Twitter was most often used to remind students about assignments and exams and to post course announcements. For example, Ra65 said that her teacher used Twitter to remind students to turn in their weekly assignments. Maryam-302 said, '*A sociology teacher posted our midterm exam grades (which were anonymised) on her Twitter account*'. Twitter was also used to disseminate urgent announcements. Aisha, Eiman, and Alghamdi-1 regularly checked their teachers' Twitter accounts for up-to-date information about lecture requirements, locations, and timetables.

Some students greatly benefitted from the Twitter announcements. For example, Maryam-302 said:

I turn on notifications for my teachers' Twitter accounts to know if any of them have cancelled their lectures. I live in a distant area about 120 kilometres from the university. On some days, I have only one lecture, so, when a teacher cancels class, I stay home and save time.

From these examples, it seems that the students may benefit in several ways when Twitter is used to issue reminders and announcements. First, because the students have numerous tasks, they may find it difficult to keep track of what they have to do.

Consequently, issuing reminders and announcements on Twitter could be extremely helpful. Twitter can be checked many times per day, as a reminder that informs them which tasks to do or provides an updated course timetable. Moreover, the students may save time when a teacher informs them about unexpected changes over Twitter as shown in Maryam-302's case. In addition, students may enjoy the convenience of Twitter compared to traditional announcement methods. It quickly communicates course information (Rinaldo et al., 2011; Junco et al., 2013). Rinaldo et al. (2011) and Junco et al. (2013) also found that, in general, students expressed positive perceptions toward using Twitter as a class administrational method with their teachers in the courses.

4.1.1.1.1.2 Using Twitter as a Tool for Academic Queries

Some participants asked their teachers about their courses with either a public tweet or a DM, 'which is private, and can be seen only by the follower to whom it is sent' (Procter et al., 2013, p. 198). The participants explained that they queried their teachers by either replying to their tweets or by tweeting at their teachers (his or her username preceded by @). For example, Maryam-Q said, '*One of my teachers tweeted about different types of research methodologies, and I replied to his tweet, asking him to explain more, and he did'*.

While one type of query sought information related to the curriculum, another type sought information about exams. Both Maryam-Q and Maryam-302 said that they used Twitter to reach out to their teachers and ask about exam questions and whether the exam was an essay test, a multiple-choice test, or a combination of both.

Several teachers set aside specific hours to respond to their students' queries. Maryam-302 said, '*My professor told us that she would wait for our questions on Twitter for two hours after the lecture. I asked her something about course grades, and she replied to me'*.

From these examples, it seems that the participants used Twitter as a method to inquire about particular concerns, such asking about exams, course grades, or difficult concepts from the textbook. This finding could be supported by Dunlap and Lowenthal (2009), who found that their participants engaged socially on Twitter by asking questions about their courses.

Some participants explained that their teachers explicitly preferred using either public tweets or private messages to communicate with their students. For example, Maryam-Q said that one of her teachers avoided public posts and wanted his students to DM him. In contrast, two other participants said that their teachers wanted them to post publicly on Twitter. For example, Maryam-302 said, '*My teacher wrote in her Twitter profile that she would not reply to any question sent via direct messages. Only public tweets would be answered*'.

The participants explained these views during their interviews. Maryam-Q said:

I asked my teacher why he wanted us to DM him, and he told us that he felt uncomfortable publicly communicating with his students using his personal account. Most of my teachers do not like to talk about their university courses on Twitter. They think it is a sensitive topic that should not be discussed on Twitter.

In contrast, Ra65 said, '*Some of my teachers told us that we should not ask them questions using DMs. We were asked to tweet publicly so that our questions and the teachers' replies benefited other students*'.

From these examples, it seems that some teachers did not want to interact with their students outside the classroom on a public platform typically used for informal communication. This perspective could be explained by Rinaldo et al. (2011), who found that some teachers and students are hesitant to use Twitter in a university context because Twitter, as a public forum, allows everybody to see a user's posts. As Gonibeed (2014) points out, this

public platform might concern teachers who worry that people might misunderstand their professional image.

This anxiety can be explained through a cultural lens. Saudi people are sensitive to whether or not they are following religious and cultural norms and how others view them. In many environments, Saudi culture requires strict segregation between the genders. For example, in universities, male teachers teach female students via video conferencing from a different building. Therefore, these traditions could also affect how people of opposite genders communicate on Twitter. In other words, some male teachers could feel embarrassed about publicly communicating with female students where everybody is able to read their conversations. (I discuss the segregation of the genders in Saudi Arabia in the Introduction under 'The Context of the Study' in 1.2.2 the status of women in Saudi society and on Twitter. I also discuss this point in more detail in the third research question's themes in 4.3.1.4 communicating with people of the opposite gender on Twitter.)

Still, several students said that they had male and female teachers who preferred to have public discussions on Twitter. This means that not all male teachers avoid communicating with female students in public. Islamic law allows communication between the genders if the communication is necessary and conducted honourably. According to Khan and Al-Hilali (2007), in Surah 33 (Al-Ahzab Verse No. 32), the God said:

> O wives of the Prophet! You are not like any other women. If you keep your duty (to Allah), then be not soft in speech, lest he in whose heart is a disease (of hypocrisy, or evil desire for adultery, etc.) should be moved with desire, but speak in an honourable manner (p. 565).

This quotation 'but speak in an honourable manner', allows women to speak to men as long as they are respectful and are not too kind and tender in what they say. Consequently, male teachers may believe that it is appropriate to hold honourable academic interactions with female students on Twitter. In addition, as suggested earlier, assisting other students is another reason why certain teachers prefer to have public discussions on Twitter. However,

according to Gurcan (2015), students and teachers should interact publicly because private messages could distract from the educational focus and may lead to inappropriate personal discussions.

In general, there is strong evidence for each view. The particular method of communication depends largely on the teacher's background and his preferences about communicating with female students on Twitter.

4.1.1.1.1.3 Using Twitter to Receive Multimedia Contents that Enrich Learning

In many cases, Twitter was used to provide students with multimedia resources related to the courses, including texts, website links, videos, photos, and images. Some participants pointed out that the educational images tweeted by their teachers improved their academic performance. For example, Maryam-302 said, '*My English teacher posted images that had information about English. Actually, these tweets helped me improve my English skills*'. Ruyuf said that her English teacher took photos of the classroom's whiteboard and posted them on Twitter at the end of each lecture.

These examples suggest that educational images help students to study and remember the lectures. This finding could be supported by Hsu and Ching (2012), who found that tweeted images provide students with information that enhances their understanding of the textbook material. Videos also have the potential to support the learning process. For example, Zainb said, '*In my first year at the university, my English teacher posted links to useful videos on Twitter*'.

Sharing images and videos on Twitter can improve students' learning outcomes. As previous research suggests (Bista, 2015; Dhir et al., 2013; Gao et al., 2012), Twitter can be used to share multimedia content, such as videos, web links, and pictures, related to the course or to the general subject.

4.1.1.1.1.4 Using Twitter as a Space for Post-Lecture Activities

Many participants used Twitter as a space to engage in activities related to the course content. For example, Aisha said that her teacher asked students to follow her on Twitter to participate in course activities. In addition, Ra65 said:

My teacher determined a specific hour every week for discussions. For example, every Tuesday at seven o'clock in the evening, she tweeted a question and the first student who answered it would get course points, and her answer would be retweeted by the teacher.

Moreover, Eiman said, '*My teacher required us to search for information related to our curriculum and tweet it and tag his username. He also had competitions in which the first person who offered the correct answer got course points*'.

From these examples, it seems that Twitter was used as a platform to encourage students to engage in post-lecture activities. Although after-class activities have the potential to improve students' learning outcomes, it was often quite hierarchical and reproduced the traditional positions of 'teacher' and 'students'. Though the technology and certain behaviours, such as using a public platform, are new, it is still traditional for teachers to ask questions and students to provide answers. In this case, Twitter merely substituted traditional learning methods and did not amount to innovation.

Asking questions and giving answers in a class is the traditional way of learning. However, on Twitter, this method is projected into the public sphere. According to Puentedura (2010), who developed SAMR Model (see Figure 4.2), there are four levels involved in adopting technology in education: Substitution, Augmentation, Modification, and Redefinition. In the first level (Substitution), technology is used to accomplish the same function that was traditionally done before the technology was introduced (Puentedura,
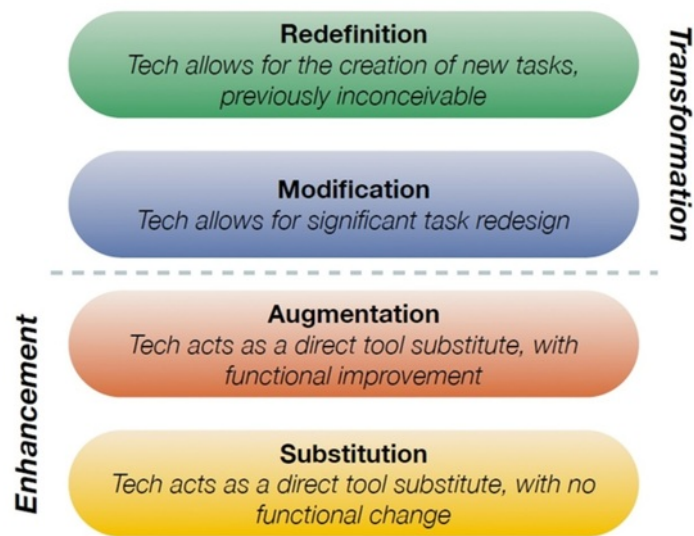
2010). The findings suggested that the use of Twitter in formal education is still in the Substitution level; the teacher still occupies the centre of learning and guides the education process.

Figure 4.2 The SAMR Model (Puentedura, 2010).

These four purposes suggest that Twitter in teacher-directed learning is primarily focused on administrative interactions whereby teachers provide students with course instruction, activities, information, and encouragement. I also found that students generally did not interact with each other. This could be because the teachers used Twitter merely as an administrative tool and did not encourage students to interact with other students inside or

outside their classroom. This finding could be supported by Prestridge (2014), who found that most interactions in her study were student-teacher interactions. Prestridge (2014) also found that the teacher was the most frequent contributor, even though the teacher tweeted questions and asked for answers. The students rarely answered these questions, and they never answered other students' queries. She attributes the absence of student participation to 'lurkers', who view the tweets but do not participate. She also explains that Twitter was used primarily as an instructional tool, not an assessment tool. The teacher did not create the students' assessments in such a way that would have encouraged them to participate on Twitter.

4.1.1.1.2 Suggestions for Improving the Use of Twitter Teacher-Directed Learning

The participants offered many suggestions for using Twitter more productively in teacher-directed learning. First, some participants (Maryam-Q and Mariam-99) suggested that teachers should be informal and friendly when interacting with students on Twitter. To them, Twitter is an informal environment that differs from the formality of university classes. Moreover, they believed that informal communication would cause students to be more comfortable with their teachers, which could lead to more fruitful academic interactions.

Their second suggestion was that teachers use their personal accounts to teach. Maryam-Q said, '*I suggest that teachers should not create new accounts for only teaching purpose. That is because they are likely to stop using these accounts after finishing the course*'. Ruyuf agreed, saying:

> *My teacher was very active on her teaching account, sending academic links and getting involved in academic conversations with us. But she gradually became less frequent posting her academic-related tweets. Then, she stopped tweeting from this*

account completely. I think teachers are busy and do not have time to manage two accounts, a personal account and a teaching one.

Their third suggestion was that teachers use hashtags. Mashael suggested that teachers should create hashtags related to their courses and invite students to use them. She thought that hashtags would be an engaging way to deliver information that would also spur interesting academic interactions.

They also suggested that teachers use Twitter inside the classroom. Mariam-99, for example, said, '*Teachers could ask the students to tweet about the day's lecture and use an overhead screen to display the students' tweets live inside the classroom. This would make students more excited to present their knowledge*'.

From these suggestions, the participants seemed to want friendlier and more informal interactions with their teachers on Twitter, in contrast to the strictly formal interactions that they have with their teachers in class. When the participants suggested that the teachers use their personal accounts, it is possible that the students were responding to a desire to maintain their academic relationships with their teachers. Moreover, they may have wanted to learn more about their teachers. (I discuss this point in 4.3.1.1 in themes of the third research question.)

The last two suggestions imply that the participants want to present their academic identities to their teachers, peers, and other Twitter users. The students could enjoy using academic hashtags, and the public engagement could make them feel knowledgeable. Furthermore, presenting the students' tweets on a class projector could motivate them to be more active learners, share more information on Twitter, and present the academic aspects of their personalities. This finding could be supported by Retelny and Hancock (2012), who found that students who were asked to tweet every week about a lecture topic were more motivated when the teacher presented their tweets on the lecture slides.

In summary, this subtheme outlined how Saudi female students use Twitter and their perspectives about its use in the context of teacher-directed learning. More than half of the participants had used Twitter in teacher-directed learning. They pointed out that Twitter served four key purposes: distributing announcements, sending out academic queries, participating in after-lecture activities, and sharing multimedia content. The participants offered several suggestions for enhancing the use of Twitter in teacher-directed learning. In the next subtheme, I discuss the use of Twitter to support student-directed learning.

4.1.1.2 Twitter in Student-Directed Learning

As mentioned previously, student-directed learning involves the students, acting without a teacher's direction, learning according to their needs. At this subtheme, I discuss the participants' educational use of Twitter to support their university studies, as voiced by the participants during the interviews and reflected in their Twitter accounts. The participants identified three purposes for Twitter in this context: learning more about their academic disciplines, improving their research skills, and preparing for other areas of study. Moreover, the participants used many of Twitter's features, such as the Follow, Like, and DM features, for these purposes.

The students' main objective for using Twitter was to learn more and become more knowledgeable about their disciplines. For example, Afnan said:

I am a business administration student, so I like to follow accounts related to leadership topics such as creating entrepreneurial ventures. Some of these accounts helped me learn key entrepreneurship concepts that I did not study at the university. So I think that it is my job to learn by myself and not to rely only on my university education.

Ruyuf agreed, saying that she studied business and followed leadership accounts on Twitter. She said that she benefited from their tweets about leadership development and about ways to manage successful projects. Halaa, who studied sociology and took an undergraduate long-distance learning course, said:

> *By following my teachers on Twitter, I was able to get an in-depth understanding of the topics related to my academic discipline. Although some of them taught me in only one subject, they know a lot about other subjects. Therefore, I feel that their Twitter accounts broadened my horizons and increased the range of my knowledge.*

From these examples, it seems that the participants used Twitter to supplement their education. They learned information that they were not taught at the university. In fact, they seemed to feel that the university's education was insufficient, and this caused them to try to broaden their intellectual horizons using Twitter. This additional knowledge could have helped the students in their formal education, improved their learning outcomes, and expanded their knowledge about their disciplines. Moreover, the participants may have started following their teachers on Twitter because they wanted to learn more about their teachers' experiences or because they wanted to build good academic relationships with them. (I discuss this point in 4.3.1.1 in themes of the third research question.)

Some participants used the Like feature to keep tweets that contained useful information. B.M. said, '*I use the Like feature to save important tweets that I want to read later*'. Aisha used the Like feature to save tweets that included references or application links related to her academic discipline, which is education technology. Munirah used the Like feature in a more complex way. She said:

> *I use the Like feature for things that I like and want to read again. If you take a look at my Like list, you will find academic books, websites, and references. Sometimes, I like a series of tweets that contain information about my discipline, which is history,*

and transfer these tweets to Microsoft Word to read them more carefully and be able

to refer to their original sources for my research.

On their Twitter feeds, the participants liked tweets that were related to their disciplines. For example, Zainab, who studied at medical school, liked a tweet that contained an image with medical information (see Figure 4.3).
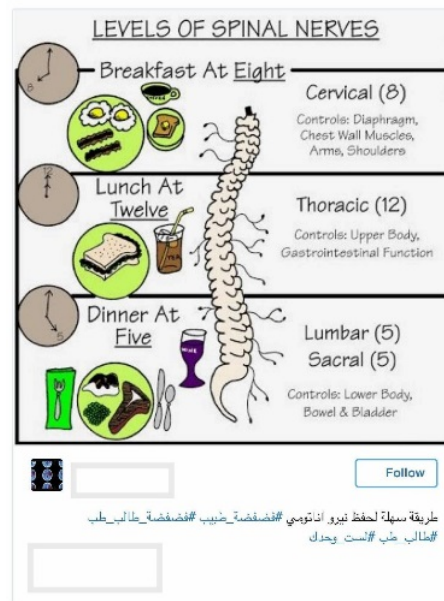
Figure 4.3 A Tweet Liked by a Participant that included Information Related to her Discipline.

Mashael also liked a tweet that linked to a nursing blog. B.M., who studies Arabic, liked a tweet that had a video that talked about an Arabic dictionary.

From these examples, it seems that the participants found the Like feature to be a good way to collect and save important information that they thought was useful for their university studies. This finding could be supported by O'Reilly and Milstein (2011), who indicate that the Like feature is useful, especially when users are busy—to give complete

attention to reading important tweets or when they want to save tweets to read them at another time or place.

In Munirah's case, she identified a different use for the Like feature: transferring 'liked' tweets to another application. Bolter and Grusin (2000) call this transfer 'remediation', which means transferring something from one medium to another (p. 44). In Munirah's example, content from Twitter was reused in Microsoft Word. She may have done this because, though Twitter allowed her to share images, videos, and links, it did not allow her to use more than 140 characters per tweet, edit her tweets, or store them offline. However, Microsoft Word gives her this capability. In addition, since Microsoft Word is not an online server like Twitter, it is a more stable place to store her copies. This process demonstrates that the participants were able to understand the apps' different affordances.

The tweets that the participants liked had either text only or multimedia content such as images and videos. Multimedia content may be more effective than text for communicating information because it uses several kinds of media to create vivid illustrations and because it is particularly good at attracting people's interest. Therefore, tweets that contain multimedia content offer students significant opportunities to enhance their learning (Wilson, 2016).

In addition to the Follow and Like features, the students used DMs to learn more about their academic disciplines. For example, B.M. and Aisha said that they sent DMs to their teachers to ask about subjects related to their disciplines. Maryam-Q used DMs to talk with her teacher about material in the textbook that she did not understand.

From these examples, it seems that the participants used DMs to send queries to their teachers or other experts. Twitter gave the students the ability to benefit from other people's knowledge.

Twitter was also used to improve the participants' research skills. Munirah said:

Twitter helped me with my master's study. I used it to consult with several university teachers about my research. I also followed research accounts that tweeted out useful information, such as how to write a good proposal or common research mistakes. Actually, I avoided a lot of mistakes because I followed these accounts.

B.M. said, '*I benefit from the researchers who tweet links to useful blogs or to the full texts of articles or books in my field of research*'. Alghamdi-1 also followed researchers that tweeted about research skills and upcoming conferences.

On their Twitter feeds, some participants liked tweets related to their fields of research. For example, Munirah liked a tweet that contained an infographic about research gaps in social science research. B.M. liked a tweet that contained a link to a blog that explained how to use Google effectively.

Moreover, the participants used DMs to ask researchers and teachers about research issues. For example, Munirah, who was a master's student in the History Department, said:

Typically, I use DMs for long academic discussions with teachers. For example, I reached out to a teacher from Kuwait University to consult with her about my research subject and ask her whether it was worth studying. I prefer to use DMs to have private conversations about my research so that people cannot plagiarise my work. I also contact publishing houses to ask them about particular books.

From these examples, it seems that Twitter could assist students improve their research skills in several ways. First, it allowed them to follow and interact with other people who are interested in their fields of research. Students were able to ask experts their research-related questions. This finding could be supported by Veletsianos (2012), who states that the scholars involved in his study used Twitter to seek information for their research by, for example, requesting references. Second, learning about other researchers' experiences could help students avoid common research mistakes. Third, the students used Twitter to search for

references for research, as was the case for B.M., who was given links to articles and blogs over Twitter.

In addition, Twitter helped students stay updated about developments in their fields and about upcoming conferences and academic events. This finding could be supported by Bista (2015), whose participants found Twitter to be useful during their master's education. Several of his participants said that following researchers and educational leaders on Twitter helped them in their professional development.

Furthermore, Munirah highlighted how DMs feature could give the students access to academics who can improve their research skills. She mentioned that she used DMs to engage in long conversations and keep her research ideas private. DMs allow people to engage longer conversations because they do not have a 140-character limit, and the private nature of DMs means that only the sender and the receiver can read the messages (Agarwal, 2015).

The third purpose of using Twitter to support the university studies was using Twitter to decide which discipline they want to study. For example, Maryam-S said:

I am an undergraduate economics student, and I am looking forward to studying for my master's and PhD degrees. However, I am hesitant about choosing between business and economics, so I followed accounts that tweeted about each discipline to learn more about my options. I also communicated with some university teachers, asking for their advice about the best discipline to study that could suit my desire and ability.

Another example is Mariam-99, who during her foundation year in the Business Department, followed accounts that tweeted about various business disciplines to learn more about what she wanted to study for her bachelor's degree. Another example is Ruyuf who used DMs to ask for advice about which discipline to study. She had a private conversation

with a teacher and asked her about which business discipline she should study, and the advisor suggested that she would have a better sense of her academic interests after she took a few courses that could help her choose a discipline.

From these examples, it seems that the students used Twitter to help them decide which discipline they wanted to study. The participants mentioned that they learned more about disciplines they were interested in by following and interacting with teachers who tweet or share their academic knowledge about a specific discipline on Twitter. Thus, Twitter could be one of the resources that the students use to acquire information regarding the differences between disciplines.

In summary, this subtheme outlined how students used Twitter in student-directed learning and their perspectives about this use. The participants most commonly used Twitter to learn more about their academic disciplines. They also used Twitter to improve their research skills and prepare for their future studies. This subtheme emerged from both the interviews and the content analysis of the Twitter posts. Therefore, it could be obvious here how the participants used the Twitter features for various functions e.g. how they used Like and for what and why? In the next theme, I discuss how the participants used Twitter to support their language learning.

4.1.2 Using Twitter to Support Language Learning

The participants mainly used Arabic, their mother tongue, on Twitter. However, on occasion, the participants used foreign languages. Consequently, I divided this theme into two subthemes: learning a foreign language and improving Arabic literacy.

4.1.2.1 Using Twitter to Learn a Foreign Language

There were two opinions regarding the effectiveness of using Twitter to learn a foreign language. Eight of fifteen students believed that Twitter was helpful for learning foreign languages, while the remaining seven said that they either did not use Twitter to learn foreign languages or they had but found it unhelpful. In the following sections, I discuss how certain participants used Twitter to learn foreign languages and which languages they tried to learn. Then I address why certain participants did not find Twitter useful for learning a foreign language.

4.1.2.1.1 How Students Learned Foreign Languages on Twitter

The students who used Twitter to learn foreign languages used three strategies: they followed Arabic teaching accounts that had been created to teach a particular language, they followed people who were fluent in the language the participants wanted to learn, and they practised the foreign language by writing it on Twitter.

The teaching accounts used four distinct methods to teach foreign languages. First, they posted foreign words and their Arabic translations. Further, some of the teaching accounts taught how to pronounce the foreign word via writing the pronunciation in Arabic letters. For example, Ra65 said, *'I follow an account that teaches simple English words. For example, it tweeted the word "water" with its English spelling, the Arabic meaning, and the English pronunciation in Arabic letters'.*

On the participants' Twitter feeds, I found a tweet liked by Munirah, one of my participants. This tweet contains some English concepts used in research field and the Arabic translation of these concepts (see Figure 4.4).

Figure 4.4 A Tweet with Foreign Words and their Meanings in Arabic.

Another example is Mariam-99, who said:

I follow Arabic accounts that teach English, Turkish, and French. The Turkish teaching account belongs to an Arab user who tweets Turkish words with their definitions written in Arabic. For example, the phrase 'Ne yapıyorsun [What are you doing?]' was written in Turkish and translated to Arabic. The Turkish pronunciation was written using Arabic letters to make it easy to pronounce. I have learned many Turkish words from this account.

In the second method, the teaching accounts tweeted links to websites that taught the foreign language. Afnan, for example, liked a tweet that contained links to the ten most popular English-learning websites. Another example is Ruyuf, who retweeted an Arabic tweet that linked to a free online English course about teaching and learning foreign languages that was organised by the British Council and Southampton University.

The third method involved the teaching accounts posting educational images/videos that used the foreign language. For example, Mariam-99 said, '*The Twitter account that teaches English frequently tweets videos with English lessons*'. An example from the

participants' Twitter feeds is Afnan, who liked a tweet that contained an instructional video of an English conversation about checking in at an airport (see Figure 4.5).
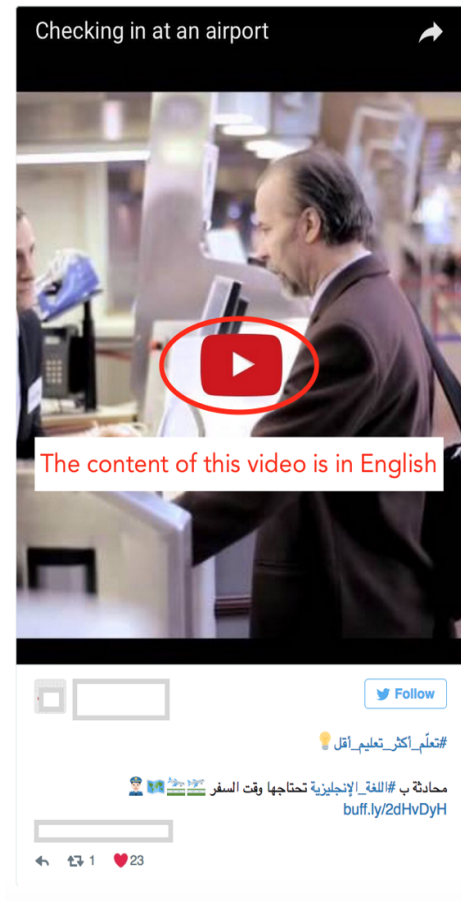
Figure 4.5 A Tweet with an Instructional Video, Presented in a Foreign Language, that Teach this Language.

The fourth method involved the teaching accounts posting images or videos that explained (in Arabic) how to learn English. For example, Ruyuf liked an Arabic video that gave viewers advice about learning English without studying it abroad (see Figure 4.6).

The content of this video is in Arabic

Follow

كيف تتقن الإنجليزية بدون إبتعاث؟

مقطع مدته 10 دقائق ، لكن كلام مفيد جدًا للي يبي يتعلم اللغة الانجليزية.

8,273   35,557

Figure 4.6 A Tweet with an Instructional Video, Presented in Arabic Content to Teach a

Foreign Language

From these examples, the participants seemed to prefer learning foreign languages from teaching accounts that provided Arabic content (evidenced by Ra65's, Munirah's, Ruyuf's, and Mariam-99's Twitter feeds). It is possible that they preferred these accounts because they were beginners and because learning new languages in the complete context of these languages could be very difficult. Consequently, it is not unreasonable that they might have preferred to learn with teachers who spoke their native language.

In this respect, Haynes (2007) divides the process of language acquisition into five stages. The first stage is 'preproduction' or the 'silent period' (p. 29). This stage involves people receiving but not producing language. They listen and watch, but they do not speak or write. Haynes (2007) also suggests that new learners benefit from having friends who speak their native language and can translate words or phrases from the second language. Thus, my

participants, as I mentioned, could be new learners who need someone who explains and translate the new words to their native language.

Though using Arabic content to learn foreign languages may be useful for beginning learners, continuing to rely on it can be dangerous in the long term. Students may separate the word from its context, put it in another context, and thus produce the wrong meaning. Khan (2011) explains this danger that the problem of the literal translation from one language to another happens when students convert items from their native language, such as vocabulary words and sentence structure, to another language. Literal translations produce errors because no two languages are the same. He also points out that there are English phrases that cannot be translated into Arabic, and vice versa.

Moreover, Ra65 said that teaching accounts often wrote pronunciations of English words with Arabic letters. This method may be useful for beginners who want to see the sound as well as hear it. However, it is an incorrect way to learn English because the language has phonemic features that cannot be applied to Arabic (Khan, 2011). Therefore, it is often more useful to study the pronunciation of English words by listening to recorded pronunciations on online English dictionaries.

The second way used by the participants to learn a foreign language was following the accounts of fluent speakers of the language that the participants wanted to learn. For example, Mariam-99 said:

I follow English speakers who tweet about space and stars, as well as the accounts of celebrities and artists. I speak English a little bit; however, I do not practise a lot, and I am afraid that I may forget how to speak English, so I follow these accounts to practise my language skills. I benefited from these accounts because they reminded me about English words and grammar.

Another example is Zainab, who said, '*I follow English accounts that tweet English quotations, and they have been very helpful because I have learned many new words and concepts*'. Another example is Munirah, who said, '*I studied English in an English teaching centre, so I follow some English-speaking people on Twitter. I read about their daily activities, which they talk about on their accounts, and this is really helpful for improving my language skills'*. Ruyuf not only followed English speakers; she also searched through their Twitter accounts for specific words. She said:

> *My discipline at the university is English. When I learn new English words in my lectures, I look for these words on the Twitter accounts of the English users who I follow. It is a very good way to learn because I can see how these words are used in different contexts. Moreover, this helps me understand the meaning of an entire sentence, not only the new words.*

Another example is Alghamdi-1, who said, '*I follow English users who tweet funny tweets in English. These accounts are helpful because they help me remember the English that I already know*'.

On the students' Twitter feeds, Alghamdi-1 retweeted an English joke from an English comedic account. Another example is Ruyuf, who retweeted a tweet from an English account that posts motivational quotes (see Figure 4.7).
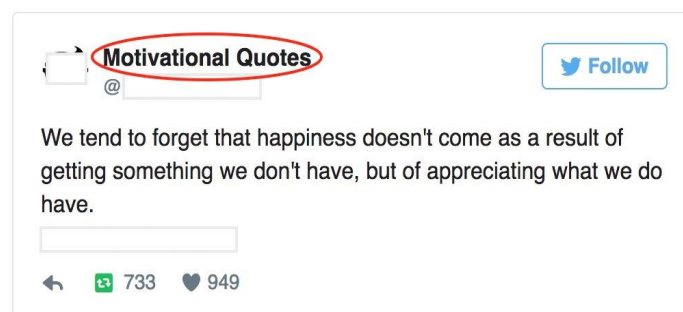
Figure 4.7 An English Account that Tweets English Content.

From these examples, these participants did not seem to be beginning learners. They seemed to have studied the language. Unlike the participants discussed in the previous section, these participants may have studied English in upper-level courses and, thus, now prefer to follow fluent speakers rather than users who use Arabic to teach foreign languages.

Additionally, most of these participants said that they followed English accounts because they wanted to practise the language and ensure that they did not lose their skills from disuse. Several participants said that they wanted to learn more vocabulary words and new grammar by reading English tweets. Therefore, Twitter was used to enhance the process of second language acquisition.

Several participants thought that learning English on Twitter was enjoyable. This was the case for Mariam-99, who followed celebrities and artists, and Alghamdi-1, who followed the English comedic account.

This learning method could also help students to improve their language skills more quickly because they are able to read English words in their normal contexts and see how English speakers talk and write not only academically but also informally. Ruyuf identified another benefit: using these tweets to learn how to use English words that she learned at the university in different contexts.

The third way used by the participants to learn a foreign language was tweeting in these languages. Some participants explained how tweeting in a foreign language improved their language skills. For example, Ruyuf said:

Twitter helps me improve my language skills because sometimes I do not know the

English word that I want to use in my tweet. I translate this word from Arabic into

English. I usually write tweets in English when I respond to my English teacher or reply to my friends.

While Ruyuf wrote tweets in English to improve her language skills, Halaa wrote tweets in English improve her language skills and to present her opinions to English users. She said, *'I benefited from writing in English on Twitter because I improved my language skills and was able to offer my opinions about some English hashtags about Saudi women'.*

From these examples, it seems that tweeting in English may improve one's ability to write in English. As seen in Ruyuf's example, students who tweet in a foreign language may learn new words when they search for words they want to use. Using online translation tools such as Google Translator or online dictionaries could expand the students' knowledge of the language. This finding could be supported by Ahmed, M. (2015), who found that Twitter positively affects students' writing skills in English as a foreign language. Moreover, Ruyuf and Halaa were aware of their audiences, and this awareness might have led the participants to review their grammar and spelling and edit their tweets.

On the participants' Twitter feeds, I found three types of tweets that included a foreign language. The first type of tweet contained a complete sentence (or complete sentences) that were written entirely in the foreign language. For example, Ruyuf tweeted about the first day at her college (see Figure 4.8).
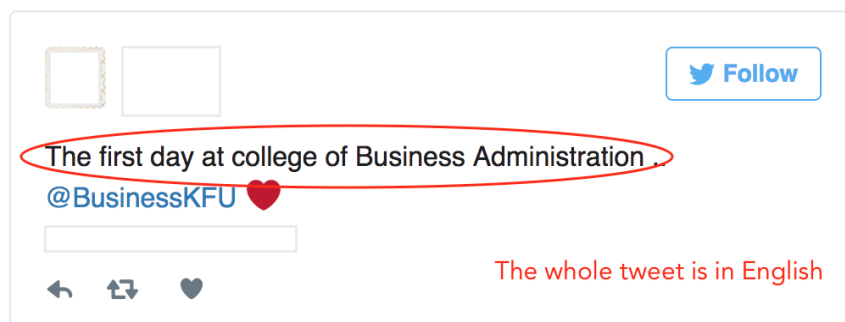
Figure 4.8 A Tweet Written Entirely in a Foreign Language.

The second type of tweet contained words from Arabic and English (code switching) that were written with their original characters. For example, Zainab tweeted, '*But when you do not see any* **appreciation**, *it is disappointing*'. She tweeted this sentence in Arabic but used the English word *appreciation* (see Figure 4.9).

Figure 4.9 A Tweet Written in Arabic and English with their Original Characters.

The third type of tweet had an Arabic sentence with an English word written with Arabic characters. For example, Mariam-99 tweeted, '*This is a morning filled with unexpected* **surprises**!' She wrote this tweet in Arabic, but 'السربرايزات', which is an English word, was written with Arabic characters. In addition, she added a suffix (ات) to this word to show it was not a single surprise but multiple surprises. The function of the suffix (ات) in Arabic is similar to the 's' in English, which expresses the presence of more than one item (see Figure 4.10).
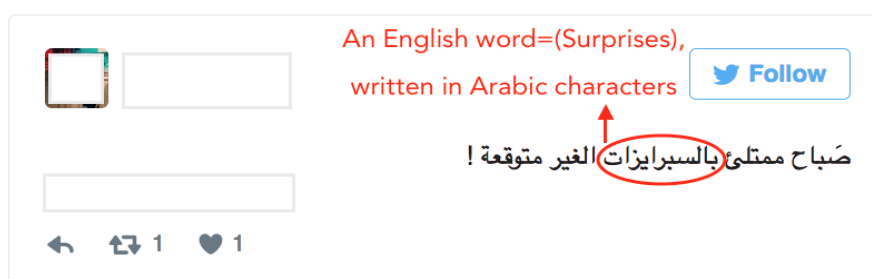
Figure 4.10 A Tweet Written in Arabic and English with Arabic Characters.

The students' Twitter feeds had three types of tweets that included a foreign language. The first type involved writing a tweet only in the foreign language, as in Ruyuf's example. In her tweet, Ruyuf tagged her department by writing its Twitter handle '@BusinessKFU', and she followed it with the heart symbol (see Figure 4.8). Her tweet could reflect her happiness about studying in the business college, and, by writing in English, she may emphasise her happiness. Another reason could be to display her group identity. The Business Department at KFU has two curricular paths: the Arabic path, in which nearly everything is taught in Arabic, and the English path, in which everything is taught in English (KFU, 2016a). It is possible that Ruyuf wrote her tweet in English to show that she belonged to the department's English path.

The second and third types of the tweets that included a foreign language involved using two languages in a single sentence. This is called '*code switching*' (Poplack & Sankoff, 1984, p. 102). In my participants' example, Zainab wrote the English word in English characters (see Figure 4.9), and Mariam-99 wrote the English word in Arabic characters (see Figure 4.10). Poplack (1980) termed the insertion of a single word or phrase from a foreign language into speech in a native language 'tag switching' (p. 589). Code switching also occurs when a speaker or writer uses a foreign language with the grammar of his or her native

language (Myers-Scotton, 1993). This was the case with Mariam-99's tweet when she made *surprise* plural by using the Arabic suffix (ـات).

Moreover, tag switching is often used to emphasise a particular word or emotion. Hoffman (1991) writes that languages occasionally switch when people are 'being emphatic about something' (p. 116). Novianti (2013) applied Poplack (1980) and Hoffman (1991) frameworks in his study to investigate the reasons why the Indonesian participants engaged in 'tag switching' on Twitter. He found that most of his participants used code switching to emphasise a certain word.

In my study, Zainab used the English word *appreciation* in a tweet that expressed disappointment. In addition to the verbal cue that Zainab used in her tweet, which was the English word *appreciation*, she seemed to add emphasis by using a nonverbal cue, which was the crying face emoji. Goffman (1956, p. 14) described the two components of social interaction between people as 'given' and 'given off' expressions. In Zainab's case, her use of the word *appreciation* could be considered to be a given expression that conveys her anger or her feeling of being upset. However, her use of the crying face emoji, which could be considered to be a given off expression, may implicitly offer readers more information that explains the degree to which the situation upset her.

Mariam-99 used the English word '*surprises*' in a tweet that expressed her happiness about something from that morning. Mariam-99 also emphasised the emotion by ending her tweet with an exclamation mark. Both participants used tag switching to emphasise a particular emotion.

4.1.2.1.2 Which Languages Students Learned on Twitter

The participants sought to learn several languages on Twitter They also discussed their reasons of learning these languages. For example, Mariam-99 said:

I followed Arabic teaching accounts that taught English, Turkish, and French. I wanted to learn Turkish because I watch many Turkish TV shows, and I am also going to travel to Turkey soon and I want to be able to communicate easily with Turkish people. As you know, not all Turkish people can speak English.

Another example is Ruyuf, who said:

I want to learn English because I believe that English is the language of science and that it can help me find a good job in the future. I tried to learn Turkish and Korean on Twitter, but I was unsuccessful.

Moreover, Halaa said:

Using English on Twitter helped me improve my language skills and allowed me to present my opinion about a few English hashtags about Saudi women. It pains me to know how people around the world think about Saudi women. I want to correct the views presented in these hashtags, especially the view that claims that Saudi women think only about particular issues or narrow areas.

From these examples and the previous examples in the ways of language learning, it seems that English was the most common language that the participants tried to learn on Twitter. It was followed by Turkish, and, lastly, Korean and French. Many participants wanted to learn English because it is a globalised language; it is the language of business, industry, education, science, media, and technology. Moreover, many Saudi students are familiar with English because English language is a mandatory curriculum at schools from the fourth grade (Ministry of Education, 2012). Moreover, the second official Saudi

television channel broadcasts entirely in English, and English movies, shows, songs, and stories are very popular in Saudi Arabia.

Some students have become increasingly interested in learning Turkish and Korean because Turkish and Korean television shows, which can be watched with or without Arabic subtitles, are widely distributed on Arabic television channels and websites. Young people generally like the Turkish and Korean cultures because their mass media content is widely shared on TV and the Internet. English is still the most popular language, and Western culture is still most favoured by Saudi people of all ages. Though many students wanted to learn Turkish, Korean, or French, some stopped studying because they thought that these languages were difficult and less important than English.

English was the only foreign language that I found used on the students' Twitter feeds. The absence of other foreign languages could be due to several reasons. First, English is the most popular written and spoken foreign language in Saudi Arabia. Second, I collected data from Twitter for only two months. Third, it is possible that the students read tweets that were in other foreign languages but did not retweet or like them. It is impossible to track what they read on their timeline on Twitter because there is no access feature to see a user's timeline.

The participants also explained that they had several reasons for wanting to learn a foreign language. Several wanted to be able to communicate with others who could not speak Arabic. This could be online communication, as in Halaa's case; she wanted to express her opinions to English people who had misconceptions about Saudi women. The communication could also be offline; the students said that they wanted to talk to people from countries where they wanted to travel. This was Mariam-99's justification; she studied Turkish because she was planning to visit Turkey.

Moreover, they wanted to be able to read information and news written in a foreign language. As I mentioned previously, English is a global language, which means that a lot of information is available only in English. Mariam-99, for example, followed English accounts that tweeted about space and the accounts of English-speaking celebrities. Zainab and Ruyuf followed accounts that tweeted English quotes. It is possible the students wanted to stay up-to-date with news and not wait for translations to their native language, which do not always happen.

4.1.2.1.3 The Reasons for Not Using Twitter to Learn Foreign Languages

Seven of the fifteen students did not believe that Twitter was useful for learning a foreign language. Some participants tried to learn a foreign language on Twitter but were unsuccessful. For example, Aisha and Mashael followed accounts that taught English but unfollowed them because they were not helpful. Moreover, Eiman said:

I used to follow a few accounts that taught languages, but I stopped following them. They were not useful because they were not able to communicate information quickly and clearly, so they were difficult to understand. Moreover, I prefer to choose what I learn and choose words and translate them myself. These accounts chose words that did not interest me. And I do not like learning words that are imposed on me.

Other students did not think that Twitter could be a platform for learning foreign languages. For example, Maryam-Q said, *'I am not interested in learning languages on Twitter. I think it is more useful learning a language in a course than on Twitter'.* While Maryam-Q compared Twitter to traditional language courses, Maryam-S and Eiman compared Twitter to Instagram. Maryam-S said, *'I do not use Twitter to learn English; however, I use Instagram to learn English because Instagram serves English learning better.*

I follow Instagram accounts that post images and videos [that teach English], which are helpful'. Eiman shared the same view:

> *I prefer to follow Instagram accounts that teach English and Korean because Instagram supports images more than Twitter. For example, I can understand information from an image without a need to translate its text to Arabic. It is more difficult on Twitter because I have to translate the text to understand it.*

From these examples, it seems that there are some reasons students were unable to learn a foreign language on Twitter. First, some teaching accounts were challenged to provide useful content. The content's weakness was largely the result of the information itself; the students thought it was uninteresting. Thus, the students stopped trying to learn on Twitter and sought to engage in a self-directed educational programme.

Second, Twitter, as a method, was structurally inadequate to teach foreign languages. As Eiman discussed, Twitter was unable to communicate information efficiently and clearly. Moreover, some students preferred more traditional ways of language instruction, such as formal courses, which they thought were more reliable. Furthermore, SNSs such as Instagram could have some features to support learning foreign languages that Twitter lacks. Instagram is a predominantly visual medium, and the visual nature helps the students remember information.

While some participants tweeting in foreign languages to become more fluent (as discussed in '4.1.2.1.1. how students learned foreign languages on Twitter'), other participants did not enjoy tweeting in foreign languages. For example, though Afnan and Mashael followed English teaching accounts, they preferred to tweet in Arabic. In this respect, Maryam-Q explained why she preferred to write in Arabic:

I rarely tweet in English. I write almost all my tweets in Arabic because I feel that Arabic is able to express my emotions exactly. I feel that Arabic words go directly to the heart. My emotions come out with Arabic words.

Moreover, Mariam-99 said, '*I always write my tweets in Arabic. I do not tweet in English because my followers do not speak English, and I think English is unable to express my thoughts*'. Eiman shared a similar view:

I prefer to write in Arabic because I see the Arabic language as close to me. Moreover, my followers speak Arabic, so they easily understand what I mean. But if I wrote in English, the followers who do not speak English would not able to understand my tweets.

Eiman also believed that it is important to account for the language of those to whom she talks. She tweeted:

Some Arab people who speak with other Arab people in a foreign language think that speaking in a foreign language will make them seem more educated and cultured. They think that speaking in a foreign language will hide their weaknesses. Unfortunately, many people do that.

Another example is Mariam-99, who explained why she does not write in Turkish:

I have learned Turkish on Twitter, and I can recognise Turkish letters. They are similar to English's letters, with some additions. Although I try to write in Turkish, I have not recently because I have needed to focus first on reading, listening, and speaking.

From these examples, it seems that these participants preferred tweeting in their mother tongue for some reasons. First, they found that the foreign language was not able to express their thoughts and emotions. This finding could be supported by Dewaele (2010),

who argues that people are able to express their emotions more fluently in their first language than in their second or third languages.

Second, Twitter is a site that was established for social communication with others who usually understand the language of each other. Consequently, the participants preferred to write in the language that their followers understood. This could be a sign that they respected their followers and took pride in their mother tongue. In addition, as Eiman discussed, using a foreign language to communicate with Arab people in Arab places is socially unacceptable. Eiman believed that Arabs who spoke to other Arabs in a foreign language were showing contempt for Arabic. Le Page and Tabouret-Keller (1985) state, when a bilingual or multilingual person chooses a language to speak in a particular situation, they are implicitly reflecting how they want their social identity to be seen. Therefore, these participants' preference of writing their tweets in Arabic may show their welling of present their identity as Arab users on Twitter who are proud of their mother tongue.

Third, when learning a new language, one usually begins by learning certain skills. This was the case in Mariam-99's example; she wanted to learn other skills before learning to write in Turkish. In general, listening comprehension is the first skill a person learns. In their first year, babies listen, watch, and discover the things around them. In their second year, they start speaking. After that, they learn how to read and then write. It is possible that some language learners use Twitter only for listening and reading activities. Haynes (2007) identifies five stages for second-language acquisition. In the first stage, learners begin to pick up the language, but they are unable to speak or write it. In the subsequent stages, they start speaking, comprehending what they read, and writing simple sentences that eventually become more complex. Thus, it is possible that Mariam-99 was in the early stages of learning Turkish. As she said, she could '*recognise Turkish letters*' not write tweets in Turkish.

In summary, this subtheme covered how students used Twitter to learn foreign languages and their perspectives about its capabilities. More than half of the participants thought that Twitter was useful for learning foreign languages, and they talked about how they learned and which languages they tried to learn. The remaining participants explained why they believed that Twitter was not useful for learning foreign languages. Moreover, Goffman's (1959) theory regarding the given and given off expressions was helpful in interpreting some of this subtheme's findings. In the next section, I discuss the second subtheme, which is using Twitter to improve Arabic literacy, of the second theme, which is using Twitter to support language learning.

4.1.2.2 Improving Arabic Literacy

As I mentioned earlier, the students read and wrote on Twitter in several languages. In this subtheme, I discuss the students' use of Twitter to improve Arabic literacy, which is the mother tongue of the participants. The participants believed that using Twitter caused them to become better at reading and writing in Arabic.

Before I discuss this subtheme, I want to highlight an important point about the data; I did not ask the interviewees about Arabic literacy. The following findings were from other questions, e.g. 'What do you tweet about? What do you think about the 140-character limit? Why did you join Twitter?' Some of their answers focused on the relationship between Twitter and the participants' ability and motivation to read and write, and the Twitter data also revealed other findings.

4.1.2.2.1 How does Twitter Influence Reading Practices?

The data reveals that Twitter influences the participants' reading practices in two aspects: reading motivation and reading skills.

4.1.2.2.1.1 Motivating Students to Read

Twitter motivated some students to read more, read books completely, and improve their reading and critical thinking skills by participating in book discussions. For example, Eiman said, '*I think Twitter has increased how much I read. Twitter motivates me to read more by letting me access reading challenges, reading groups, reading hashtags, and book reviews'*.

The interviews and the content analysis of the Twitter posts show five strategies on Twitter to motivate students to read. The strategies were (1) reading motivational tweets to read, (2) following reading-related accounts, (3) reading book reviews shared on Twitter, (4) participating in reading groups, and (5) engaging in reading-related hashtags.

4.1.2.2.1.1.1 Reading the Motivational Tweets to Read

On their Twitter feeds, the participants tweeted, retweeted and liked posts that motivated people to read, argued that reading was valuable, or responded positively to books, libraries, and reading. For example, Halaa retweeted a tweet that said reading was important to obtain knowledge, which is the basis of the development of nations. Another example is Maryam-Q, who tweeted, '*The best friend is a book'*. Mashael retweeted a tweet that said that people's value is based not on their weight but on how many books they have read.

From these examples, it seems that the participants used Twitter to share their enthusiasm for reading and inspire others to read. Moreover, the participants consistently suggested that reading is a means to acquire knowledge and share information and that

reading can improve people and their country. In addition, reading is necessary for making people more experienced, developing their perspectives, and motivating them to be active in their society. These kinds of tweets, therefore, could encourage other people to read more.

4.1.2.2.1.1.2 Following Reading-Related Twitter Accounts

The participants followed accounts related to reading, such as authors' accounts. For example, Ra65 said, '*I follow book fairs and authors, especially Saudi authors'*. In this respect, Eiman said, '*When I read a good book, I look for the author on Twitter and follow him or her*'. Afnan and Ruyuf had a similar view. They said that one reason they joined Twitter was to follow authors who they heard about offline. On the participants' Twitter feeds, Halaa liked a tweet that announced the dates for book fairs around the Arab world. Another example is Eiman and Maryam-S, who liked a tweet from a Saudi female author who shared a quote from her new book.

From these examples, it seems that the participants followed people whose books they were interested in reading to find new books or to stay current with new publications. These accounts were either the personal accounts of the people whose work they wanted to read or the accounts of libraries. Sump-Crethar (2012) argues that libraries need to be active on Twitter and communicate with their followers and motivate them to read. He explains how the Stillwater Public Library in the United States encouraged people to read by asking its followers about which books they wanted to read, and then the librarians started to inform the users about which books the library had.

The participants' interests in book fairs could be due to their willingness to visit the fairs and become involved in deep reading with printed publications. Moreover, the participants' interests in following authors' accounts could reflect the participants' desire to be up to date with the newest works of their favourite writers.

4.1.2.2.1.1.3 Reading Book Reviews and Recommendations on Twitter

Other readers' thoughts about, comments on, and reviews of particular books motivated the participants to read. For example, Eiman explained that she occasionally read books that people on Twitter had recommended. Halaa had a similar view; she said that reading the hashtags discussions around certain books encouraged her to read in general. On the participants' Twitter feeds, the participants liked and retweeted posts about book recommendations to read these books later. For example, Munirah liked a tweet that recommended a translated novel that had won the Nobel Prize (*Zinky Boys: Soviet Voices from the Afghanistan War*). Similarly, B.M. liked a tweet that recommended a book about how to motivate children to read. This tweet contained a PDF link to the full text of the book.

From these examples, it seems that the participants were influenced by book discussions and by other users' thoughts about books that they had read. This influence motivated students to buy or borrow these books to read them. Twitter, therefore, could support students' reading and encourage them to read new books and participate in book discussions with others. This finding could be supported by Hunter and Caraway (2014), who demonstrate that book discussions on Twitter motivate students to read more so that they can participate in these discussions. They also indicate that reading tweets about a particular book can motivate students to read that book.

4.1.2.2.1.1.4 Participating in Reading Groups

Reading groups are groups of people who talk about a particular book and share their opinions about the material (Brynge et al., 2015). My study found three types of reading groups: online, offline, and blended groups.

In online reading groups, users engage in discussions about a book or a theme by tweeting their thoughts, retweeting others, replying to other users, or liking other people's

tweets. Twitter reading groups typically use a particular hashtag that is created specifically for the discussion. For example, Eiman said in her second interview:

I have found reading groups on Twitter to be very useful. I benefited from the discussions, the monthly questions about books and authors, and other people's comments. Reading groups also caused me to interact with reading lovers from around the world.

Another example is Halaa, who said, '*There are many reading groups that have their discussions on Twitter. These groups led me to broaden the range of topics that I read about'.*

On the participants' Twitter feeds, B.M. tweeted an announcement about an online reading group for women: '*Rasil Centre in the Eastern Region of Saudi Arabia will discuss the book* Candles of Day'. B.M.'s tweet included an image of the reading group and a registration link.

From these examples, it seems that Twitter reading groups have the ability to motivate students to read books on a broader range of subjects, and discussions about particular books may encourage others to read these books and share their perspectives. In addition, online reading groups connect readers from across the world and bridge the limits of time and space. They connect people who would otherwise not meet at traditional offline reading events. This finding could be consistent with Brynge et al. (2015), who report that online reading groups benefit those who are unable to attend physical meetings and those who enjoy meeting people from other parts of the world.

The second type of reading groups—offline reading groups—are the groups of people who meet face to face to talk about books. For example, Ra65 said, '*I am a member of a reading club at my university, and I like to tweet about the club's events. This week, we talked on the phone with a Saudi female author, and I tweeted about it'.* In her example,

Ra65 explained the type of reading groups she was involved in: traditional offline groups of readers who meet physically to discuss books that they read. Although this meeting was offline and outside of Twitter, Twitter was still utilized in the group' activities; Ra65 said she tweeted about what happened in the offline group's meeting.

Another example is Eiman, who said in her second interview, '*I attend two types of reading groups: online groups on Twitter and an offline group organised by an association in my city'*. She tweeted about attending a reading event, '*On Thursday, I went to a reading group. The meeting was excellent with great people who love reading indescribably*'. Eiman continued in another tweet: *'The most shocking part of the reading group was a brilliant mother who loves reading and attends every meeting even though she is busy with her home and work*'. Another example is Halaa, who retweeted a tweet that announces a reading event that would take place in her city to discuss a specific book with its author.

From these examples, it seems that the participants enjoyed sharing their reading activities on Twitter. They could aim to benefit other Twitter users by sharing information that they learned at their reading groups' events. In addition, they may want to encourage their followers to attend these reading groups, or they may want to present their identities as readers on Twitter.

The third type of reading group combined features of online and offline groups. For example, Halaa said:

> *There are many reading groups on Twitter. They have their discussions and do their activities on Twitter. Moreover, some of them plan offline meetings when enough users decide to meet face to face. I attended online and offline groups and met people whom I initially became friends with on Twitter.*

Halaa tweeted several times using a reading group's hashtag. I discovered that this group had online and offline reading activities. For example, Halaa tweeted about a reading

event that she attended offline with other members: '*Thank you to the literary critic [the critic's name] who explained the meaning of the novel concept from the Arab and Western perspectives. #My_Book_Club_Evening*'.

In her examples, Halaa explained that these reading groups started with discussions on Twitter, but, once the members became friends, they met with each other in person and had face-to-face meetings.

4.1.2.2.1.1.5 Engaging in Reading-related Hashtags

The participants discussed how reading-related hashtags affected their reading practices. For example, Halaa said in her second interview, '*Hashtags about reading encourage me to read more, to read new books, and to meet the "read nation" [see the following paragraph about the "read nation"]. These hashtags enrich my knowledge*'. Moreover, Halaa used the hashtag *#the_best_book_you_read* and posted a picture of a book she liked. A user asked Halaa about this book, and she answered, '*My dear, this book is considered to be key book about Bosnia before and after independence, and it has a biography of Ali Ezzat and his reformations*'.

In her examples, Halaa mentioned the benefits of reading hashtags motivated Halaa to read more and reach out to Arab readers around the world, a group that she called the 'read nation'. *Read nation* reflects the first word that was revealed to the holy Prophet Muhammad (Peace be upon him). In Surah 96, Al-Alaq, Verse No. 1, 3–5, the God said:

> Read! In the Name of your Lord Who created (all [that] exists) .... Read! And your Lord is the most generous. Who has taught (writing) by the pen. He has taught man that which he knew not' (Khan & Al-Hilali, 2007, p. 830).

The word 'read' demonstrates how reading is essential to Muslims' lives. Moreover, the finding about the impact of hashtags could be supported by Brynge et al. (2015), who

found that hashtags from reading group discussions connected people from diverse countries, cultures, and historical backgrounds who became united by their love of reading.

On the participants' Twitter feeds, there was a particular hashtag that appeared many times on several of my participants' Twitter accounts. This hashtag asked users to tweet quotes every day from books they had read for 30 days. This hashtag (#30quote_in_30days) was created by one of my participant's sisters. My participant, Afnan, retweeted her sister's original tweet and encouraged her followers to use it. She tweeted, '*[Her sister's name] Bravo, I am with you in this challenge #30quote_in_30days*'. Afnan also used this hashtag many times while quoting from books that she had read. Several other participants either used this hashtag or retweeted or liked tweets that used this hashtag.

From these examples, it seems that the hashtags have the potential to motivate students to read more (and read more enthusiastically). Moreover, hashtags could encourage readers to try reading different genres. This could be due to the influence of other readers who share their opinions, summaries, or reviews of books on Twitter.

4.1.2.2.1.2 Reading Skills

The data shows that Twitter improved some of participants' reading skills, including (1) speed reading, (2) critical thinking, and (3) reading time management.

4.1.2.2.1.2.1 Speed Reading

The participants appreciated the 140-character limit for several reasons. (It is important to note that during the writing of this thesis and after the data collection and analysis processes, Twitter extended the length of its tweets from 140 characters to 280 characters) B.M said, '*It is excellent because it saves my time. Instead of reading a long essay, I read the summary*'. Munirah had a similar view:

It is a wonderful feature. I like it so much. When I heard that Twitter might increase the number of characters, I was depressed. I think 140 characters is enough. For six years, people have expressed their thoughts beautifully and briefly. If Twitter changes this limit, a tweet will be more like a blog or an essay. Imagine if every user writes three or four essays every day! It will not work. Twitter's beauty is its brevity. The life of Twitter is the brief answer.

Moreover, some participants liked being to browse others' thoughts quickly. For example, Aisha said:

I like the 140-character feature because it allows me to read many and many of people's tweets. But if the character become more than 140, it could become more difficult to read tweets every day, browse Twitter regularly, and follow many people.

From these examples, it seems that the participants preferred to read quickly and get the general meaning of a tweet; they may want to get information as soon as possible. Furthermore, they may enjoy reading tweets that could be considered as a light reading. Therefore, the participants may prefer to use a skimming technique, which is a quick reading to learn the general meaning of a tweet and to get an idea of the intention of the writer. Just and Carpenter (1987) explain that skimming is valuable when the reader is familiar with the text, when it does not need to be understood deeply, and when the reader does not have much time to read. Consequently, Twitter could be a good arena for practising speed-reading skills.

Although speed-reading techniques should not replace intensive reading, which is important for studying and building knowledge, they could supplement it. For example, a person may learn about a book when somebody tweets about it. The reader, then, reads the book.

4.1.2.2.1.2.2 Critical Thinking Skills

The participants talked about how Twitter improved their critical thinking skills. For example, Eiman said in her second interview:

Twitter reading groups are very useful. I benefited from the discussions and the monthly questions about particular books or authors and from interacting with other people. When a book catches my attention, I either buy it or read its summary online and then become involved in a discussion with other readers. I have been participating in these reading groups for four years. ***These groups help me choose good books and avoid trivial books****.*

The participants also talked about how reading-related hashtags improved their critical thinking skills. For example, Eiman said in her second interview:

The reading-related hashtags help me when I am not quite sure about reading a certain book and when I want to find out more about it. I usually find answers to my questions by following reading-related hashtags.

From these examples, it seems that the in-depth discussions that occur in reading groups and around reading-related hashtags may improve readers' critical thinking skills. These discussions usually cause readers to comprehend more of a book. Moreover, presenting a book's strengths and weaknesses could improve their critical thinking and reading skills related to how to choose good books and avoid '*trivial*' or not useful reading materials as mentioned in Eiman's quotation. Reading groups and hashtags also provide readers with great opportunities to ask critical questions such as 'Why should I read this book?' or 'What is this book about?'

Moreover, reading groups and hashtags may help readers present and discuss their perspectives about particular books. For example, Eiman participated in a hashtag for a reading competition for Arab people. She tweeted, '*This is the first time that I have read a*

mystery novel. I like the story, but the end shocked me because I thought it could have been more interesting'.

Book discussions could improve students' critical reading and writing skills because, to participate, the students need to understand the book, evaluate it, and then summarise and write their views about it. (I discuss how Twitter impacts writing skills later in this theme.)

4.1.2.2.1.2.3 Reading Time Management Skills

Although a few participants said that Twitter took up time that they had originally used for reading, they also said that Twitter had a positive impact on their reading practices. For example, B.M. said in her second interview:

In the amount of time that I usually spend on Twitter across one or two days, I could read one or two medium-sized books. However, though Twitter wastes my reading time, it motivates me to read more books.

Halaa had a similar view, though she used a different tactic to save time for reading:

Although browsing Twitter takes up time that I would otherwise use to read, I can manage my time by temporarily blocking Twitter so that I can read. Some Twitter accounts and hashtags have actually increased my reading time.

Moreover, Eiman explained how Twitter helped her manage the reading time, as she said in her second interview, '*Reading groups help me make an annual reading plan and interact with reading lovers from around the world'*. On the participants' Twitter feeds, Mashael liked a tweet that instructed people how they should read a particular book over a specified period of time. The tweet also provided a link to register for the discussion of a reading collective that would take place on Twitter. In addition, Eiman used a hashtag created for a reading competition for Arab people (#the_challenge_of_50books). This hashtag included topics that motivated people to share their reading interests and read 50 books over a

certain period of time. Eiman tweeted, '*I finished the eleventh book of #the_challenge_of_50books, which was The Assassination of a Journalist*'.

From these examples, it seems that reading groups and hashtags help readers create a monthly or annual reading plan and commit to it. It could be due to the friendly competition between the reading groups' members as they finish what they have decided to read in their plans and then present their reviews on Twitter. Furthermore, it is probably that the reader who wants to participate in a reading group discussion, will allocate by him or herself a specific time for reading in a daily or weekly schedule to be able to participate in the reading discussion with others.

4.1.2.2.2 How does Twitter Influence Writing Practices?

The data shows that Twitter influenced the participants' writing practices in two ways: motivation for writing, and writing skills.

4.1.2.2.2.1 Motivating Students to Write

The students used Twitter to motivate themselves to write in a couple ways. These strategies included (1) using Twitter as a personal space for writing and (2) participating in cooperative writing.

4.1.2.2.2.1.1 'Twitter is my space for writing'

The participants used Twitter as a space to express their opinions and emotions. For example, Mariam-99 said:

The main reason that I joined Twitter was to write. I used to write on BlackBerry Messenger and Ask.fm, and a friend who admires my writing encouraged me to create

a Twitter account. She told me that Twitter was popular and filled with people who would like my writing.

Eiman had a similar view:

I like writing, but I stopped writing for quite a while before I joined Twitter. However, when I joined, I started to write a lot. I like to write short essays, literary thoughts, and anything that comes to mind.

On the participants' Twitter feeds, Eiman tweeted, '*Writing is a person's most beautiful friend*'.

From these examples, it seems that the participants found Twitter to be an excellent space for sharing their writing with a large and global audience. Twitter, as a public platform, allows anyone can read any user's tweets (unless a user makes his or her account private) (O'Reilly & Milstein, 2011). In comparison, BlackBerry Messenger requires its users to exchange personal identification numbers before they can send messages to each other (Reynolds et al., 2011). Without these restrictions, Twitter allows users to reach a large audience. Moreover, users may feel proud when their writing is read by other users on Twitter (Retelny et al., 2012; Waller, 2010), and receiving positive feedback may encourage them to write more. Ultimately, Twitter could motivate students to become more active writers.

In addition, Twitter is the foundation of a new publishing industry and of new cooperative writing practices (Jefferies & Maragiannis, 2015). B.M. tweeted, '*Twitter has become the morning newspaper that we read over breakfast! Do printed newspapers still have readers? It is impossible for anything to last forever*'. She pointed out the pervasiveness of Twitter in daily life, including the activities of reading and writing. Twitter's constantly updated feed seemed to have transformed her expectations. She updates her newsfeed constantly, and she expects instantaneous and current news.

Moreover, Twitter is useful channel for publishing students' writing for free, in terms of time and money. With Twitter, they do not need to search for a publisher, wait until their work is accepted, spend money to self-publish, or wait a long time to see their writing in print. On Twitter, they need only to create an account, write something, and, within seconds, publish it.

4.1.2.2.2.1.2 Cooperative Writing on Twitter

Cooperative writing on Twitter could be another strategy to motivate students to write more. One of my participants, Mashael, wrote a series of tweets about a cooperative writing project she worked on with other students. This project was sponsored by a nursing account and involved summarising a key nursing textbook. Mashael tweeted, '*I am so happy that I participated with [name of the organisation]'s project to summarise a textbook to benefit other nursing students*'. She tweeted a link to the project and posted another that said, '*I benefited from this experience because it allowed me to improve my writing and communication skills*'.

From this example, it seems that cooperative writing benefited the students by improving their self-esteem, their ability to work in teams, and their critical thinking, reading, and writing skills. Twitter allows writers to engage in collaborative work; they are able to create an account for this purpose and encourage users to write and give each other feedback. Johnson and Johnson (2014) state that Twitter supports cooperative writing by facilitating discussion between users about a writing project. As I mentioned earlier, Twitter could also be an effective publishing platform because it allows collaborative writing teams to reach global audiences for free.

4.1.2.2.2.2 Writing Skills

The data shows that Twitter improved the participants' writing abilities in the areas of (1) brevity, (2) editing skills, and (3) writing style.

4.1.2.2.2.2.1 Brevity

Brevity is when a writer is able to convey what needs to be said in as few words as possible. Most of the participants explained that Twitter's 140-character limit improved the brevity of their writing. (It is important to note that during the writing of this thesis and after the data collection and analysis processes, Twitter extended the length of its tweets from 140 characters to 280 characters.) For example, B.M said:

> *Writing on Twitter teaches me brevity, which is one of the Arabic writing skills. Sometimes it can be annoying when I write something longer and have to delete a few words to reduce the number of characters. However, it is better than having to write something much longer that I do not have time for.*

Maryam-S agreed, saying, '*The 140-character limit is beautiful because it introduces our writing talents and make the writing brief. I believe that Twitter has improved my writing*'. Another example is Eiman, who explained how she struggled with Twitter's word limit, but, ultimately, it improved her writing:

> *At first, it was difficult to write a tweet in only 140 characters, but now I am used to that brevity. Sometimes I do not even reach the 140-character limit. So I think that Twitter has improved the quality of my writing.*

Mariam-99 said:

> *It is the wise saying: the fewest words with the most clarity is the best form of expression. I like brevity because I do not feel the need to dive into boring details. Twitter makes my writing briefer and helps me convey ideas concisely.*

From these examples, it seems that these participants believed that the 140-character limit helped them improve the quality of their writing. Brevity can be a difficult skill to learn, and it is often unclear to writers how to write exactly what they want or how to reduce the number of words they use. This is why one participant thought that Twitter was very effective in forcing her to make her writing more efficient and revealing her writing talent. This finding could be supported by Davis and Yin (2013), who found that business students who used Twitter received better grades than students who did not use Twitter on writing assignments for business communication courses. Their findings also indicate that the 140-character limit improved the students' abilities to write concisely.

Though most of the participants thought that the 140-character limit improved their writing skills, several students thought that this limit was a disadvantage. For example, Zainab said:

The 140-character limit is both a good and bad feature. It is good because sometimes I need to write a short piece of writing quickly, but it is bad because there are not enough characters, especially when I attach an image that uses up half of the characters.

In this example, Zainab explained that the 140-character limit could result in content that requires less time to create. She also complained that links to images reduce the number of available characters. However, though links and images used to take up space, photos, GIFs, videos, polls, and quote tweets no longer count toward the character limit (Prashant, 2016). Moreover, Twitter offers the *t.co service*, which shortens links (URLs) to reduce the number of characters that the link uses (Twitter Help Center, 2017).

Another example is Ra65, who said, *'This feature has negatively affected my writing because sometimes I cannot express my idea in only 140 characters, and, if I cannot shorten*

it, I do not tweet it!' Moreover, Maryam-Q identified another problem caused by the 140-character limit:

> *The 140-character limit sometimes works against me because the intense brevity could make the tweet's meaning unclear. The brevity sometimes diminishes the quality of the writing. Moreover, I think that Twitter should open the character limit for DMs for all mobile phones. Currently, for iPhones, there is no character limit for DMs, whereas, for Android phones, they are limited.*

From these examples, it seems that Twitter has its own drawbacks that affect students' writing skills. First, the 140-character limit may discourage students who find it difficult to explain their ideas concisely. Second, this limit could cause a tweet to lose some meaning or result in grammatical errors or spelling mistakes. According to Grosseck and Holotescu (2008), the 140-character limit requires users to have the ability to summarise while avoiding poor grammar. Moreover, Rosen, who is a product manager at Twitter, explains that she tends to use all 140 characters quickly and has to go back and delete important words or delete the tweet entirely (Rosen & Ihara, 2017). Furthermore, Tucker (2009) claims that new technology often threatens a language structure, especially in relation to grammar and vocabulary.

It is possible that the 140-character limit could cause users to make more grammatical mistakes, but Baym (2010) argues every new technology is criticised for negatively affecting a society's language or moral code. My participant B.M. offered a different opinion, stating, *'I think this feature [the 140-character limit] does not affect people's grammar. Personally, I do not delete punctuation to make a tweet fit the character limit, but some users do, and it is acceptable because necessity sometimes knows no law'.*

On the participants' Twitter feeds, I found that almost all of the participants' tweets were written well in standard Arabic style. This could be the result of the participants editing

their tweets, which I discuss in the next section. This finding could be supported by Mills and Chandra (2011), who found that the 140-character limit helped students improve their writing skills; this improvement occurred because Twitter encouraged the students to be creative, write clearly and concisely, and edit and review their tweets.

On the participants' Twitter feeds, there was a tweet that complained about terrible spelling mistakes in a hashtag. However, this mistake happened not because of the 140-character limit but because Twitter does not support Arabic. B.M. told me about a discussion that she had with other users about a spelling mistake on a hashtag thread about the financial problems of university professors. The hashtag (معاناه_اعضا_هييه_التدريس_الماديه#) was replete with spelling mistakes. She had tweeted, '*It is impossible that the creator of this hashtag is a university teacher! There is no correct word except **teaching**.*' Some of her followers explained that Twitter does not support hashtags that include the letters Hamza (ء) and tā' marbūṭa (ة, ﺔ), which was why the hashtag was spelled incorrectly. B.M. then replied, '*But we should consider not to negatively affect our Arabic language. The hashtag looks misshapen. Especially because the hashtag is about the most highly educated people in our society*'.

According to Al-Ghubawi (2016), Twitter dropped some Arabic letters, such as Hamza (ء) and tā' marbūṭa (ﺔ, ة), when hashtags started trending, which resulted in hashtags that did not match how they were originally written. This problem has since been resolved, and Twitter now supports all Arabic letters on hashtags.

B.M.'s quote suggests that she thought that tweets should adhere to traditional academic writing rules, and she judged other users if their tweets were not sufficiently academic. Her opinion could be caused by her concerns about the negative impact of digital writing on general writing skills and on the fluency of Arabic speakers, as seen in her tweet: '*But we should consider not to negatively affect our Arabic language*'.

Lenhart et al. (2008) discuss this point in detail. At the beginning of their paper, they refer to a statement from Billington (2008), who claims that online communication could negatively impact students' formal writing skills and their writing skills in general. He argues that the informal and abbreviated style of e-communication have affected students' formal writing, a concern similar to the opinion of my participant B.M. Lenhart et al. (2008) who address the issue using a different perspective. In their study examining the relationship between technology and teenagers' writing skills, they found that most of their participants did not consider their online writing to be real writing; instead, they believe that real writing usually occurs in formal settings, such as schools or universities. (This view-point is similar to Maryam-Q's opinion in '4.1.2.2.2.2.2 editing skills'.)

Lenhart et al. (2008) found that, though the participants admitted that they occasionally utilised informal writing styles in their schools, they said that the impact was negligible and did not believe that online communication negatively affected the quality of their formal writing. Lenhart et al. (2008) also found that many schools requested students to write in more informal styles for their journals or notes, which suggests that other sources, not just online communication, encourage more informal writing styles.

Purcell et al. (2013) discuss teachers' perceptions about how technology impacts their students' writing skills. Some teachers attributed the informality of their students' writing styles to the influence of the Internet and SNSs. They explained that, while misspellings and a generally informal tone are acceptable for SNS communications, they are unacceptable for formal writing in schools and universities. The teachers had two different opinions about why students used informal styles in academic settings. Some believed that students were unable to recognise the differences between formal and informal writing styles and when they should be used. Others believed that the students understood the differences but consciously ignored the rules.

4.1.2.2.2.2.1.1 How the Students Managed the 140-Character Limit

The participants had strategies to deal with the 140-character limit. Most participants, if they needed to exceed the limit, wrote their messages across two or more tweets. Halaa said:

When I want to write about something that needs more than 140 characters, I use more than one tweet but never more than four tweets. This is because my followers could get bored with writing that spans across several tweets.

On her Twitter feed, Halaa used three tweets to talk about a reading. As shown in Figure 4.11, Halaa started with the first tweet and continued with the second and third. The time between each tweet was about two minutes.

Figure 4.11 Dealing with the 140-Character Limit by Writing Across Multiple Tweets.

Other students used the same method, though they used the Reply feature to link the tweets together. For example, Eiman said:

If I want to write something that needs more than 140 characters, I reply to my first tweet. I use the Reply button to organise my tweets. If I tweet separate tweets, the readers could become confused about which comes first and which comes last. So I use the Reply button to link my tweets sequentially. Twitter shows these tweets with an arrow or a line, which indicates that they are about the same topic.

On her Twitter feed, I found that Eiman had tweeted a series of tweets using the method that she talked about in the interview (see Figure 4.12).

Figure 4.12 Dealing with the 140-Character Limit by Linking Tweets with the Reply Feature.

From these examples, it appears that using the Reply feature could help readers follow the order of the tweets and understand the complete message.

The second way that the participants used to circumvent the character limit involved writing a tweet longer than 140 characters, taking a screenshot, and posting it as an image. For example, Maryam-S said, *'If I want to write something that is more than 140 characters, I write the long tweet on the site and take a screenshot of it. Then, I tweet it as an image, not as text'.* On her Twitter feed, I found a tweet that contained an image of a tweet that had more than 140 characters (see Figure 4.13).
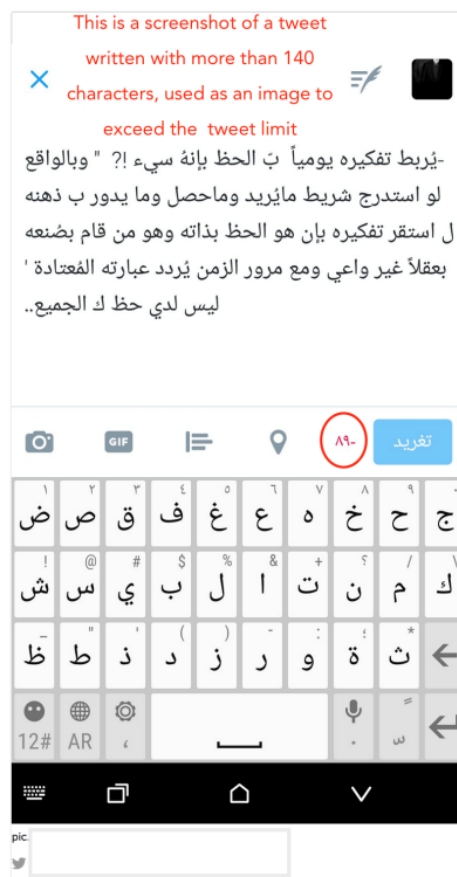
Figure 4.13 Dealing with the 140-Character Limit by Using a Screenshot.

As shown in Figure 4.13, the number of characters is -89, which indicates that this tweet exceeded the character limit by 89 characters. Twitter allows users to write tweets that are longer than 140 characters, but it will not allow these tweets to be published. Consequently, some users compose tweets, take screenshots of them, and publish them as images.

The third way of circumventing the character limit was similar to the previous one, but, instead of writing a tweet on Twitter, the tweet was written on a mobile phone's note application. For example, Mashael and Aisha explained that, if they want to write something that requires more than 140 characters, they write it on a note application, take a screenshot of it, and tweet it as an image. On Aisha's Twitter feed, I found a tweet that contained an image of a note with more than 140 characters (see Figure 4.14).

Figure 4.14 Dealing with the 140-Character Limit by Using a Screenshot of a Note.

From these examples, it seems that the participants found creative ways to account for the technology's limitations, demonstrating that technology does not always determine and

limit users' behavioural patterns. Similarly, Brynge et al. (2015) found that some users built ideas on Twitter across several tweets to work around the 140-character limit. Moreover, tweeting text as images is supported by Kutbi (2014), who found that some of her participants wrote their tweets with more than 140 characters and posted them as screenshots.

4.1.2.2.2.2.2 Editing Skills

The majority of the participants stated that they reread their tweets before posting them. They revise their tweets for several reasons. First, they proofread their tweets to check the tweet's spelling, grammar, and coherence. For example, Halaa said:

Of course, I revise my tweets before sending them. There may be some spelling errors that need to be corrected. Moreover, sometimes I write a reply quickly or leave a comment that could be unclear to other users. So, it is important that I read over my tweets to make sure that I convey my idea clearly.

Another example is Mariam-99, who said:

I revise my tweets ten times, not just once! There could be a spelling mistake, or my writing could not be coherent. I like my writing to be well-arranged and beautiful. Rereading my tweets helps me find writing mistakes so that I can correct them.

From these examples, it seems that the participants paid close attention to the clarity and quality of their writing. They reread their tweets to correct spelling and grammatical errors and to make sure that they were able to communicate their ideas clearly in only 140 characters. This finding could be supported by Gleason (2016), who found that students revised their tweets many times because they were concerned about grammatical mistakes and the clarity of their writing. He also writes that the students' concerns could be the result of their understanding of traditional literacy practices, such as spelling. In addition, the participants may believe that tweeting must follow the same writing rules that they followed

for university assignments. They explained that spelling mistakes and incoherent ideas might spoil the beauty of their tweets. (This issue was discussed previously with B.M.'s example in 'Brevity'.)

The second reason was that they were aware that, on Twitter, they were writing for an audience. They wanted to present their best writing for their Twitter followers. For example, Afnan said, '*I revise my tweets before sending them because I like my writing to be accurate and because some of my followers are university teachers, so I like to present my best writing for them*'. While Afnan was concerned about her academic followers, Alghamdi-1 was concerned about her relatives, saying, '*I revise my tweets before posting them because my cousins follow me, and I need to be careful about everything I write on Twitter*'. In addition, Aisha explained that she was cautious about tweeting about sensitive issues, such as religion and politics, which could lead to arguments with other users. Aisha said:

> *I rarely revise my tweets. Usually I send my tweets immediately, without revision— other than tweets about religious, political, or social issues. I ask my sister or my cousin whether it is OK to post a particular tweet about these issues. This is because I am afraid that tweeting about these issues could cause problems for me.*

From these examples, it seems that the participants were very aware of their audiences on Twitter and were able to speak clearly about how this awareness caused them to want to present what was acceptable to their followers. This finding is supported by Gleason (2016), who found that some of his participants avoided tweeting about controversial issues, such as political or social topics, because they were concerned about how others would react to their opinions. My participant Aisha, in particular, went further in acting upon her awareness by asking her sister or cousin about the content of potentially controversial tweets. Her extra caution could be due to the influence of Saudi culture, which causes Saudi people to care about what they say online. Thus, some Saudi users may seek to avoid posting tweets

that conflict with Saudi Arabia's culture and traditions. Furthermore, in Aisha's example, she seemed to consider Twitter to be a 'front stage' channel in which other users would judge her tweets (Goffman, 1959, p. 32).

The third reason the participants revised tweets was to track the improvement of their writing standard. For example, Maryam-S said, *'I revise my old tweets to find my mistakes and avoid repeating them. I think that, even if I have a good writing style, I must seek to improve it'*. This view was supported by Ra65, who revised old tweets and deleted unnecessary tweets. She explained:

> *From time to time, I revise all my tweets and delete some of them, such as tweets about temporary events, e.g. Eid events. Moreover, my point of view has changed, so I go back to the tweets that I wrote months ago and delete the ones that are not worthwhile. If a tweet is old but beautiful, I keep it. If it is old and dissatisfying, I delete it.*

From these examples, it seems that the participants tended to present their best writing in their tweets. They even reviewed their old tweets to delete ones that were not as well-written. This behaviour could be the result of their desire to improve the image of their writing quality by keeping their best pieces of writing public and by studying their own writing styles to develop them. Ra65's examples suggest that, she is interested in archiving. Tweets are ephemeral, yet, like a journal, they record a writer's development. She used Twitter in a hybrid way, influenced by the older practices of archiving and journaling.

Gleason (2016) indicates that his study's participants had strategies for improving their writing; they revised old tweets, deleted tweets that contained grammatical mistakes, and wrote tweets that did not have grammatical mistakes. Another reason my participants wanted to delete old tweets could be that they wanted to clean up the past by keeping only what they wanted other users to see. According to Kelly (2016), job seekers should pay

attention to their SNS accounts and delete content that could be used against them. Kelly explained that SNSs have significantly influenced employment, and many companies search for candidates on SNSs such as Twitter, LinkedIn, and Facebook. Although Kelly's observation concerns people who are using SNSs to look for jobs, this observation also holds true for any user who wants to present his or her best self on Twitter.

Though the majority of the participants revised their tweets, several participants noted that they did not. For example, Maryam-Q said, '*I do not revise my tweets. Twitter is my personal free space to write what I want to write. It is not an exam where I have to check my answers*'. Another example is Aisha, who said, '*I rarely revise my tweets. Usually I send my tweets immediately, without revision, other than tweets about religious, political, or social issues.*'

From these examples, it seems that these participants considered Twitter to be a personal, rather than a professional, site where students are free to write without being afraid of making mistakes or of other people's judgments. Moreover, Maryam-Q's answer reflected her view that Twitter is a place to communicate with others without fearing judgment. Her statement about Twitter not being an exam could imply that she believes that Twitter involves a different kind of writing than a university. This finding could be consistent with Lenhart et al. (2008), who found that most of the students in their study viewed Twitter as an e-communication or a conversational space that differed from academic writing in schools, where students were required to follow the academic writing rules.

4.1.2.2.2.2.3 Writing Style

Some participants noted that Twitter helped them improve their writing styles. For example, Ra65 said:

I feel my writing has improved after reading tweets written in classical Arabic. These tweets do not address how to be a good writer, but, because they are very well-written, they improve my writing skills and help me express my thoughts in writing.

On their Twitter feeds, some participants retweeted or liked tweets that offered advice about improving their writing skills. For example, Afnan liked a tweet that provided tips about improving one's journalistic writing skills.

From these examples, it seems that Twitter helped the students improve their writing styles in two ways. First, reading good writing positively impacted the reader's writing. Second, the advice from authors that was shared on Twitter helped the readers improve their own writing.

In summary, this subtheme explained how the students used Twitter to improve their Arabic literacy and their perspectives about its effects. The participants discussed how Twitter influenced their reading and writing motivation and skills. Twitter's impact on the students' motivation to read fell into five categories: motivational tweets, accounts for those interested in reading, book reviews shared on Twitter, reading groups, and reading-related hashtags. Twitter influenced, in particular, three skills: speed reading, critical thinking, and reading time management. Twitter motivated the participants to write for two reasons. They were able to use Twitter as a personal space for writing and to engage in cooperative writing. Twitter impacted three areas of writing: brevity, editing skills, and writing style. Moreover, Goffman's (1959) theory regarding the front and back stage performances was helpful in interpreting some of this subtheme's findings. In the next section, I discuss the second research question: 'How do Saudi female students present their academic identities on Twitter?'

4.2 The Themes of the Second Research Question

This section addresses the second research question: How do Saudi female students present their academic identity on Twitter?

The data reveals three aspects of the students' academic identities that they presented on Twitter: presenting their academic disciplines, being members of the university, and using academic hashtags. The themes and subthemes are illustrated in Figure 4.15.
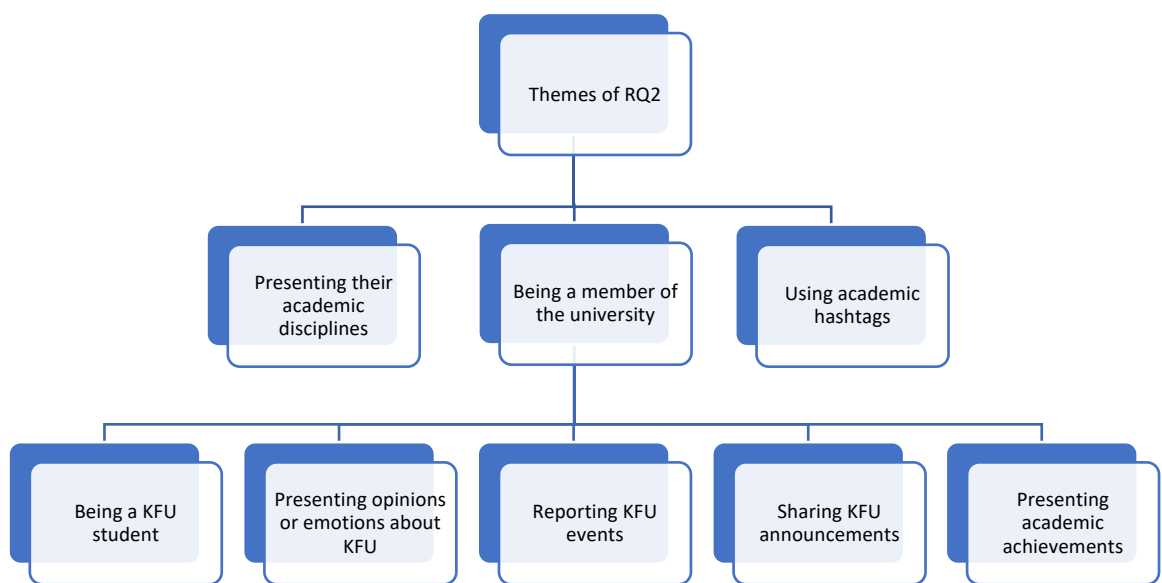
Figure 4.15 The Themes and Subthemes of the Second Research Question

Goffman (1959) argues that a person presents a variety of identities and takes on different roles depending on the contexts that he/she occupies and the audiences with whom he/she communicates. Hyland (2012) writes, 'Identity is about who the individual is, and an academic identity is who the individual is when acting as a member of a discipline' (p. 25). In the following sections, I discuss how the participants presented their academic identities on Twitter.

4.2.1 Presenting Their Academic Disciplines

The participants declared their university disciplines through various ways. For example, they included their disciplines on their Twitter profiles or communicated their disciplines in tweets, retweets, likes, or DMs. Seven of fifteen students mentioned their disciplines on their profiles. For example, Zainab's profile indicates that she is studying medicine (see Figure 4.16).

Figure 4.16 A Profile that Presents a Participant's Academic Discipline.

During her interview, Alghamdi-1 said:

I participated in a hashtag and tweeted that my discipline is computer information and that, if anyone had questions about it, they were welcome to ask. Some people contacted me via DM and asked about the discipline and I answered them.

Alghamdi-1 gave me screenshots of a DM conversation in which another student asked her about failing some modules during her first year and how she could catch up with her peers. Alghamdi-1 advised the student to take summer courses.

Eiman had a similar view. She gave me screenshots of a DM conversation in which a new student asked Eiman questions about the business curriculum. The new student said that she saw Eiman's discipline (marketing) on her Twitter profile. The new student explained that her first choice was law and her second choice was business. She was accepted into the business school, but she was very worried about the curriculum, especially mathematics. Eiman replied that no discipline is difficult if a person studies hard. Eiman also gave the student an overview of the business curriculum.

From these examples, it seems that the participants were proud to show that they were affiliated with their particular schools, and these examples show that the participants valued education, studying, and hard work. By declaring their disciplines on Twitter, they could be engaging in a kind of impression management, seeking to draw attention to a specific aspect of their identities (Hyland, 2012). It is important to note that these declarations actually caught the attention of other students, as evidenced by the DMs.

In the DMs, the participants took on the role of the expert, demonstrating that they knew a lot about their disciplines. This perspective was emphasised by other students who also believed that they served as sources of information about and advisors for their disciplines for their followers. For example, Maryam-S said:

In the beginning of my time at the university, I noticed that some students swung from one discipline to another. I think that I should be their platform, so I tweeted a lot about my discipline and how I started out at the university. Moreover, I planned to publish these tweets in a book.

Another example is Maryam-Q, who said:

Many students feel that I know most of the information about my department, discipline, and curriculum. This is because I interact with the university a lot on Twitter, and I always tweet about my department and the curriculum.

An example of her interest in her discipline is when she tweeted, '*To take advantage of spare time, read a book in your discipline*'. She attached a picture of a book about education technology, which is her discipline (see Figure 4.17).

Figure 4.17 A Participant's Tweet that Presents her Recommendation of a Book in her Discipline.

In addition, Maryam-Q received many academic queries from students who used the Mention or Reply features to ask her about the university, her discipline, and the curriculum. Other queries were sent to her via Sarahah, a site similar to Ask.fm, allowing users to receive opinions, comments, or questions from anonymous users (Sarahah, 2017). Maryam-Q tweeted her responses, attaching screenshots of the queries.

In these examples, Maryam-S and Maryam-Q considered themselves to be academic advisors. Their feelings of their own expertise in their disciplines could be the result of several factors. First, receiving queries from other students could have made them feel important and experienced. Moreover, the act of sharing information with others could have made them feel accomplished and self-satisfied. These feelings of accomplishment may have motivated them to be more active on Twitter. Oh and Syn (2015) found that Twitter users often feel a sense of achievement when they share information with others. These feelings could have also been the result of the participants' interactions with the university staff, which may have given them a sense of expertise. Another reason could be that the participants often shared their experiences as KFU students, which may have made them believe that they possessed knowledge that would be useful to other students. This is apparent in the case of Maryam-S, who was in her fourth year and imagined herself to be a 'platform' for students, especially for first-year students who might swing between disciplines.

It is possible that the participants' confidence that they were academic advisors convinced other users that they were, in fact, knowledgeable advisors. This was apparent in the case of Maryam-Q, who believed that students saw her as a source of information because they queried her about academic issues. This point of view could be supported by Hyland (2012), who explains that acting as an academic can persuade others to view one as an academic. Thus, it is possible that these students identified as academics because they acted like academics.

Additionally, some participants considered Twitter to be a professional site that should be used only for presenting their academic identities by, for example, sharing information related to their disciplines. For example, Halaa said, '*I like to tweet about anything related to my discipline, which is sociology. I think Twitter is a professional site, rather than a personal site for talking about my private life*'. Aisha agreed, saying:

I used to talk about myself and my family on Twitter; I used to write everything about myself. However, I stopped doing that because I started to feel that Twitter was an unsuitable place for that. But I still tweet about my studies, so I think everyone knows what my discipline is.

Another example is Ruyuf, who said:

In the beginning, I was unfocused in my use of Twitter. I tweeted about everything. However, one of my friends advised me to begin using Twitter more formally, so I changed my focus on Twitter and identified my interests. I started to talk about business, which is my discipline, and now my Twitter account is more professional, and my tweets and retweets are related to business topics. I am happy that my Twitter content has changed in this way.

Moreover, Mashael, who studied nursing, said. *'I recently started tweeting about healthcare and health awareness. A few days ago, I made a survey [Twitter poll] asking users what nationality they wanted their nurse to be: Saudi, Filipino, Indian, or others'.*

On their Twitter feeds, the participants shared information related to their disciplines. For example, Mashael retweeted a link to a reference about children's nursing. Another example is Zainab, who studies medicine, tweeted, '*There is a big difference between tranquillizers and treatments that eliminate a disease*'. In her tweets, Afnan, who studied Human Resource Management, advised students about their future projects: '*Every student who is thinking about building a pioneering project; from now on, take advantage of every word you learn because you will be able to improve your project*'.

From the presented examples, it seems that these participants enjoyed talking about their disciplines on Twitter, sharing information related to their areas of study, and conducting research using polls. Moreover, it seems that the participants had distinct notions of proper and improper ways to use Twitter. They defined for themselves what Twitter

should be used for, and then they followed their rules. They emphasised that using Twitter academically would make their accounts 'more professional'. Thus, they preferred sharing academic information instead of talking about their private lives. This finding could be supported by Ahmed, A. (2015), who found that most Twitter users in the U.A.E. avoid sharing personal information online because they think that it makes their personal information available to people who might misuse it. In addition, the participants in her study explained that sharing sensitive personal information could negatively affect their relationships both personally and professionally. Though the participants of Ahmed, A.'s study were Emiratis, it is likely that my participants shared similar views because Saudi Arabia and the U.A.E. share the same religion and some cultural aspects. Thus, they might believe that sensitive personal information should be shared only with appropriate precautions.

Furthermore, in these examples, the participants used verbs that expressed attitudinal changes, such as 'used to', 'stopped', 'changed', 'now', and 'recently'. These particular verbs may indicate that the students often change their reasons for using Twitter. They initially joined Twitter for general use, which included posting about everything and anything. Then, they began using Twitter for more academic purposes, demonstrating that their perceptions of Twitter have evolved. This change could have occurred in tandem with a growing awareness of their developing academic identities. In general, they seemed to have perceived this as a positive change; Ruyuf said, '*I am happy that my Twitter content has changed in this way*'.

There could be many reasons for this change. First, the students' experiences with using Twitter to support their studies may have encouraged them to focus on using Twitter academically. In the findings of the first research question, I talked about how the students used Twitter to support their studies in four ways: learning more about their disciplines, improving their research skills, improving their studying skills, and preparing for their future

education. Second, the academic use of Twitter may have caused the students to become integrated into Twitter's academic world and to become increasingly engaged in academic discourse (see the findings for the third research question).

Third, students may have changed their reasons for using Twitter because their identities had changed. This is explained by Erikson (1968), who emphasises that adolescents experience crises when they try to identify who they are to form a basic social and occupational identity. Erikson (1968) states that, while people's identities are forming, they may become confused and find it difficult to determine what they want from their lives. In response, they experiment with various things, values, and goals, accepting some and rejecting others.

My study's participants started using Twitter when they were adolescents, before they started studying at the university. Aisha, for example, joined Twitter four years ago when her high school classmates encouraged her to make an account. Ruyuf also made her Twitter account while she was in high school. When they started using Twitter, they were still teenagers, and their identities were still forming. In the early days of their Twitter use, they posted about everything and anything, trying to present different parts of their identities. Ultimately, though, they decided they wanted to emphasise the academic parts of their identities.

Merchant (2006) distinguishes between two types of identity formation: 'anchored' and 'transient' (p. 239). An anchored identity, such as religious or gender identities, is formed gradually over a long period of time and is not easily changed because it is associated with aspects of our lives over which we have little control. In contrast, a transient identity is a relatively more changeable aspect of identity that can be remade many times and is affected by influences such as maturation or one's peers. Casanave (2002) demonstrates that one's

academic identity is not fixed but is continually being constructed and reconstructed as a person participates in different ways of being and in different practices in academic groups.

The identities of my study's participants could be considered to be transient because they were changed and remade several times as the students gained more life experience and were influenced by their academic discourse (which will be discussed later). Another reason they could be considered to be transient identities is because they were influenced by their peers. Ruyuf, for example, said that it was her friend's advice that caused her to use Twitter in a more formal and academic manner.

In addition, the participants' Like lists declared their university disciplines. For example, Aisha and Munirah used the Like feature to store tweets that had information related to their disciplines. While these students stored information for their own benefit, Maryam-S stored information to benefit herself and her followers. As she said: '*I used the Like feature for things that I like and feel are useful for me or my followers*'.

Another example is B.M., who liked many tweets that linked to the full texts of books related to her discipline. Maryam-302 liked many tweets that included lines of Arabic poetry. Poetry is a topic in the Arabic curriculum, which is Maryam-302's discipline. Mashael, who studied nursing, liked several tweets that had information about particular types of medicine. Zainab, who went to medical school, liked tweets that provided information about the symptoms of certain illnesses. Eiman liked a tweet from a national training company that announced a marketing workshop.

It seems that these examples demonstrate how the students displayed their academic identities by liking tweets that were relevant to their disciplines. Liking the tweets could present one's academic identity to one's followers, who can see what has been liked; this was the case for Maryam, who used the Like feature to store useful information that benefited herself and her followers. According to Goffman (1959), people are influenced by what a

person chooses to present. In this study, the participants may have used the Like feature to manage the impressions they made on other users.

4.2.2 Being a Member of the University

The participants identified themselves with KFU on Twitter in various ways: they stated that they were KFU students, presented their opinions and emotions about KFU, reported KFU events, shared announcements related to KFU, and presented their academic achievements.

4.2.2.1 'I am a KFU student'

Four of fifteen students mentioned on their profiles that they were KFU students. For example, Maryam-Q's profile identifies her as a KFU student (see Figure 4.18). In her interview, she said, '*On my Twitter profile, I wrote that my vision is to represent the ideal Saudi woman in terms of initiative, innovation, and influencing my peers in the name of my university and my college*'.

أنسة أعمال قيد الإنشاء1997-تقنيات التعليم- الرؤية:أن
أجسد النموذج الحي والأمثل للفتاة السعودية في المبادرة
والابتكار والتأثير في الأقران (KFU)-تربوية

🔗 youtu.be/iva3IT31ZKU
📅 Joined February 2013

Figure 4.18 A Participant's Twitter Profile that Presents her as a KFU Student.

Another example is Mariam-99, who said:

On my Twitter profile, I mention that I am a business student at KFU. And a girl contacted me via DM and asked me if I was her friend three years ago on the Ask.fm app. And I said yes, I was. She said that she was studying in the same department, and we finally met face to face.

Although the statement 'I am a KFU student' on the Twitter profile could refer to the student's academic identity, it is not enough to develop this academic identity. Buck (2017) found that the construction of an academic identity on Twitter is not only built through writing an academic profile, but in the accumulation of each academic Twitter posting. In the preceding examples, the students who identified themselves as KFU students communicated with others under the guise of this identity. This is clear in Mariam-99's example about how she interacted with a student from her department when initially she did not know that they

were studying at the same university. Twitter can help students expand the reach of their academic discourse, which, in turn, could shape their academic identities.

Moreover, some participants explained that they were proud to be KFU students and that this pride was reflected in their Twitter activity. For example, Maryam-S said:

During exam week, I tweeted that students should not worry about the exams; worrying could cause them to hate the university! I tweeted that because I know some university students who did not feel that they belonged at the university! It is distressing that a girl who has studied for four or five years does not feel that she belongs at KFU. Why? So, on my first day at KFU, I tried to answer this question. Unlike those students, I felt that I belonged at KFU; I am grateful for KFU. I miss it during the holidays. Your invitation to interview me at the university made me happy. I believe that KFU can be a starting point for anyone.

She also expressed her pride and love for the university when I asked her about her favourite place to browse and tweet; she said, '*I like to tweet in the university. Really, I love the university's ambience, and it inspires me to tweet, even if it is crowded*'.

Another example is Maryam-Q, who said:

When I enrolled at KFU, I was interested in Twitter because most of the university faculty use Twitter; many university issues are discussed on Twitter. I follow the faculty to know what is going on. I follow KFU educators, even those who are not my teachers, because, glory be to Allah, I feel that I belong to their departments and with these faculty.

From these examples, it seems that many participants felt that they belonged to their university. Ashforth (1989) explains that explains that people identify themselves by using their membership in a group, organisation, or institution. He writes people are likely to feel pride for and loyalty to the group to which they belong. In the preceding examples, the

students were proud of their university, of being a member of their university, and of being able to communicate with the faculty and other students. According to Ashforth (1989), students' pride in their university shapes their social and academic identities.

Moreover, the students may have presented their academic identities on Twitter because they wanted to be immersed in KFU's academic discourse and stay updated on current news. Informal academic communication on Twitter can encourage students to join academia (Buck, 2017) and shape how they view their position in the academic world. Similarly, Ashforth (1989) demonstrates that an individual's identity is likely to be formed by his or her engagement in his or her group's discourse.

4.2.2.2 Presented Opinions and Emotions about KFU

The students used Twitter to communicate their personal reflections about their lives as KFU students. The students expressed their opinions on five main topics: university policies, university facilities, university clubs and societies, university educators, and their own studies.

First, the participants used Twitter to reflect on university policies. In her interview, Zainab said, '*There was a contract between our college and a Dutch university, but the contract was cancelled, and the Dutch university withdrew. This withdrawal caused a sensation on Twitter, and I tweeted about it*'. On their Twitter feeds, the participants tweeted their complaints or approval about particular university policies. For example, Maryam-302 tweeted, '*I hope that the drop period [for modules] is available until the end of the semester*'. Afnan tweeted: '*The student's off day should not be used for exams*'. In contrast, Mashael tweeted that she agreed with a new policy. Mashael participated in a hashtag about the experience of graduate nursing students. She tweeted about her experiences with a particular

exam style used in her department: '*If this exam style is applied in every university department, students will get the experience that they need to pass the Saudi Commission for Health Specialties exam*'.

Second, the participants used Twitter as a channel to express their opinions about university facilities to people in authority. For example, in her interview, Maryam-Q said:

I tweet about anything that captures my attention. I also criticise the things that I do not like at the university. For example, one day, I took a photo of a broken thing at university and tweeted about it. And it was fixed the next day. So, I believe that people read what I write on Twitter.

Maryam-Q's example could demonstrate her belief in the Twitter's power to present opinions, even critical ones, to people who are in positions of authority. In addition, B.M. said, '*If the university does something new at one of its facilities or organises a very good event, I praise it and thank them for it on Twitter*'. On her Twitter feed, B.M. thanked the university for collecting leftover bread at the university restaurant to give to animals. She took a photo of the container used to collect the bread and attached it to her tweet.

Moreover, the participants who were members of university clubs or societies tweeted about their opinions about participating in these clubs. For example, Maryam-Q tweeted, '*I am very happy about my work with the Hemmah Mettle Club for Preparing Leaders*'. Maryam-Q thanked the club for its meetings and workshops, which improved her leadership skills. Moreover, Afnan, in a tweet, thanked the dean of student affairs for hosting events that reflected the dean's concern for the students and their futures.

In addition, the students used Twitter to express their opinions about their teachers. For example, Afnan tweeted about a positive experience with one of her teachers: '*During the first day of the semester, one of my teachers said that she would like to learn our names, hobbies, interests, and what we wanted to be after ten years. I liked that she asked these*

questions'. In a second tweet, Afnan continued, '*The interesting thing that the teacher told us is that she asks her students the same question every semester, and some have changed their interests*'. in the contrast of Afnan's story, Maryam-Q tweeted about a frustrating situation that she experienced: '*One of the most painful things is when a teacher criticises my queries in a way that diminishes them*'.

Furthermore, some students grumbled on Twitter about studying. For example, Zainab tweeted, '*Even though I tried and did my assignment during my break, my computer crashed, and I lost my work*'. Afnan, replying to a friend who wanted to celebrate Afnan's birthday, tweeted, '*I will tell you something; on this great day. . . I have an exam!*'

These examples show that the students used Twitter as a channel to convey their opinions to people in authority or to express their approval or disapproval about parts of their university lives. Maryam-Q's example, which involved the university fixing the broken thing that she tweeted about, could show that Twitter has the power to reach particular audiences and create change. (I discuss this point in the third research question in 4.3.1.3.) Maryam-302, who tweeted about the timeframe for withdrawing from courses, also talked about using Twitter to express her disappointment and send a message to administrators who, upon reading it, may have a new perspective about their students' needs. These findings could be supported by Buck (2017), who found that graduate students use Twitter to express their frustration about their dissertations, assignments, or teachers.

In addition, my participants expressed both positive and negative emotions about their university lives. The participants' reflections present facets of their academic identities, even if these reflections are negative emotions. Ashforth (1989) says that, though a sense of belonging may be associated with feelings of happiness, it can also be associated with feelings of pain.

The participants' use of Twitter to express themselves could be considered to be a front stage performance. Goffman (1959) identifies two ways that people perform in daily life. On the 'front stage', people perform for an audience and present the image that they want others to see. On the 'backstage', people relax and are able to act without the pressure of being watched (Goffman, 1959, p. 32). Kuo et al. (2013) state that SNSs could serve as either a front stage or a backstage, depending on the situation.

The students' use of Twitter to express their personal reflections about their lives as KFU students could be considered to be a front stage performance because they are aware that they are performing for an audience (evident in Maryam-Q's example about her complaint about the broken object). Maryam-Q knew that her tweet would likely be read by an audience.

Goffman (1959) states that people feel relaxed when they are backstage and are able to act without the fear of being judged. However, most of the quotes are from participants who use their full names on Twitter. Thus, they are posting on a public platform where people are able to identify them.

These findings contradict the findings of Linvill et al. (2018), who found that students used Twitter as a backstage to express their dissatisfaction about their classes. These differences could be the result of differences in how each study's participants used Twitter. My participants used public accounts and were followed by their teachers, while their participants used Twitter privately and were not followed by their teachers. Thus, in this backstage, their participants likely felt more relaxed and were able to present their opinions about their teachers without their teachers' sight.

4.2.2.3 Reporting which KFU Events They have Attended

The participants tweeted about KFU events that they attended. These tweets symbolised the students' sense of belonging to their university. For example, Maryam-Q said:

I use Twitter to report details about university events in real time. I also like when people interact with my reports and benefit from them. At the same time, I love my university and love to tweet about it.

Another example is Afnan, who said, '*I tweet about university events to document these moments and to spread word about activities sponsored by the dean of student affairs, who I work for*'. Another example is Eiman, who said, '*I tweeted about the events that I attended at the university*'.

From these examples, it seems that the students used Twitter to tweet about events that they attended. They broadcasted these events because they loved their university, and these reports expressed their sense of belonging.

Maryam-Q mentioned that she appreciated being able to benefit her followers by sharing information, and she was happy whenever other Twitter users interacted with her tweets. This finding could be supported by Wong and Burkell (2017), who found that people have several motivations for sharing news or nonpersonal information on SNSs. For example, they might want to give attention to an issue, entertain others, inform other users about an event, or provide users with valuable information from an event. Providing Twitter users with valuable information is also mentioned by Reinhardt et al. (2009), who found that conference attendees tweeted about the conference to share information and resources and to interact with other academics.

In this respect, Maryam-S talked about benefiting followers by sharing information related to an event:

I like to tweet about university events to benefit my followers, and, because many of

my followers attended my training courses that I delivered, I like to share information

from seminars, courses, or workshops that I have attended.

In Maryam-S's example, she explained that she liked to benefit her followers with new and useful information. And she mentioned that most of her followers know her in advance and have attended her training courses. (She is a certified trainer.) It is possible that she felt obligated to her followers or that she wanted to build her reputation as an excellent trainer who wants to stay connected with her students even after her courses.

On the participants' Twitter feeds, I tracked two major events that many of them attended. The first was a forum called the 'Jarreb (Try) Forum', which was held at KFU and organised by the King Salman Youth Centre (KFU, 2016b). The forum happened while I was collecting my data. Though I could not attend the event, I watched it live on YouTube. Many of my participants attended the event. Like me, Mashael and Eiman watched the event online, and Maryam-S, Afnan, Maryam-Q, and Ruyuf attended the event in person. Every student who attended online or offline tweeted using the event's hashtag.

Mashael said, '*I did not have the chance to attend the Try event, so I watched it online and tweeted about it*'. On her Twitter account, she mentioned one of the event's speakers, saying, '*Thank you, Mr. Mohammed, for your talk at the Try event. You absolutely provided us with important information. May God bless you in this life and the afterlife*'. Eiman tweeted, '*I was very excited to attend the #forum_try, but, after registering, I found out that I have to travel and cannot come*'. She replied to her tweet, saying, '*However, thanks to God, the event is offering a live broadcast*'.

The students who could not attend the forum physically used Twitter to participate in the event. Their tweets about the forum also reflected their sense of belonging at the

university and their desire to participate in discourse about the event. This could suggest that Twitter is a platform for academic discourse that has the power to reach distant audiences.

Moreover, the students who attended the forum in person tweeted about it. For example, Afnan posted many tweets: '*The organisers of #forum_try are very cooperative*', '*#forum_try There is a girl in year five sitting next to me*', and '*#forum_try Fares' experience is inspirational*'. She also tweeted a quote from one of the speakers: '*Help a person who you do not know. #forum_try*'.

Ruyuf also used the event's hashtags in several tweets: '*We certainly hope to have future fora in Alahsa [her city] that meet the level of the #forum_try*'. She also tweeted, '*#forum_try was one of the most beautiful things ever*'.

The participants' reports often contained quotes from the speakers and the participants' opinions about the event, its organisers, its audience, and/or its speakers and their stories. Moreover, the use of the event's hashtag could reflect other aspects of the students' identities. The hashtags could reflect the participants' willingness to show that they were attending the event and supporting the group that organised it. Goffman (1959) indicates that, while trying to present particular images of themselves, people may not notice that they are presenting other images. Consequently, my participants may have presented other images, such as the image that they were good and active students who attended university events. Moreover, the use of hashtags acts as another dimension of self-presentation. Coad (2017) found that graduate students used conference hashtags to build their reputations and make their names more widely known in the academic community.

The second major event was a large lecture titled 'The Shine in Positive Behaviour', which was held in KFU's Grand Ballroom on 12/10/2016. This lecture aimed to teach students about the skills of positive behaviour, stress management, and effective time management (KFU, 2016c).

Maryam-Q tweeted several times about this event. Her first tweet included a photo of a card that showed that she was a member of this event's organisational committee (see Figure 4.19).

Figure 4.19 A Participant's Tweet Reporting a KFU Event.

Some of Maryam-Q's tweets were quotes from the speaker's speech. For example, one quote was '*Invest your time in true friendships that are not based on interests*'. Other tweets presented her opinions and feelings about the lecture: '*My Lord, if all university lectures were like this, we would never leave the university. Thank you so much*'. She expressed her emotions in this tweet: '*The lecture was awesoooooome. I swear to God, I am very happy that I attended*'. Maryam-Q also retweeted students who shared their opinions about the event and a tweet that informed students how to receive proof that they attended from the administration.

Another example is Afnan, who retweeted the invitation, quoted the speaker, expressed her opinions, and used the event's hashtag (#shine_positive_behaviour). She tweeted, '*I left the event feeling very happy. The positive effect of the lecture was*

extraordinary'. Moreover, Ruyuf tweeted a photo of the speaker and quoted parts of the speaker's speech.

In addition, some students tweeted about small events that they attended individually. For example, Eiman tweeted about a meeting of business leaders held in the business department. She retweeted the invitation from the department's Twitter account. She also used the event's hashtag: '*I was impressed by Aisha's presentation when she said that "the way to the summit requires much effort and perseverance" #Meeting_of_business_leaders*'. Eiman also tweeted about the ideas that were discussed at the meeting. For example, she tweeted, '*The meeting was very wonderful, and I learned a great deal from the other women. One thing that I learned was how to balance studying and work'*. She also thanked the university for hosting the meeting.

Some students also tweeted about an exhibition about healthy living. Maryam-S and Afnan retweeted an invitation to the exhibition and shared their opinions of the event. For example, Maryam-S offered her opinion using the event's hashtag: '*#The_health_club_of_KFU the exhibition is lovely and has important information in every corner*'.

From the previous examples, it seems that the students used Twitter as a platform to report and document KFU events in real time. By reporting their university's events, the students expressed their university pride. Moreover, the students used Twitter to express their opinions about university events, thus may assist in framing and refining their academic identities.

4.2.2.4 University Announcements

The participants shared KFU announcements about university issues or events on Twitter. For example, Maryam-Q retweeted a KFU tweet that welcomed new students to the 2016 Induction Day. Another example is Ruyuf, who retweeted an announcement about the beginning of the application period for students who wanted to apply to university jobs. The tweet linked to the application webpage. Maryam-Q also retweeted and liked a tweet that shared the central library's opening times.

On the participants' Like lists, they liked several university announcements. For example, Maryam-Q liked a tweet that announced a competition for student authors. The competition was organised by the dean of student affairs and was supported by a well-known publisher, who pledged to publish the winning work. Maryam-302 liked a tweet that shared the calendar for the academic year.

B.M. retweeted an invitation to a KFU conference on the topic of the present state of the Holy Quran and its sciences. This tweet included the event's hashtag and a link to the registration website. Eiman retweeted an invitation to a meeting between business leaders that was held in the business department. Maryam-S liked the same tweet that was retweeted by Eiman.

From the presented examples, it seems that the students presented their academic identities and their sense of belonging by sharing KFU's announcements. In addition, it is possible that they shared university announcements because they wanted to benefit other users by encouraging them to attend particular events or take advantage of particular opportunities, such as openings for university jobs. They used the Like feature to bookmark information for themselves and to share this information with other users.

I identified that announcements were usually retweeted, while other subthemes ('I am a KFU student', 'Personal reflections on their lives as KFU students', and 'Reporting KFU

events') generally tweeted by the participants who expressed their affiliation with KFU. This could be the case because announcements usually came from official university sources, while tweets tended to offer commentary about the users' personal experiences.

4.2.2.5 Presenting Their Academic Achievements

The participants identified themselves with KFU and presented the academic parts of their identities by tweeting about their academic achievements. These achievements fell into two categories: curricular achievements and extracurricular achievements. For example, Maryam-Q said, *'My profile image is a picture of my outstanding educational performance award. I made this my profile picture because I am proud of this achievement'* (see her Twitter profile in Figure 4.18). Maryam-Q tweeted a link to an audio recording of the ceremony where she received this award. She also included, in the tweet, the exact time when her name was announced.

Mashael tweeted about one of her achievements for a special assignment. She worked with other students to summarise a key reference book about nursing. She also tweeted a link to this work and asked other users to share the link to increase its reach. Moreover, Maryam-Q tweeted a link of her video about Japan's educational system. The video was a class assignment (see Figure 4.20).

نُظم التعليم في اليابان

مونتاجي نظم التعليم في اليابان
نشاط مقرر نظم التعليم
youtu.be/hD_4dTuhjcl دكتورة المقرر:د.مها أبو المجد

Figure 4.20 A Tweet that Presents a Participant's Curricular Achievement.

From these examples, it seems that the students shared their curricular achievements on Twitter for several reasons. They were proud of their academic achievements, and they wanted to share their accomplishments with others. In addition, they may want to encourage other students to strive to get similar awards. Maryam-Q, who won the Saudi Outstanding Educational Performance award, told me that many students reached out to her on Twitter and asked how they could win the award, and she was gratified to answer their queries. The participants also might want to benefit people with information from the work that earned them these achievements (as was the case for Mashael's tweets about the important reference book about nursing). Maryam-Q tweeted her video because she was proud of her work and might want to teach others about Japan's educational system and present an example of a well-executed project.

The students also tweeted about their extracurricular achievements. These tweets usually involved the KFU events that they organised or participated in. For example, Afnan said, *'I like to tweet about my achievements and activities to motivate others to do better than*

I did'. She tweeted about an event that she organised: '*Happy morning and happy initiatives.
I will not hide that the pleasure of this event is still on my mind. I invite you to read
carefully*'. She tweeted photos of the event and a link to her blog, which included more
photos and a detailed description of the event (see Figure 4.21).

Figure 4.21 A Tweet that Presents a Participant's Extracurricular Achievement.

Another example is Maryam-S, who tweeted a photo of a workshop she held at a
university club: '*These are last week's achievements. It was a special week*'. She also said:

> *I use Twitter to invite students who have interests similar to mine, who like the same
> events that I like, such as events about self-development. I invite them to my
> workshops and they invite me to theirs*.

Maryam-S provided me with a screenshot of a DM that she sent to a friend to invite
her to an event where Maryam-S talked about her experience at the university.

Maryam-S also expressed gratitude for the people who thanked her for the activities that she organised at the university. In her interview, she said, *'I held a workshop at the university, and it left a beautiful impression on the girls who attended. They contacted me on Twitter and said that I left a beautiful fingerprint. And I replied to their tweets'*. On her Twitter feed, Maryam-S retweeted a user who thanked her for the presentation.

Maryam-S and Maryam-Q retweeted the university's official Twitter account when it reported on an activity in which they participated. For example, they retweeted its invitation to an activity involved entertaining sick children at a hospital, and it was organised by a club that Maryam-S and Maryam-Q worked with. Maryam-Q tweeted some photos of this activity with the comment: '*The journey of volunteering with Mettle Club for Preparing Leaders was very enjoyable and inspiring in every way*'.

In her interview, Maryam-Q added:

I tweet about my activities to document my achievements. When I try to remember which activities I participated in, I go back to my tweets and see which events I participated in. I can easily find details about my achievements anytime. At the same time, I am happy that I did good things at the university, and I like to share them on Twitter. I love my university, and I tweet about the things I love.

Maryam-Q tweeted an announcement of an exhibition organised by the university's science club, which she led. She also asked her followers to use the exhibition's hashtag.

From these presented examples, it seems that the students used Twitter to create an archive of their accomplishments and be able to retrieve them at any time. They also used Twitter to affirm their identities and feel good; they organised their tweets so that they could refer to them later and feel, retrospectively, a sense of satisfaction. The accumulation of tweets creates a kind of diary, but it is created in collaboration with others. In Maryam-Q's case, similar to the function of the Like feature, tweets were used to bookmark or archive

certain events. Mahrt et al. (2014) suggest that Twitter can be utilised as a personal archive for the information that the user wants to access on later.

Twitter could also be used to interact with audiences who attend events, receive their feedback, and thank them publicly for attending. Moreover, Twitter could be considered as a public site to share the event's information with a massive audience inviting them to attend the event or to inform them about what was done in it.

The participants tweeted about KFU events because they felt like they belonged at their university and they wanted to share that they enjoyed its activities. They were also proud that they participated in these events and wanted, by tweeting about these events, to encourage other people to participate. In addition, they often used Twitter to share their feelings about their work with these events.

Academic achievements were usually shared in tweets, but retweets were used occasionally. The students retweeted posts from the university's official account, which reported on the events in which the participants took part. They also retweeted those who thanked the participants for their work for the events.

The students shaped their academic identities on Twitter by presenting their academic achievements. It is possible that, by interacting with other Twitter users and by receiving feedback about their achievements, they were spurred to perform better academically. Engaging with a large audience on Twitter could affect the formation of their academic identities as they desire to present their best selves.

A General Finding from 'Being a Member of KFU'

I would like to highlight that one general finding that appeared in every example of the theme 'Being a Member of KFU' was that the students who belonged to a university society or club had a strong sense of affiliation with KFU and mostly viewed it positively. This affiliation could be the result of the confidence that they gained from participating in the

organisations' activities. Ashforth (1989) explains that engaging with an organisation aligned with one's values can reinforce the sense that he or she belongs in that organisation.

Moreover, most of the students in the snowball sample were members of a university society or club. As I discussed in the methodology, I used a Google survey link to invite people to participate in my study. Maryam-Q met me for an interview at the School of Education at the same time her club, the Mettle Club, was having an event, and she introduced me to friends who were going to the event. I explained my research to them, and Maryam-Q sent my Google survey link to their phones. As a result, most of the students who said that they felt like they belonged at KFU were members of this club. Although they expressed their affiliation mostly in a positive way, they also expressed their negative feelings or disappointment about some of the university's issues, as I explained in the previous examples.

4.2.3 Using Academic Hashtags

Some students participated in hashtags about academic issues. For example, Halaa participated in a hashtag about developing students' talents: *'#The_development_of_students_ talents_in_universities will stop students from escaping from their universities because it will identify and improve their skills'*.

Another example is Maryam-Q, who participated in a hashtag about the most annoying thing at the university:

#The_thing_that_most_annoys_me_at_the_university is when Banner [the student information system] crashes on registration day when every students tries to enrol in modules at the same time. I know a better solution. If you give me a chance, I will fix the situation.

Eiman also used the same hashtag: '*#The_thing_that_most_annoys_me_at_the_university is the girl who comes to exams without a pen and asks others for one*'.

Moreover, Munirah, a master's student in history, participated in some research hashtags. For example, she participated in a hashtag about how important reading is for researchers: '*Skills of criticism, analysis, and drawing connections, etc. cannot be learned without reading*'.

From these examples, it seems that the students' use of hashtags to discuss academic issues could display their academic identities. According to Coad (2017), one reason why students use Twitter at academic conferences' hashtags is the desire of the students to present themselves as early academics who want to engage in academic discourse.

According to Vander Wal (2007), hashtags are a type of *folksonomy*, which is a concatenation of *folk*, which means 'people', and *taxonomy*, which means 'classification'. *Folksonomy* is a personal labelling system in which users create a public tag to collect and classify information or objects online. This public tag is open and shared with others in a social environment. People use the tag to store and organise digital information for retrieval in the future. People can also use this tag to search for information categorised under these tags. Moreover, the act of browsing the trending tags can provide the users with further information.

Vander Wal (2007) explains that people tend to use it folksonomy when they use keywords that reflect their identities and how they understand the tagged information. From Vander Wal's perspective, Maryam-Q's and Eiman's participation in *#The_thing_that_most_annoys_me_at_the_university* could reflect their identities as university students.

In summary, these sections outlined how the students presented their academic identities on Twitter. These presentations fell into three categories: presenting their academic disciplines, being members of the university, and using academic hashtags. The participants identified themselves with the university in five ways: by stating they were KFU students, by presenting opinions and emotions about KFU, by reporting university events, by sharing university announcements, and by presenting their academic achievements. Goffman's (1959) theory has framed the analysis of this research question's themes; it helped me understand how the students present their academic identity on Twitter. The next section covers the third research question: 'What is the influence of Twitter on the academic discourse of Saudi female students?'

4.3 The Themes of the Third Research Question

While the last section discussed the findings of the second research question regarding how Saudi female students present their academic identity on Twitter, this section addresses the third research question: What is the influence of Twitter on students' academic Discourse?

Discourse is defined by Gee (2008) as:

> Discourses, then, are ways of behaving, interacting, valuing, thinking, believing, speaking, and often reading and writing that are accepted as instantiations of particular roles (or 'types of people') by specific groups by people. . . Discourses are ways of 'being people like us'. They are 'ways of being in the world' (p. 3).

The discourse that I refer to is the students' academic discourse, which consists of how they interact with academic figures, such as university staff, other students, and the broader academic community, on Twitter. Buck (2017) indicates that online identities are developed through and shaped by communications with a variety of audiences. Thus, a student's academic identity is at least partly formed by communicating with other academic figures on Twitter.

These academic interactions can enhance students' educations more generally. Veletsianos (2012) found that teachers improved their teaching and research skills when they connected with others, requested and offered assistance, shared academic information, and presented their academic work on Twitter. He also notes that many scholars use Twitter because they want to share their academic identities. Though his participants were teachers and mine were students, Twitter likely influenced their academic lives in similar ways.

For the third research question, I found two themes in the data. First, Twitter expanded the range of students' academic discourse, and second, the students engaged in academic interactions on Twitter. The themes and subthemes are illustrated in Figure 4.22.
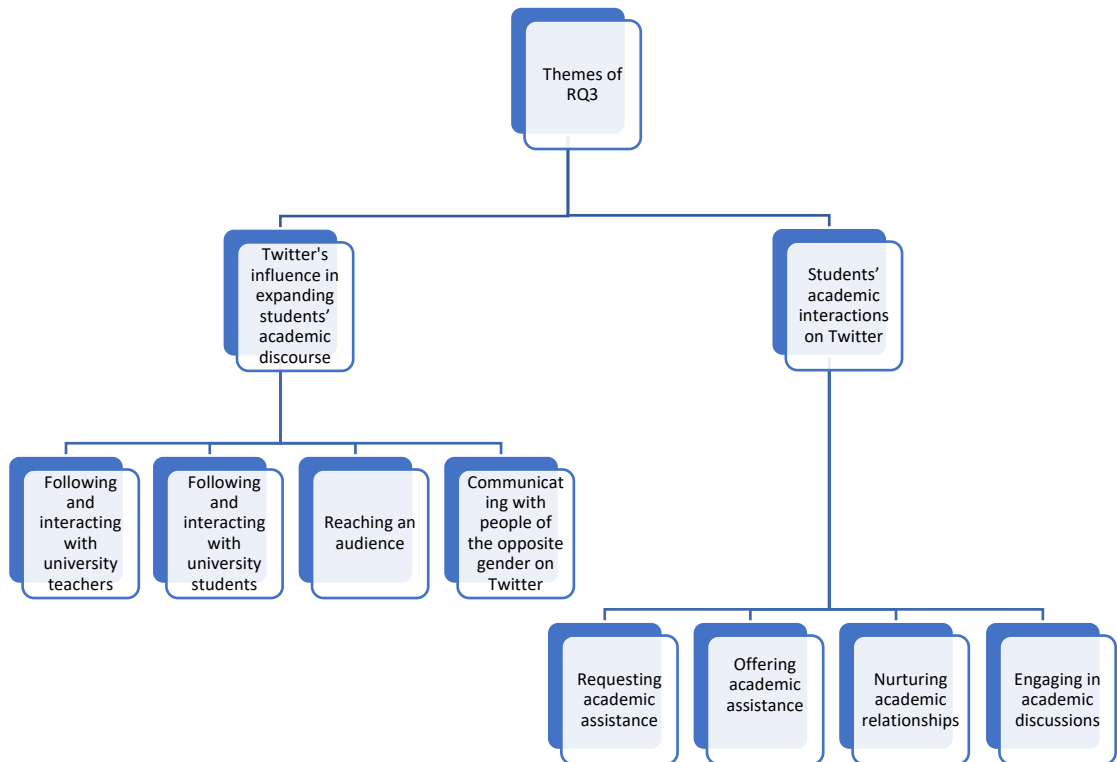
Figure 4.22. The Themes and Subthemes of the Third Research Question.

4.3.1 How Twitter Expands the Range of Students' Academic Discourse

Twitter expanded the range of students' academic discourse in four ways: first, it expanded their academic discourse with their teachers; second, it expanded their academic discourse with other students; third, it helped them reach particular audiences; and fourth, it mediated their communications with people of the opposite gender.

4.3.1.1 Following and Interacting with University Teachers on Twitter

In this subtheme, I discuss several ways in which students find and follow university teachers' Twitter accounts. This section also describes the benefits of following and interacting with university teachers on Twitter.

The participants found university teachers on Twitter in four ways. Alghamdi-1 explained the first way: '*I look for my teachers' names on Twitter to follow them*'. Aisha said:

I search Twitter for my university teachers' accounts. Those who use their exact names as their Twitter handles and their personal photos for their profiles are easy to find. It is more difficult those who do not use their full names or who use pseudonyms.

Maryam-S explained the second way, '*Most of the users that I follow are university teachers. When they retweet academic information other academics wrote, I go to these academics' accounts and, if I like their tweets, I follow them*'.

Maryam-Q explained the third way: '*I look at who follows my teachers, and then I go to their accounts and follow the users whose tweets correspond to my beliefs, religion, and interests*'.

B.M. explained the fourth way:

When I made my Twitter account, Twitter suggested people to follow. I already knew some of these people, but others, especially the academics in my discipline, were new. I looked at their accounts and read their tweets, and, if they interested me, I followed them. These academics were not my teachers; they were from other universities.

From these examples, it seems that participants used various methods to find the Twitter accounts of university teachers. Some participants searched for teachers' names on Twitter. This search could be performed by typing the teachers' exact names in the Twitter search box. However, Twitter Help Center (2018a) mentions that, when a user types a particular Twitter handle in the search box, Twitter attempts to find the closest and most

relevant findings to the requested handle. This could be why Aisha could not find some of her teachers' accounts, because Twitter presented many accounts matching her search, which might easily lead to confusion about which account belongs to her teacher.

In addition, some students found teachers through retweets. Maryam-S found other teachers by seeing who academics retweeted. Other participants looked at who followed the teachers they followed. These follower lists helped students connect with more university teachers. Lastly, several participants used Twitter's suggestions, which are curated according to a user's activities (Twitter Help Center, 2018b). Joosten (2012) found that students used the first three ways to find university teachers on Twitter. However, his study did not cover the importance of Twitter's suggestions in finding new teachers to follow.

The second part of this section addresses the benefits of, and reasons for, following university teachers. For example, Halaa said:

I search for my teachers' accounts on Twitter and follow them. Some of them had taught me in only one course, but I found that they were very knowledgeable. I read their tweets to learn about my discipline and about other disciplines. I am a long-distance learner, and following my teachers on Twitter assists my study.

Another example is Mariam-99, who said:

I search for my teachers' accounts on Twitter to learn about their personalities. Two of my professors presented the same personalities on Twitter that they presented in their lectures. It is the same talk and the same style. But there is a professor. . . I do not know. . . I mean, I do not understand his personality on Twitter. . . I could not understand him because he acts differently on Twitter than he does in his lectures.

While Mariam-99 aimed to understand the personalities of her teachers through following them on Twitter, Maryam-Q used Twitter to understand what was happening at the university:

At the beginning of my time at the university, I used Twitter because most of the faculty are on Twitter and every university issue is discussed on Twitter. When I was at the high school, my teachers used Instagram. Thus, I follow the teachers, whether in school or the university. Regardless of where my teachers are, I follow them because I want to understand what is going on around me.

From these examples, it seems that the participants followed their teachers for several reasons. They wanted to be able to communicate with their teachers outside the classroom to ask questions or have academic discussions. Junco et al. (2011) indicate that Twitter allows students to engage in rich discussions with their teachers beyond the limits of scheduled time and space. Junco et al. also found that Twitter positively impacted the quality of students' engagement with academic activities and discussions, which, in turn, improved their grades. Joosten (2012) found that students learn more if they feel connected to their teachers and peers beyond the classroom.

Moreover, following their teachers' tweets can help students understand their teachers' personalities, which can help them discover the best ways to communicate with particular teachers. This finding could be supported by Zhao and Rosson (2009), who studied employees and managers at an engineering institution. They find that Twitter helped colleagues know each other at a personal and professional level.

However, teachers may present different identities online than they do offline. For example, Mariam-99 said that one of her teachers presented a different personality on Twitter than he did during his lectures. Murthy (2013) argues that Twitter allows users to learn more about the people they follow, revealing their interests, habits, and other aspects that are not commonly shared offline. Moreover, learning about others' interests and habits can help users know them 'at a more multidimensional level' (Murthy, 2013, p. 17). Another reason

why students followed their teachers, as Maryam-Q explained, was to obtain up-to-date information about university systems, events, news, or issues.

Some participants mentioned their teachers' names during their interviews. When I analysed the Twitter data, I noticed that these participants retweeted or replied to their teachers' tweets. Consequently, I looked at the Twitter following lists of the study participants' accounts and found that most of the participants followed and interacted with several of their teachers. For example, Aisha followed the teacher who she congratulated for his promotion by using his Twitter handle.

Besides following their teachers at KFU, the participants identified several reasons why they followed teachers from other universities in Saudi Arabia as well as outside the country. For example, Munirah said:

Twitter helped me with my master's degree. I used Twitter to consult with other professors about my research. For example, I consulted a professor from Kuwait University about my research subject and asked whether or not it was worth studying.

Maryam-S supported this view, saying:

I want to complete my postgraduate studies, so I reached out to several teachers from other Saudi universities and asked them which discipline I should study: agricultural economics, which was my undergraduate discipline, or business.

Another example is Maryam-Q, who said:

I greatly benefited from Twitter. The users who I follow on Twitter deserve to be followed. Most of them are very intelligent and thoughtful university teachers. I benefit when I engage in discussions with them or read their tweets. Some of their tweets are about the core of the curricula or about talent and creativity, and these are good for my education and my life. Moreover, it is quite beautiful when academics

from other universities interact with you. If there is a problem in your own university,

you feel that the whole world interacts with you about it.

Moreover, Alghamdi-1 said:

I follow teachers from other universities. For example, I follow Dr. Wafy, who tweets

about academic issues, educational systems, and rules. I also follow several

university teachers who write about my field of research.

Another example is Mashael, who said, *'I follow nursing specialists and teachers, and all of them are from other universities. Sometimes, if I like their tweets, I retweet them'.*

From these examples, it seems that Twitter breaks down traditional academic boundaries and gives students the opportunity to access diverse views and engage with teachers from universities around the world. Thus, Twitter expands the range of students' academic discourse and allows them to learn from teachers from different universities. This finding could be supported by Buck (2017), who indicates that students benefit from Twitter because they are able to connect and communicate with teachers whom they would not otherwise be able to reach through traditional offline methods.

Moreover, the participants identified several reasons why they followed teachers from other universities. First, they were able to consult with these teachers about research issues, such as choosing a research topic. Although students usually receive feedback from their supervisors, they frequently ask for feedback from other people. In addition, students may need to write a research proposal or apply to a university programme before they can identify their preferred supervisors. Second, they connected with teachers from other universities because they wanted to learn more about their disciplines and about other curricula and academic systems.

Furthermore, it seems that these students did not restrict themselves only to their university and its teachers, but also sought information beyond their university's walls. As

Wellman et al. (2006) state before the Internet, the only context of interaction was within local places, while with the Internet and SNSs, 'there has been a shift from place-to-place networking towards person-to-person' networking, which gives people more 'flexible autonomy using social networks' (p. 165). Wellman et al. (2006) also discuss 'person-to-person networked individualism', which represents a major shift in how people connect with others, build networks, and acquire information (p. 146). They also explain how the Internet and SNSs have transferred the control of connectivity from the family, village, or workgroup to the individual. The individualisation of connectivity has allowed people to obtain information on their own from multifarious and constantly updated sources on the Internet. This individualisation encourages people to search for resources and information according to their personal needs, skills, and motivations.

My study's participants seemed to have emancipated themselves from the university as their only source of knowledge. They created their own networks according to their own needs and motivations. This was the case for Munirah and Maryam-S, who used Twitter to communicate with teachers from other universities. Alghamdi-1 and Mashael created their own networks on Twitter to gather information from a variety of sources.

On the participants' Twitter feeds, many participants followed teachers who worked at other universities. Mashael followed Saudi nursing teachers, and Munirah, Afnan, B.M., and Halaa followed teachers from various Saudi Arabian cities. Many of these teachers occupied important positions; one was a member of the Consultative Assembly of Saudi Arabia. Maryam-S followed teachers from universities in other Gulf countries, such as the United Arab Emirates, Bahrain, and Qatar.

From these examples, it seems that Twitter enables students to connect and interact with teachers from other countries. These connections could teach them more about the academic worlds of other cultures. Moreover, many participants seemed to prefer following

teachers from Saudi Arabian and other Gulf universities. This could be because these teachers usually speak similar languages, believe in the same religion, and have similar cultures as the participants.

4.3.1.2 Following and Interacting with University Students on Twitter

In this subtheme, the participants presented divergent attitudes about following other students on Twitter. Nine of fifteen participants said that they enjoyed following their peers. However, the remaining six students said that they did not like following their peers. Both groups shared their perspectives.

The first group discussed two points during their interviews: how they found their peers on Twitter and how they benefitted from following and interacting with their peers. First, the participants explained how they found the Twitter accounts of students who attended the same university, KFU. For example, Aisha said that she used three ways to find other students:

> *I follow some students who are studying at my university. I knew some of them in high school. I found others by asking for their Twitter handles. I recognised that others were students at my university because they tweeted about a university issue.*

Afnan discussed another method:

> *I like to tweet about my participation in KFU activities. Some students reached out to me on Twitter to ask me how they could participate in these activities. I noted that we had similar interests, and I followed them, talked with them on Twitter, and met them at the university.*

Maryam-S said:

I saw an announcement on Twitter about a workshop that a student was presenting at KFU. I wanted to attend this workshop, so I followed this student and sent her a DM, saying that I wanted to meet her in person after the workshop. We met at the university, and now we are friends, and our friendship is wonderful.

From these examples, it seems that participants used various ways to find KFU peers on Twitter: first, continuing to follow friends on Twitter who they had followed studying at KFU and who then enrolled at KFU; and second, asking other students in the same department or university for their Twitter handles. Also, some participants discovered KFU students when they tweeted about a university issue. Finally, tweeting about KFU events and activities could be a way to find academic peers on Twitter. Tweeting about KFU events seemed to encourage other students to communicate with the original tweet's author, as shown by Afnan and Maryam-S.

While these participants discussed how they found KFU students on Twitter, others talked about how they found students who studied the same discipline at other universities. For example, Halaa said:

Following Twitter accounts that tweeted about my discipline helped me meet other students who studied my discipline. Some students engaged in academic discussions with the people who managed these accounts. I looked at the profiles of these students and the students who participated in hashtags related to my discipline, and then I followed the ones who I thought would be useful.

Halaa mentioned two ways to find academic peers who study the same discipline: First, looking at the profiles of students who engaged in academic discussions with accounts that are established for a specific discipline; and, second, by looking at the profiles of students who use hashtags related to her discipline.

Mariam-99 also searched for peers who studied her discipline:

On my Twitter profile, I mention that I am a business student at KFU, and a girl sent me a DM asking me if I was the person she knew from the Ask.fm app three years ago. I said yes, and she said that she studied in the same department and wanted to meet me. So, finally, we met face to face.

The participants also talked about the benefits of following and interacting with their peers. For some, Twitter helped them make friends. For example, Afnan said:

I made friends over Twitter, and then I met them offline. I like to tweet about participating in KFU activities. Some students reached out to me on Twitter and asked me how they could participate in these activities. I noted that we had similar interests, and I followed them, talked with them on Twitter, and met them at the university. We also went to some university events together. Twitter was the start of our friendship.

Another example is Ruyuf, who said:

I made friends over Twitter. For example, I talked with a student who wrote on her profile that she was studying Human Resource Management. I asked her a few questions about her discipline. Then I accidentally met her at a workshop, and, after that, we became friends.

Moreover, Halaa said:

I follow some students who include where they live, where they study, and what they study on their profiles, so sometimes I send DMs to those who live in my city or study at my university. If I trust them, I meet them in person. I have made many friends in the offline world by communicating with them on Twitter.

From these examples, it seems that Twitter allows students to expand the range of their academic discourse with other students. Following other students on Twitter benefitted the students in two ways. First, Twitter facilitated the formation of friendships with other

students. These online friendships were often reconstituted offline (as was the case for Maryam-S, Mariam-99, Afnan, Ruyuf, and Halaa). The students used DMs to arrange meetings, in part, because they desired privacy.

My participants reached out informally to other students without being instigated by their teachers, while Junco et al.'s (2011) participants engaged in their first Twitter discussion at their teacher's request. In their study, two students engaged in an academic discussion on Twitter and quickly realised that they had common interests. Ultimately, they formed a strong friendship that would have taken more time to form in a traditional offline setting. Carpenter and Krutka (2015) found that Twitter expanded educators' academic networks beyond the limit of a face-to-face community. Some of their participants became close friends with the educators they met on Twitter. While the participants in their study were educators who used Twitter to befriend other educators, my participants were students who befriended other students.

Students also learned new information by following other students. The participants in Abdelmalak's (2015) study did not communicate solely with their classmates; they also communicated with students from other universities. She found that Twitter allowed students to expand their learning community, benefit from others' experiences, and improve their own experiences.

On the participants' Twitter feeds, some of the participants followed other students. Some of these students studied at KFU, while others studied at other universities. For example, Munirah followed students that were engaging in postgraduate studies in the U.K., and Aisha followed several KFU students who were studying the same discipline as she was. Mashael followed students who were studying the same discipline as at other universities. Maryam-S and Afnan followed KFU students who were studying various subjects.

Moreover, some participants engaged in academic discussions on the DMs, that they provided to me as screenshots, with students from their university and from other universities. For example, Maryam-Q had a conversation with a PhD student who was studying in the U.K. Maryam-Q asked her which size of poster she should use for a project, and the PhD student said that she should use an A1 poster. The PhD student also asked for Maryam-Q's email address so that she could send her a PowerPoint from a workshop she presented about the topic Maryam-Q was inquiring about.

From these examples, it seems that participants use Twitter to expand the range of their academic discourse with other university students inside or outside the participants' university. The participants also benefited from this interaction to improve their knowledge and academic skills.

While these participants presented their experiences regarding finding, following or making friendships with other students, the other six participants preferred not to follow other students or form friendships via Twitter. For example, B.M. said:

I do not like to follow my classmates or friends on Twitter. I think Twitter should be used differently than other SNSs. I usually communicate with my friends on other SNSs, but not on Twitter.

Munirah had a similar opinion: *'I do not follow peers from my university. I do not like to make friends on Twitter or on any SNS because I do not trust this type of friendship'.* Moreover, Alghamdi-1, Maryam-302, and Ra65 said that they do not try to make friends on Twitter, believing, in general, that Twitter was unsuitable for forming friendships. However, Maryam-Q shared a different reason:

I prefer to follow teachers or researchers, rather than students. This is because students have less experience than teachers. Moreover, I learned a lot by participating in Saudi Arabia's Talent programme, so it's possible that I have more

experience than other students. I follow a few students who, like me, have participated in the Talent programme. Moreover, because I have won awards at the national level in Saudi Arabia, many students have reached out to me on Twitter to ask about my experience. Most of them are complete strangers. I talked with the students who sent me DMs asking for advice, and I helped them until they got the award.

In these examples, the participants identified two reasons for not wanting to form friendships with other students on Twitter. First, they believed that Twitter was not suitable for making friends. Twitter is a public site where anyone can read a person's tweets. Moreover, some users create accounts with pseudonyms, which could affect a student's safety if she became friends with these pseudonymous users. This could be the reason why Munirah said that she did not trust this type of friendship.

As Guta and Karolak (2015) highlight in their research, students may hesitate using Twitter to make friends because Saudi culture considers SNSs to be a socially inappropriate way to make friends. However, their study's participants had conflicting views. Some were initially ashamed by the friendships they made online; others were happy that they made friends on SNSs, even if these friends were men, which is forbidden in Saudi society.

Second, some participants believed that following other students was academically worthless. For example, Maryam-Q believed that, because students had less academic experience than teachers, following them was less worthwhile. Though it is true that students are generally younger and less experienced than their teachers, some students are more knowledgeable. The scope of a person's intelligence does not depend on age but, rather, on a person's interest in learning. Moreover, interacting with other students could improve one's communication and argumentative skills.

4.3.1.3 Reaching an Audience

The participants talked about how Twitter helped them reach a large audience and/or a target audience. Some stated that Twitter gave them the ability to convey their voices and reach a general audience, not just an audience in their academic field. For example, Aisha said, '*Twitter allows me to communicate with the people I cannot reach without Twitter'*. Moreover, Maryam-302 said, '*Twitter allowed me to reach people who do not hear me in normal society [offline]*'. Ra65 explained how Twitter enabled her to reach others, '*Twitter helped me convey my opinions to others; it is a platform to the whole world*'.

Other participants discussed the usefulness of hashtags for reaching a large audience. For example, Munirah said:

Twitter is a platform that allows you, while you are sitting at home, to present your opinion with a hashtag, and this hashtag begins to trend and is read by millions of people. Twitter is a very powerful tool for presenting opinions and ideas. It is very influential.

Halaa explained how a Twitter hashtag helped her reach a target audience:

I offered my opinion on some English hashtags about Saudi women. It pains me to know how people from around the world think of Saudi women. I want to correct some of the incorrect views that are spread by these hashtags, such as the view that Saudi women think about only particular issues or narrow areas. And I think that these types of hashtags have corrected some of these views.

From these examples, it seems that Twitter allowed the students to reach audiences that would otherwise be inaccessible. Twitter allows anyone to read posts; even a person without an account can read tweets. Moreover, registered users can read, retweet, and reply to other users, even if they do not follow them (O'Reilly & Milstein, 2011). These features

allow people to reach a global audience (Murthy, 2013). Murthy also emphasises that Twitter has the ability to connect divergent groups from around the world.

Moreover, Hashtags can make a tweet seen by very large audiences. As seen in Munirah's and Halaa's examples, hashtags give tweets the ability to reach millions of people (O'Reilly & Milstein, 2011). Nevertheless, because there are so many tweets, it is also possible that any single tweet will generally be lost amongst the noise.

Several participants talked about how Twitter helped them reach audiences for their workshops inside or outside KFU. For example, Maryam-S said:

I always tweet about the activities and workshops that I hold at the university and invite students to attend. As a result of this, I have received invitations from many cities and institutions asking me to hold workshops at their events. I think that Twitter has helped me reach a massive audience.

This example shows that Twitter can be used as a marketing platform. Mahrt et al. (2014) indicate that academics can use Twitter to advertise their workshops and publications. This is similar to how Maryam-S uses Twitter to advertise her workshops.

Furthermore, some participants highlighted the power of Twitter to influence the offline world. For example, Zainab said:

I tweeted an idea that I had about one of my modules, and many of my classmates who were Twitter followers agreed with my idea and encouraged me to present it to our teacher at the university, so I discussed it with my teacher during the lecture. And yes, my idea became reality. Thank God.

Another example is Maryam-Q, who said:

I think that Twitter conveys my voice and helps me reach particular audiences. When I tweet about a problem at the university, many of the university members, the decision-makers, the dean, and the vice dean read my tweets and respond to me. For

example, we had a very difficult mathematics exam. Our teachers wrote incomprehensible questions to reduce the number of students. There were 300 students, and the department would accept only 70 students, so that is why they made this exam very difficult. At the time, we were very angry, and we created a hashtag asking for the opportunity to retake the exam. The teachers who wrote the exam questions talked to me about the hashtag during the lectures; the teachers knew that we were talking about them on Twitter. There were other teachers who talked with me over DMs. Finally, the teachers solved this problem, and we deleted the hashtag.

From these examples, it seems that Twitter has the power to change the offline world. In Zainab's example, her idea started as a tweet and became an offline reality. Her example also shows how powerful the influence of peers can be; her followers encouraged her to talk to her teacher about her idea. Twitter gave the students additional power because they made a public protest; everyone could see what the university did and that students were unhappy. They used Twitter to affect the university's authority.

While Zainab's teacher did not learn about her idea until she told her during a lecture, Maryam-Q's teachers knew about her hashtag because they had read her and other students' tweets. Maryam-Q's hashtag encouraged a digital uprising by students who used Twitter to demand change. Moreover, Twitter conveyed the voices of these students *as students* and enabled them to reach the people who had the authority to change. As Maryam-Q explained, many teachers, including ones who had taught her and those who hadn't, had private discussions with her via DMs and during lectures to solve the problem.

This use of Twitter to cause change is similar how Twitter was used during the Arab Spring revolutions, which were 'a rough grouping of diverse anti-government movements in the Middle East… in late 2010 and early 2011' (Murthy, 2013). Al-banna (2014) indicates that Twitter allows a single person's voice to be heard across the world, demonstrating

Twitter's power to unite contrary opinions and perspectives to serve an objective. Al-banna (2014) explains that, during the Arab Spring revolutions, Twitter helped mobilise public opinion around political issues and transfer political momentum from cyberspace to the offline world. However, she adds that it is not possible to confirm that Twitter and other SNSs were the fundamental elements of these revolutions; nevertheless, these SNSs were still essential for gathering the crowds that ignited these revolutions. This point is consistent with Murthy (2013), who notes that, while Twitter supported the mass revolutions during the Arab Spring, 'it did not cause them' (p. 98).

4.3.1.4 Communicating with People of the Opposite Gender on Twitter

Most participants agreed that Twitter has influenced how people of the opposite genders communicate in Saudi Arabia. The participants focused on two points: First, they shared their opinions about their general communications with men on Twitter and, second, their opinions about engaging in academic communications with their male teachers and peers on Twitter.

Several participants disapproved of communicating with men on Twitter, or, if they accepted it, they accepted it minimally. For example, Maryam-302 said, '*It is **impossible** for me to communicate with men on Twitter, either in public or in private. I do not like communicating with men on Twitter because it is religiously and socially unacceptable'.* Maryam-302's Twitter feed showed that she did not communicate with men. Most of her interactions were with women.

While Maryam-302 stridently refused to communicate with men on Twitter, Alghamdi-1 shared the same view but offered a few exceptions:

*I **avoid** communicating with men on Twitter if it is not necessary to talk to them. I reply to men who reach out to me to ask me about my discipline, but if a man asks me to follow his account or just wants to chat with me, I ignore him.*

Zainab had a slightly different perspective:

*I follow male students if they are studying the same discipline as I am. Though we do benefit from each other academically, it is **unusual** for me to communicate with men. My mother is unhappy, even though I have told her it is for my education. Thus, I think segregation between men and women exists even on Twitter.*

Furthermore, Munirah said, '*I think that Twitter **breaks down the barriers** between men and women in a bad way. Sometimes I receive dating invitations from men via DMs. I do not reply, and I block these users*'.

While these participants avoided communication with men or felt uncomfortable, other students did not mind communicating with men on Twitter. For example, Ruyuf and Afnan saw no issue in communicating with them, but they emphasised that these communications had to be respectful. Halaa described a positive outcome from cross-gender communication on Twitter:

*On Twitter, you are able to see **both sides of gendered opinions**; you can see the women's and men's opinions. This differs from traditional media, such as newspapers or TV, where men's voices dominate.*

Another example is Maryam-Q, who said, '*It does not matter what the genders are of the users with whom I communicate. The point is to get answers to my inquiries. The important thing is communicating respectfully*'.

B.M. mentioned that she changed her opinion regarding cross-gender communication on Twitter:

*In the beginning, I completely rejected Twitter because I thought it contradicted our Islamic and Saudi traditions. These traditions maintain the **barriers** between men and women. As Saudi women, we are not familiar with interacting with men to whom we are not related. Consequently, when I started using Twitter, I felt **embarrassment** when I retweeted a man because I thought it was shameful. So, I did not accept the idea that Twitter might open the door and let men and women communicate with each other. However, while I have been on Twitter, I have seen many academics and religious people, men and women, who have respectfully communicated with the opposite gender on Twitter and have not broken Islamic traditions. Slowly, I became accustomed to this kind of communication.*

On B.M.'s Twitter account, I saw that she had retweeted and replied to male academics. She also gave me a screenshot of a private conversation she had with a male teacher who had asked her about a survey she tweeted. B.M. replied that the survey belonged to another researcher and gave the teacher the researcher's Twitter handle.

From these examples, it seems that the Islamic and Saudi cultures greatly affect cross-gender communication on Twitter. However, at the same time, Twitter influences these cultures. As I discussed in the section about the study's context, Saudi Arabia is the birthplace of Islam, and Islam is the source of the kingdom's laws. Moreover, strict segregation between the genders is enforced in many places in Saudi Arabia; in these places, it is unacceptable for people to communicate with members of the opposite gender if they are not related to them (Guta & Karolak, 2015).

Moreover, it seems that Twitter and other SNSs have affected the lifestyles of Saudi citizens in general and the lifestyles of Saudi women in particular. Twitter removes the barriers of time and place, and it provides opportunities for people to communicate while staying behind their screens. The participants noted that cross-gender communication on

Twitter could have positive and negative effects. The primary negative effect is that this communication could lead to forbidden relationships between men and women. These relationships are rejected by Islam and by Saudi culture. This prohibition is the reason why many participants approached communicating with men with caution, evident in their word choices: '*impossible*', '*avoid*', '*unusual*', '*dissatisfied*', and '*embarrassed*'. This finding could be consistent with Guta and Karolak (2015), who indicate that men and women in Saudi Arabia are segregated online and that this prevents relationships from developing between them.

However, Twitter also has positive effects, especially for women who face social restrictions. As evidenced by Halaa's statement, Twitter amplifies the voices of Saudi women. This finding could be supported by Al-Jabri et al. (2015), who point out that Saudi women use Twitter and other SNSs to present themselves in a society that limits their freedom of speech, self-presentation, and range of social interactions. Moreover, the participants who did communicate with men on Twitter were still influenced by Islamic traditions and Saudi culture, as evidenced by their repeated use of the phrase 'respectful way'. (I discussed the Islamic view about communication between the genders in 4.1.1.1.2 Using Twitter as a Tool for Academic Queries.)

The participants also talked about engaging in academic communication with male teachers and students. They had different attitudes about the appropriateness interacting with male academics, and, in general, these attitudes varied according to the men's age and level of study. The students interacted with male teachers differently than they did with male students. Maryam-Q said:

> *I do not avoid talking to male teachers on Twitter because we already talk in lectures. I follow them, and some of them follow me back. However, I do not like to follow* **male students** *because they often use pseudonyms, and, because they are anonymous,*

sometimes they talk inappropriately. Teachers, in contrast, use their real names and care about their social status; they are discreet and cautious. However, I have blocked teachers who have freely talked about their private lives with me.

On her Twitter feed, Maryam-Q communicated with male teachers by retweeting, replying, and liking their tweets and communicating with them using DMs. Similarly, Mariam-99 said:

*I do not follow **male students** on Twitter. If I hear that a male student tends to tweet useful information, I search for his name and read his tweets without following him because I do not think it is necessary to follow him. One of my teachers created a **private Twitter account** to communicate with his female students and another private account to communicate with his male students, whom he was teaching the same curriculum.*

From these examples, it seems that the students found it acceptable to communicate with men if they were teachers who used their real names and occupations, but they were uncomfortable with interacting with male students. They seemed to have carefully thought about this issue, and many of them had specific criteria that guided their actions. These criteria varied across individuals. Maryam-Q disapproved of following or interacting with male students on Twitter because they often used pseudonyms and, consequently, were anonymous. Users are more likely to behave carelessly on Twitter if no one can identify them. This finding could be supported by Valkenburg and Peter (2011), who demonstrate that online anonymity encourages people to engage in more irresponsible online behaviours. They also found that anonymity tends to lead to online harassment, cyberbullying, and the sharing of harmful comments.

The Islamic culture and Saudi traditions are salient in these examples. One possible reason for this attitude—that it is acceptable to communicate with male teachers but not male

students—is that Saudi universities allow male teachers to teach female students, but only through video conference or if the teachers stand behind a wall that prevents them from seeing their students. Interactions between male and female students are very limited. Teachers usually give separate lectures, one for male students and one for female students via video conference. It is very rare for a teacher to give a single lecture for both genders, and, when it does happen, it usually involves the teacher giving a lecture to male students and broadcasting his lecture live to female students, who are in a separate building. As a result, most participants were unaccustomed to communicating with male students, and this unfamiliarity could be why they disapproved of interacting with male students on Twitter.

Saudi traditions and gendered segregation were reproduced on Twitter, as evidenced by Mariam-99's example of the teacher who used two private accounts. Since these accounts were private, following them or reading their tweets required the teacher's permission. Thus, it limited cross-gender communication between his students.

In summary, this theme explained how Twitter expanded the range of the students' academic discourse. They used Twitter to communicate with teachers and students from their university and from other universities, to interact with people of the opposite gender, and to reach particular audiences. They also explained how they found the university teachers' accounts and how they benefitted from interacting with these teachers. They also shared their opinions about following other students. They were divided in their opinions about whether following other students was worthwhile.

In addition, the participants explained how Twitter amplified their voices as women and as students. They also talked about how Twitter affected how they interacted with men, identified how they were influenced by Islam and Saudi culture and how Twitter, in turn, influenced Islam and Saudi culture.

4.3.2 Academic Interactions on Twitter

The students interacted academically with other people on Twitter using four ways; they requested academic assistance, offered academic assistance, reinforced their academic relationships, and involved in academic discussions.

4.3.2.1 Requesting Academic Assistance

To request assistance, the participants used either DMs or the Mention or Reply features. B.M. said, '*I prefer using DMs for inquiries about my education*'. Maryam-Q also preferred using DMs to ask for help:

> *I typically use DMs when I want to discuss an important idea that I want to protect. For example, one of my teachers offered to help support his students' ideas, and I asked for his advice about my idea, which was about creating a video game for improving flying skills; I named it 'Pilot Fun'. I used DMs because I was afraid that somebody would steal my fantastic idea if I talked about it publicly on Twitter.*

Afnan had a similar perspective. She said: '*I use DMs to ask questions about projects that I do not want to share publicly*'.

While these students used DMs to protect their academic ideas, Munirah used DMs to engage in longer discussions with academics*, 'I use DMs to consult with teachers from other universities about my master's study. DMs are more convenient for me. I also use DMs for long queries and discussions'*.

Moreover, several students preferred to ask for help privately. For example, Maryam-Q said:

I use DMs to ask my teachers about other teachers if I am hesitant about registering for their courses. I ask about their teaching styles, their personalities, and how they behave with students. Some teachers flatter their colleagues, while others expose everything they know, and those are the ones I ask.

Furthermore, some teachers preferred that students use DMs to ask for help. For example, Maryam-302 said, '*My teacher told us that she would answer our questions for two hours after the lecture if we sent her DMs. I asked her something about course grades, and she replied to me*'.

On the participants' Twitter feeds, Maryam-Q used DMs to ask for help, querying her teacher about 'Pilot Fun'. Another example is Afnan, who sent a DM to an institution that ran leadership workshops and courses, asking, '*Can you tell me how I can register for the leadership workshop?*' The institution sent her the registration link. In another case, Ruyuf sent this message to a teacher: '*I am in my foundation year, and I am still hesitant about some of the management disciplines*'. Another example is Maryam-Q, who sent a DM to her teacher to ask about something from the textbook that she did not understand, '*I am confused about the differences between machine language and high-level language in computer science. What are their differences?*'. Her teachers replied with an explanation.

From these examples, it seems that the students used DMs as a channel to request academic assistance including those queries related to their university study, research and assignments.. The privacy of DMs was more convenient for them, and it protected their intellectual property (as evidenced by the examples of Maryam-Q and Afnan, who asked about their project ideas). No one can read DMs except the sender and the receiver. DMs can also have an unlimited number of characters, unlike ordinary tweets (Agarwal, 2015), allowing the students to send a single long query rather than several tweets.

Moreover, some students could be too proud to ask for help publicly. They preferred to be the people who offered, but did not request, assistance. Thus, DMs gave them the privacy they required to ask for help. This could be supported by Warren (2016), who found that students used DMs to ask their teachers questions privately and, hence, avoid possible criticism from their peers.

The participants also used DMs to ask advice about sensitive issues (as was the case with Maryam-Q, who asked her teachers to share their opinions about other teachers). Her word ('*expose')* reveals that she was aware of the sensitive nature of this query. Since it is difficult to talk publicly about a person on Twitter, DMs offer a safe place for sensitive conversations. Furthermore, some teachers required that students use DMs to ask for help. The reason for this request could be the teachers' unwillingness to discuss academic or curricular issues in public on Twitter.

The students also used DMs to ask about academic practices and skills, e.g. asking about registering for a workshop or about course grades. These findings could be consistent with Veletsianos (2012), who found that scholars frequently ask for assistance on Twitter. He identifies three types of requests: requests for resources for their classes, for information related to their research, and for assistance to improve their skills. The participants of Veletsianos' study were professors who worked at universities, while this study's participants were undergraduate or master's students who used Twitter to ask for academic assistance.

While some participants preferred to use DMs for their assistance request, others did not mind publicly asking for help. For example, Ruyuf said, '*I use the Mention or Reply features to ask questions about things that I do not understand'.* Another example is Ra65, who said:

If I have questions about a course, I ask my teacher using the Mention feature. I do this because some of my teachers want us to ask questions publicly on Twitter so that they benefit other students.

On her Twitter feed, Eiman used Reply feature to ask an institution that runs academic courses: '*How can I get a certificate for the course that I took at your centre?*'

From these examples, it seems that the Mention and Reply features were often used to ask for assistance, most often about administrative issues, such as asking about course certificates or about the location of a workshop. However, in some cases, some students asked their questions publicly to comply with their teacher's request. However, ultimately, most participants preferred to use DMs to ask for help.

4.3.2.2 Offering Academic Assistance

The second type of interaction that students had on Twitter involved offering assistance to people who asked for help. The students offered to help privately, using DMs, and publicly, using replies. For example, Alghamdi-1 said:

I participated in a hashtag and tweeted that I was studying computer information and that, if people had any questions about my discipline, they were welcome to ask. Some students sent me DMs and asked me about my discipline.

Another example is Eiman, who said, '*Sometimes I receive academic queries via DMs and I reply to them'.* Moreover, Maryam-Q talked about her experience with offering help through DMs*, 'Because I won several awards at the national level, many students sent me DMs and asked about my experience. I helped them step by step, and some got the awards that they wanted'.*

217

On her Twitter feed, Ruyuf responded via DMs to a student's query about the university's admission system for Ruyuf's discipline: '*For admission, the summative assessment usually constitutes 40%, the general aptitude test usually constitutes 30%, and high school grades usually constitute 30%*'. Another example is Eiman, who received a query from a student who had seen one of her tweets offering to help new students. The student asked Eiman to give her a brief overview of the business curriculum.

While these participants used DMs to offer academic assistance, others used the Reply feature to offer academic assistance. One user asked for help with his research, and Munirah replied, '*Look, there is a group of teachers and postgraduate students in history. You can request assistance there [Hyperlink]*'. Another user asked for help finding some references, and Eiman replied, '*The Saudi digital library offers many references in most disciplines*'. Maryam-Q replied to a user who had asked where she could find a particular textbook: '*You can find it in [the name of the bookshop]*'.

A new student asked Afnan to describe what the business department's Induction Day was like, and Afnan asked her followers to help answer this query, tweeting, '*To the students of the Business Administration College: anyone who has information about the Induction Day, can you tell us about it briefly? Thanks.*' She retweeted all the responses.

From these examples, it seems that the choice of offering assistance publicly or privately depended on the user who asked for assistance. The participants used DMs to reply to the queries that they received via DMs, and they publicly replied to those who requested help publicly.

Some participants were specifically asked for help by DM or by the Mention feature. The data show that particular users were requested for three reasons. First, users requested assistance from those who offered it (as in the cases of Alghamdi-1 and Eiman). Second, users requested assistance from people who were academically successful (as in the case of

Maryam-Q). Third, users, using the Mention features, tweeted directly to users who tended to actively interact with others (as in the case of Afnan). Afnan could be described as 'a really good Twitter citizen' because she not only read responses but also engaged with these responses by retweeting, commenting on, or liking them (O'Reilly & Milstein, 2011, p. 121).

Some participants replied to users who requested academic assistance but did not mention a particular user. For example, Munirah, Eiman, and Maryam-Q replied to tweets about assisting with research and finding references. These findings could be supported by Veletsianos (2012), who points out that scholars often offer academic assistance on Twitter, answering questions and providing other scholars with resources, feedback, and suggestions about teaching or research. However, my findings add more detail to Veletsianos' in two ways. First, my research addressed differences between offering assistance publicly or privately. Second, it addressed why people requested assistance from particular users.

4.3.2.3 Nurturing Academic Relationships

The third type of students' academic interactions on Twitter is nurturing academic relationships with teachers and students. Posts that sought to nurture these relationships were either initiated by the participant or were responses to another user's tweet. Aisha used the first kind, saying, '*I congratulated my teacher when he was promoted by the university*'. Another example is Mashael, who said, '*I joined Twitter to support a team that I volunteer for. This team provides information about nursing. I support this team on Twitter by retweeting its posts*'. She retweeted a video about this team and its purpose.

Moreover, Maryam-Q sought to reinforce her relationship with her peers, tweeting about a presentation that she gave with a member of her team. Her tweet thanked her group and included a picture of their presentation. In addition, Ruyuf retweeted an invitation from

her friend Afnan (also a participant in this study) to attend an activity at KFU. Another example is Aisha, who replied, '*Good luck*', to a friend who had tweeted that she had an exam.

An example of the second kind of response to another user's reinforcing tweet is Maryam-S, who said, '*I held a workshop at KFU, and the students who went to it thanked me on Twitter. I responded to each tweet*'. On her Twitter feed, she tweeted, '*From yesterday after my workshop through today, the girls offered me their kindness. I consider their words to be a medal that I proudly wear*'. She also retweeted all the tweets that appreciated her workshop and responded to every user who thanked her.

Moreover, the participants sought to reinforce their relationships with the academics who had helped them. For example, the presenter of a workshop that Afnan attended in Bahrain tweeted at her and thanked her. Afnan retweeted the presenter and thanked her for the workshop. Mashael also thanked a nurse who tweeted about the uses of a particular medicine.

From these examples, it seems that Twitter's nature as an SNS could help students reinforce their relationships with their peers and teachers. This finding could be supported by Dunlap and Lowenthal (2009), who demonstrate that Twitter reinforces relationships between students and between students and their teachers.

I saw three kinds of reinforcement on the participants' Twitter feeds. The first type included tweets of gratitude (as seen when Maryam-Q tweeted that she was grateful for her team). Maryam-S also sent tweets of gratitude when she replied to the users who thanked her for her workshop. Afnan's reply to the Bahraini presenter also fell under this category. The second type of reinforcement involved congratulatory tweets, such as when Aisha congratulated her teacher for his promotion. The third type of reinforcement involved supportive tweets to friends or classmates, such as when Aisha wished her friend good luck

before her exam. Similarly, Ruyuf was supportive when she retweeted her friend's workshop invitation. Mashael also supported her nursing team by retweeting its posts.

4.3.2.4 Becoming Involved in Academic Discussions

The fourth way students interact on Twitter is by engaging in academic discussions. Here, *discussion* indicates that the participants tweeted more than once and actively engaged with others in multi-tweet conversations.

The data shows that the participants engaged in academic discussions for several reasons. First, they wanted to learn more about issues related to their discipline. As Maryam-Q said, *'Some of the professors' tweets are about the curriculum or about talent and creativity. I learn regardless if I talk to them or only read their tweets'*.

Another example is Halaa, who said:

I am the kind of person who does not like to receive information that I am not convinced by. When an academic tweets something interesting, I ask him or her why he or she tweeted this. Usually, they respond. Yes, yes, they respond to me. We also talk about the content of the tweets.

Second, students engaged in academic discussions to present their opinions and their academic identities. For example, Maryam-S and Afnan were involved in a conversation about a teacher at KFU, and Maryam-S started the conversation with this tweet, *'Today was the first time that a teacher came into class and asked students to introduce themselves. She broke down the barriers between us. It was a beautiful feeling that we felt today'*.

Afnan replied:

You caused me to remember one of my teachers. On the first day of class, she said that she wanted to learn our names, hobbies, interests, and what we wanted to be doing in 10 years. I liked that she asked these questions.

Maryam-S replied, '*It is a lovely idea. I hope that every teacher does it*'. Afnan replied '*Interestingly, the teacher told us that she asks her students the same questions every semester, and some of them have changed their interests for the better*'. Maryam-S replied, '*Wonderfuuul. This is the meaning of continuous development*'.

Munirah was involved in discussion over DM about training courses for human resource development and the differences between useful courses and ones that aim only for financial profit.

Third, the students engaged in academic discussions to support their friends. For example, Zainab talked with her friends and complained about how the medical school's assignments took too long to complete.

Fourth, students engaged in academic discussions that they initiated and encouraged their followers to join. For example, Maryam-Q tweeted, '*Yesterday, my lecturer said that intelligent people are always happy because they can study quickly, solve their problems quickly, and do everything quickly. Is happiness related to intelligence?*' She offered her opinion, '*If the intelligent person is always happy, why do we see intelligent people who are not happy?*' Other users replied to this, and Maryam-Q retweeted them and responded to each. One user replied, '*The happiness that your lecturer was talking about could be connected to the intelligent person's achievements*'. Maryam-Q replied, '*We cannot confirm that this happiness is persistent. I think that it is a temporary happiness connected to the momentary feeling of achievement. It does not last, unlike my lecturer said*'.

From these examples, it seems that the students benefitted academically from engaging in discussions with others. Maryam-Q and Halaa explained that these discussions

on Twitter improved their argumentative skills. Vygotsky (1978) argues that knowledge is constructed through social interactions with other people who have different ideas and who come from different cultures. Students also interacted with others to present their ideas and their academic identities. Zainab identified another reason why she engaged in these academic interactions; she wanted to support her friends and peers and let them know that they were not alone in struggling with their studies. In addition, as Maryam-Q's example demonstrated, many students wanted to learn others' opinions. Conklin (2009) indicates that good conversations requires an actual discussion; it cannot rest entirely on a person merely talking at another person. In Maryam-Q's example, she talked *with* people, not merely *at* them, and she encouraged her followers to share their own opinions. Moreover, she retweeted other users and responded to their replies.

In summary, this theme identified the different types of academic interaction on Twitter. They were: requesting academic assistance, providing academic assistance, reinforcing academic relationships, and becoming involved in academic discussions. Moreover, the participants explained how they used Twitter's features, including DMs and the Mention or Reply features, to ask for or offer assistance. In the third type of academic interaction, the participants talked about how they used Twitter to reinforce their academic relationships. In the fourth type of academic interaction, they talked about why they engaged in academic discussions on Twitter.

Chapter Five: Conclusion

5.0 Introduction

This chapter presents the conclusions drawn from my research. My study's primary aim was to explore how Saudi female university students used Twitter to learn and to present their academic identities. It also sought to collect their perspectives about Twitter's educational potential. In addition, the study examined how Twitter impacted their academic discourse. This study used a qualitative methodology. The data were collected through semi-structured interviews with 15 participants and a content analysis of the participants' Twitter posts. The data were analysed using a thematic analysis.

This chapter summarises the study's key findings, contributions to the literature, implications, and limitations, as well as my recommendations for future studies.

5.1 Key Findings

5.1.1 How do Saudi Female Students Use and Perceive the Educational Use of Twitter in Learning?

The findings revealed that the participants used Twitter for educational purposes in two ways. First, they used Twitter to support their university studies. Second, they used Twitter to support their language learning.

'Using Twitter to support their university studies' was divided into two subthemes. These were 'teacher-directed learning' and 'student-directed learning'. In teacher-directed learning, the participants used Twitter for four purposes: to receive their teachers' announcements, to send academic queries, to engage in after-lecture activates, and to receive

multimedia content related to their courses. During their interviews, the participants offered suggestions about how their teachers could improve how they use Twitter with their students. In student-directed learning, the participants used Twitter for three purposes: to learn more about their disciplines, to improve their research skills, and to prepare for further academic studies, such as applying to a suitable master's or PhD programme.

The students' use of Twitter was mainly student-directed; for the most part, they did not use Twitter at a teacher's request. While student-directed learning was creative, teacher-directed learning was conducted in a very traditional manner; the participants and their teachers used a new technology to fulfil the same function that had been traditionally done. Puentedura (2010) terms this stage as 'substitution', in which the teacher is still the centre of learning, guiding the educational process.

'Teacher-directed learning' emerged in only one theme ('using Twitter to support the students' university studies'). In contrast, 'student-directed learning' emerged in both themes ('using Twitter to support the students' university studies' and 'using Twitter to support language learning'). Compared to the participants' engagement in teacher-directed learning, their engagement in student-directed learning on Twitter was more creatively.

The first research question's second theme was 'using Twitter to support language learning'. In this theme, the participants used Twitter without being instructed to by their university teachers. This theme included the subthemes 'using Twitter to learn a foreign language' and 'improving Arabic literacy'. (Arabic is the participants' mother tongue.)

The participants had conflicting opinions about the suitability of Twitter for learning a foreign language. The group that used Twitter to learn a foreign language engaged in three modes of language instruction: They followed Arabic accounts that taught the language, followed users who spoke the language that they wanted to learn, and tweeted in the foreign language. These participants talked about which languages they learned and why they wanted

to learn them. The most popular foreign language was English, followed by Turkish, then Korean, and French.

The second group explained why they believed that Twitter was unsuitable for learning foreign languages. Some of these reasons were related to Twitter's affordances for learning compared to the affordances of other SNSs or the affordances of other ways of learning, such as traditional courses. Other reasons were related to the participants' personal preferences.

Regarding the findings of using Twitter to improve Arabic literacy, I did not ask specifically about this topic during the interviews. The findings emerged from general questions, and this subtheme emerged from the data retrospectively. Initially, I did not ask the participants about Arabic literacy. These findings emerged early in the analysis, and, because they interested me, I held second interviews with several participants to collect more data. These additional interviews significantly enriched my findings.

The participants talked about how Twitter motivated them to read and write more and, consequently, improved their reading and writing skills. They engaged in five strategies on Twitter to motivate themselves to read: reading motivational tweets to read, following reading-related accounts, reading book reviews shared on Twitter, participating in reading groups, and engaging in reading-related hashtags. The participants also talked about how Twitter helped them improve their speed-reading, critical thinking, and time management skills.

In addition, using Twitter as a personal space to write encouraged the participants to write more. Cooperative writing on Twitter increased their motivation to write. The participants also talked about how Twitter helped them write more concisely, improved their editing skills, and helped them refine their writing styles. The section about brevity also addresses the participants' strategies for dealing with the 140-character limit. Most

participants appreciated the limit, believing that it improved their speed-reading skills and made their writing more succinct.

5.1.2 How do Saudi Female Students Present their Academic Identities on Twitter?

The students revealed three aspects of their academic identities on Twitter: their academic disciplines, their affiliation with the university, and their academic interests, which were communicated through the use of academic hashtags. The participants presented their academic disciplines in various ways: declaring their disciplines on their profile pictures, tweeting about their disciplines, or 'liking' tweets that were related to their disciplines. They also shared their academic disciplines in DMs to students who queried them about their studies.

Several participants talked about how they changed how they presented themselves on Twitter. When they initially joined Twitter, many presented diverse and multifarious aspects of their identities, but, later, they intentionally chose to present only their academic identities, focusing almost exclusively on their academic disciplines. This change could be interpreted as an identity formation, as discussed by Erikson (1968). He states that, while a person's identity grows and develops, he or she tries out various things, values, and goals, accepting some and rejecting others. A person will do this until settling on an identity that he or she most desires.

I used Goffman's theories to interpret many of this research question's findings. For example, Goffman (1959) argues that people are influenced by what people choose to present of themselves. My participants presented their academic disciplines on their profiles and through tweets, retweets, likes, and DMs to influence how other users perceived them. Moreover, almost all of my participants used Twitter as a 'front stage' to express their personal reflections about their lives as KFU students. Goffman (1959) uses the terms 'front

stage' and 'backstage' (p. 32). (I discussed these terms in the literature review and the findings and discussion chapters.)

The participants declared their affiliation with KFU in various ways. They identified themselves as KFU students, expressed their opinions and feelings about KFU, reported on KFU events, shared KFU announcements, and presented their academic achievements. In this subtheme, the participants forcefully presented their affiliation. They demonstrated their university pride by declaring on their Twitter profiles that they were studying at KFU and by tweeting about their lives as KFU students. Their tweets reflected their happiness that they were students at KFU.

However, as Ashforth (1989) demonstrates, though a person's sense of belonging to a particular group may be associated with feelings of happiness and pride, it could be also associated with pain or misery. Consequently, several participants shared with me their positive and negative reflections about their lives as KFU students.

The participants also demonstrated their pride about being KFU students by tweeting about the KFU events that they attended. They identified themselves with KFU by sharing university announcements. They also shared parts of their academic identities by tweeting about their academic achievements, curricular or extracurricular.

For the subtheme 'using academic hashtags', the participants expressed their academic identities by using these hashtags to present their opinions about a variety of issues. Their participating in the academic hashtags could reflect their desire to present themselves as early academics who want to engage in academic discourse on Twitter.

5.1.3 What Is the Influence of Twitter on the Academic Discourse of Saudi Female Students?

This question's findings consist of two parts: how Twitter expanded the range of the students' academic discourse and how students interacted academically on Twitter. The participants identified four ways that Twitter expanded their academic discourse: It allowed them to follow and interact with teachers and students from their university and from other universities, to reach particular audiences, and to communicate with people of the opposite gender.

The participants used several ways to find their teachers' Twitter accounts. They searched for their teachers' names or went through the lists of people that their followers followed. They benefited significantly from following their teachers because they gained knowledge about their disciplines, identified aspects of their teachers' personalities that they were not able to perceive in class, and expanded their intellectual horizons (particularly when they interacted with teachers from other universities).

The participants had several strategies for finding their peers' Twitter accounts. First, they asked their peers for their Twitter handles. Occasionally, they found their peers accidentally when they used an academic hashtag or tweeted about an issue pertaining to KFU. The benefits that they gained from following their peers included forming new friendships and learning from people who studied the same discipline. However, several participants did not like following their peers on Twitter because they thought that Twitter was an unsuitable place for making friends or that following peers was academically worthless.

The participants also talked about the power of Twitter to amplify their voices and reach particular audiences. Hashtags were essential for reaching larger audiences, and the participants were often able to use Twitter to change their offline world at the university.

There were two parts to the participants' opinions about how Twitter impacted their communications with people of the opposite gender. The first consisted of their opinions

about communicating with men in general. The second consisted of their opinions about communicating with men about academic matters in particular. While some participants disapproved of any kind of communication between men and women on Twitter, others minimally accepted it. Several participants said that communicating with male teachers about academic matters was acceptable but that all kinds of communication with male students was unacceptable. They believed that male teachers, being older, were more intellectually mature and cared more about their reputation, which implied that they were more likely to act respectfully. In general, the participants explained that Saudi and Islamic norms about cross-gender communication were reproduced on Twitter. The participants emphasised that Twitter, in turn, affected the culture both positively and negatively.

The participants engaged in four types of academic interactions on Twitter. These were requests for academic assistance, offers for academic assistance, interactions that reinforced academic relationships, and academic discussions. The participants requested or offered assistance either privately (using DMs) or publicly (using the Mention or Reply features). The particular method depended on the user's preference and the type of assistance. Furthermore, the participants used Twitter to reinforce their relationships with their teachers and with other students. The participants also engaged in academic discussions on Twitter to improve their knowledge of their disciplines or to present their academic identities.

5.2 The Study's Contributions

The review of the existing research (see Chapter Two) showed that most of the literature has focused on examining experiments of using Twitter for learning that the researchers have done with their participants. To my knowledge, there has been a lack of studies that examine the Saudi context, as well as studies that explore how Twitter can be

used in student-directed learning and how Twitter enables students to make themselves the centre of learning. The following section discusses this point in more detail.

Although many scholars have found that students generally have positive opinions about using Twitter for educational purposes (Bista, 2015; Hamid et al., 2015; Kutbi, 2014; Perifanou, 2009; Rinaldo et al., 2011), there has been an ongoing argument among researchers about Twitter's proper place inside and outside the classroom. On one hand, many studies have shown that Twitter improves students' motivation to learn, collaboration skills, and educational outcomes (Ahmed, 2015; Becker & Bishop, 2016; Bista, 2015; Hunter & Caraway, 2014; Junco et al., 2011; Perifanou, 2009; Rowell et al., 2016, Veletsianos, 2012). On the other hand, other studies have found that Twitter presents challenges that could limit its utility for learning or, in the worst case, make it entirely unsuitable (Aifan, 2015; Ebner et al., 2010; Mills & Chandra, 2011; Zhao & Rosson, 2009). (The benefits and challenges of using Twitter for educational purposes were discussed in the literature review.)

In most of these studies, the students followed instructions from researchers or teachers. Thus, these studies' findings may suffer from the common limitations of the experimental method such as creating a new situation that does not usually represent the real life of people. However, in my study, the interviews and the content analysis of Twitter posts were not influenced by any directions from me; these sources of data revealed how the students used Twitter by their own initiative.

The interviews included open-ended questions designed to learn how the students used Twitter to support their university studies and learning in general, and the Twitter data identified several ways that the students used to accomplish these goals. Therefore, my study could add to the research that has investigated how Twitter can be used to support education, and it may also expand the scope of the extant literature by drawing attention to the use of Twitter in formal learning and self-directed lifelong learning.

Moreover, many studies have found that Twitter gives students a sense that they belong to an academic community (Abdelmalak, 2015; Becker & Bishop, 2016; Clarke & Nelson, 2012; Dunlap & Lowenthal, 2009; Grosseck & Holotescu, 2008; Junco et al., 2011; Kutbi, 2014; Lomicka & Lord, 2012; Prestridge, 2014). However, the extant literature has neglected to explore how Twitter helps students expand the range of their academic discourse, how they search for teachers or students on Twitter, and why they want to interact with these teachers and students. This study has addressed these gaps in the literature.

Twitter (and SNSs in general) provide new opportunities for people to present their identities online (Rui & Stefanone, 2013). People are able to manage the impressions they make on SNSs by presenting themselves as they want to be seen. Some research has studied self-presentation online through the lens of Goffman's (1959) theory. For example, some studies have examined how people manage their images online (Marwick & Boyd, 2010; Suler, 2002; Vaast, 2007; Zhao et al., 2008). Other studies have used Goffman's 'front stage' and 'backstage' (Chen et al., 2014; Kuo et al., 2013; Linvill et al., 2018).

Most of these studies focused on how people present different parts of their identities online. However, more research was needed to learn how people present their academic identities in particular. Therefore, one of my objectives was to study how students present their academic identities on Twitter. Furthermore, I focused on female students because I wanted to investigate how Twitter helped Saudi women make their voices heard in a society mainly dominated by men.

My study's findings offer valuable insights into how Twitter is and can be used for formal and informal learning. The findings show how the students creatively used Twitter to support their education, which, for the most part, was undertaken without their teachers' influence. It is hoped that this research provides richly detailed information about how Twitter can be used more productively in education.

5.3 The Study's Limitations

All research is subject to limitations. In this section, I discuss this study's limitations and what I would do differently if I conducted this study again. The main limitation is that I collected the Twitter posts for only two months, and these two months happened to overlap with the students' summer holiday. This limitation was reflected in the findings of the subthemes 'using Twitter to support university studies in teacher-directed learning' and 'using Twitter to learn a foreign language'. In addition, the subtheme 'using Twitter to support university studies in teacher-directed learning' was based solely on the interviews; I could not find any tweets that related to teacher-directed learning. This shortage of information is likely due to the brief timeframe I had for collecting the posts. Moreover, since the academic year did not start until the last week of September, some of the Twitter posts were collected when classes were not in session.

Regarding the use of Twitter to learn a foreign language, the only tweets written in a foreign language were written in English. To avoid this limitation in the future, it would be worthwhile to collect Twitter posts for longer, perhaps upward to six months. However, as it was, the Twitter posts were substantial and difficult to analyse. (I analysed more than 5,000 tweets.) In addition, a PhD student, due to other commitments, may be unable to engage in long-term data collection. Furthermore, even if I had, it is possible that I would have still not found the information that I was looking for. For example, none of the participants who learned Turkish on Twitter may have tweeted in the language during the data collection period.

The second limitation stems from using only a qualitative methodology, which has been criticised for a lack of generalisability because it is often based on a single context and

only a few participants (Gray, 2014). However, as I discussed in the methodology, drawing generalisations from my findings was not important to me because I wanted to understand how and why people perceive, interact and reflect (Baker & Edwards, 2012), how Saudi female students use Twitter for educational purposes, how they exchange knowledge on Twitter, and how Twitter impacts their academic self-presentation and discourse.

The third limitation is related to the sample selection techniques (see Chapter Three). As I mentioned earlier, the university refused to distribute my email asking for participants. This email would have included an electronic survey link that provided information about my research, my contact information, and the ethics consent letter. Instead, I disseminated the electronic invitation and survey link via my Twitter account and asked for participants who were female students at KFU, and I shared the same survey link with my WhatsApp contact list and asked them to share the link with their contacts. I also used a snowball sampling approach. The refusal of the university to send out my email meant that my study sample was much more limited in size.

The fourth limitation is that my study examined Twitter, which, as an SNS, is constantly undergoing change. For example, while I was writing this paper, Twitter raised the character limit to 280 characters. In addition, Storify, which I used to collect the Twitter posts, was shut down. The popularities of particular SNSs are always changing. Even Twitter may shut down within a few years, which would make my study completely outdated.

5.4 The Implications of the Findings

5.4.1 Implications for Teachers

This study provides examples of how students use Twitter for educational purposes, with or without their teachers' guidance. The participants suggested several ways that

teachers could use Twitter more productively with their students. These suggestions may give teachers new ideas about how formal and informal learning can take place on Twitter and thus spur them to experiment with new educational methods.

The study also showed how Twitter influenced how the participants communicated with their teachers and peers, identifying several strategies that they used to decide which people to follow. This information could help teachers improve how they use Twitter. For example, they may act differently to adapt to their students' needs, to get more followers, or to enhance their professional images.

Moreover, the study provides examples of how students present their academic identities. In my study, they presented their academic identities in three ways: presenting their academic disciplines, identifying themselves as students at the university, and using academic hashtags. Understanding how students present their academic identities on Twitter may help teachers decide how they should use Twitter to support their students' educations. For example, they could provide their students with information related their disciplines or encourage them to use academic hashtags. They might also encourage their students to tweet about their affiliation with the university, regardless if their feelings are positive or negative.

5.4.2 Implications for Students

The study provides examples of how the participants used Twitter's features for different functions. For example, the participants used the 'Like' feature to store tweets that could benefit them academically, and they used hashtags to present their academic identities or participate in academic discourse. This study also shows how the students used Twitter to support their formal and informal educations. These examples may inspire students to use Twitter to support their university studies or to learn a new language.

Moreover, this study shows how the participants presented their academic identities on Twitter, which could offer students new ways to present their identities on Twitter.

They may, for example, tweet about their academic disciplines or use academic hashtags. Presenting their academic identities may also help them become better at engaging in academic communications more generally. The findings about using Twitter to engage in academic discourse could provide students with strategies that allow them to effectively interact with their teachers and peers and make these interactions more beneficial.

5.5 Recommendations for Future Research

There is a need for more research on many of the areas explored in this study. One of this study's findings involved the relationship between culture and Twitter usage. This relationship appears in many of the study's themes. For example, the participants talked about how Saudi culture and Islam impacted their communications with men on Twitter and, conversely, how Twitter impacted Saudi society. Future research should explore the mutual influence of culture and Twitter on how students use Twitter for educational purposes. Because of the complicated negotiations between established social norms and the desire for change, these kinds of studies could be conducted using anonymous interviews, studying trending hashtags or using an ethnographic approach with follow-up interviews and then analysing the Twitter data for long periods of time, such as years, to investigate the mutual influence of culture and Twitter on how students use it for educational purposes. Moreover, the interviews could be conducted after analysing the Twitter data, so the researcher would ask specific questions regarding the mutual influence that might emerge from analysis of the Twitter data.

As I mentioned in the first research question's findings, the subtheme of 'improving Arabic literacy' emerged from general interview questions that were not necessarily related to the literacy. Therefore, it would be worthwhile to further investigate how Twitter impacts student literacy, positively or negatively. Related to this subtheme, the finding of the effect that practicing in a reading group has on motivating students to read was interesting; this led me to conduct a second interview with the students that had talked about this point. Thus, it could be worthwhile to investigate how practicing in reading groups on Twitter influences the students' reading motivations and skills. This research could be conducted as an exploratory study to gather preliminary information about the topic. It could also be conducted as an experimental study that establishes a reading group on Twitter and then investigates how the participants practice in this group to determine if that impacts their reading motivations and skills.

Future studies could also compare the languages that can be studied on Twitter. This study showed how the students used Twitter to learn foreign languages; however, it did not look at whether it is easier to learn particular foreign languages on Twitter. This is worth further study. For example, future research could investigate if it is easier to learn English on Twitter than Korean, considering that Twitter was created by English speakers.

Other studies could look at how Twitter is used by different groups for educational purposes. For example, a study could use a different sample, such as students, teachers, or administrators, or it could be conducted in a different country. It is likely that the participants' practices would vary significantly.

In my study, I investigated the academic self-presentation of university students, while most of the extant literature investigated the academic self-presentation of teachers or scholars. Thus, it could be worthwhile to study how university students present their

academic identities on Twitter in comparison to how teachers from the same university present their academic identities.

As previously mentioned in the Methodology chapter, although the findings of this study could not be generalised to other universities, the lessons from these findings may light the way for others who work in academia including researchers, teachers, students or university staff, even those in different countries, cultures and societies. Thus, future research could investigate how students from another university, an Arabic or English-speaking university or any university in the world, use and perceive Twitter for educational purposes. Another study could compare the students' presentation of their academic identities at different universities in different countries.

This study only investigates the educational uses of Twitter. Additional studies could investigate how Twitter interacts with other SNSs and how students use and perceive other SNSs, such as Facebook, Instagram and Snapchat, for academic purposes; future work could also evaluate the similarities and differences of using these sites for educational purposes.

References

Abdelmalak, M. M. (2015). Web 2.0 Technologies and Building Online Learning Communities: Students' Perspectives. *Online Learning*, *19*(2), 193-213.

Agarwal, S. (2015, August 12). Removing the 140-character limit from Direct Messages [Blog post]. Retrieved from https://blog.twitter.com/2015/removing-the-140-character-limit-from-direct-messages

Ahmed, A. (2015). 'Sharing is Caring': Online Self-Disclosure, Offline Social Support, and Social Network Site Usage in the UAE. *Contemporary Review of the Middle East*, *2*(3), 192-219.

Ahmed, M. (2015). The Effect of Twitter on Developing Writing Skills in English as a Foreign Language. *Arab World English Journal (AWEJ) Special Issue on CALL*, (2), 134–149.

Aifan, H. (2015). *Saudi Students' Attitudes Toward Using Social Media to Support Learning*. (Unpublished doctoral thesis). University of Kansas, Kansas, USA.

Al-banna, B. (2014). *Twitter and youth sociocultural structure.* Beirut: Arab Institute for Research and Publishing.

Alebaikan, R. (2010). *Perceptions of Blended Learning in Saudi Universities*. (Unpublished doctoral thesis). The University of Exeter, Exeter, UK.

Al-Ghubawi, F. (2016, April 10). A Twitter user discovers a defect in 'Twitter' drops letters by 'Hashtag'. And demands to respect the language of the Koran. Sabq. Retrieved from https://sabq.org/-مغر-د-يكتشف-خللا-ب-تويتر-ي-سقط-حروفا-ب-الهاشتاق-ومطالبات-باحتر ام-لغة-القرآن

Al-Jabri, I., Sohail, M., & Ndubisi, N. (2015). Understanding the usage of global social networking sites by Arabs through the lens of uses and gratifications theory. *Journal of Service Management*, *26*(4), 662-680.

Al-Jenaibi, B. (2016). The Twitter Revolution in the Gulf Countries. *Journal of Creative Communications*, *11*(1), 61-83.

Al-Khalifa, H. (2010). E-learning and ICT integration in colleges and universities in Saudi Arabia. *eLearn Magazine*, (3), 3.

Al-Khalifa, H. S., & Garcia, R. A. (2013). The state of social media in Saudi Arabia's higher education. *International Journal of Technology and Educational Marketing (IJTEM)*, *3*(1), 65-76.

Alotibi, N. (2013). The Effectiveness of Social Networking Twitter (microblogging) on Academic Achievement and the Developing the Cooperative Learning Skills for Female Students in Second Grade in Computer Curriculum. In: *3rd International Conference for E-learning and Distance Education*. (pp. 1-21). Riyadh: The National Centre for e-Learning and distance Learning NCeL.

Alqahtani, S. (2016). Effects of Social Networking on Higher Education in Saudi Arabia. In: T. Issa, P. Isaias, & P. Kommers (Eds.). *Social Networking and Education*. (pp. 291-304). Cham, Switzerland: Springer International Publishing.

Al-Tawil, K. M. (2001). The Internet in Saudi Arabia. *Telecommunications Policy*, *25*(8-9), 625-632.

Ashforth, B. E., & Mael, F. (1989). Social Identity Theory and the Organization. *Academy of Management Review*, *14*(1), 20-39.

Baghdadi, A. (2015, September 23). How Social Media Is Dominating the Saudi Market [Blog post]. Retrieved from http://news.arabnet.me/social-media-dominating-saudi-market-insights-facebook-instagram-twitter-youtube/

Baker, S. E., & Edwards, R. (2012). How many qualitative interviews is enough? Expert voices and early career reflections on sampling and cases in qualitative research. *National Centre for Research Methods,* 1-42.

Barnard, J. (2016). Tweets as microfiction: On Twitter's live nature and 140-character limit as tools for developing storytelling skills. *New Writing*, *13*(1), 3-16.

Baumeister, R. F., & Hutton, D. G. (1987). Self-Presentation Theory: Self-Construction and Audience Pleasing. In: B. Mullen & G.R. Goethals (Eds.), *Theories of Group Behavior*. (pp. 71-87). New York: Springer.

Baxter, P., & Jack, S. (2008). Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers. *The Qualitative Report*, *13*(4), 544-559.

Baym, N. K. (2010). *Personal Connections in the Digital Age*. Cambridge: Polity.

Bazeley, P., & Jackson, K. (2014). *Qualitative data analysis with NVivo* (2nd ed.). London: Sage Publications Limited.

Becker, R., & Bishop, P. (2016). 'Think bigger about science': Using Twitter for learning in the middle grades. *Middle School Journal*, *47*(3), 4-16.

Bista, K. (2015). Is Twitter an effective pedagogical tool in higher education? Perspectives of education graduate students. *Journal of the Scholarship of Teaching and Learning*, *15*(2), 83-102.

Blessing, S. B., Blessing, J. S., & Fleck, B. K. B. (2012). Using Twitter to Reinforce Classroom Concepts. *Teaching of Psychology*, *39*(4), 268-271.

Blumberg, B., Cooper, D.R., and Schindler, P.S. (2005). *Business Research Methods.* Maidenhead: McGraw-Hill Education.

Bolter, J., and Grusin, R. (2000). *Remediation: Understanding New Media*. Cambridge: MIT Press.

Borau, K., Ullrich, C., Feng, J., & Shen, R. (2009). Microblogging for language learning: Using twitter to train communicative and cultural competence. In: *International conference on web-based learning.* (pp. 78-87). Berlin: Springer.

boyd, D. (2002). *Faceted ID/entity: Managing representation in a digital world*. (Unpublished doctoral thesis). Brown University, Providence, USA.

boyd, D. M. (2008). Why youth (heart) Social network sites: the role of networked publics in teenage social life. In D. Buckingham (Ed.), Youth, Identity, and Digital Media (John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning). (pp. 119–142). Cambridge: The MIT Press.

boyd, D. M., & Ellison, N. B. (2008). Social network sites: Definition, history, and scholarship. Journal of Computer-Mediated Communication, 13(1), 210–230.

boyd, D., Golder, S., & Lotan, G. (2010). Tweet, Tweet, Retweet: Conversational Aspects of Retweeting on Twitter. In Proceedings of the 43rd Annual Hawaii International Conference on System Science (HICSS). (pp. 1–10). Kauai County, Hawaii, USA: IEEE.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101.

Braun, V., & Clarke, V. (2012). Thematic analysis. In: H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.), APA handbook of research methods in psychology, Vol 2: Research designs: Quantitative, qualitative, neuropsychological, and biological. (Vol. 2, pp. 57–71). Washington, DC, USA: American Psychological Association.

British Educational Research Association (BERA). (2011). *Ethical Guidelines for Educational Research*. London: BERA.

Bryman, A. (2012). *Social Research Methods* (4th ed.). Oxford: Oxford University Press.

Brynge, E., Case, H., Forsynth, E., Green, G., & Hölke, U. (2015). Libraries: Sustaining the Digital Reader Experience. *Scholarly and Research Communication*, *6*(2), 1-10.

Buck, A. (2017). Grade School 2.0: Performing Professionalism on Social Media. In: D. Walls & S. Vie (Eds.), *Social Writing/Social Media: Pedagogy, Presentation, and Publics*. (pp. 161-178). Colorado: The WAC Clearinghouse and University Press of Colorado.

Cacchione, A. (2015). Creative Use of Twitter for Dynamic Assessment in Language Learning Classrooms at the University. *Interaction Design and Architecture(s) Journal*, *24*, 145-161.

Carpenter, J. P., & Krutka, D. G. (2015). Engagement through microblogging: Educator professional development via Twitter. *Professional Development in Education*, *41*(4), 707-728.

Carter, S. M., & Little, M. (2007). Justifying knowledge, justifying method, taking action: Epistemologies, methodologies, and methods in qualitative research. *Qualitative Health Research*, *17*, 1316-1328.

Casanave, C. (2002). *Writing games: Multicultural case studies of academic literacy practices in higher education.* London: Erlbaum.

Chang, H. C., & Iyer, H. (2012). Trends in Twitter Hashtag Applications: Design Features for Value-Added Dimensions to Future Library Catalogues. *Library Trends*, *61*(1), 248-258.

Chen, X., Vorvoreanu, M., & Madhavan, K. P. C. (2014). Mining social media data for understanding students' learning experiences. *IEEE Transactions on Learning Technologies*, *7*(3), 246-259.

Clarke, T. B., & Nelson, L. C. (2012). Classroom community, pedagogical effectiveness, and learning outcomes associated with Twitter use in undergraduate marketing courses. *Journal for Advancement of Marketing Education*, *20*(2), 29-38.

Coad, D. T. (2017). 'That's My Face to the Whole Field!': Graduate Students' Professional Identity-Building through Twitter at a Writing Studies Conference. *Computers and Composition*, *45*, 51-66.

Conklin, M. G. (2009). *Conversation: What to Say and How to Say It*. Boston: The Floating Press.

Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). London: Sage Publications Ltd.

Dashti, A., Al-Abdullah, H., & Johar, H. (2015). Social media and the spiral of silence: The case of Kuwaiti female students' political discourse on Twitter. *Journal of International Women's Studies*, *16*(3), 42-53.

Davies, J. (2013). Trainee hairdressers' uses of Facebook as a community of gendered literacy practice. Pedagogy, Culture & Society, 21(1), 147–169.

Davies, J. and Merchant, G. (2009). *Web 2.0 for schools: Learning and social participation*. New York: Peter Lang.

Davis, L., & Yin, L. R. (2013). Teaching writing with Twitter: An exploration of social media use in enhancing business communication skills. *The Journal of Research in Business Education*, *55*(1), 36-53.

Dewaele, J. M. (2010). *Emotions in multiple languages*. London: Palgrave Macmillan.

Dhir, A., Buragga, K., & Boreqqah, A. A. (2013). Tweeters on campus: Twitter a learning tool in classroom? *Journal of Universal Computer Science*, 19(5), 672-691.

Dunlap, J., & Lowenthal, P. (2009). Tweeting the night away: Using Twitter to enhance social presence. *Journal of Information Systems Education*, *20*(2), 129-135.

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.

Ebner, M., & Maurer, H. (2009). Can Weblogs and Microblogs Change Traditional Scientific Writing? *Future. Internet*, *1*(1), 47-58.

Ebner, M., & Schiefner, M. (2008). Microblogging—more than fun? In: I. Arnedillo-Sánchez & P. Isaías (eds.). Proceedings of the IADIS Mobile Learning Conference, (July), (pp. 155-159). Algarve, Portugal: IADIS.

Ellison, N., Heino, R., & Gibbs, J. L. (2006). Managing Impressions Online: Self-Presentation Processes in the Online Dating Environment. *Journal of Computer-Mediated Communication*, *11*, 415-441.

Erikson, E. H. (1968). *Youth and Crisis*. New York: Norton.

Etikan, I. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1-4.

Feizy, R. (2010). An Evaluation of Identity in Online Social Networking: Distinguishing Fact from Fiction. (Unpublished doctoral thesis). University of Sussex, Sussex, UK.

Froment, F., González, J., & Bohórquez, M. (2017). The Use of Social Networks as a Communication Tool between Teachers and Students: A Literature Review. *TOJET: The Turkish Online Journal of Educational Technology*, *16*(4), 126-144.

Gao, F., Luo, T., & Zhang, K. (2012). Tweeting for Learning: A Critical Analysis of Research on Microblogging in Education Published in 2008–2011. *British Journal of Educational Technology*, *43*(5), 783-801.

Garcia, E. (2013). Hashtags and followers. An experimental study of the online social network Twitter (Unpublished master thesis). Blekinge Institute of Technology, Karlskrona, Sweden.

Gee, J. P. (2008). *Social Linguistics and Literacies: Ideology in Discourses* (3rd ed.). London: Routledge.

Gleason, B. (2016). New literacy practices of teenage Twitter users. *Learning, Media and Technology*, *41(1)*, 31-54.

Goffman, E. (1959). *The presentation of self in everyday life.* New York: Doubleday.

Gonibeed, A. (2014). *Exploring the self-presentations of Indian IT professionals on social media*. (Unpublished doctoral thesis). Loughborough University Institutional Repository, Loughborough, UK.

Gorrell, G., & Bontcheva, K. (2014). Classifying Twitter Favorites: Like, Bookmark, or Thanks? *Journal of the Association for Information Science and Technology*, *67*(1), 17-25.

Gray, D. E. (2014). *Doing research in the real world*. London: Sage.

Grosseck, G., & Holotescu, C. (2008). Can we use Twitter for educational activities? In: *The 4th International Scientific Conference of eLearning and Software for Education*. (pp. 1-8). Bucharest, Romania.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In: N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*. (pp. 105-117). Thousand Oaks, CA: Sage Publications.

Gurcan, H. I. (2015). Contribution of Social Media to the Students' Academic Development. *International Journal of Information and Education Technology*, *5*(12), 965-968.

Guta, H., & Karolak, M. (2015). Veiling and Blogging: Social Media as Sites of Identity Negotiation and Expression among Saudi Women. *Journal of International Women's Studies*, *16*(2), 115-127.

Haferkamp, N., Eimler, S. C., Papadakis, A. M., & Kruck, J. V. (2012). Men Are from Mars, Women Are from Venus? Examining Gender Differences in Self-Presentation on Social Networking Sites. *Cyberpsychology, Behavior, and Social Networking*, *15*(2), 91-98.

Hamid, S., Waycott, J., Kurnia, S., & Chang, S. (2015). Understanding students' perceptions of the benefits of online social networking use for teaching and learning. *Internet and Higher Education*, *26*, 1-9.

Hattem, D. (2014). Microblogging Activities: Language Play and Tool Transformation. *Language Learning & Technology, 18*(2), 151-174.

Haynes, J. (2007). *Getting Started with English Language Learners: How educators can meet the challenge*. Virginia, USA: Association for Supervision and Curriculum Development (ASCD).

Hebblethwaite, C. (2014, January 23). #BBCtrending: Why Twitter Is So Big in Saudi Arabia [Blog post]. Retrieved from http://www.bbc.com/news/blogs-trending-25864558

Hoffman, C. (1991). *An Introduction to Bilingualism*. New York: Longman.

Hogan, B. (2010). The Presentation of Self in the Age of Social Media: Distinguishing Performances and Exhibitions Online. *Bulletin of Science, Technology & Society*, *30*(6), 377-386.

Hsu, Y., & Ching, Y. (2012). Mobile Microblogging: Using Twitter and Mobile Devices in an Online Course to Promote Learning in Authentic Contexts. *The International Review of Research in Open and Distance Learning*, *13*(4), 211-227.

Hunter, J. D., & Caraway, H. J. (2014). Urban Youth Use Twitter to Transform Learning and Engagement. *English Journal*, *103*(4), 76-82.

Hyland, K. (2012). *Disciplinary Identities: Individuality and Community in Academic Discourse*. Cambridge: Cambridge University Press.

Jacobsen, M. (2010). *The Contemporary Goffman*. New York: Routledge.

Java, A., Song, X., Finin, T., & Tseng, B. (2007). Why we twitter: understanding microblogging usage and communities. In: *Proceedings of the 9th WebKDD and 1st SNA-KDD 2007 workshop on Web mining and social network analysis*. (pp. 56-65). California, USA: ACM.

Jefferies, J., & Maragiannis, A. (2015). Twitter: Practice in Writing A Recipe for Creativity & Creative Interpretation. In: *ISEA2015: International Symposium on Electronic Art*.

Jefferis, T. J. (2016). *Leading the conversation. The use of Twitter by school leaders for professional development as their careers progress*. (Unpublished doctoral thesis). The University of Birmingham, Birmingham, UK.

Johnson, D. W., & Johnson, R. T. (2014). Using technology to revolutionize cooperative learning: an opinion. *Frontiers in Psychology*, *5*(October), 1-3.

Joosten, T. (2012). *Social media for educators: Strategies and best practices*. San Francisco, California: John Wiley & Sons.

Junco, R., Elavsky, C. M., & Heiberger, G. (2013). Putting Twitter to the test: Assessing outcomes for student collaboration, engagement and success. *British Journal of Educational Technology*, *44*(2), 273-287.

Junco, R., Heiberger, G., & Loken, E. (2011). The effect of Twitter on college student engagement and grades. *Journal of Computer Assisted Learning*, *27*, 119-132.

Juniardi, Y., & Utami, R. (2018). Improving Students' Writing Skills Through Twitter. In: *Tenth Conference on English Studies*. Jakarta, Indonesia: Center for Studies on Language and Culture–Atma Jaya Catholic University of Indonesia.

Just, M.A., & Carpenter, P.A. (1987). Speed reading. In: M.A. Just & P.A. Carpenter (Eds.), *The psychology of reading and language processing*. (pp. 425-452). London: Allyn And Bacon, Inc.

Kelly, M. (2016). *Social media for your student and graduate job search*. London: Macmillan Education, Palgrave.

Khan, I. A. (2011). Learning difficulties in English: Diagnosis and pedagogy in Saudi Arabia. *Educational Research*, 2(7), 1248-1257.

Khan, M., & Al-Hilali, M. (2007). *Interpretation of the meanings of the noble Qur'ân in the English language: a summarized version of At-Tabarî, Al-Qurtubî, and Ibn Kathîr with comments from Sahih Al-Bukhari*. Riyadh: Maktaba Dar-us-Salam.

King Faisal University. (2016a). College of Business Administration. Retrieved March 6, 2018, from https://www.kfu.edu.sa/ar/Colleges/business-administration/CollegeDepartments/Pages/15.aspx

King Faisal University. (2016b). Jarreb forum. Retrieved December 7, 2017, from https://www.kfu.edu.sa/ar/Deans/AhsaaStudent/Lists/KfuNews/DispForm.aspx?ID=155

King Faisal University. (2016c). The shine in positive behaviour. Retrieved December 7, 2017, from https://www.kfu.edu.sa/ar/Lists/kfunews/dispform.aspx?id=4181

King Faisal University. (2017). Statistics of the academic year 2017 in King Faisal University. Retrieved October 12, 2017, from https://www.kfu.edu.sa/en/pages/statistics.aspx

Krämer, N. C., & Winter, S. (2008). Impression Management 2.0. *Journal of Media Psychology*, *20*(3), 106-116.

Kuo, F. Y., Tseng, C. Y., Tseng, F. C., & Lin, C. S. (2013). A Study of Social Information Control Affordances and Gender Difference in Facebook Self-Presentation. *Cyberpsychology, Behavior, and Social Networking*, *16*(9), 635-644.

Kutbi, A. (2014). *How Undergraduate Female Students in the Kingdom of Saudi Arabia Perceive Social Media as a Learning Tool: An Exploratory Study*. (Unpublished doctoral thesis). University of Windsor, Windsor, Canada.

Kwak, H., Lee, C., Park, H., & Moon, S. (2010). What is Twitter: a Social Network or a News Media? Categories and Subject Descriptors. In: *Proceedings of the 19th international conference on World Wide Web*. (pp. 591-600). North Carolina, USA.

Le Page, R. B., & Tabouret-Keller, A. (1985). *Acts of identity: Creole-based approaches to language and ethnicity*. Cambridge: Cambridge University Press.

Lenhart, A., Arafeh, S., & Smith, A. (2008). *Writing, Technology and Teens.* Washington D.C.: Pew Internet & American Life Project.

Lincoln, Y. S. (1985). *Organizational theory and inquiry*. Newbury Park, California: Sage.

Lincoln, Y.S., & Guba, E. (1985), *Naturalistic Inquiry*. Newbury Park, California: Sage.

Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2011). Paradigmatic controversies, contradictions, and emerging confluences, revisited. In: N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research*. (pp. 97-128). London: Sage.

Lingard, M., McNeill, A., & Cann, A. (2017). Using Twitter in (higher) education. *Media Education Research Journal*, *25*(51), 19-27.

Linvill, D. L., Boatwright, B. C., & Grant, W. J. (2018). 'Back-stage' dissent: Student Twitter use addressing instructor ideology. *Communication Education*, *67*(2), 125-143.

Logghe, H. J., Pellino, G., Brady, R., McCoubrey, A. S., & Atallah, S. (2016). How Twitter has connected the colorectal community. *Techniques in Coloproctology*, *20*(12), 805-809.

Lomicka, L., & Lord, G. (2012). A tale of tweets: Analyzing microblogging among language learners. *System*, *40*(1), 48-63.

Mahrt, M., Weller, K., & Peters, I. (2014). Twitter in scholarly communication. In: K. Weller, A. Bruns, J. Burgess, M. Mahrt, & C. Puschmann (Eds.), *Twitter and Society*. (pp.399-410). New York: Peter Lang.

Malki, Z. (2015). Twitter as a Social Network in Academic Environments for Exchanging Information Taibah University: A Case Study. *International Journal of Information Technology and Computer Science*, *7*(10), 15-22.

Manning, P. (1992). *Erving Goffman and Modern Sociology*. Cambridge: Polity Press.

Markham, A., & Buchanan, E. (2012). Ethical Decision-Making and Internet Research: Recommendations from the AoIR Ethics Working Committee (Version 2.0). Association of Internet Researchers. Retrieved from http://www.dphu.org/uploads/attachements/books/books_5612_0.pdf

Markham, S. A., & Belkasim, S. (2011). Collaborating across international boundaries: using twitter as a tool in the classroom. In: Proceedings of the 16th Annual Conference on Innovation and Technology in Computer Science Education (pp. 382-382). New York: ACM.

Marsh, J. (2014). The Relationship between Online and Offline Play: Friendship and Exclusion. In: A. Burn & C. Richards (Eds.), *Children's Games in the New Media Age: Childlore, Media and the Playground*. (pp. 109-132). United Kingdom: Ashgate Publishing.

Marwick, A. E., & boyd, D. (2011). To See and Be Seen: Celebrity Practice on Twitter. *Convergence: The International Journal of Research into New Media Technologies*, *17*(2), 139-158.

Marwick, A. E., & boyd, D. (2010). I tweet honestly, I tweet passionately: Twitter users, context collapse, and the imagined audience. *New Media and Society*, *13*(1), 114-133.

Matthews, B., & Ross, L. (2010). *Research methods: A practical guide for the social sciences*. Harlow, England: Pearson Longman.

McArthur, J. A., & Bostedo-Conway, K. (2012). Exploring the Relationship Between Student-Instructor Interaction on Twitter and Student Perceptions of Teacher Behaviors. *International Journal of Teaching & Learning in Higher Education*, *24*(3), 286-292.

McFedries, P. (2007). Technically speaking: All a-twitter. *IEEE Spectrum*, *44*(10), 84.

Mendelson, A., & Papacharissi, Z. (2010). Look At Us: Collective Narcissism in College Student Facebook Photo Galleries. In: Z. Papacharissi (Ed.), *A Networked Self*. (pp.1-37). New York: Routledge.

Merchant, G. (2006). Identity, Social Networks and Online Communication. *E-Learning and Digital Media*, *3*(2), 235-244.

Mills, K.A., & Chandra, V. (2011). Microblogging as a Literacy Practice for Educational Communities: UCF Libraries OneSearch. *Journal of Adolescent & Adult Literacy*, *55*(1), 35-45.

Ministry of Education, English Department. (2012). *Teaching English [Language course]*. (No. 912/9-2). Riyadh, Saudi Arabia.

Mourtada, R., & Salem, F. (2014). Citizen Engagement and Public Services in the Arab World: The Potential of Social Media. *Arab Social Media Report series*. Retrieved

February 3, 2017, from http://www.mbrsg.ae/HOME/ARAB-SOCIAL-MEDIA-REPORT/Twitter /Twitter-Users.aspx

Murthy, D. (2013). *Twitter: Social communication in the Twitter age*. Cambridge: Polity Press.

Myers-Scotton, C. (1993) *Duelling Languages: Grammatical Structure in Codeswitching*. Oxford: Carlendon Press.

Noman, H., Faris, R., & Kelly, J. (2015). Openness and Restraint: Structure, Discourse, and Contention in Saudi Twitter. Harvard: Berkman Center Research Publication No.2015-16.

Novianti, W. (2013). The Use of Code Switching in Twitter (A Case Study in English Education Department). *Passage*, *1*(2), 1-10.

NVivo by QSR. (2014, March 18). *Explore NVivo for Mac | NVivo How-to Video #1 of 14* [Video file]. Retrieved September 20, 2017, from https://www.youtube.com/watch?v=h0XOFYmyM2Q&list=PLNjHMRgHS4Ffw7846 yApe-qTP1kUrN4RX

Oh, S., & Syn, S. (2015). Motivations for Sharing Information and Social Support in Social Media: A Comparative Analysis of Facebook, Twitter, Delicious, YouTube, and Flickr. *Journal of the Association for Information Science and Technology*, *66*(10), 2045-2060.

O'Reilly, T., & Milstein, S. (2011). *The twitter book* (2nd ed.). Sebastopol: O'Reilly Media. Ink.

Paulus, T., Lester, J., & Dempster, P. (2014). *Digital Tools for Qualitative Research*. London: SAGE Publications Ltd.

Perifanou, M. A. (2009). Language micro-gaming: Fun and informal microblogging activities for language learning. *Communications in Computer and Information Science*, *49*, 1-14.

Plutino, A. (2017). Teachers as awakeners: a collaborative approach in language learning and social media. In: C. Álvarez-Mayo, A. Gallagher-Brett, & F. Michel (Eds.), *Innovative language teaching and learning at university: Enhancing Employability*. (pp. 115-126). Dublin: Research-publishing.net.

Poplack, S. (1980). Sometimes I'll start a sentence in Spanish. *East*, *11*, 581-618.

Poplack, S., & Sankoff, D. (1984). Borrowing: The synchrony of integration. Linguistics, 22(1), 99-136.

Prashant, S. (2016, May 24). Doing more with 140 characters [Blog post]. Retrieved from https://blog.twitter.com/developer/en_us/a/2016/doing-more-with-140-characters.html

Prestridge, S. (2014). A focus on students' use of Twitter—their interactions with each other, content and interface. *Active Learning in Higher Education*, *15*(2), 101-115.

Procter, R., Vis, F., & Voss, A. (2013). Reading the riots on Twitter: methodological innovation for the analysis of big data. *International Journal of Social Research Methodology*, 16(3), 197-214.

Puentedura, R. (2010). SAMR and TPCK: Intro to advanced practice. Retrieved February 23, 2017, from http://hippasus.com/resources/tte/puentedura_tte.pdf.

Purcell, K., Buchanan, J., & Friedrich, L. (2013). *The Impact of Digital Tools on Student Writing and How Writing is Taught in Schools: Summary of Findings*. Washington D.C.: Pew Internet & American Life Project.

Read, A. (2016, February 17). The Complete Guide to New Twitter Polls: What They Are, How They Work and 9 Ways to Use Them [Blog post]. Retrieved July 30, 2018, from https://blog.bufferapp.com/twitter-polls.

Reinhardt, W., Ebner, M., Beham, G., & Costa, C. (2009). How People are using Twitter during Conferences. In: V. Hornung-Prähauser & M. Luckmann (Eds.). Proceeding of 5. EduMedia conference. (pp. 145-156). Salzburg: Creativity and Innovation Competencies on the Web.

Retelny, D., Birnholtz, J., & Hancock, J. (2012). Tweeting for class: using social media to enable student co-construction of lectures. In: *Proceedings of the ACM 2012 Conference on Computer Supported Cooperative Work Companion*. (pp. 203-206). New York, USA. ACM.

Reynolds, L., Gillette, S., Marder, J., Miles, Z., Vodenski, P., Weintraub, A., & Hancock, J. (2011). Contact Stratification and Deception: Blackberry Messenger versus SMS Use among Students. In: *Proceedings of the ACM 2011 conference on Computer supported cooperative work*. (pp. 221-224). New York, USA. ACM.

Rinaldo, S. B., Laverie, D. A., & Tapp, S. (2011). Learning by Tweeting: Using Twitter as a Pedagogical Tool. *Journal of Marketing Education*, *33*(2), 193-203.

Robson, C. (2011). *Real world research* (3rd ed.). Chichester, England: Wiley.

Rohr, L., & Costello, J. (2015). Student Perceptions of Twitter's Effectiveness for Assessment in a Large Enrollment Online Course. *Online Learning*, *19*(4), 1-15.

Rosen, A., & Ihara, I. (2017, September 26). Giving You More Characters to Express Yourself [Blog post]. Retrieved from https://blog.twitter.com/official/en_us/topics/product/2017/Giving-you-more-characters-to-express-yourself.html

Rowell, C., Baff, D., Beckingham, S., Withnell, N., Soper, K., Jobling, C., & Tindal, I. (2016). 'With a little help from my followers': Facilitating the #LTHEChat. In: *#SocMedHE16 Conference*. Sheffield, UK: Sheffield Hallam University.

Rui, J., & Stefanone, M. A. (2013). Strategic self-presentation online: A cross-cultural study. *Computers in Human Behavior*, *29*(1), 110-118.

Saldaña, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). London: Sage.

Sarahah. (2017). Sarahah, About Us. Retrieved December 11, 2017, from https://www.sarahah.com/Home/About

The Saudi Communications and Information Technology Commission (CITC). (2015). Individuals Report ICT Survey Results, 2015. Retrieved July 15, 2018, from http://www.citc.gov.sa/en/reportsandstudies/studies/Documents/PublicIndividualReport2015V5_En.pdf

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for information*, *22*(2), 63-75.

Sherman, T. (2015, October 21). Introducing Twitter Polls [Blog post]. Retrieved from https://blog.twitter.com/official/en_us/a/2015/introducing-twitter-polls.html

Sikes, P. (2004). Methodology, Procedures and Ethical Considerations. In: C. Opie (Ed.), *Doing Educational Research: A Guide to First-Time Researchers*. (pp. 15-33). London: Sage Publications.

The Social Clinic. (2015, March 15). The State of Social Media in Saudi Arabia (Vol. 3) [Blog post]. Retrieved from http://www.thesocialclinic.com/the-state-of-social-media-in-saudi-arabia-vol-3/

Stone, B. (2009, November 19). What's Happening? [Blog post]. Retrieved from https://blog.twitter.com/2009/whats-happening

Strafford, D. (2016). Using the Twitter poll function as a mock quiz to aid student formative self-assessment. In: *#SocMedHE16 Conference*. Sheffield, UK: Sheffield Hallam University.

Suler, J. R. (2002). Identity Management in Cyberspace. *Journal of Applied Psychoanalytic Studies*, *4*(4), 455-459.

Sump-Crethar, A. N. (2012). Making the Most of Twitter. *Reference Librarian*, 53(4), 349-354.

Tucker, P. (2009). The dawn of the post literate age, *Futurist*, 43(6), 41-45.

Turkle, S. (1995). Life on the Screen: Identity in the Age of the Internet. New York: Simon & Schuster.

Twitter Help Center. (2017). Posting links in a Tweet. Retrieved June 16, 2017, from https://support.twitter.com/articles/78124

Twitter Help Center. (2018a). Help with Twitter search. Retrieved February 7, 2018, from https://help.twitter.com/en/using-twitter/twitter-search-not-working

Twitter Help Center. (2018b). About Twitter's account suggestions. Retrieved February 7, 2018, from https://help.twitter.com/en/using-twitter/account-suggestions

Vaast, E. (2007). Playing with masks: Fragmentation and continuity in the presentation of self in an occupational online forum. *Information Technology & People*, *20*(4), 334-351.

Valkenburg, P. M., & Peter, J. (2011). Online Communication Among Adolescents: An Integrated Model of Its Attraction, Opportunities, and Risks. *Journal of Adolescent Health*, *48*(2), 121-127.

VanderWal, T. (2007). Folksonomy. Retrieved March 20, 2018, from http://www.vanderwal.net/folksonomy.html

Veletsianos, G. (2012). Higher education scholars' participation and practices on Twitter. *Journal of Computer Assisted Learning*, *28*(4), 336-349.

Vygotsky, L. (1978). *Mind in society*. London: Harvard University Press.

Waller, M. (2010). 'It's very very fun and exciting'—using Twitter in the primary classroom. *English Four to Eleven*, *39*, 14-16.

Warren, S. J. (2016). The Twitter Academic: Supporting Learning Communications in 140 Characters or Less. *International Journal of Social Media and Interactive Learning Environments*, *4*(1), 1-22.

Wellington, J. (2015). *Educational research: Contemporary issues and practical approaches*. London: Bloomsbury Publishing.

Wellington, J., Bathmaker, A., Hunt, C., McCulloch, G., & Sikes, P. (2005). *Succeeding with Your Doctorate.* London: Sage.

Wellman, B., Hogan, B., Berg, K., Boase, J., Carrasco, J. A., Coté, R., Kayahara, J., Kennedy, T., & Tran, P. (2006). Connected lives: The project. In: P. Purcell (Ed.), *Networked Neighbourhoods: The Connected Community in Context*. (pp. 161-216). London: Springer.

Wilson, A. N. (2016). *What is, and what might be, learned from images shared during Twitter conversations among professionals?* (Unpublished doctoral thesis). University of Stirling, Stirling, UK.

Wong, L. Y. C., & Burkell, J. (2017). Motivations for Sharing News on Social Media. In: *Proceedings of the 8th International Conference on Social Media & Society— #SMSociety17*. (pp. 1-5). Toronto, ON, Canada: FIMS Publications.

Wright, N. (2010). Twittering in teacher education: reflecting on practicum experiences. Open Learning: The Journal of Open, Distance and e-Learning, 25(3), 259-265.

Yin, R. K. (2013). *Case study research: Design and methods* (5th ed.). Thousand Oaks, CA: Sage.

Yurchisin, J., Watchravesringkan, K., & McCabe, D. B. (2005). An Exploration of Identity Re-Creation in the Context of Internet Dating. *Social Behavior and Personality: An International Journal*, *33*(8), 735-750.

Zhao, D., & Rosson, M. B. (2009). How and why people Twitter: The Role that Micro-blogging Plays in Informal Communication at Work. In: Proceedings of the ACM 2009 international conference on supporting group work. (pp. 243-252). Florida, USA: ACM.

Zhao, S., Grasmuck, S., & Martin, J. (2008). Identity construction on Facebook: Digital empowerment in anchored relationships. *Computers in Human Behavior*, *24*(5), 1816-1836.

Appendices

Appendix A: Interview Questions

Why did you join Twitter?

Do you still use Twitter for that purpose?

What kind of information do you share on Twitter?

Does Twitter's features, e.g. tweets, retweets, hashtags, direct messages, etc., contribute to your education? If so, how?

How do you choose who to follow?

Do you use Twitter in a formal course with a teacher?

If so, what do you think about that experience?

Can you tell me how the teacher uses it?

Have you used Twitter to learn something without being asked to by your teacher? If so, how did you use it?

What are the advantages and disadvantages of using Twitter as a learning tool?

Which languages do you use on Twitter? Why?

Have you used Twitter to learn a foreign language?

If yes, how? If no, why not?

What's your opinion about Twitter's 140-character limit?

Do you ever reread your tweets? Why or why not?

What is your profile picture? Why did you choose that?

What does the picture express?

How many Twitter accounts do you have? Why?

In Saudi society, men and women are strictly segregated. Do you think men and women are similarly segregated on Twitter?

How do you communicate with your male peers or teachers on Twitter?

Do you think Twitter gives you the freedom to present your opinion and your identity? If so, how?

Does Saudi culture affect how you present yourself on Twitter? If so, how?

Does Twitter positively or negatively impact your self-presentation? If so, how?

Interview Sample

- ليش طيب سجلت في توتير؟

- يعني معلومات في البداية، احب مثل اني على قولتهم مواكبة ايش اللي بيصير في المجتمع, يعني مهما كان المعتمد عليه كان قبل الجرائد يعني مختصرة, لكن الانترنت لا وبعدين الحلو فيها انك تشوفين الطرفين, تشوفين الطرف النسائي والطرف الرجالي, اسمع الآراء اشوف زي كده.

- طيب هل لازال هذا السبب إلى الآن أو حسيتي أنه فيه اشياء ثانية؟

- لا، استفدت أكيد كثير لما دخلت الجامعة، فادني في تخصصي كثير.

- كيف؟.

- صارت لي يعني الاستاذة في التعليم عن بعد دخلت على صفحاتهم، تعمقت في المادة أكثر, مثلاً بعض الاساتذة يعطوني بس مادة وحدة بينما هم — ما شاء الله — يكون عندهم علم أكثر من المادة اللي أعطوني إياها, يعني اتوسع احس انه فادني كثير في التخصص.

- طيب ايش مواضيع او تغريدات اللي عادةً تغردين فيها،عن ايش تدور هذه؟.

- بنفس تخصصي، يعني أحب اتكلم في شيء يميل للاجتماع, شيء في التربية, في الأطفال، في الاسرة.

- طيب توتير محدود 140 حرف، ايش رأيك بهذه الخاصية؟.

261

- حلوة.

• ليه؟

- على قولتهم الزبدة، يعطي خلاص..

• طيب لما يكون عندك كلام اكثر من 140 ايش تسوين؟.

- ممكن اكتبه اكثر من تغريده، بس برضوا يعني حتى الكتابة اكثر من تغريده يمكن المتلقي يمل، يعني المتابعين, إذا شافوا مثل الواحد يتكلم بأكثر من تغريده يعني يحس أنه هذا الموضوع طويل يعني 3, 4 تغريدات أتوقع كافية.

• إذا يعني تحسين هذه 140 ساعدتك في الكتابة وله بالعكس؟

- لا بالعكس خلتني اميل للتلخيص أكثر، بالنسبة لي أحس أنها ساعدتني في التلخيص.

Why did you join Twitter?

 —In the beginning, I wanted to get information. I like to be up-to-date on what's happening in the community. I mean, in the past, newspapers were our only recourse, but they communicated information concisely. Now, with the Internet, you can see both sides of gendered opinions; you can see women's opinions and men's opinions.

Do you still use Twitter for that purpose?

—No, it has changed. When I started studying at the university, Twitter benefitted me a lot. Twitter helped me learn about my discipline.

How?

—I am undergraduate long-distance learning student. By following my teachers on Twitter, I was able to get an in-depth understanding of the topics related to my academic discipline. Although some of them taught me in only one subject, they know a lot about other subjects.

262

Therefore, I feel that their Twitter accounts broadened my horizons and increased the range of my knowledge.

What kind of information do you share on Twitter?

—I tweet about my discipline, which is sociology. I like to tweet about topics relating to education, children, and family.

What's your opinion about Twitter's 140-character limit?

—It's good.

Why?

—It summarises for you.

What do you do if you want to write something that's more than 140 characters long?

—I use more than one tweet, but I never use more than four tweets. My followers could get bored with a thought that spans across several tweets.

Does the 140-character limit improve or challenge your writing skills?

—It helps my writing. It helps me be more concise.

Appendix B: The Survey Invitation

دراسة استخدام طالبات جامعة الملك فيصل لتويتر في التعلم

تقوم الباحثة هبة العدساني من المملكة العربية السعودية باجراء دراسة حول استخدام تويتر في التعلم. وذلك استكمالاً لمتطلبات الحصول على درجة الدكتوراه في التربية من جامعة شيفيلد بالمملكة المتحدة. والهدف الرئيسي لبحثي هو التعرف على تصورات الطالبات السعوديات حول الفوائد التعليمية في استخدام تويتر، بالإضافة إلى تحديد تأثير تويتر في طريقة تعبيرهن عن هويتهن على تويتر.

مشاركتك وتعاونك في هذه الدراسة محل تقدير عالي من قبل الباحثة، كما أنها ستساهم في نجاح نتائج البحث.

تتضمن مشاركتك في هذا البحث عن طريق اختيار إحدي الطريقتين أو كلاهما معاً :

١- عن طريق إجراء مقابلة وجهاً لوجه أو عن طريق سكايبي، لاين أو أي برنامج آخر (صوتي فقط) مع الباحثة والتي تستغرق ٤٠-٦٠ دقيقة لإتمامها، علماً أنه يحق لك القبول أو عدمه بتسجيل المقابلة صوتياً. عندما تتواصلين مع الباحثة لك حرية اختيار المكان والزمان المناسبين. علماً أنه توجد مكافأة بعد الانتهاء من المقابلة وهي كوبون شراء من مكتبة جرير بقيمة ٥٠ ريالاً.

٢- إفادة الباحثة بحسابك علي تويتر والسماح لها بالاطلاع عليه لمدة محدودة تنتهي في شهر نوفمبر ٢٠١٦.

سوف يتم التعامل مع إجاباتكم بسرية وخصوصية تامة، ولن يتم الكشف عن أي بيانات شخصية كالأسماء أو حسابات تويتر في أطروحة الدكتوراه أو التقرير الناتج عن هذه الدراسة وإنما سيتم استخدامها فقط لأغراض البحث. ولمزيد من الخصوصية والراحة فلك الحق في المشاركة باسم مستعار. كما أن للمشاركة الحق في الانسحاب في أي وقت دون أي عواقب سلبية. بالإضافة إلى أنه لا يوجد أي مخاطر أو مضايقات مرتبطة بهذا البحث، وعند شعورك بعدم الارتياح مع بعض الأسئلة، فلك كامل الحق في عدم الإجابة.

للمزيد من المعلومات الرجاء التواصل مع الباحثة على البريد الالكتروني hkaladsani1@sheffield.ac.uk.

تم اعتماد هذا البحث من قبل كلية التربية وفقاً لسياسة أخلاقيات البحوث في جامعة شيفيلد. كما أن نتائج هذا البحث سوف تكون متاحه على الانترنت للجمهور في شكل تقرير قصير.

*Required

موافقة الطالبة على المشاركة في البحث

لقد اطلعت على الغرض من بحث الباحثة هبة العدساني وأهدافه الأساسية وأنا على إدراك بما يلي:

مشاركتي غير إجبارية ويمكنني الإنسحاب في أي وقت.

سيتم استخدام جميع البيانات فقط لغرض البحث وسيتم التعامل معها بسرية وخصوصة تامة، بما في ذلك أسماء الطالبات في المقابلة وحساباتهن في تويتر.

بإعطائي الباحثة ايميلي أو حسابي على تويتر فأنا موافقة على مشاركتي .

شروط المشاركة:

١- أن تكوني طالبة في جامعة الملك فيصل ولم تتخرجي بعد

٢- أن تكوني مغردة نشطة على تويتر بحيث تغردين مرة على الأقل في الأسبوع

الاسم الحقيقي أو المستعار: *   1.

_____

أوافق على إجراء المقابلة وهذا ايميلي لترتيب المقابلة مع الباحثة :   2.

_____

3.   أرغب في تزويد الباحثة بحسابي على تويتر وهو كالتالي:

_____

4.

نوع الدراسة في الجامعة *

Mark only one oval.

◯ انتظام
◯ انتساب

5.

الدرجة العلمية التي أدرسها *

Mark only one oval.

◯ بكالوريوس
◯ دبلوم
◯ ماجستير
◯ دكتوراه

6.

الكلية *

_____

7.

التخصص *

_____

8.

الأوقات المناسبة لي لإجراء المقابلة *

Tick all that apply.

☐ الأسبوع الأول من أغسطس / ٢٦ شوال إلى ٣ ذو القعدة
☐ الأسبوع الثاني من أغسطس / ٤ ذو القعدة إلى ١٠ ذو القعدة
☐ الأسبوع الثالث من أغسطس / ١١ ذو القعدة إلى ١٧ ذو القعدة
☐ الأسبوع الرابع من أغسطس ١٨ ذو القعدة إلى ٢٤ ذو القعدة
☐ الأسبوع الأول من سبتمبر ٢٥ ذو القعدة إلى ١ ذو الحجة
☐ الأسبوع الثاني من سبتمبر ٢ ذو الحجة إلى ٨ ذو الحجة
☐ الأسبوع الثالث من سبتمبر ١٢ ذو الحجة إلى ١٥ ذو الحجة
☐ الأسبوع الرابع من سبتمبر ١٦ ذو الحجة إلى ١٨ ذو الحجة
☐ أكتفي بمشاركة حسابي على تويتر ولا أرغب بإجراء المقابلة

Powered by

Google Forms

Appendix C: University of Sheffield Ethical Approval

Hibah Aladsani
Registration number: 150107901
School of Education
Programme: PhD Education

Dear Hibah

PROJECT TITLE: A study of Saudi women students' educational practices in, and perceptions of, Twitter.
APPLICATION: Reference Number 008896

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 22/06/2016 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 008896 (dated 27/05/2016).
- Participant information sheet 1018222 version 2 (26/05/2016).
- Participant information sheet 1018221 version 2 (26/05/2016).
- Participant consent form 1018224 version 2 (26/05/2016).
- Participant consent form 1018223 version 2 (26/05/2016).

The following optional amendments were suggested:

This is generally a high-quality application, and all three of the reviewers recognised the strengths of the research. There were some areas they suggested for further consideration: - The amount of interviews and Twitter accounts to be examined seemed ambitious for an 8 week period. It was suggested that you keep an open mind about the number of interviews you can carry out, how long it will take to transcribe and analyse these, and the number of Twitter accounts you can realistically analyse. - All of the reviewers commented on the advantages of seeking alternative venues for interviews: your office is good in terms of privacy and security, but may be off-putting to participants. It could be worth considering venues neutral to both parties. - You should ensure that your participants know that should they withdraw, their data given up to that point will be excluded from your analysis. It would be useful to provide multiple avenues for the withdrawal of consent such as your own details and those of your supervising tutor. We wish you the best of luck with the research!

If during the course of the project you need to deviate significantly from the above-approved documentation please inform me since written approval will be required.

Yours sincerely

Professor Daniel Goodley
Ethics Administrator
School of Education

Appendix D: KFU Ethical Approval

KINGDOM OF SAUDI ARABIA
Ministry of Education
KING FAISAL UNIVERSITY
(037)

المملكة العربية السعودية
وزارة التعليم
جامعة الملك فيصل
(٠٣٧)

الموضوع: ....

قــــرار إداري

إن وكيل الجامعة للدراسات العليا والبحث العلمي

وبناء على الصلاحيات المخولة له نظاماً

وبعد الاطلاع على توصية اللجنة الدائمة للابتعاث والتدريب في اجتماعها (١٥) للعام الجامعي ١٤٣٧/١٤٣٨هـ والمنعقدة بتاريخ ١٤٣٨/٨/٨هـ بالموافقة بالإجماع على طلب المبتعثة / هبة بنت خالد العدساني بقسم تقنيات التعلم بكلية التربية القيام برحلة علمية إلى المملكة لمدة (٦٠) يوما اعتبارا من ٢٠١٧/٧/١٥م الموافق ١٤٣٨/١٠/٢١هـ وذلك أثناء دراستها لدرجة الدكتوراه في تخصص (تكنولوجيا التعليم) بجامعة شيفيلد في بريطانيا. على أن يشرف سعادة الدكتور/ عبدالإله بن حسين العرفج على المبتعثة أثناء رحلتها العلمية. وأن تكون الرحلة تحت اشراف القسم التابعة له المبتعثة ويقوم القسم بإعداد تقرير وافي عن الرحلة في نهايتها.

وبعد الاطلاع على قرار الابتعاث رقم ٣٥٩/٢/٤ وتاريخ ١٤٣٥/١٠/٢١هـ.

وما يقتضيه صالح العمل.

(يقرر ما يلي)

الموافقة على التالي:

أولا: على طلب المبتعثة / هبة بنت خالد العدساني بقسم تقنيات التعلم بكلية التربية القيام برحلة علمية إلى المملكة لمدة (٦٠) يوما اعتبارا من ٢٠١٧/٧/١٥م الموافق ١٤٣٨/١٠/٢١هـ وذلك أثناء دراستها لدرجة الدكتوراه في تخصص (تكنولوجيا التعليم) بجامعة شيفيلد في بريطانيا.

ثانياً: أن يشرف سعادة الدكتور/ عبدالإله بن حسين العرفج على المبتعث أثناء رحلتها العلمية.

ثالثاً : أن تكون الرحلة تحت اشراف القسم التابعة له المبتعثة ويقوم القسم بإعداد تقرير وافي عن الرحلة في نهايتها.

رابعاً: على جميع الجهات المعنية تنفيذ قرارنا هذا كل فيما يخصه.

والله الموفق،

وكيل الجامعة
للدراسات العليا والبحث العلمي
أ. د حسن بن رفدان الهجهوج

صورة لسعادة الملحق الثقافي السعودي في بريطانيا
صورة لسعادة عميد كلية التربية
صورة لسعادة وكيل عمادة الدراسات العليا لشئون المبتعثين
الأصل لملف المذكورة بالعمادة.

التاريخ: ١١/٨/١٤٣٨   المرفقات:

الرقم: ٠ ٢٠٠٣

www.kfu.edu.sa

Kingdom of Saudi Arabia P.O.Box 400 Al-Hassa - 31982 Tel: 035800020 Fax: 035814989

267

Appendix E: Information Sheet to Students

The information letter to a student

Dear student at King Faisal university Mrs. ……..,

Hibah Aladsani, PhD candidate from The Kingdom of Saudi Arabia is conducting a research project on using Twitter in education, in order to complete the requirements for obtaining a PhD in Education from The University of Sheffield in the UK. The main interest of my research is to know the use of Twitter in education, through exploring how do female Saudi university students use and perceive the educational use of Twitter, how they present their academic identities and how Twitter impacts their academic discourse.

The data will be collected from August to September 2016 for the interviews and from September to October 2016 for the Twitter content analysis.

Your assistance would highly appreciate, and would contribute to the success of the research findings by taking part in this research.

Your assistance will be through two;
1- Conducting interview face-to-face or by online audio chat, which will require about 40-60 minutes to complete, and the audio recordings of the interview will be used only for analysis and if you accept it. You have the right to accept or not the audio recordings.
2- Providing your Twitter handle to me.

I ask for your permission for keeping the data for my other studies and for using some of their quotations in my research with keeping anonymity. However, if you do not allow that, I will destroy and delete your data after the project is over.

Taking part in this study is voluntary, but it will benefit the Saudi community through contributing to the evolution of Saudi education in general and online learning in particular. For taking part in the interview, you will be given a voucher worth £10 from (JARIR bookstore)

Please tick the box below that indicates your decision:

☐ I understand the information above and agree to take part in an additional interview. Please contact me again to arrange for that.

☐ I understand the information above, but I cannot take a part in an additional interview.

Thank you in advance for your help and assistance with my research project.

Hibah   **Aladsani**

Yours sincerely

Further information

Your responses will be completely anonymous, and no identifying information will be revealed in any dissertation or report resulting from this study. You will have the right to withdraw at any time without any negative consequences. All information you provide will be considered completely confidential and private, and it will be used solely for the purpose of the research. There are no expected risks or discomforts related to this research, and if you feel uncomfortable with certain questions, please feel free to disregard them.

If you need any additional information, please let me know by emailing hkaladsani1@sheffield.ac.uk

This research has been approved by The School of Education in accordance with The University of Sheffield Research Ethics policy. The research findings will be publicly available in the form of a short report on the Internet.

Appendix F: Students' Consent Form

The
University
Of
Sheffield.

The Consent Form of female students at king Faisal university

I have been informed about the aims and purposes of Hibah Aladsani's research project.

I understand the following:

- My participation is not compulsory, and I can withdraw any time.
- All the data will be used only for the purpose of the research, and it will be held confidential and completely anonymous, including my name in the interview and my Twitter handle.
- My data will be destroyed and deleted after the project is over expect if I give my permission to the researcher for keeping the data for her other studies and for using some of my quotations in her research with keeping anonymity.
- Audio recordings of the interview will be used only for analysis and if I accept it.

(pseudonym)………………………… ..

Twitter handle (Optional) …………………………..

Student' email for further details (Optional) …………………………..

(Signature of student) ....

(Date)