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UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

EDUCATIONAL USES OF SOCIAL MEDIA IN LEARNING
BY UNIVERSITY STUDENTS

A Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy

Nora Abdulaziz Ali Almansour

College of Education and Behavioral Sciences
School of Educational Research, Leadership, and Technology
Educational Technology

May 2019

This Dissertation by: Nora Abdulaziz Ali Almansour

Entitled: *Educational Uses of Social Media in Learning by University Students*

has been approved as meeting the requirement for the Degree of Doctor of Philosophy in
College of Education and Behavioral Sciences, Department of Educational Technology

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ABSTRACT

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This phenomenological, qualitative research investigated the perceptions of university students in a College of Education about the educational use of social media by examining the experiences of seven graduate students via an analysis of interview transcripts, informal observations, and applicable artifacts. This study was guided by three research questions:

- Q1 How do university students describe their experiences of using social media for their own learning?
- Q2 What do university students perceive as advantages or disadvantages in the use of social media for their own learning?
- Q3 What suggestions do university students make for increasing the use of social media for their own learning?

Results of this study could inform educators about how students use social media in formal and informal learning situations.

Participants were seven graduate students at a midsize university in the Midwestern United States. A thematic analysis indicated three main response categories and seven main themes that related directly to the research questions. The three main categories that emerged included Experience, Advantages /Disadvantages, and Suggestions. Seven major themes and 13 subthemes emerged from participants' interpretations of their experiences with the use of social media for learning: Source of

Learning, Motivation and Engagement, Convenience, Collaboration and Connection, Overwhelming, Educators' Social Media Integration, and Student Management of Social Media. The results of this study indicated social media platforms were both educationally meaningful and popular among students in higher education contexts. The findings showed the use of social media platforms could be highly appropriate for teaching and learning but it was very important that educators were trained and skilled in their use by setting specific boundaries around the use of social media for a given class.

Furthermore, the findings aligned with many ideas presented in the research literature. The results also supported the new idea that although students believed social media could enhance learning and they perceived it as a powerful tool, the lack of perception of social media as a learning tool could hinder learning as well. Additionally, using and learning the rules of digital citizenship (both educators and students) was important to using social media effectively for learning. Thus, the overall findings of the study strongly indicated educators must teach students the rules of good digital citizenship and students must follow good digital citizenship practices to use social media for learning successfully. For students, social media could sometimes be overwhelming so self-management skills were critical to maintaining focus and quality while using social media platforms in an educational setting.

Key words: Social media, social media platforms, social media for educational use, phenomenological study.

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CHAPTER I

INTRODUCTION

Background of Social Media

The 21st century has seen an explosion in technological advances, particularly in the integration of computers and the World Wide Web (the Web) into daily life, which has dramatically altered nearly all aspects of life and human interaction including business, government, science, the arts, informal life, and education. Over the last two decades, there has been increased interest in incorporating advanced technologies into education and classrooms (Greenhow, Robelia, & Hughes, 2009; Odom, Jarvis, M'Randa, & Peek, 2013). It is now uncommon to find schools without broad computer access and use for learning, both within and beyond classrooms (Greenhow et al., 2009). In colleges and universities, coursework is predominately managed by learning management systems such as Blackboard or Canvas (Ketcham et al., 2011; University of Northern Colorado [UNC], 2017). Increasingly, computer technology is being used by the current generation of students for accessing libraries and library collections, conducting research, and obtaining information from the Web to complete homework, write academic papers, and develop research studies (Everson, Gundlach, & Miller, 2013). One of the newest emergent technologies surrounding university student populations is social media. Within the wealth of technology available on college campuses, social media is most frequently used by students but it does not necessarily

appear in formal learning contexts. This study focused on students' use of social media for learning.

Although technology has drastically reduced the need for physical presence by enabling contact, communication, and collaboration via technology, network links, and social media platforms, inconsistency in the use of related terminology limits comparative conclusions that can be drawn from the research. Terms such as social networking site, platform, application, apps, site, website, and so on have all been used with an assumption regarding consensus on their meaning (Alghaith, 2016; Li, 2014; Snelson, 2016; Wang, Chen, & Liang, 2011). Koçak and Oyman (2012) indicated that platforms classified as social networking sites (SNS) include blogs, content sharing sites, wikis, podcasts, and forums. According to Röstlund (2013), platforms are fully functioning websites such as Facebook and applications are limited software programs that facilitate the use of platforms on specific devices (e.g., smartphones, tablets, or personal computers). Applications used for social networking include programs like Instagram, which facilitate the transfer of content that is then distributed via social networks. Röstlund specified that a social network is a platform that allows individuals to publish content and interact. Fully functional websites like Facebook are considered social networks because they are platforms that focus on users' building unique profiles, publishing frequent shareable content, and creating communities. For the purposes of this research, the term platform was used to refer broadly to systems that deliver social media content and include the use of both applications and full social media websites.

Social media at its core is a two-way communication system that relies on advanced technologies such as computers, uses web services, and provides instant, real-

time communication for use in a variety of settings and contexts (business, education, government, leisure). In the past, people might have needed to travel some distance to be able to meet and work together in work groups or classrooms. Before computers and the development of the Internet, mass communication was exclusively one-way; information was conveyed to the consumer by the producer and ended at that point (Kaplan & Haenlein, 2010). Advancements in mass media were achieved by the inventions of the printing press, telegraph, telephone, radio, and television. However, throughout all these advancements, mass media remained one-way. Refinements in education led to devices such as blackboards, overhead projectors, and rudimentary copying machines so teachers could create their own materials to distribute to their students. However, with the development of computer technology, personal computers, and the Web, dramatic changes in mass media were now possible.

Social Media

Suber's (2009) timeline of the open access movement traced the creation of the Usenet, a worldwide discussion system that permitted online users to post public messages to Tom Truscott, Jim Ellis, Steve Bellovin, and Steve Daniel in 1979. Thirty years later, the concept of social media retains many of these basic elements. An encompassing definition of social media sites was provided by Boyd and Ellison (2008), who concluded web-based services allowed individuals to build a public profile within a bounded system, create a list of other users with which to share a connection, and view their list of connections within the system. Key features of these web-based services included ease of use, universal accessibility, and mastery within a very short time (Boyd & Ellison, (2008). For the purposes of this study, social media included Internet-based

sites or applications that allowed for user-generated content and encouraged by design the exchange of information and communication.

Social media has been variously described and defined by different researchers; in the literature, the term platform was often used interchangeably with apps and often included the names of popular apps used by consumers (Christensson, 2008). Facebook, Twitter, and YouTube were most frequently mentioned as examples of these apps and users had the ability to create and modify content they provided to their own profiles (Christensson, 2008).

According to Greenhow et al. (2009), Web 2.0 contains social networks such as Facebook, YouTube, Wikipedia, blogs and Twitter; they are called social media because the objective is to encourage the exchange of ideas and the content on these networks is socially constructed as they permit the exchange and creation of user-generated content (Everson et al., 2013).

Social media is widely used by college undergraduate and graduate students in personal, business, and social contexts and have become an integral part of the daily lives of these students (Tess, 2013). Concurrently, educators are seeking ways to incorporate advanced computer technologies into educational settings, particularly interactive media driven by Web 2.0 capabilities, both within and beyond the classroom, (Hamid, Waycott, Kurnia, & Chang, 2015). For the most part, social media was used primarily in informal and personal situations for these students. In their careers after they finish their education, these students will be expected to use social media in their professional lives as well as in their personal lives.

Currently, however, classroom teaching and learning are not fully capitalizing on the communicative and informational access capabilities of social media (Viner, 2014). In spite of a developing and increasing interest in incorporating social media into many areas of higher education (Selwyn, 2012), the field of education has not yet seized the opportunity to use social media in preparing students for the world they will face at the end of the educational training and also to enhance teaching and learning within the educational context. Integration of these technological tools, particularly social media, toward some educational benefit has not yet been widely researched.

Greenhow and Lewin (2016) highlighted the need for additional research, both in relation to effective ways to incorporate this media in educational settings and also on student learning in digital cultures. According to the Pew Research Center (2019), “Today around seven-in-ten Americans use social media to connect with one another, engage with news content, share information, and entertain themselves.” (para. 1). Given the prevalent use of social media in everyday life, why is technology not used more in learning contexts?

Theoretical Framework

The theoretical framework for this study was social constructivism--the theory that the perception of reality is socially constructed by individuals within a cultural context (we interact with our environment in a social system). Constructivism as a general term can be seen from both an individual perspective and the perspective of groups of individuals in social contexts (Andrews, 2012). The focus on interaction as a key element in learning made this theory fundamental in considering the use of social media platforms in education.

Social constructivism can be used to explain the popularity and effectiveness of social media in educational contexts (Tess, 2013). This research study investigated in further depth how university students used and experienced social media in learning and how we as educators could integrate social media into the educational processes to enhance learning.

Gap in Social Media Literature

Social media is commonly used by college students and universities are continuously making strides in integrating technology into teaching and learning but how do the two converge? Do students use this common technology for educational purposes? What do they think about using a social space for learning? How is it being used, officially or casually? Our lack of knowledge about how social media is used or not used by students for educational purposes creates a void in formal research literature about social media (O'Brien & Glowats, 2013). In the last few years, researchers have just begun examining how social media can be incorporated into education to increase learning outcomes (Elitas, 2015; Joosten, 2012; Tess, 2013). The majority of current research has focused on how educators incorporate social media or what educators think about the possibility of incorporating social media within educational settings (Elitas, 2015; Joosten, 2012; Tess, 2013). Some current research has begun to focus on educators' and students' perspectives but as of yet, the actual experiences of students who use social media in education and learning have not been studied in any depth.

Statement of the Problem

Social media and their use in educational settings are still not well understood or explored (Alzouebi & Isakovic, 2014; Bista, 2015). A good starting point and because

today's students are so technologically savvy was to explore these students' current use of social media in educational settings. Given the prevalence of use of these tools among the population of university students, it was an important next step to discover how students today actually used social media in their learning and what these students perceived the value of these tools to be in educational settings and other learning situations.

Purpose of the Study

The purpose of this study was to contribute information about students' actual use of social media in education as opposed to presuming the validity of educators' and institutions' perceptions about the use of social media in education. The researcher examined the phenomenon of university students' use of social media as a learning tool by focusing on their uses, experiences, and perceptions of social media used for their own learning.

A qualitative phenomenological research design was selected as the most appropriate approach for this study in as much as qualitative research seeks to investigate a particular phenomenon in great depth to arrive at a thorough understanding of the context and meaning of a particular phenomenon through interviews, informal observations, and an examination of applicable artifacts. The phenomenon of social media used as a learning tool was best understood by learning about the experiences and the perceptions of university students who used the tools for their own learning. Because the use of social media by university students is widespread (Cotten, 2008; Hurst, 2013; Hurtado, 2007; Junco & Mastrodicasa, 2007; Mastrodicasa & Kepic, 2005; New Media Consortium, 2007; Viner, 2014), it was plausible this phenomenon exists in many

university contexts. A constructivist perspective about technology integration and thus social media use in education grounded this investigation and guided the analysis of the data.

Rationale

This objective of this research was to investigate students' experiences in using social media by (a) ascertaining what social media actually meant to them, (b) investigating how their understanding of social media was related to their choice of platforms, and (c) collecting students' descriptions of how they used and valued social media for learning given the current confusion of understanding about what social media is and what it entails. Social media is so widespread among younger generations of students that exploring its application in learning situations, both formal and informal, could help motivate learners by using a popular technology. This phenomenological research provided insight into the potential misunderstandings about the nature of social media, which are more widespread than previously thought, and the implications of this issue for understanding the phenomenon of students' use of social media in learning.

Previous Qualitative and Quantitative Social Media Studies

Previous unpublished studies by this researcher provided a broad overview of students' perceptions about and use of social media (Almansour, 2015, 2016). A quantitative survey study (Almansour, 2015) examining the relationships between demographic variables and perceptions of specific social media platforms (Facebook, YouTube, and Twitter) found no significant relationships between social media use and demographic variables (class level, age, gender, nationality, and native language).

Additionally, results indicated students with a positive perception of one social media platform were much more likely to have positive perceptions of other platforms.

To gain a more in-depth understanding about factors underlying the responses of these students, Almansour (2016) conducted a qualitative case study to investigate the actual educational use and experience of using social media by university students in the College of Education at a western university. This study indicated students consistently used social media for three main purposes: convenience, clarification, and connection. However, the study indicated there might be major misunderstandings about the meaning of the term *social media* such that individual students differed regarding what they considered to be social media. For example, email was not always thought to be a social medium. This raised the issue that inconsistent terminology within and across studies was likely to compromise conclusions based on them.

Research Questions

This phenomenological study of social media in learning investigated students' reported experiences and the contexts of those experiences with current social media including a chance for participants to demonstrate what platforms they used and why they used them. Demonstrations during interviews helped clarify what students meant by social media and their understanding of the phenomenon of social media. The study explored a relatively under-investigated aspect of social media integration in education and offered a starting point from which to conduct further research. The following research questions were addressed:

- Q1 How do university students describe their experiences of using social media for their own learning?

- Q2 What do university students perceive as advantages or disadvantages in the use of social media for their own learning?
- Q3 What suggestions do university students make for increasing the use of social media for their own learning?

Significance of the Study

Many reasons exist for integrating social media into education and learning, and thus studying them as a phenomenon. First, the potential for instructors to integrate social media for learning activities and to serve as effective tools to engage students, such as Twitter chats, has been recognized. Second, the number of students already using social media is vast (Viner, 2014). Third, most students already possess a variety of devices (smartphones, tablets, laptops, etc.) that facilitate access to social networks for frequent use of sharing and communicating information (Hurst, 2013). Surveys from 2005–2010 indicated that 85–94% of university students use social media (Cotten, 2008; Hurtado, 2007; Junco & Mastrodicasa, 2007; Mastrodicasa & Kepic, 2005; New Media Consortium, 2007).

The challenge facing educators today is discovering how students currently understand and experience social media in their education and learning and discovering the ways and contexts they use social media for educational purposes. This research focused on these experiences from a student perspective because this perspective has been underrepresented in existing literature. Such information could expand the ways in which teachers and students, and students among themselves, learn. The results of this study could provide useful information to educators about the ways students used social media in informal and formal situations, including learning, and how these students experienced educational uses of social media. The results of this study also have

implications for both students and faculty for using social media in higher education learning contexts.

Constraints of the Study

Several constraints of this study should be noted. First, the selection of participants was limited to one geographical location, restricting the study to a small subpopulation of university students. In addition, interviews were conducted only once rather than on several occasions. It was important to recognize these limitations and the implications they had for interpreting and extending the findings of this study. The constraints are discussed in further detail in Chapter III.

Definition of Terms

Given the considerable variances in the use of social media-related terminology throughout the literature, the following definitions are provided to clarify major concepts and to establish how these terms were used for this study.

Application. Limited software programs that facilitate the use of platforms on specific devices (e.g., smartphones, tablets, or PCs). Applications used for social networking included programs like Instagram that facilitate the transfer of content that is then distributed via social networks (Röstlund, 2013).

Formal learning. Situations in which an agent such as a teacher, a learning management system, or a software program directs the students' learning. According to Aifan (2015), formal learning "is described as learning that is institutionally sponsored or highly structured, i.e., learning that happens in courses, classrooms, and schools, resulting in learners receiving grades, degrees, diplomas, and certificates" (p. 40).

Informal learning. “Described as that which is not directed by school or externally mandated but is learner controlled” (Greenhow & Lewin, 2016, p. 10).

Informal observation. One of the methods used in this study for collecting the data. During the interview, participants drew what they thought social media was as well as shared screen captures of anything else they wanted to share. This information provided informal observations of participants’ social media knowledge, use, and application.

Learning management system. A software application, such as Blackboard or Canvas, that automates the administration, tracking, and reporting of educational programs and online events (Aifan, 2015).

Phenomenon. Fact, occurrence, event, or object of human experience that is observable, can be studied, and often is unusual or difficult to understand or explain (Creswell, 2007).

Phenomenology. “An object of human experience” (van Manen, cited in Creswell, 2013, p. 76). This human experience might be a phenomenon such as the use of social media (Creswell, 2007). “Ology” means the study of so phenomenology is the study of human experience, which means the (study of) phenomena (experiences).

Platforms. Systems for the delivery of various social media content that are accessed via a broad range of devices including smart devices (e.g., tablets, iPhones) and computers.

Social media. For the purposes of this study, social media refers to the various “[w]eb-based platforms, applications and technologies that enable people to socially

interact with one another online” (Beal, 2018. p. 1), which can also include social network sites (SNS) or platforms such as Facebook, YouTube, Twitter, LinkedIn, Flickr, Pinterest, etc. (Li, 2014).

Social network. A platform that allows individuals to publish content and interact. It is an online web-based space that helps to establish relationships between individuals and groups of people with a common interest (Boyd & Ellison, 2008).

Social networking sites. Online communication systems that enable users to create personal information profiles that are accessible to others and allow for the exchange of content and communication (Kaplan & Haenlein, 2010; Koçak & Oyman, 2012).

Socially constructed. A term that refutes that knowledge is separate from human experience and can be discovered, asserting that knowledge and its meaning are inseparable, embedded in human experience, and constructed by individuals within social, cultural, and geophysical contexts (Crotty, 2003).

Transcendental. A term that focuses on the common meaning for participants about their lived experiences (Creswell, 2007). This study was a transcendental, phenomenological methodological approach because it investigated students’ uses, experiences, and perceptions about their use of social media in learning.

User-generated content. “Various forms of media that are publicly available and created by end users” (Kaplan & Haenlein, 2010, p. 60).

Summary

Despite the advances in interactive technology offered via Web 2.0, the integration of social media platforms into education processes is relatively

uninvestigated. Today's students are expected to use social media in their professional lives as well as in their personal lives. Although higher education institutions are interested in incorporating advanced technologies in education, these technologies are currently dominated by formal learning management systems and social media platforms are still viewed as vehicles for personal use or entertainment. However, the prevalence of social media use among university students indicates the potential value of discovering how students today use social media for learning and their perceptions of the value of these social media platforms in educational and learning settings.

The purpose of this qualitative, phenomenological study was to examine university students' actual use of social media by collecting data about their uses, experiences, and perceptions of social media in general, and their use of social media for their own learning. Secondly, to address inconsistencies throughout previous research regarding definitions of social media, the researcher established a priori that all complete social media websites and applications that facilitate social media content would be considered as social media platforms in the study. However, clarification of terminology and insight into how users vary in their perceptions of what constitutes a social media platform were of additional interest to the study.

Specifically, the researcher investigated university students' experiences in using social media via interviews, observations, and artifacts (a) to determine how they defined social media, (b) to examine how their understanding of social media related to their use of different platforms, and (c) to collect students' descriptions of how they used and valued social media for learning. The following research questions were addressed:

- Q1 How do university students describe their experiences of using social media for their own learning?

- Q2 What do university students perceive as advantages or disadvantages in the use of social media for their own learning?
- Q3 What suggestions do university students make for increasing the use of social media for their own learning?

The results of this study have implications for both students and faculty regarding the integration of social media platforms in education and the consideration of social media platforms as a learning space. The remainder of this dissertation is organized as follows: Chapter II provides relevant background and scholarly research about the development of social media platforms and students' use of social media. Chapter III provides a detailed description of the qualitative methodology used for the study including efforts to assure methodological rigor. Chapter IV presents the results of the qualitative data analysis in terms of themes and subthemes that emerged. Chapter V contains a discussion of the results, conclusions, implications of the research, and future research directions. Finally, supplementary materials are provided in the appendices.

CHAPTER II

REVIEW OF THE LITERATURE

This literature review describes social media within a historical and educational context and establishes the theoretical foundations of social media in learning. Also covered is a sample of relevant research on social media within the context of higher education and studies related to students' perceptions of it from an educational standpoint. Gaps in current literature are identified from which the purpose, significance, and research questions were derived.

This research focused on university students as they experienced and used social media and the contexts of those experiences for educational uses of social media. The results of this study are intended to shed light on students' use of social media in education. To provide background for how this researcher decided upon this particular focus, this chapter contains a review of the relevant literature and research findings from previous studies on social media, especially within educational contexts.

Development of Web 1.0

With the development of the computer as an advanced technology and the Internet as a network to distribute information at the close of the 20th century, mass media suddenly became accessible world-wide nearly instantaneous. However, information was often controlled by a smaller number of individuals and meant to be more passively received by users (Everson et al., 2013). Computers now incorporate not just visual and

auditory material but enable creation of something new by users through the use of tools such as drawing applications, photo editing, etc. Users not only receive information, they can also adapt information or even create something new, such as a movie or slide show, and even compose music to be shared on the web with other consumers of information. During this same time period, telephones expanded to incorporate computer and Internet technologies, allowing for a back-and-forth exchange of information. Someone can now text a message, the receiver can respond to it, someone can post a picture, and the receiver can then in return respond. This came to be known as Web 1.0 and while it was a huge advancement in mass media, it was not an actual social exchange. There was yet no way of interacting with this information and the telephone and the computer were still essentially different devices (Everson et al., 2013). These uses of the Web and computer technology represented the first generation of web technology, which did not include the interactive characteristics of the second generation of web technology. If education is to keep pace with the rapid advances in technology, it must go beyond this first generation of web technology and embrace and utilize Web 2.0 technology.

Development of Web 2.0

A full understanding of social media necessitates an understanding of the term Web 2.0. The term was first used in 2004 by the Educational Broadcasting Company in reference to a new technique software designers had developed with the idea of users participating and collaborating in a new and definitively social way in contrast to Web 1.0, which was a one-way information sharing platform. Essentially, Web 2.0 is considered to be the platform upon which contemporary social media have been built (Koçak & Oyman, 2012). These new interactive, social capabilities of the Internet allow

for media exchange and user-to-user interactions, thereby altering the use of social media. Social media platforms have rapidly become users' favored spaces to share information and communicate with others, particularly with today's generation of students who have been using these media extensively for years. Because of the ever-changing nature of technology and thus social media platforms, the understanding of what counts as social media sometimes varies by user.

Social Media

Social media is a term composed of two words--social and media. Social implies more than one individual, a social situation, and interaction occurring in a social context. Media refers to a mode of mass communication; in recent times, it has been associated with radio, television, newspapers, broadcasts, and often utilizing computer technology for transmission. Social media sites were defined by Boyd and Ellison (2008) 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. (p. 211)

These web-based services are also easy to use, can be mastered in a few minutes, and are accessible to all. Due to the limited understanding of what the term *social media* means, Kaplan and Haenlein (2010) provided some more clarification by identifying some uses for social media platforms such as Wiki, YouTube, Facebook, and Twitter. Then they provided some classification of social media such as social networking sites, collaborative projects, blogs, content communities, virtual game worlds, and virtual social worlds. Finally, they shared 10 suggestions for companies who use social media.

Overall, some scholars have defined social media by providing a number of examples of current media (Kaplan & Haenlein, 2010) and others cited its ever-changing

nature and chose to paint a broad picture of social media as any social networking site that involved collaboration and communication (Joosten, 2012). More recently, Elitas (2015) described social media as a humanistic communication of sharing and discussing with no limitations by space or time. The author stated “the two-way communication, the passing away of the time and the space, and the individuals’ enjoying those, had opened the door to use the social media for various purposes” and defined social media as “the aggregate of the web services which receives most of its contents from its users and which collects contents from other web-sites” (Koçak, cited in Elitas, 2015, p. 245). However, social networking sites are applications “that enable users to connect by creating personal information profiles, inviting friends and colleagues to have access to those profiles, and sending e-mails and instant messages between each other” (Kaplan & Haenlein, 2010, p. 63). For the purposes of this study, social media includes Internet-based sites or applications that allow for user-generated content and encourage by design the exchange of information and communication.

Another area where researchers tended to differ was in the term they used to refer to social media platforms requiring an Internet connection. Thanks to the increasing availability of high-speed Internet access, a number of specific social media platforms have become household names. Some specific examples of platforms--Facebook, Twitter, and YouTube--were discussed in this study because those platforms were mentioned most frequently in the literature (Elitaş, 2015; Everson et al., 2013; Hussain, 2012; Kaplan & Haenlein, 2010; Sinclair, McLoughlin, & Warne, 2015). Additionally, scholars identified the aforementioned three social media platforms as ones most apt in providing students with the type of access necessary to “communicate instantaneously

with the instructor and peers while on a site visit, at home, in the classroom or on the go” (Gan, Menkhoff, & Smith, 2015, p 653). Also, these platforms allowed for user-generated content and by design encouraged the exchange of information and communication.

Christensson (2008) made a number of distinctions among social media platforms, stating, “Facebook is a social networking website that was originally designed for college students, but is now open to anyone 13 years of age or older” (para. 1). Christensson (2008) also noted Facebook users had the ability to make and modify their own profiles based on the information they chose to provide including photos and videos. Friends could browse profiles and communicate privately or on others’ pages. A second prominent example of social media mentioned by Christensson (2009a) was Twitter: “an online service that allows you to share updates with other users by answering one simple question: *“What are you doing?”*” (para. 1). A third common social media platform mentioned was YouTube: “a video sharing service that allows users to watch videos posted by other users and upload videos of their own.” (Christensson, 2009b, para. 1). YouTube first started as an independent website in 2005 and was expanded and further developed by Google in 2006. Users can upload videos to YouTube that might appear on the YouTube website and/or be shared on other social media platforms and websites (Christensson, 2009b).

According to Greenhow et al. (2009),

Web 2.0 includes social networks, such as MySpace, Facebook, and Ning; media sharing, such as YouTube and Flickr; social bookmarking, such as Delicious and CiteULik; collaborative knowledge development through wikis (e.g., Wikipedia); creative works, such as podcasts, videocasts, blogs, and microblogs (e.g., Twitter, Blogger); content aggregation and organization, such as Really Simple Syndication (RSS) feeds and tagging tools; and remixing or mash-ups of content

from different content providers into new forms, such as combining geographical data with transportation or crime data. (p. 247).

These technologies have come to be known as *social media* because they permit the creation and exchange of user-generated content (Everson et al., 2013). Because the platform (Web 2.0) and the tools (Applications) promote the exchange of ideas, both the process and product are said to be socially constructed. The technology and functionality of Web 1.0 did not allow for this interactivity; thus, social media exists in part because of the functionality of Web 2.0.

Misunderstandings of the Definitions of Social Media

According to Li (2014) in a case study about exploring four female teachers' beliefs and practice of social media in a teacher's program, all four participants identified many challenges about foreign language teacher education and the integration of social media. Most of participants' beliefs supported integrating social media and foreign language teacher education while one participant's beliefs disagreed. The author indicated her study was significant as it filled a gap in the literature by showing ways for educators to include social media in their training programs and also by linking social media, teacher beliefs, and foreign language teacher education. Li used an online survey tool to collect three interviews through an online questionnaire, online observations of instructors' teaching practices (because of the distance), instructor self-developed documents such as lesson plan and assignments, and member check records and other program documents such as a program's final report. Li used four analytic strategies: software tools (NVIVO), triangulating different data sources, comparative method to look for similarities and differences within each case, and summarizing categories. The author

found confusion existed in understanding terminology related to social media. Li stated one of the participants

demonstrated an unclear understanding of what the differences are between technology and social media. She used the two terms, social media and technology, interchangeably many times in the interviews. The blurry definition of social media and technology may influence her beliefs about the benefits and challenges of integrating social media in foreign language teacher education. (p. 134)

The sense of confusion noted by Li (2014) was also found in an unpublished study I conducted (Almansour, 2016). According to my previous case study about using social media in learning, confusion existed regarding the many different definitions of social media as evidenced by a participant's initial belief that she did not use social media in learning. By the end of the interview, she came to a final realization that she actually used social media a lot more than she initially thought. Because of her changed perspective, I began to wonder if other research had inadvertently been affected by this confusion about social media and self-identification of using social media for learning. Perhaps more students discounted their use of social media for learning because they were uncertain about what social media included. This had the potential to alter findings and interpretations from previous studies.

Another study regarding misunderstandings of the definitions of social media was conducted by Scialdone (2014) regarding how a student's educational experiences were affected when social media was merged and included into online course activities; he concluded, "There is debate and confusion among scholars and practitioners as to what should be included under the term *social media* or how it is different from related terms such as user-generated content and web 2.0" (p. 79). According to Scialdone, the purpose of his qualitative case study was to understand how educational experiences of students

were affected when social media was merged into online and blended course activities. Scialdone integrated adaptive structuration theory to conceptualize social media types used between students and social media. Two main categories emerged--timeliness and information curation--as relevant to students' educational experiences in blended courses. The results suggested social attendance was the most noticeable type of presence in social media within blended course contexts, while cognitive and social presences were somewhat noticeable in social media within online course contexts.

Theoretical Framework

What is learning and what is learning theory? Driscoll (2005) defined learning as a permanent change in performance that resulted from a learner's experience and interaction with the world and was not caused by maturation (growth) or by responding to temporary physical states (such as hunger). Therefore, any theory of learning needs to explain how observed permanent changes in behavior occur and what conditions are needed to bring about those changes. Examining learning theories gives us an understanding of each perspective but it also gives us an overall impression from various perspectives of what learning is, how it comes about, and what theorists think about the nature of knowledge. Understanding what it means to know something and how we can relate these theories to one another to improve teaching and learning lays a foundation for the framework of understanding social media as a learning tool.

As humans, we do not see events objectively; rather, we interpret these events even as we see them (Remler & Ryzin, 2015). Different people observing the same event will all have different impressions of this event when they are asked to describe what they have seen. When we learn, we do not just memorize information exactly as it is

presented but we give meaning to this information. This added meaning can alter or even distort the actual meaning as well as have a powerful effect on how well we retain this information. This process of adding meaning is seen as constructing, not merely reflecting reality but coloring this reality.

Epistemology and Constructivism

My personal epistemological philosophy about knowledge and learning is based on a constructivist theoretical perspective, which proposes the world is not separate from the individuals within that world but they learn about their world and create their knowledge and meaning of it through their interactions. From a viewpoint of constructivism, meaning is not discovered but is constructed (Crotty, 2003). Crotty (2003) explained that “an epistemology...is a way of understanding and explaining how we know what we know” (p. 3). Human beings can construct their own meaning by engaging with the world through their interpretation of this interaction with their world. The term *human being* means being-in-the-world; therefore, there is a relationship between humans and the world. The objects and the world are a researcher’s partners for generating meaning. As a consequence, there is a strong relationship between objects and human experience. The world cannot be described apart from the conscious being who is experiencing it (Crotty, 2003). From a constructivist perspective, knowledge is not a separate entity apart from human experience, which is fixed and invariable. Rather, knowledge is embedded in human experience, which is variable and changing; the meaning of this knowledge is constructed by individuals within social, cultural, and geophysical contexts.

Constructivism is aptly named for its meaning as it reflects the act of constructing, attaching, or creating understanding and meaning to events or situations that occur in the external world (Remler & Ryzin, 2015). This process of adding meaning is seen as constructing, not merely reflecting reality but coloring this reality. The colors we use are embedded in our social and cultural contexts--factors that are inseparable from the construction process. The implications for education mandate we consider not just individual performance but we understand the social and cultural influences that affect that performance.

Tracing the Roots of Constructivism

Duffy and Cunningham (1996) noted constructivism has a long history in both philosophy and education and advised that much can be learned from studying this history. Because constructivism is rooted in interactions of an individual with the external world, learning in real-world situations is paramount. This idea of engaging with real situations can be traced back to the ancient Greek scholar Socrates over 2,000 years ago (Biesta, 2011). This method of teaching/learning has been called a Socratic dialogue (Driscoll, 2005) and is considered by some scholars as the first known example of constructivism because of the process of engaging the learner in her/his own learning process (Biesta, 2011).

After the fall of the Roman Empire in the early 400s, much of classical learning and thinking was lost to the general populace and the West sank into a period called The Dark Ages (Littlejohn & Foss, 2009). Knowledge and learning were restricted to those few men who joined the clergy of the Christian churches or with Islamic philosophers of this period who concentrated primarily on analysis through seeking classical authorities

to support ideas. In order to know something, scholars searched through ancient documents to see what early thinkers thought about something rather than relying on personal experience or generating new ideas. Toward the end of this period (from the 1200s to about 1400), thinkers in the West began questioning this approach and started to think about new ideas, concepts, and philosophies. Thomas Aquinas postulated there was a difference between what is known through reason and what is known by faith (Littlejohn & Foss, 2009), ushering in the Age of Reason and the development of a scientific method to investigate a phenomenon. For the next several hundred years, scientific reasoning took the form of objectivist methodology, aiming to eliminate human bias in search of pure facts. It was not until philosophers began questioning this method and asking what is knowledge and how do we attain this knowledge that constructivist thinking advanced.

In the early 1700s, an Italian philosopher named Vico articulated the first formal constructivist theory (Von Glasserfield, (1989). Vico began questioning what it meant to know something and voiced the idea that to know really means to know how to make or construct. He recognized knowledge is really constructed by individuals within a context or community, which influences the perception of external reality (Duffy & Cunningham, (1996). Vico's writings generally received little attention; it was really around the turn of the 20th century that constructivist theorizing resurfaced, interestingly, on opposite sides of the world, relatively isolated from one another, but occurring at about the same time.

In Soviet Russia, which was much more isolated from the West and going through dramatic social upheaval and change during and after the revolution in 1917, a researcher named Lev Semenovich Vygotsky (Russian psychologist, 1896-1934; 1978), working in

relative isolation from Western ideas because of the Russian Revolution, started formulating a different theory of learning from the West that concentrated on how individuals respond to learning. While struggling to understand learning and acquisition of knowledge, Vygotsky and others were directly and simultaneously experiencing the effects of this social upheaval and how it shaped and changed what was accepted as knowledge and as approved ways of gaining this knowledge (Driscoll, 2005). Their experiences highlighted the importance of social context and created meanings as the political state re-created meaning and posited this new meaning as acceptable knowledge. Although Vygotsky lived and worked in the early part of the 20th century, because of the Soviet Union's isolationist policies, his ideas did not reach the Western world for another 30 years (Driscoll, 2005). His ideas were not translated into English and known in the West until the 1960s, encouraging more developments in both theoretical formulations and practical application of the principles of social constructivism. Vygotsky introduced the idea that meanings and understandings are outcomes of social encounters that occur in cultural contexts.

In recent years, the focus on cultural sensitivity has been based on the understanding of how experiences in different cultures develop different meanings (United Nations Population Fund, 2016). The entire field of perception, especially German work on the Gestalt, has focused on how people can perceive the same stimulus differently by the process of organizing sensory data (Driscoll, 2005). This difference is due to filtering processes that include a socio-cultural context.

Vygotsky (1978) considered several concepts regarding the understanding of human mental functions. Internalization is the process by which external stimuli (part of

the socio-cultural milieu) are received by the senses, transmitted by nerves to the brain, and alter memory, in turn affecting behavior, which indicates learning has taken place. As a result of internalization, cultural perspective is as important as historical perspective in understanding human mental functions. For Vygotsky, learning was not so much an isolated individual internalizing knowledge but more of an individual's interaction with knowledge as part of a socio-cultural context.

Whereas in the West, learning theorists were concentrating on how individuals respond to a learning situation, Vygotsky examined how the context in which an individual lived affected her/his response (Driscoll, 2005). Vygotsky's (1978) most important contributions to learning theory were people construct meaning from a historical and socio-cultural context, no individual exists in isolation, and one cannot ever learn in isolation because her/his culture is ingrained and will influence the response. The effects of an individual's social, cultural, economic, religious, and political environment can never be removed from that individual; the effects continue to affect what she/he learns and constructs meaning about experiences. This socio-cultural context acts like a filter through which all outside experiences, including learning experiences, flow. In this filtering process, certain elements of experience are altered or modified by the particles of the filter. So, for Vygotsky, the development of cognitive processes in humans was inseparable from the internalization (or assimilation) of their socio-cultural context.

Working in the early part of the 20th century in the United States, Dewey (cited in Driscoll, 2005) began theorizing about thinking, learning, and cognitive development. He proposed a more naturalistic approach to learning and acquiring knowledge in

contrast to a metaphysical and epistemological approach. Dewey (cited in Field, 2001) viewed knowledge as resulting from an active adaptation of people to their environment and that people interact with their world through self-guided activity. Knowledge is not passively perceived and thus known; it is acquired through experiencing and interacting with the world. This relationship of the learner to the experiences with the world not only informs learning but this learning has a practical purpose. Two of Dewey's basic propositions were learning by doing (situated learning) and "Education is not preparation for life, it is life itself" (Field, 2001, p. 1).

Also during this first half of the 20th century, French researcher Jean Piaget (cited in Driscoll, 2005) began extensive studies of the cognitive development of children, leading to his seminal theory on stages in their cognitive development. Because Piaget declared acquiring knowledge reflected a process of continuous self-construction that is invented and reinvented throughout the stages of cognitive development, he has been considered by many as an early proponent of individual constructivism. Powell and Kalina (2009) illustrated the differences between individual and social constructivism: "There are 2 major types of constructivism in the classroom: 1) cognitive or individual constructivism depending on Piaget's theory, and 2) social constructivism depending on Vygotsky's theory" (p. 241). This differentiation between individual and societal factors in constructing knowledge has given rise to an arbitrary separation of constructivist theory into two distinct approaches to constructivism, individual and social, between Piaget and Vygotsky.

The middle of the 20th century saw the birth of instructional theory and active research on instructional strategies to be used in learning environments. Like Dewey,

Bruner (1966) viewed learning through the lens of activities of the learner. Bruner highlighted discovery learning and focused on the procedure of discovery in which the learner wanted to understand the issue by making questions or issues that could guide the discovery process be personally and societally relevant (Duffy & Cunningham, 1996). During this time, Vygotsky's (1978) work and writings became available in English in Western countries, which spurred even further research and theorizing on learning and instruction. Western theorists and academics, scientists, and educators were beginning to see limitations and weaknesses in the theories of behaviorism and cognitivism, began recognizing the value of Vygotsky's ideas, and started to integrate them into new concepts about human learning.

It was also at this time that Gagne (cited in Driscoll, 2005) proposed his taxonomy of learning outcomes, described specific learning conditions to reach these outcomes, and delineated the nine events of instruction. Gagne's ideas are still considered as building blocks for instruction, particularly in the field of educational technology. These ideas are also critical in the creation of student-centered learning environments and the development of constructivist activities that engage learners in real-life problem-solving.

Papert (cited in Harasim, 2012), working in the latter half of the 20th century, saw the development of computers and computer technology. He was not so much an educator but a designer of the Logo computer programming language. He was involved in creating educational software as tools for learning using the constructivist philosophy of learning by doing. It was Papert who first adapted the term *constructivist* to *constructionism* in reference to a philosophy of learning that emphasized active

engagement of the learner to construct knowledge. He also reiterated Dewey's ideas in claiming this philosophy was actually more than just a philosophy of learning but was in fact a philosophy of life (Harasim, 2012).

From that time on, the term *constructionism* gained popularity. Scholars began seeing constructivist ideas in the works of previous researchers such as Piaget, developed a constructivist theory, and researched its application in educational settings. During this period, a shift to constructivism and situated learning occurred (Reiser & Dempsey, 2012). Constructivism was more about authentic practice and community participation and less about acquisition of declarative and procedural knowledge. Researchers became more aware of different theories of knowledge (epistemology) and educators began to ask the question of what it meant to know something, a question that was a previous subject of philosophers.

By the 2000s, more attention was directed to practice, engagement, and experience in constructivist learning environments (Reiser & Dempsey, 2012). Situated practice rose in prominence for learners as well as for instructors and designers. Guided by the growth of educational games, media, and the Web, old models of motivation gave way to models of interest, engagement, participation, and the learning experience.

Definitions of Constructivism

Constructivism is best viewed from the perspective of a collection of ideas that have a common fundamental assumption about learning that is radically different from previous theories of learning, assumptions about what is learning, what is knowledge, and how knowledge is acquired (Duffy & Cunningham, 1996; Reiser & Dempsey, 2012). Reiser and Dempsey (2012) defined constructivism as follows: "A philosophical position

that views knowledge as the outcome of experience mediated by one's own prior knowledge and the experience of others" (p. 50). Shaalid (cited in Reiser & Dempsey, 2012) viewed constructivism as a theory or philosophy of learning "based on the idea that knowledge is constructed by the knower based on mental activity" (p.45). In reality, definitions of constructivism are going to be guided by multiple perspectives but they share common core elements and beliefs (Duffy & Cunningham, 1996).

Social Constructivism

Constructivism can be viewed both from the perspective of individuals and from the perspective of the social contexts of groups of individuals, which has been termed *social constructivism*--the theoretical formulation that the perception of reality is socially constructed by individuals within a cultural context (Andrews, 2012). The juxtaposition of the words social and constructionism first appeared with the publication of Berger and Luckman's (1966) *The Social Construction of Reality*. However, the origins of the concept of social effects on the formation of knowledge, thinking, and learning can be traced to Vygotsky's (1978) writing in Russian in the 1930s. Vygotsky proposed that meanings and understandings are outcomes of social encounters that occur in cultural contexts in contrast to Piaget's theory of strictly cognitive development.

The Primary Difference between Constructivism and Social Constructivism

The socio-cultural factor in Vygotsky's social constructivism theory distinguishes it from Piaget's individual constructivism theories (DeVries, 1997). From my perspective, it was important to understand that both constructivism and social constructivism are theoretical formulations that purport to explain how knowledge is acquired and what constitutes learning. Both share a basic assumption that knowledge is

constructed by individuals within a social context. However, the primary distinction often made between these two is the relative position of importance placed either upon the individual or the social context.

Constructivism accepts the social context but also places importance on the individual and individual processes in the construction of knowledge. Social construction, however, sees the social context as inseparable from the individual, that this social context is in fact a determining factor in the construction of knowledge, and that individuals can never be seen as constructing this knowledge apart from this social context. Some scholars have even gone so far as to view social constructivism as a sociological theory of knowledge that applies general philosophical constructivism into the social (McKinley, 2015), thus classifying social constructivism as a sociological theory and constructivism as a general philosophical theory. The essential difference is there is no individual construction of knowledge apart from the social context in social constructivism; whereas, in constructivism, there are both individually informed and socially informed constructions of knowledge.

Constructivism and its Current Development in Educational Contexts

People are effective inventors of their own knowledge; they integrate previous ideas as they meet new information and experiences. They can also modify their thoughts or reject the new news based on their examinations by asking questions about what we know with others. For constructivists, objects and events have no absolute meaning; rather, individuals interpret each one and construct meaning based on individual experience and evolved beliefs. Models of how things work (e.g., gravity, solar system, learning) do not necessarily reflect reality; rather, they present the best

construction of current experience (Driscoll, 2005). Individuals assume responsibility for constructing personally relevant understandings and meanings. Reiser and Dempsey (2012) summarized these basic perceptions:

(1) Learning is an active process of meaning-making gained in and through our experience and interactions with the world, (2) Learning is a social activity involving collaboration, negotiation, and participation in authentic practices of communities, (3) Where possible, reflection, assessment, and feedback should be embedded “naturally” within learning activities, and (4) Learners should take primary responsibility for their learning and “own” the process as far as possible. (p. 45)

In constructivism, instruction is meant to engage learners in a process of inquiry and activity. The instructor shifts role from “sage on the stage” to “guide on the side”-- still sharing information where needed but primarily engaging learners in authentic and challenging learning activities. Thus, constructivism, as a theory of learning, is intricately linked to theories and models of instruction and includes highly beneficial aspects that greatly improve classroom learning (Ertmer & Newby, 2013; Reiser & Dempsey, 2012).

Risks of Constructivism

Constructivism creates a shift in control/energy from instructor to learner. Traditionally, the instructor is the most active and engaged in hard work. This is reversed in constructivist instruction where learners are actively engaged in interesting, real-life problems, allowing students to assume more control over their own learning, which then generates an increase in energy or motivation. However, the following problems still need to be addressed with this new approach: Are learners prepared to take on this new work? Can they look after each other’s interests? Are they motivated and emotionally mature to do the job independently? Do they have the prior knowledge they need to

grasp and confront difficult, real environments? Finally, do they have sufficient access to wanted information?

Therefore, high quality constructivist teaching requires more support, access to resources, careful design, attention to detail, progress monitoring, and more careful craft guidance than traditional instructor-led teaching. It is not easy to create a constructivist learning experience; however, if done well, the investment can result in significant learning gains and more fully engaged learners.

Benefits of Constructivism

One benefit of constructivism to higher-order learning outcomes is constructivist teaching focuses on higher forms of learning such as critical thinking, problem solving, and higher-order cognitive outcomes (Reiser & Dempsey, 2012). This is challenging to accomplish in instruction, are critical objectives in educational settings, and are more closely aligned to current world expectations about expertise in real world problem-solving. A second benefit is better integration of affect and emotion: constructivist learning integrates affect, emotion, and engagement in discussions about what learning is and how it can be enhanced. This more holistic approach increases our understanding of factors that affect instruction and learning by viewing learners as a whole person with needs, desires, abilities, and weaknesses. When educators consider these factors, they are better able to enhance learning. A third benefit is more relevance to job and out-of-classroom performance; it stresses performance in realistic settings and suggests constructivist learning can possibly be more relevant to out-of-classroom requirements and needs. While learners meet more difficult tasks and problems during instruction, they can better transfer that knowledge to work settings simply and clearly. It depends on

how closely the conditions in the learning setting match those the learner would experience in future work and also depends on the quality of the instruction. Thus, they would be able to transfer knowledge to work settings more easily. Therefore, “constructivist principles should lead to greater relevance to jobs and the outside world” (Reiser & Dempsey, 2012, p. 47).

Gardner’s Theory of Multiple Intelligences

Howard Gardner (2011) is an American psychologist who was born in Pennsylvania in 1943, nearly 10 years after Vygotsky’s death. He is Professor of Cognition and Education at the Harvard Graduate School of Education of a few graduate students and senior scholars. Gardner sponsors several annual lecture/performances on creative and critical thinking for the university community, collaborates with other agencies and organizations, and promotes the integration of creativity into an analysis of critical thinking (Harvard Graduate School of Education, 2016). He presented his theory of multiple intelligences in his book, *Frames of Mind: The Theory of Multiple Intelligences*, which introduces his ideas about different types of intelligences and how these different intelligences predispose individuals to respond to learning situations differentially (Heming, 2008). Gardner defined intelligence as "the capacity to solve problems or to fashion products that are valued in one or more cultural setting" (Gardner & Hatch, 1989, p. 5). He also mentioned that people have many ways of processing information. Gardner (n.d.) believed people have different kinds of intelligences or innate abilities that can be used to enhance learning by educators, capitalizing on an individual’s innate abilities in the learning process. He purported that we can teach students in more than one way in order to reach every student. Gardner identified nine

intelligences: linguistic, logic-mathematical, musical-rhythmic, visual-spatial, bodily/kinesthetic, interpersonal, intrapersonal, spatial, and naturalistic. Gardner's nine types of intelligence are described as follows (Gardner & Hatch, 1989):

- Verbal-linguistic intelligence (word/book smart). Knowing is derived through language--reading, writing, and speaking and also understanding the meaning of words and how to use this language to express ourselves--and to think in words.
- Mathematical-logical intelligence (math/logic smart or number/reasoning smart). This is the use of numbers, math, and logic to understand connection. Logical-mathematical intelligence is the ability to calculate, count, and make informed guesses. It is well developed in mathematicians, scientists, and detectives.
- Spatial intelligence (art/picture smart-visual understanding). It is the ability to think in images and pictures, object, shapes, colors, textures, and patterns. Students with this intelligence like to draw, paint, and make designs and patterns.
- Intrapersonal intelligence (self-smart). This ability enables us to understand ourselves, our feelings, thoughts, and use that knowledge in planning and in self-motivation. People with this type of intelligence can work alone and are self-reflective and self-confident. Other people will often come to them for advice and counseling.
- Interpersonal intelligence (people/group smart). The ability to effectively communicate verbally and nonverbally with others is called interpersonal

intelligence. For example, in social media, social skills are needed for effective person-to-person communication. With this intelligence, students might have a lot of friends and can show a deep understanding from other points of view. They usually love team activities and have a good discussion skill.

- Bodily-kinesthetic intelligence (body smart or movement smart). This is the ability to control objects and use many physical skills. It is learning through movement, the knowing of the physical body, such as how to catch a thrown object, ride a bike, dancing, or communicating through body language.
- Naturalist intelligence (nature/environment smart). The human ability to distinguish between living things such as plants and animals and natural world objects like clouds and rocks is called naturalist intelligence.
- Musical-rhythmic intelligence (music/sound smart). It is the ability to distinguish tone and rhythm. The knowing that happens through vibration and sound. For example, people with this kind of intelligence love music and rhythmic patterns; recognize, reproduce, create, and reflect on music; and are sensitive to sounds around them such as the sound of cricket, rain, or traffic.
- Existential intelligence. The ability to reflect on human existence and the meaning of life is an added intelligence Gardner proposed after his initial eight. He himself was not as sure about this as a ninth category but other researchers have seen this as a point of inquiry. In existential intelligence, we can step outside of ourselves and think about our own lives to know the purpose and meaning of things (Gardner & Hatch, 1989).

Many educators and administrators, dissatisfied with the limited view of intelligence as verbal and mathematical abilities only, have embraced his theory of multiple intelligences because it acknowledges the many ways to define and understand students' intelligence and abilities that are often beyond just verbal and mathematical. Gardner and Hatch (1989) pointed out characteristics of excellent schools that promote active learning and described these characteristics:

- Teach critical thinking skills and provide many opportunities to practice and improve these skills, especially before attempting to teach in-depth science courses such as biology and chemistry (often, these are classes offered in high school without teaching critical thinking first).
- Actively engage students in their own learning--move away from the passive student model where students just sit, listen to lectures, and merely receive information.
- Have students acquire information actively by engaging in practical projects and showing how information is used in the real world.
- Assessment needs to be demystified--rather than giving a test where students do not know what is going to be on the test, let students know from the very beginning what the performance standards are to demonstrate learning. Gardner compared this to a person learning to play a musical instrument. All throughout the learning process, the person knows what it sounds like and works to perfect her/his own performance until it reaches that standard. There needs to be many more good examples of excellent learning environments that illustrate the characteristics Gardner advocates to

serve as models to help administrators and teachers to improve their own schools and have meaningful interactions with members of excellent learning environments to discuss ways to make these improvements.

- Advocate for excellent schools and develop a political commitment to bring about these changes.
- Form grass-roots groups and pressure political and governmental leaders to help them understand the advantages of these excellent schools (Gardner & Hatch, 1989).

With incorporation of Gardner's (2011) theory of multiple intelligences into Vygotsky's (1978) theory, we can even further expand the zone of proximal development to maximize learning.

Integrating the Theories of Vygotsky and Gardner for Using Social Media

While Vygotsky (1978) and Gardner (2011) lived in different times, places, and within different cultures, and used different languages, they had similar ideas of how to enhance people's performance (Beliavsky, 2006). Gardner's theory of multiple intelligences allowed educators to expand and maximize Vygotsky's zone of proximal development by considering not just the social-cultural context and including a more knowledgeable person to guide the learner but also customizing strategies to match learners' strengths. This blending of Gardner's and Vygotsky's ideas led to higher levels of cognitive development, which then enhanced learning and teaching. This idea of teaching and learning allowed teachers to teach for understanding, to encourage and motivate students' creativity and imagination, and also inspire their social and personal academic growth. Hence, educators used Vygotsky's constructivism learning theory with

the use of Web 2.0 tools such as Interactive Boards, images, instructional videos, blogs, different platforms in smart devices, mind Mapping, outside-the box applications, and gaming as all of these tools involved socially constructing and sharing of information. The selection of specific tools for specific learners utilized Gardner's theory of multiple intelligences. Taken together, this theoretical foundation set the stage for cooperative learning, utilizing teachers as facilitators (instant teacher feedback), peer instruction, learning through mastery, using real-life or simulated problem-solving, all the while incorporating social media tools to enhance learning.

The zone of proximal development (Vygotsky, 1978) could be increased and maximized by considering and utilizing what individuals are naturally good at, often called abilities, and matching teaching style and learning tasks to individual intelligences. While Vygotsky (1978) emphasized the context--the surroundings that have an influence on individuals, Gardner (2011) looked at an individual's abilities or strengths within this context. The context--culture, language, familial styles, and political structures--has an impact on how individuals and groups learn. There are also individual differences as each individual brings a unique combination of abilities, personality traits, previous learning, and social skills. We can capitalize on each individual's natural abilities as he/she interacts with older or more competent, knowledgeable partners, such as teachers, to maximize learning above and beyond what that individual would attain by him or herself or through traditional learning situations where everyone is taught the same way and performance is measured the same way.

Vygotsky argued that learning does not occur in isolation (Driscoll, 2005). The whole point of social media is it provides interaction even if a student is isolated. For

example, distance learning has now become commonplace. Teachers can share resources from all over the world and even interact socially with students who are studying alone from home. Thus, interaction with teachers, other students, and content generated on social media websites allows highly interactive learning opportunities. Relative to Vygotsky's (1978) zone of proximal development, students can continuously access role models, master teachers, and other interactive materials that provide continuous growth in the zone of proximal development or general developmental potential of the student. Relative to Gardner's (2011) theory of multiple intelligences, students have the opportunity to find learning modalities that match their strengths, abilities, and preferences, or meet their needs. Students can self-select learning in modalities that work for them. Multi-media communications create additional opportunities for students to develop potential across modalities. Social media also allows educators to match learning tools with a student's preferred learning modality. In light of Gardner's theory, social media opens an endless number of learning doors to students. Social media and Web 2.0 tools can be used to update Vygotsky's ideas as social media and other interactive elements of the current technology are easily applied to maximize developmental growth and potential, particularly as applied to distance learning where, in spite of spatial isolation, individuals are socially connected through the Web. Instructional videos, interactive boards, blogs, and gaming make it easy to access interactions necessary for students to continuously maximize the zone of proximal development. Mobile devices and modern technology available with social media or Web 2.0 facilitate learning across multiple modalities and intelligences. Multimedia

information is readily obtainable so students and teachers can match teaching materials and experiences to preferred learning modalities (Gardner & Hatch, 1989).

Social media using Web 2.0 tools allows students, classmates, and teachers to interact directly in spite of spatial distances, to find other online interaction that facilitates learning, and to match learning material to the modality that best serves the purpose and a student's learning style. In reality, this creates a unique social context for educational purposes in line with Vygotsky's (1978) ideas of the importance of socio-cultural contexts and it promotes the selection of specific tools in line with Gardner's (2011) theory of multiple intelligences. Social media using Web 2.0 tools provides interaction across multiple modalities and intelligences, within a social context that is focused on learning regardless of physical space or isolation, and that encourages learners to use higher level processes and problem solving as they actively engage in real-world projects and issues.

Implications of Constructivist Theories for Infusion of Digital Technologies in 21st Century Classrooms

In the last 20 years, constructivism has increased dramatically in popularity. Education has begun to embrace the ideas of situated learning, authentic practice, community collaboration, and participation with more attention to practice with real world activities, engagement with others (often internationally using the Internet), and practical experience (Reiser & Dempsey, 2012). There has been a significant increase in multi-media and web-based games, activities, learning programs, and even in restructuring the traditional classroom, e.g., flipped learning and online courses.

When we refer to digital technologies, we are talking about platforms (websites) that can be accessed via applications such as blogs, Wikis, tagging, Facebook, YouTube,

social bookmarking, multimedia sharing, audio blogging, podcasting and newer Web 2.0 services. In particular, Web 2.0, which added interactive capabilities to its predecessor-- Web 1.0, dramatically changed the way people learn by giving them the ability to access and exchange information rapidly, where *knowing how* and *knowing what* is insufficient and *knowing where* is paramount (Siemens, 2005). Web 2.0 is such a great advancement over Web 1.0 that Brown (2002) considered Web 2.0 a transformative technology that went beyond serving as an informational and social resource to being a learning medium in itself; it facilitated collaborative learning as well as individual learning.

Today's students are very familiar with many of these platforms and use them frequently in their daily lives for recreational purposes. The challenge for education is how to incorporate these technologies for learning in classrooms and other educational settings. Constructivist-based theories behind the use of these technologies include social constructivism, situated learning, connectivism, motivation, guided discovery, scaffolding, collaboration, and activity theory. It is important to consider what overall changes need to be made in the use of social media platforms or the act of teaching and learning with a constructivist framework in order to successfully incorporate the two into a learning context (Gilakjani, Lai-Mei, & Ismail, 2013).

Changes in Learners

The current generation of students has grown up with technology from infancy and is

deeply and permanently technologically enhanced, connected to their peers and the world in ways no generation has ever been before. Not only do today's students want and prefer to learn differently, they seem exceptionally capable of doing so. Siemens (2005) suggested that technology has actually rewired learners' brains. (Ertmer & Newby, 2013, p. 66)

Ertmer and Newby (2013) succinctly stated, “Although we do not yet have physical proof that the brains of digital natives are structurally different than those of digital immigrants, evidence is accumulating that signifies very real differences in their thinking patterns” (p. 66).

This characteristic of today’s learners poses two challenges to education: first, education must acknowledge and understand these changes in the way students learn today, and second, educators must infuse digital technologies into educational settings (Ertmer & Newby, 2013). These scholars pointed out teaching methods, objectives, materials, and learning environments that were effective in the past for less technologically skilled learners are now not effective, efficient, or even stimulating enough for technologically savvy learners. Today’s students will face a work environment where they need to access information rapidly and act upon that information to solve problems even though they might only have partial understanding. Education must reflect a changing workforce environment students will face and prepare them to enter this new digital and digitized world. Ertmer and Newby (2013) described the purpose of their paper as explaining to educators three relevant positions on learning (behavioral, cognitive and constructivist), which could provide structured foundations for planning and conducting instructional design activities to enhance learning. In this paper, the authors discussed each learning perspective and gave resulting implications for educators and educational experts. Ertmer and Newby also provided a comparison of those three different viewpoints and showed how these differences were interpreted into real and useful applications in learning situations. These differences could help learners explore difficult and multifaceted topics, would help them move to thinking strategies,

help encourage them to construct their own understandings, and then to authorize through social cooperation. According to Ertmer and Newby, the main educational theory of constructivism has been embraced by nearly every educational reform initiative within the last two decades. The authors added that constructivist theories, such as social constructivism, have become the foundation for the most recent teaching methods such as problem-based learning, authentic instruction, and computer-supported collaborative learning. Finally, the authors specified that learners must understand 21st-century skills such as critical thinking, problem solving, and creativity to enhance learning and before entering the workforce.

Changes in Teaching

Constructivism is considered the dominant educational theory at present; it has been at the root of every educational improvement within the last two decades. Some of the many applications of constructivist theories—such as motivation, social constructivism, situated learning, and social constructivism (Ertmer & Newby, 2013)—are the foundation of newer teaching methods such as computer-supported collaborative learning and problem-based learning, which is designed to actively engage students in solving relevant real-world problems. Thus, teachers need to be connected to these kinds of authentic problem situations in order to assist their students as they wrestle with solutions (Ertmer & Newby, 2013).

Digital technologies utilizing Web 2.0 provide teachers with world-wide resources to access these authentic problems, to foster the creation of constructivist student-centered learning environments, and to support students through scaffolding, feedback, guidance, and direction as these students formulate solutions. For example,

one web-based tool that supports teachers in constructing student-centered, constructivist learning environments is WebQuest--an inquiry-oriented lesson format that promotes higher-order thinking skills in students as they work in groups, often with designated roles, and uses pre-selected Internet sources to complete a task following a logical structure.

Integral to this new style of teaching is the element of collaboration--from supporting and encouraging student collaboration to joint teacher collaboration as well as connecting both students and teachers with professionals and experts in the workplace (Ertmer & Newby, 2013). Successful teachers are those who promote teamwork in collaborative problem-solving through digital technology and who promote the free exchange of ideas on this technology. As teachers increase their own collaboration and encourage their students to collaborate, individuals from diverse locations, multiple disciplines, and socio-cultural contexts can form communities of learners through the use of digital technologies as they work together on problems facing the world today (Brown, 2002).

Changes in Materials

In order to meet the skill level, needs, and demands of today's digital learners, education must make corresponding changes in curricula, resources, and materials utilizing social media. Just a brief perusal of a Web 2.0 or generation 2 e-textbook highlights how different these e-textbooks are, how they provide brief descriptions of concepts, but have embedded links and hyperlinks that enable readers to navigate throughout the textbook and to other resources associated with the textbook such as dictionaries, grammar, examples, practice tests, discussion questions, and links to

resources beyond the textbook. These are available through the Web such as related videos, podcasts, scientific or academic information and websites, newscasts, maps, even appropriate games and similar activities, all of which can be enhanced with social media use.

Changes in Learning Environments

Teachers can encourage and support student-focused learning in a technology-rich environment. For example, students can actively participate by collaboratively producing a museum kiosk to demonstrate a particular topic, process, or phenomenon such as the early human migration out of Africa and their subsequent dispersal throughout the world. Because digital technology has improved opportunities for students to communicate and collaborate with others, students and teachers can extend their dialogue beyond the physical and time limitations of the classroom using live chat applications, e-mail, and Web sites.

In digital technology-infused classrooms with teachers as facilitators and students as co-constructors of their own learning and knowledge, Internet resources with interactive capabilities, virtual manipulatives, and multimedia resources can transform traditional classrooms into constructive learning environments (Blair, 2012). In order to create and sustain these transformed and transformative learning environments, there are still gaps in our knowledge and understanding, especially with digital technology-infused classrooms and the new population of students who are already using this technology in other areas of their lives.

Advantages and Disadvantages of Using Social Media

College students are an active part of an Internet-using population, taking advantage of social media to communicate, collaborate, and learn (Tess, 2013). Their positive or negative attitudes, as well as the educational benefits they perceive regarding social media, have been identified by distinct populations for individual social media platforms (Tess, 2013). However, formal educational settings have been slow to integrate this technology into teaching and learning despite many recommendations to do so and research supporting such integration. Most of the research has concentrated on attitudes toward social media by students and by educators. According to Tess (2013), social media has been gradually noticeable in higher education environments with the instructor's encouragement to enhance a student's active learning. His review paper summarized the academic writings and reviewed the findings of empirical investigations by examining the role social media played in the higher education classroom. Tess scientifically searched some of specialized database sources such as Web of Science, EBSCOhost, and ERIC. He used Google Scholar searches to explore and examine phrases such as Social Media in Education, LinkedIn, Web 2.0, Social Networking Site and Blogs. Tess used a snowball method to provide additional articles about using the most recent works to find relevant articles cited in them. While most of the studies investigated in his paper reported advantages regarding learning outcomes and student achievement in relationship to the educational use of social media in college courses, there was evidence of disadvantages as well. However, one of the studies in this review paper investigated 12 pre-service teachers' beliefs about their intent to use Web 2.0 technology in their future classrooms (Sadaf, Newby, & Ertmer, as cited in Tess, 2013).

Results showed that while the majority (51%) were committed to Web 2.0 technology as a main instructional tool that could increase student engagement, they would need guidance as how to implement its effective use in the classroom. Few studies in this paper showed that time spent on social media websites could negatively affect student achievement (Paul, Baker, & Cochran, as cited in Tess, 2013).

A study by Bista (2015) of graduate students' experiences with Twitter to facilitate classroom discussion showed students had positive experiences and identified Twitter as a social media platform with the capability of enhancing engagement. The purpose of Bista's case study was to show the perspectives of education graduate students in one public university (about 9,000 students in the mid-southern United States) had for using Twitter as a tool for a required social media activity in two classes with the same course. The author was interested in understanding the use of Twitter in learning and how and why those students found it effective in their learning. Bista examined 2,414 tweets from 42 student's written assignments from selected course during 15 weeks (from August to December of 2013). During this required course, all participants contributed by posting tweets weekly on the selected Twitter page. This page was used in a variety of ways; some posted their dislikes to their peers and instructors and others shared assignments and information related to the reading materials like textbook journal articles. Most of the responses showed Twitter was used to ask questions of their teacher or friends about assignments and class discussion because they got an immediate and quick reply. Participants showed they would use Twitter in the near future to communicate with teachers, friends, and others in the work place. Around 8% of the participants stated Twitter was not a learning tool while 92.4% believed Twitter was a

learning tool in learning environments. Participants also described positive experiences of engaging in group projects, class discussions, needed activities, and course announcements. They added that Twitter promoted effective collaboration in their educational activities such as projects and assignments. According to Bista, there was positive use of this kind of social media (Twitter) to both personal and professional lives. Findings of this study suggested Twitter in learning was a useful tool to enhance a student's social presence.

Another study (Everson et al., 2013) recognized the broader use of social media, including Facebook and YouTube, among college students and intimated its potential in engaging them and fostering critical thinking and information literacy. Everson et al. (2013) stopped short of indicating a definitive role of social media for educational purposes. The purpose of this review paper was to investigate several popular social networking sites for educational uses--Twitter, YouTube and Facebook--in college classrooms and to view them through the lens of educational research. The authors shared their own examples of how social media could be used within the introductory statistics classroom because of the absence of published reports on the use of social media within statistics classrooms. They also summarized and listed considerations and recommendations for other educators who wanted to study and investigate the use of social media in their own courses. According to Everson et al., social media allowed students to connect with their teacher, friends, and with each other in different ways. The authors specified little study had been done about the use of social media sites for educational use and they believed there were ways social media could be used to engage students in statistical reasoning and thinking strategies. Everson et al. explored the use of

social media tools in their own courses and focused on statistical literacy lesson plans using social media. However, the authors believed teachers must be careful when using social media with their students regarding what they already know or do not know about their ability of using social media in learning. One suggestion of this paper was educators should not assume their students are “tech savvy.” They should be aware and provide a helpful resource that could support students in their learning. Another suggestion was educators should use social media as a method to help their students contribute, participate, and engage in their learning experiences (Everson et al., 2013).

According to Hamid et al. (2015), the technologies of online social networking have massive potential to enhance the teaching and learning experience. The authors mentioned there have been limited studies assessing how to use social technologies effectively and their effects on students' learning experience, mainly with regard to their value in enhancing interactions. In discussing the interaction benefits of online social networking use in higher education from students' perspectives, their paper focused on students' experiences using social media for student-student and student-instructor interactions. To answer their research question about students' perceptions of using social technologies to interact with one another and with lecturers in higher education, Hamid et al. conducted a qualitative study with nine focus groups composed of 46 groups of students at Malaysian and Australian universities. The students identified a number of positive outcomes from using social media to interact with one another and with their instructor, explaining in detail how they saw their interactions when using social technologies in higher education. The research showed the use of these social technologies appeared to bring fun to learning and offered a comfortable form of

interaction for students who did not like to speak up in class. Additionally, Hamid et al. considered the views of students who came from various academic disciplines and from different levels of study, representing the views of students who were debatably the main “stakeholders” in higher education. These findings contributed to our current understanding about how students leverage social technologies to enhance interaction among themselves, with their instructors, and with the content of the course.

Another study carried out by O'Brien and Glowatz (2013) showed how a social networking site (SNS) like Facebook could increase students' academic engagement and develop synergistic knowledge. The researchers understood engagement as the time and effort a student spends in educational activities in or out of class, which could be related to college outcomes. Also, O'Brien and Glowatz mentioned this engagement involved many aspects of social interactions including interactions with faculty and peers for academic purposes. The researchers were interested in learning whether Facebook was an effective tool in engaging students' learning and if it was an effective eLearning tool for enhancing the learning experience. The research question asked whether Facebook could used as a learning tool to academically engage students. Furthermore, O'Brien and Glowatz specified their research objectives were

to integrate a SNS tool into the module delivery to enhance student learning; to introduce a new SNS driven assessment component to raise awareness of student-centric learning opportunities; to develop student critical thinking skills developing student-centric learning opportunities; to utilize a SNS tool for student communication, collaboration and innovation. (p. 1373)

O'Brien and Glowatz (2013) used a case study approach with 15 participants. Data were collected using interviews and online surveys with 14 open- and closed-ended questions and a rating scale, which tested students' experiences with the use of Facebook.

The authors used Nvivo software to analyze the findings from students' interviews. O'Brien and Glowatz also used a descriptive statistic to summarize the survey's quantitative data. Several key themes emerged after coding regarding the four previous objectives that showed most Facebook practices could be academically beneficial and helpful to students by stimulating critical thinking and engagement in academic debate concerning the module material. The authors concluded that using the SNS not only caused and produced communication and sharing information between students but also allowed students to collaborate in an easily accessible online environment, which was a useful tool for distance learning students and part-time students. O'Brien and Glowatz suggested the SNS could allow students to engage in a way that traditional educational environments could not.

Other researchers have also pointed to the popularity of social media among college students. According to Zgheib (2014), "Social networking sites (SNS) are very popular among college students, with an average of 90% of students using social networking" (p.10). She mentioned that social networking sites could support interaction and individual engagement through a user-created profile that connects to other people on the site. According to Zgheib, tools such as Facebook and Twitter are called "community networking tools," which she said "help students create a network of friends with which users can share multimedia resources, collaborate and share common interests, and "enable a connection between knowledge, community, and learning" (p. 10). Another finding of this study was people who use a SNS can use private messaging to communicate with each other by posting comments to each other. They

can also search for other users by age, gender, interests, affiliations, or names and connect with them. Similar to blogs, SNS enable students to connect with people

in their field and extend the discussion beyond the classroom and become members of a community of practice. (Zgheib, 2014, p. 10)

Odom et al. (2013) surveyed 79 university students in two leadership courses about their perceptions of their level of comfort and frequency of use of social media tools and advantages and disadvantages these students perceived when social media was used in their classroom. According to the researchers, the most comfortable and frequently social media tool used was Facebook. Advantages these students perceived were (a) an increase in quality and efficiency in communication between students and between students and instructor, (b) utilizing social media integrated useful technology that is used throughout life, (c) social media facilitated access to class information, and (d) social media enhanced collaboration and strong social communication among classmates. These students also pointed out several disadvantages in using social media within their classroom. Most frequently mentioned was the issue of distraction when engaged in other class activities. A few students reported their lack of knowledge impeded their use of social media as it was unfamiliar to them. Rarely did problems with Internet access occur; occasional inconsistencies in specific types of social media created confusion. Individual differences showed up in student preferences regarding the separation of personal life from their academic life: some were quite comfortable with the blending of these two aspects of life while others preferred to keep their personal lives separate from their academic lives. Odom et al. used a parallel mixed method approach; both qualitative and quantitative elements explored student perceptions of the use of social media in a leadership course and their comfort level with specific social media tools. Qualitative data were analyzed using thematic analysis and quantitative data were analyzed using SPSS software and descriptive statistics (Odom et al., 2013).

I completed earlier survey research (Almansour, 2015) to investigate the “Educational Use and Perceived Benefit of Social Media among Graduate and Undergraduate Education Students.” For this study, the social media platforms were restricted to Facebook, Twitter, and YouTube in order to provide an initial assessment of Midwestern university students’ expressed interest in using social media in their learning process. The results of the study provided data useful to universities that are discovering, expanding, and implementing new technologies to incorporate social media into their learning systems. Students’ perceptions were assessed using a modified and highly reliable transmutation of the technology acceptance model using a survey. Key demographic differences and similarities were taken into consideration along with students’ perceived ease of use of and perceived usefulness of social media for educational purposes. No significant relationship was found between students’ perceptions of the use of social media for educational purposes and demographic variables including class level, age, gender, nationality, or native language. More importantly, students who used one of the included social media platforms (Facebook, Twitter, YouTube) and expressed positive perceptions of its use for educational purposes were significantly more likely to use and have similarly positive perceptions of the use of social media for educational purposes using the other platforms. As a result of these findings, I was curious about the factors behind the responses of these students and wanted to gain a deeper understanding about the lack of any significant relationship between students’ perceptions of the use of social media for educational purposes and demographic variables. Therefore, I conducted a qualitative case study with three of the participants who had completed the survey study and went beyond their perceptions to

explore more deeply their experiences and actual use of social media for their own learning.

In a qualitative case study, I (Almansour, 2016) investigated the educational uses of social media of three university students as described by them through observations, interviews, and an examination of applicable artifacts. This study's research question asked how university students in education at a midwestern university experienced and used social media in their learning. Three main themes emerged related to how, where, and why students used social media technology in education: convenience, clarification, and connection. Furthermore, participants had consistent recommendations for educators regarding using social media successfully in education, for example, setting limits on the number of different social media technologies used within a given time frame but using the specified technologies more frequently in the classroom. In addition, participants expressed the importance of teacher training in the use of social media technologies before these teachers started to use social media platforms in their teaching. One notable outcome of the second study was the change in perception of one student during the study. This participant initially thought she was not really using social media but realized at the end of the study that she was actually using social media quite a lot. This incident highlighted for me the issue that students themselves might have misunderstandings of what social media actually is and how social media looks like in real life applications. It seemed to me that researchers too often assume students have clear understandings about the concept of social media and what they consider to be social media platforms or applications. In reality, there might be significant confusion about social media and, therefore, students might under-report or discount their use of social media in learning.

The results of both of my previous studies and my literature review implied a need to investigate the phenomenon of students' actual use of social media for learning in greater detail, which led to the design and completion of this dissertation study.

Summary and Conclusions

In spite of rapid technological advances in two-way communications and their application within most areas of life today, social media has had little incorporation into learning contexts. Research on the use of social media in both formal and informal contexts has focused on perceptions and attitudes of administration and teaching personnel with a very limited amount of research on attitudes and perceptions of student users. Additionally, little research has focused on ways student users have already devised and incorporated social media technologies into their own learning situations.

Although research into the educational potential of social media is beginning to occur, more information needs to be focused on how students actually use social media in education and learning, both formally and informally. Some studies explored instructors' beliefs or practices of social media (Li, 2014), and a few studies investigated student perceptions (Alhababi, Alfadil, Alzamanan, & Williams, 2015; Al-Sharqi & Hashim, 2016). Others looked at technological problems with different devices (Gikas & Grant (2013). Nevertheless, little has been done about how these students used various social media technologies for learning, within what contexts, and their perceptions of value of these various social media for academic learning; "Very little research exists specifically about the use of social media sites for educational purposes" (Everson et al., 2013, p. 1). Gathering information about students' use and creative ways they are already incorporating social media into their educational process could inform educators and

administrators in their search for better integration of social media into both formal and informal educational contexts.

Situating My Study in the Literature

This study was intended to add to the existing literature surrounding social media in education by contributing deeper insight into how students currently used and experienced social media in learning. The study focused on the use of social media in learning from students' perspectives as this perspective was lacking in existing literature. To determine if general misunderstandings about the nature of social media were more widespread than previously thought and to provide detailed data on students' social media use, I conducted a phenomenological study with the following objectives: to investigate students' use of social media for learning by (a) ascertaining what social media actually meant to students, (b) developing an understanding of how social media was related to their choice of platforms or applications, and (c) collecting student descriptions of their uses and value of social media for learning.

The results of this study could provide deeper insight into how social media was perceived by students, how students used and experienced social media in learning, and how we as educators could incorporate social media into educational processes to enhance learning. The results of this research could be used to guide pedagogical practices by providing detailed information about how social media is used by students and how it could best be used in formal learning spaces and/or include teacher-facilitated use. As social media platforms evolve, so do its possible uses. This study was a fresh contribution to the evolving literature about social media in education.

Chapter III contains a thorough description of the methodology used for this research. The methodology chapter includes the theoretical framework for the study, justification for my choice of research design, and the specific research questions. Also included are descriptions of the research setting, participants, data collection instruments, details of the study procedure, and methods of data analysis. The chapter also provides actions taken by the researcher to ensure trustworthiness and potential limitations in the methodology.

CHAPTER III

METHODOLOGY

Introduction

The last 20 years have seen rapid advances in digital technologies that are changing the way people communicate including communication in teaching and learning. This has led to a situation where young people entering higher education have grown up with these technologies and use them extensively in their daily lives. These technologies include social media in its various formats and social media has already become a routine part of business, government, and military/industrial practices. However, educational institutions have lagged behind in integrating social media to any real extent in teaching and learning. Much previous research on this topic has concentrated on educators' perceptions and beliefs of social media, incorporating social media into their teaching, how social media affects learning outcomes, and technological problems with different devices. Research into students' perceptions of social media and insights into incorporating social media in their learning is just beginning. At present, however, little research has focused on how current technologically-savvy students already use social media on their own initiative as part of their learning experiences. This study investigated this phenomenon, focusing on how students devised ways to use social media, described their experiences with social media, and shared their perceptions of social media as a tool in their own learning.

Research Questions

The following research questions guided this study:

- Q1 How do university students describe their experiences of using social media for their own learning?
- Q2 What do university students perceive as advantages or disadvantages in the use of social media for their own learning?
- Q3 What suggestions do university students make for increasing the use of social media for their own learning?

Theoretical Framework

Any research design has at its foundation a theoretical framework that supports the methodology chosen to best obtain the most appropriate data to address the topic. The most basic layer of this theoretical framework was to specify the researcher's position on the nature of knowledge, how this knowledge is obtained, or the researcher's epistemological position. Because the focus of this study was to understand university students' perceptions and use of social media, a constructivist framework was most appropriate to ascertain how students constructed meaning and knowledge using social media in learning situations and how they incorporated them into their learning (Crotty, 1998). Epistemology means what counts as knowledge and how knowledge claims are justified. The longer researchers stay in the field or get to know their participants, the more they know what they know (Creswell, 2007).

From a constructivism viewpoint, meaning is not discovered but is constructed (Crotty, 2003). Human beings are constructing meaning when and while they are engaging with the world through interpretation. The meaning of the term *human being* means being-in-the-world so there is a relationship between the world and humans. The

world and objects are a researcher's partners for generating meaning. This means a strong relationship exists between the human experience and objects. The world cannot be described apart from the conscious being who is experiencing it (Crotty, 2003).

Social constructivism is the theoretical formulation by which the perception of reality is socially constructed by individuals within a cultural context (Andrews, 2012). We can see constructivism from both an individual perspective and also from the perspective of groups of individuals in a social context. Andrews (2012) described social constructivism as the theoretical formulation that asserts the perception of reality is socially constructed by individuals who are influenced by their cultural contexts. Social constructivism proposes to explain the popularity and effectiveness of social media (Tess, 2013). The roots of the concept of social effects on the formation of knowledge, thinking, and learning can be traced to Vygotsky's (1978) writing in Russian in the 1930s. While Vygotsky died in 1934, his works were not translated into English and made known more largely to academics in the West until the 1960s, encouraging further developments in both theoretical formulations and practical application of the principles of social constructivism. Vygotsky introduced the idea that meanings and understandings are outcomes of social encounters that occur in cultural contexts.

Research Design

Phenomenology best describes the methodological approach concerning this research since it is an interpretive process whereby the researcher makes an interpretation of a participant's testimonies about a particular phenomenon. "The type of problem best suited for this form of research is one in which it is important to understand several individuals' common or shared experiences of a phenomenon" (Creswell, 2007, p. 81).

Phenomenology is described as “an object of human experience” (van Manen, as cited in Creswell, 2013, p. 76) and this human experience might be a phenomenon such as the use of social media (Creswell, 2007).

As a result of the findings of this phenomenological, qualitative study regarding university students’ perceptions of social media use for educational purposes, educators and scholars in the field of educational technology have the potential to develop effective instructional strategies to better support teaching and learning. Understanding these relationships could also be an important step in planning for the successful use of social media in higher education. This study is specifically a constructivist, phenomenological study because I examined the phenomenon of the use of social media in learning. Under phenomenology, there are two general approaches to studying a phenomenon: hermeneutical, which focuses on written records of lived experiences, and transcendental, which focuses on the common meaning for participants about their lived experiences. Because this study investigated students’ use, experiences, and perceptions regarding social media in learning, the research design chosen was a transcendental, phenomenological, methodological approach (Creswell, 2007).

Setting

For the interview portion of this research, this study took place in the western region of the United States. Interviews were in the university’s library, in natural settings such as public places (i.e., coffee shop), and at informal campus sites the participants described as being where they used social media, in order to provide a relaxed and informal environment to encourage conversation and interaction. The participant and I mutually agreed upon a quiet place for the interviews. The interviews were recorded

using the audio recording function on the researcher's cell phone and laptop. Normal furnishings such as chairs and tables were present. I used paper, writing tools, a portable computer, cell phone, and an interview guide for questions, taking notes, and making informal observations. One of my participants was interviewed online due to travel distance. Aside from being interviewed remotely, he was treated in the same way any other participant was treated and the data collected were similar to data collected from all other participants. Therefore, no distinction was made between his responses and those of the other participants.

Participants

Using a purposeful sampling method, seven graduate students were employed to solicit volunteers to participate in this study. Inclusion criteria included university students from the Department of Education who were selected from a pool of participants who previously responded to a survey on the educational uses of social media from their perspectives as technologically savvy individuals. The seven graduate students who participated in this study included two males and five females who were over the age of 18, none of whom came from a vulnerable population (American and non-American) and majored in different programs. Table 1 provides further demographic information. Initial contact was made by email (see Appendix A). Follow-up contact was also made via emails (see Appendix B). Participants were non-vulnerable adult students who were exposed only to risk that naturally occurs in a university setting; they voluntarily participated in the interviews and were aware they were able to end participation at any time if they so chose. Interview participants were asked to illustrate/write ideas on a piece of paper and share screenshots of their social media use during the interview.

Interview participants were also able to choose to participate in the interview but not share their screenshots or illustrations.

Table 1

Demographics of Participants

Participants	Gender	Age	Nationality	Language	Departments	Interview Location
Iman	Female	35-44	Non-American	Arabic	Educational Technology	University Campus
Sara	Female	25-34	Non-American	Spanish	Applied Statistics & Research Methods	University Campus
Helen	Female	35-44	American	English	Educational Leadership & Policy Studies	Coffee Shop
Lisa	Female	35-44	American	English	Counselor Education & Supervision	University Campus
Belle	Female	35-44	American	English	Higher Education & Student Affair Leadership	University Campus
Kalen	Male	25-34	American	English	Applied Statistics & Research Methods	University Campus
Hamad	Male	35-44	Non-American	Arabic	Educational Technology	Online

Interview and Informal Observation Protocol

A semi-structured interview guide was used based on a group of interview questions developed or adapted from my previous studies and from the literature (see

Appendix C). The interview questions were specifically related to the educational uses of social media. The questions were peer-reviewed for clarity and relevance and modified if necessary. Then the interview questions were field tested in actual practice interviews with two peers as a final step in development. Data were collected from interviews and an examination of pertinent artifacts (screen shots of devices showing social media platforms) related to the topic of educational uses of social media was conducted to ensure no identifying information was captured.

Data Collection Procedures

Interviews occurred during natural social interactions within university students' educational environments and audio-taped using my digital recorder and smart phone. Because this was a qualitative study, I also kept a journal in which I wrote my thoughts, feelings, and perceptions throughout the study in order to set out these ideas and bracket out my experiences to minimize them from influencing my interviews and analyses. I also kept field notes using the interview guide immediately after the interviews as an additional place to make observations and keep other notes of ideas and perceptions.

Procedure

After obtaining Institutional Review Board approval (see Appendix D) for this research and finalizing the interview guide, I initially contacted prospective participants via email (see Appendix A) to obtain a written willingness to be a participant for this study. Participation in the interviews and answering all questions was voluntary. After participants verbally agreed to participate in this research, a consent form was provided to the participants explaining the purpose and general procedures of the study (see Appendix E) including protection of confidentiality. Upon receipt of the signed consent

forms, participants were contacted to set up a schedule with a convenient time and place for the interview to take place.

After reviewing the consent form and obtaining signed consents, data were collected. Semi-structured interviews were carried out (see Appendix C); I voice-recorded these interviews using the recording functions on my cell phone and computer. I also took notes during the interview, writing down my comments on the interview guides. The interviews were conducted face-to-face and took approximately 60-90 minutes for each participant to complete. I also took screenshots of devices used by students to access social media in educational contexts immediately after the interview in order to gain deeper insights into contexts as well as experiences of these students.

Data

The research questions in this study allowed investigation of the views of students who used social media in their learning. Specific methods used for collecting the data were interviews, informal observations, and artifacts. The interviews were digitally recorded and transcribed verbatim. Participants were given an opportunity to learn more about the research by having a simplified description of the purpose and design available to them.

Interviews. The interview questions followed a semi-structured format. According to Merriam (2009), “In this type of interview either all of the questions are more flexibly worded or the interview is a mix of more and less structured questions” (p. 90). A semi-structured design was used during the interview; both structured and follow-up questions were based on participants’ views of their use of social media in learning.

Informal observation. During the interview, participants drew and illustrated what they thought was social media. In addition, they shared screen captures of anything they wanted to share. This information was used as an informal observation of their social media knowledge, use, and application.

Artifacts. Artifacts were also collected by asking participants to create an illustration that expressed how they used social media for education and also by taking a digital picture of specific sites used by participants on the devices they commonly used without capturing any identifying information.

Data Analysis

After all data were gathered, the interviews were transcribed and data analysis of these interviews proceeded using qualitative methodologies. Meanings were co-constructed with data from interviews and artifacts using thematic analysis across the cases.

Initially, the data from the transcriptions of interviews were closely examined and common themes were identified by (a) reducing and coding the information into meaningful and recurring ideas, (b) organizing the codes into a textual description of the students, and (c) then creating a structural description of those experiences to reach common theme categories that were comprehensive and mutually exclusive. Then the information from the artifacts were blended with the information from the interviews to provide an in-depth examination of the contexts in which social media use for learning took place as a way to triangulate data from different sources to obtain a more complete understanding of the phenomenon (Braun & Clarke, 2006).

Using notes and recordings, I manually analyzed the data by circling common words and ideas to develop codes and categories. Examining artifacts from the participants offered me even more understanding of the thematic material in this case. This process allowed me to delineate common themes and strands of thinking by categorizing information and tabulating occurrences obtained from the data of the interviews, informal observations, and the collection of the artifacts. From these themes, I made comparisons, noted relationships among the themes, and articulated points of view to interpret the meaning of participants' comments based on my own personal views and suggestions found in past studies.

Data were analyzed using a qualitative thematic methodology to provide evidence for the research questions. Qualitative methodology allowed me to learn more from participants through their views and exploration of the use of social media in learning. Because I conducted face-to-face interviews, I made an audio recording of participants talking about their use of social media in learning using my digital recorders; I then transcribed those recordings to obtain a written record. I also took notes and used them to sketch ideas, reflections, and comments on context of the participants. Figure 1 provides a visual representation of the data analysis procedure applied in this research.

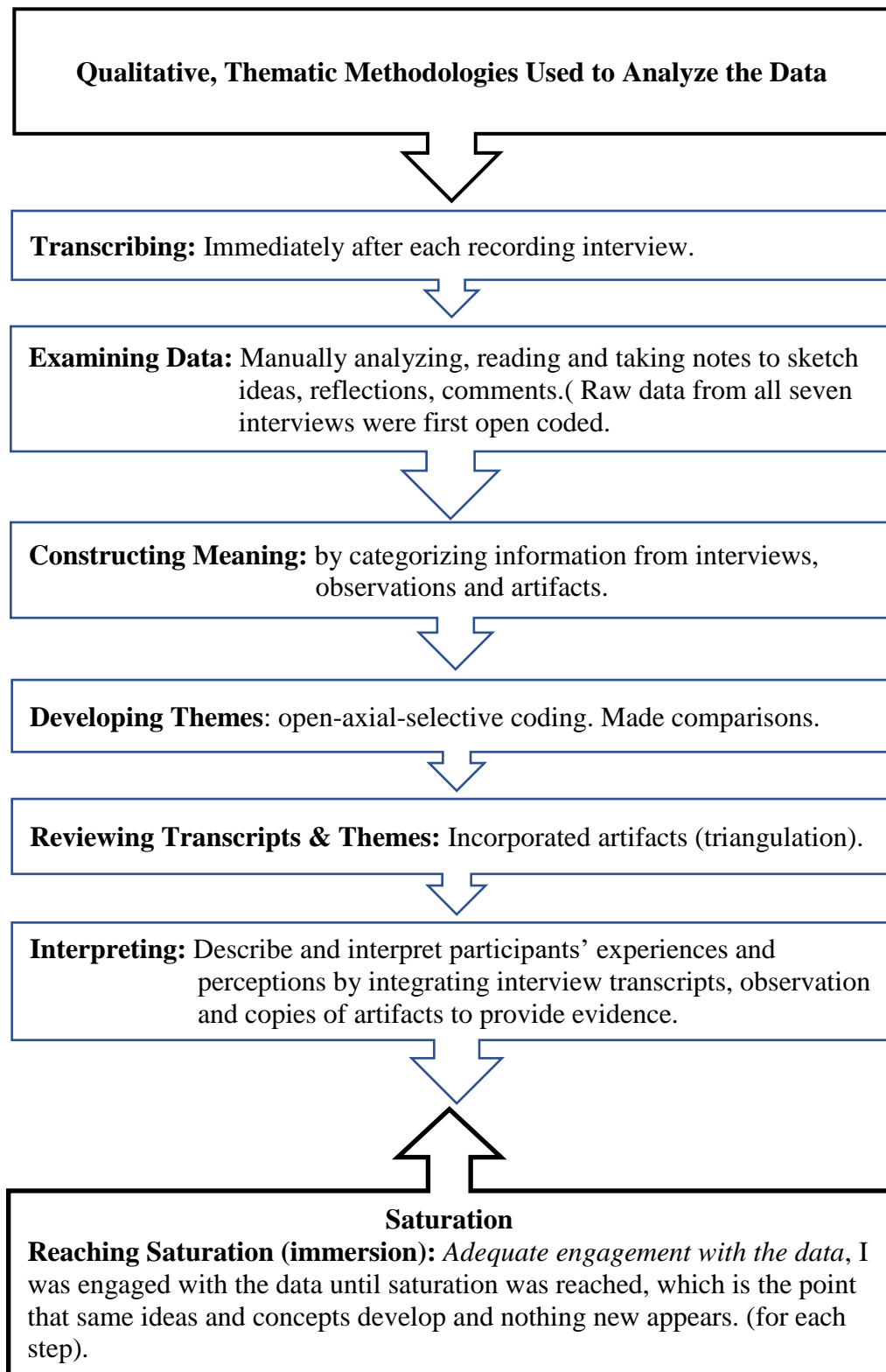


Figure 1. Phenomenological data analysis procedure.

Qualitative Research Trustworthiness

Establishing rigor in a qualitative study refers to the steps taken to establish confidence in a researcher's findings to be able to trust the research results. The study must be carefully designed and carried out, taking care to maintain ethical and accepted standards of qualitative research as accepted by the research community (Merriam, 2009). Although the terms *reliability* and *validity* are sometimes used as labels for specific methods to ensure this trustworthiness, these two terms do not have exactly the same meaning as they do in quantitative research. First, in qualitative research, reliability does not refer to an ability to replicate a study's findings by using a complete description of methodology but instead refers to the consistency with which the data were collected. Some researchers actually use different terms to describe these techniques in qualitative research--credibility, transferability, dependability, and confirmability--in order to reduce confusion and to emphasize the need for a careful reconsideration of the concepts of reliability and validity as used in quantitative research (Lincoln & Guba, 1985; Merriam, 2009). Each of these concepts is explored in more detail in the following sections.

Credibility (Internal Validity)

This refers to the extent to which the findings extracted from the data are believable and trustworthy (Merriam, 2009). To increase credibility, Merriam (2009) recommended several strategies: triangulation, member checks, peer review, and clarification of researcher's biases. In this phenomenological research, triangulation, peer review, member checks, and researcher's stance were applied.

To establish credibility, I first used a triangulation strategy by utilizing multiple methods to collect data (e.g., interviews, informal observations, and artifacts) to help me

obtain a comprehensive view of the phenomenon. Additionally, in my interviews, I included a small survey (see Appendices C and F) to quickly look at information such as the device and applications used. I also included a list in the survey to see why students used social media for educational purposes. I used this survey to organize my thoughts for the interview and to confirm what I was hearing in my interviews. The purpose of triangulation is to obtain information from more than one source to provide a more complete picture of the research; by using the survey and following it up with an interview, I was able to get a more complete picture.

Second, a peer review strategy was utilized by asking several colleagues to review the content of the current study. The results of the strategy provided necessary feedback about the emerging findings in the study. This helped me identify and separate out biases and misunderstandings that could have developed during the coding as well as establishing credibility of the data. This strategy was utilized to improve internal validity and reliability of the findings (Merriam (2009). In this research, expert feedback was obtained from professors from the Educational Technology Department (EdTech) and from the Applied Statistics and Research Methods Department (ASRM).

Third, I used two methods for ensuring the trustworthiness of the data through member checking.

1. All participants were asked to ascertain accuracy of the transcripts; of the six participants who responded, all agreed that the transcripts were accurate. To construct internal validity and credibility of the data, three of the participants were asked to review the analysis and provide feedback.

2. As a researcher of this phenomenological research, I indicated my role to clarify possible biases.

Transferability (External Validity)

Although transferability is often described as a kind of generalization, clear distinctions need to be made to illustrate transferability as different from generalization. In quantitative research, certain procedures such as sampling, sample size, and control of extraneous variables help justify generalization of findings from one group to other groups. However, in qualitative research, there is no goal to generalize findings but rather to obtain more in-depth information from participants in a particular study (Erickson, 1986). What transferability refers to is the ability to make comparisons of findings and to examine similarities and differences among groups. Generally, “it is the reader who has to ask, what is there in this study that I can apply to my own situation, and what clearly does not apply” (Walker, 1980, p. 34). Merriam (1998) pointed out that the researcher is not concerned about generalization of findings but it is the researcher’s responsibility to provide clear and detailed descriptions of all aspects of the contexts, the setting, the participants, and the social and cultural influences; then readers can compare the findings of the researcher to other similar situations. In this research, I enabled transferability by providing evidence such as observation field notes, quotes from interviews, and copies of artifacts to give a detailed description of the findings. I also used a thick, rich description strategy by providing a detailed description of the setting and all participants in this study.

Dependability (Reliability or Consistency)

In qualitative research, rather than addressing issues of replication in other studies, the concern is within the study itself--are the findings of the research consistent with the data collected and can the data and findings be considered dependable (Lincoln & Guba, 1985)? Dependability has been described as indicating stability of the data and of the findings derived from this data (Rolfe, 2006). In essence, establishing dependability allows better confidence that the findings are consistent with the data gathered. To ensure dependability in this study, I used different strategies such as audit trail, triangulation, researcher stance, and peer review. For an audit trail, I kept a reflexive journal where I documented my reflections, ideas, and decision-making processes for the duration of the study. An audit trail is a written record of the journey of the research process, much the same as a ship's log records during a sea journey (Merriam, 2009). Using the strategy of an audit trail allowed me to keep track of the progress of the research and the thought processes behind the research design and procedures. Specifically, the trail included information about how the design was chosen; ideas on selection of participants, settings, and data collection; how codes were established and categories derived; and how decisions were arrived at throughout the research process.

Confirmability

Confirmability acknowledges that every researcher brings to the research process a unique perspective to the topic, to the problem, to research questions asked, and to methodology used to answer those questions (Lincoln & Guba, 1985). In spite of this unique perspective, the researcher needs to assure that findings are related to the data

gathered and not to his or her own perspective. Confirmability addresses this issue by providing procedures that allow other researchers to confirm or to corroborate the findings of the original researcher. I addressed confirmability by using participants' own words to create the themes. I also used the strategy of adequate engagement with the data. The standard for determining adequate engagement is termed saturation--the point when nothing new appears and at which the same ideas and concepts develop (Merriam, 2009). As the researcher, I was engaged with the data until saturation was reached; this strategy is often called immersion and used to familiarize the one who conducts the research with participants' perspectives. It was also that point when there were no credible alternative explanations of the data, thereby increasing confidence in the findings.

Researcher Stance

The primary instrument of the data analysis and data collection is a qualitative researcher (Merriam, 1998). Chenail (2012) said,

We as qualitative researchers spend intensive and extensive time in the field observing and asking participants what certain things mean and then ask follow up questions to help the participants bring forth into the public knowledge greater detail and perspectives. (p. 2)

Therefore, when I conducted this qualitative research, I was aware I was the substantial instrument during the data analysis and data collection. I understood I had an essential role in delivering knowledgeable explanation of the analysis and examining the data gathered. Due to the fact that bias and prejudice are essential aspects of knowing and understanding ourselves and the world we live in, they cannot be eliminated or set aside. However, a researcher must reflect on personal biases and prejudices in order to

recognize the differences between enabling and disabling them and then obtain understanding (Schwandt, 2001).

I am an international Doctor of Philosophy student from Saudi Arabia at the University of Northern Colorado majoring in Education Technology who loves to use social media in my daily life--both formally in my education and informally with my family and friends. I am also an educator in Saudi Arabia and plan to use social media as part of my teaching methods. My view is it is very appropriate for students to use social media for learning and in my experience with my own children, I see how they use social media both for recreation and for learning. This is in stark contrast to my own childhood experiences; I was raised in a culture where the media was very controlled by the state and by our religious values. As a graduate student, I dealt with technology related to daily education. With an increase in the number of students around me using social media in their classes for learning purposes and my belief that education must adapt to meet students' needs, I wondered if the use of social media could be a viable technology to enhance learning. This phenomenon raised questions about what was really happening while students were using social media in their learning, which ways they were using it, and how it enhanced their educational experience.

I addressed my subjectivity by keeping a daily journal in which I initially bracketed out my own experiences and where I continued to reflect on my own thoughts and feelings throughout the research study period. In my journal, I also wrote my own ideas, thinking patterns, and decision-making processes as ways of documenting the direction and shaping of my study and interpretations of data.

Constraints

Research limitations are inevitable in any research endeavor. This research was based on a qualitative inquiry method. Several constraints related to the nature of qualitative research and some limitations to this study bear consideration. First, the sample consisted only of graduate students in the College of Education at a university in the Midwest region of the United States. There was a possibility these students were more focused on learning and more disciplined in their use of information than students who were not committed to higher education. Also, as education majors, these individuals might have been significantly more interested in different learning processes and formats so their perspectives might not transfer to the general population.

Second, participants in this study were from different cultures, religions, and national backgrounds so they might have had different levels of previous knowledge about using social media. Third, an inherent risk in interviews relates to the honesty of participants' responses. Even though participants were informed their responses would remain confidential, there was a risk that answers might not reflect actual thoughts and feelings due to a variety of factors, e.g., desire to answer in a way that participants felt the researcher wanted, feelings of embarrassment, guilt, or reluctance to share personal opinions.

Additionally, the participants of the study were selected according to their willingness to participate in the study and complete the survey. This might have introduced a source of bias. Lastly, this qualitative research could not establish a causal relationship between the use of social media platforms and educational outcome variables

that were important. Therefore, the information offered by this study should be used to provide a foundation for future experimental research.

Conclusion

This study contributed to our understanding of ways university students are using social media and showed the benefits students obtained from using it for educational purposes. Because the subject of the investigation was students' perceptions of the technology use and because the nature of social media use is prevalent in many contexts, a phenomenological approach was determined to be best suited to structure this research. To understand the phenomenon of social media use by students, multiple data were collected to support this understanding. The research design outlined both methods as well as procedures to ensure secure data and rigorous analysis to ensure trusted results.

CHAPTER IV

RESULTS

This research focused on university students as they experienced social media and the contexts of those experiences for educational uses. The following research questions were posed:

- Q1 How do university students describe their experiences of using social media for their own learning?
- Q2 What do university students perceive as advantages or disadvantages in the use of social media for their own learning?
- Q3 What suggestions do university students make for increasing the use of social media for their own learning?

This chapter presents the results of the study including descriptions of the participants and findings about participants' overall perceptions of social media. The results of a thematic analysis of participants' interview transcripts follows, detailing themes and subthemes that emerged during the data analysis and supported with illustrative examples taken from interviews. Following the thematic results, I present an analysis of artifacts the participants provided. The chapter concludes with a summary of the findings.

Participants

Participants for this study included seven graduate students-- five females and two males--from different majors in the Department of Education who were selected from a

pool of participants previously responding to a survey on the educational uses of social media from their self-identified perspectives as technologically savvy individuals (see Table 1). To protect their identities, pseudonyms were used. Quotes were taken verbatim from the transcription. A brief description of each participant is presented to establish context prior to the presentation of findings and thematic analysis. All of the participants contributed screenshots to the data. However, to maintain focus in the presentation of the results, I selected a limited number of the screenshots that most closely related to the research questions for display with participants' diagrams.

Iman

Iman, a Doctor of Philosophy student in early middle age, is from a country in the Middle East and is studying in the United States as an international student. When asked whether she used social media, she immediately responded, "Yes, for sure!" with enthusiasm and eagerness. Her confidence and assurance in talking about using social media reflected this enthusiasm. However, she also noted that being an international student was not easy; using social media with different platforms helped her become more confident chatting inside the classroom and outside, decreasing the tensions she initially felt. The final part of the interview was for her to use her device to demonstrate how she did her homework (see Figure 2). She also drew what she thought of being a university student using different kinds of social media (see Figure 3). Informal observation: Iman was very excited when she talked about using different social media to help her communicate with her instructors, classmates, and friends to accomplish her assignments quickly and easily. She showed me many different platforms on her smartphone and talked about platforms for chatting and for viewing videos only to

understand the concepts. She eagerly demonstrated app after app that she used in her education on her cellphone. She clearly summarized her positive thoughts and feelings about using social media for learning through her drawing.

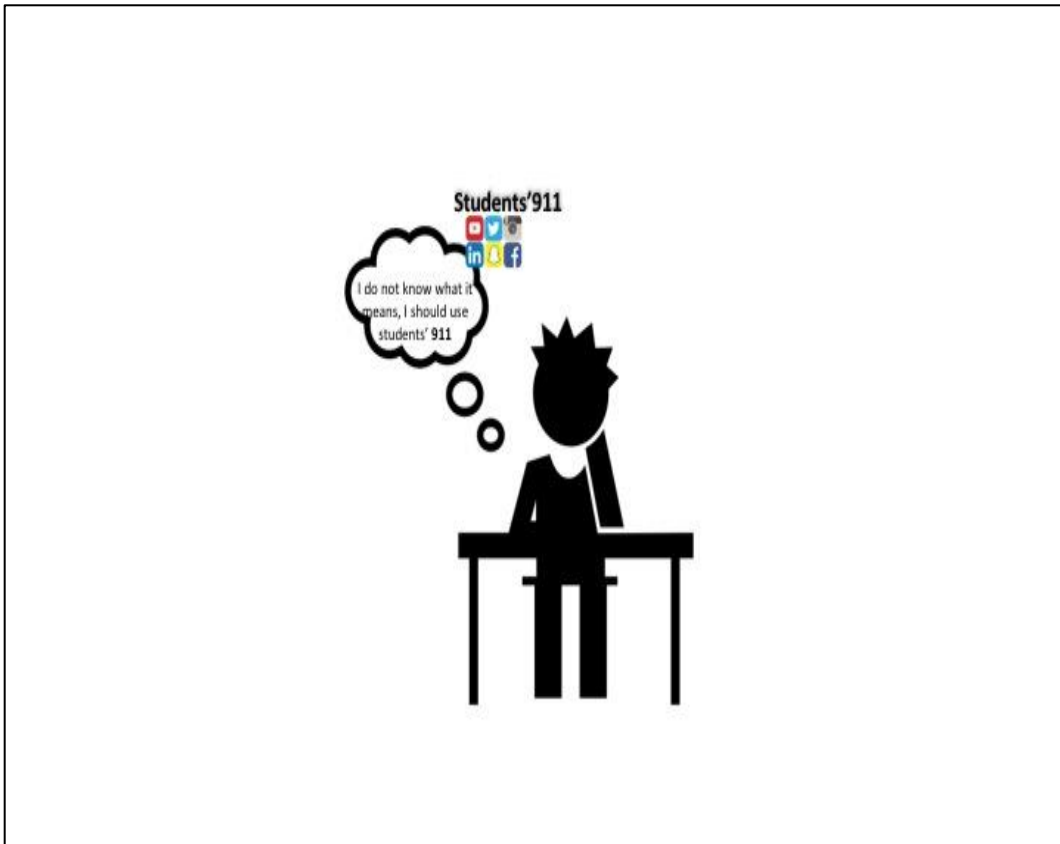


Figure 2. Iman's perception of using social media.

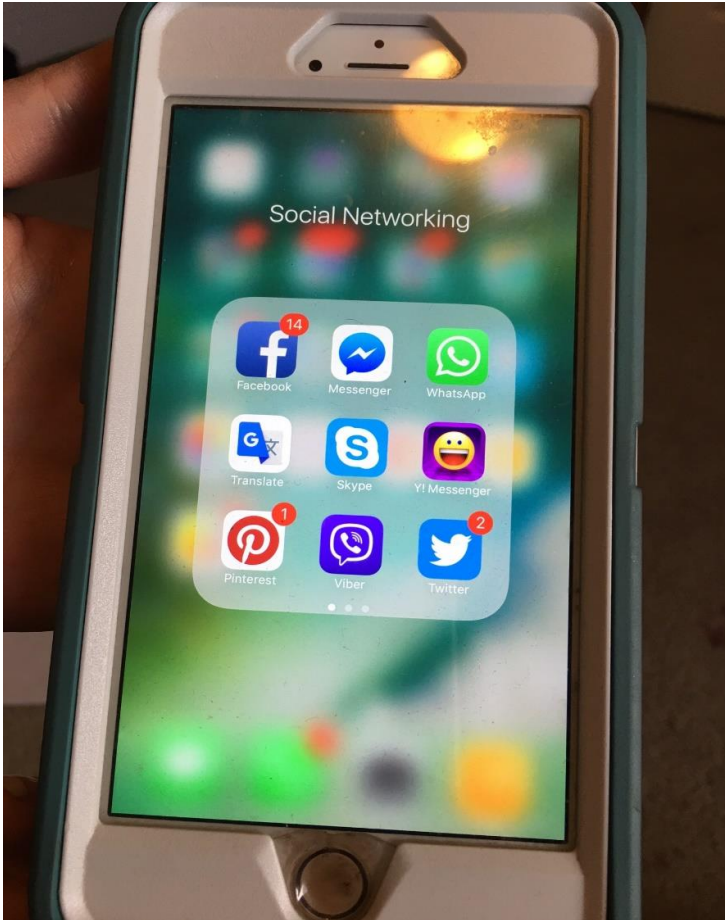


Figure 3. Icons Iman used for social media platforms such as Twitter, Facebook, Snapshot, YouTube, Instagram and LinkedIn.

The drawing in Figure 2 depicts a student trying to study and thinking about using different social media platforms: “I do not know what it means; I should use students’ 911.” By the title “*Student 911*,” she is referencing a quick, immediate, and efficient way to answer questions. Iman’s drawing indicates that if she has any question, she goes immediately to different kinds of social media platforms and looks for an explanation, answer, or clarification. Several of the main ideas from Iman’s interview were discerned in this drawing. In Figure 3, she included many icons for social media platforms such as Twitter, Facebook, Snapshot, YouTube, Instagram and LinkedIn.

Sara

Sara, a young adult graduate student, is also a teacher at the same university. Sara comes from a Hispanic background and is studying in the United States as an international student. Informal observation: Sara grabbed her large smart phone and started opening different platforms such as YouTube, Pinterest, and Twitter (see Figure 4). She eagerly explained how she used the platform “Pinterest” to pin and save her favorite pictures to help her in her future homework. In Figure 5, she was clearly able to summarize her thoughts and feelings about using social media for learning through her drawing.

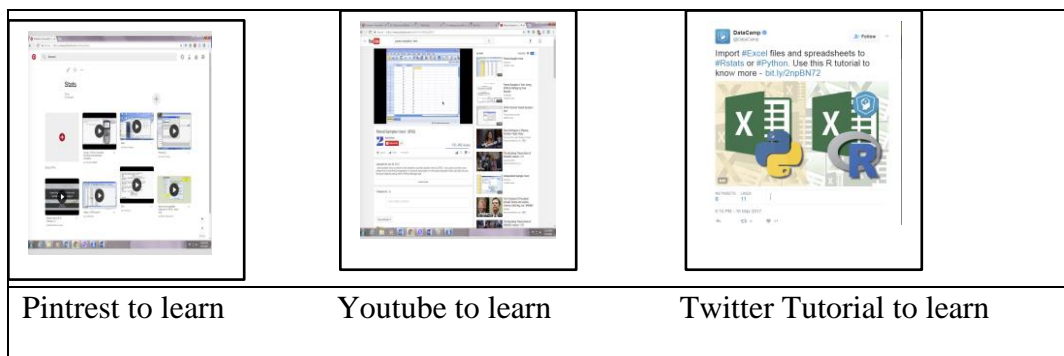


Figure 4. Screen shots of social media platforms Sara used to learn.

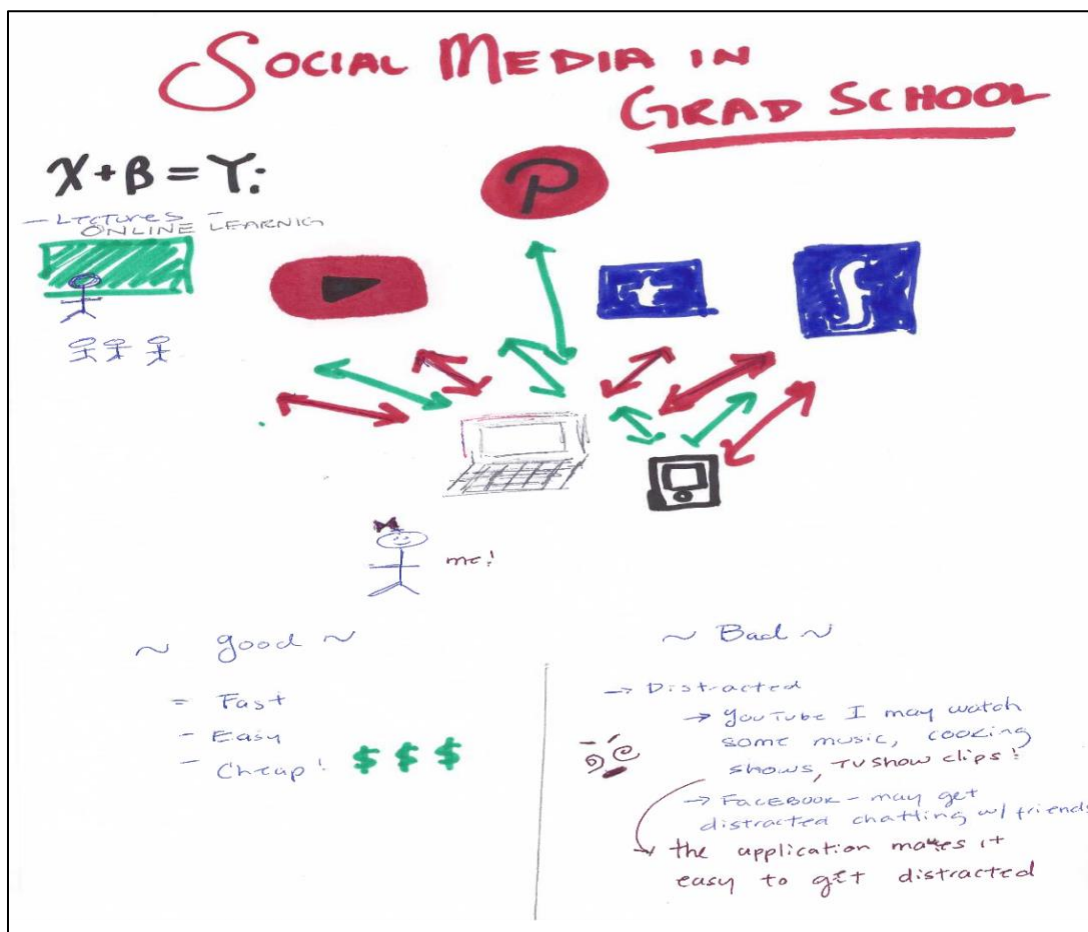


Figure 5. Sara's perception of social media.

Sara's drawing revealed she was connecting with other friends for learning through social media even though she initially felt she did not use social media that much. During the interview, she began to realize her understanding of social media was too limited and that she actually did use social media quite frequently. Also, she drew a YouTube logo to show how she used it a lot to help to get information to solve equations. Her drawing also included logos for Facebook, Twitter, Pinterest, a laptop, and a cellphone. She also drew four stick people watching a screen with a title of "Lectures Online Learning." A prominent feature of Sara's drawing was the inclusion of stick

figures and arrows to represent the social and communicative aspects involved in social media usage. Additionally, she identified the pros and cons of her use of social media by outlining each in separate columns.

Helen

Helen, a graduate student who identified herself as a young adult, is from the United States and is also a wife and mother of five children. Informal observation: When I asked whether she used social media, she immediately and enthusiastically responded, “Yes, Yes! I [do]! I use a lot of different social media, so on the list, I use Facebook, Google a lot, and Twitter, YouTube, things like this. A lot of the social media I use is to keep in touch with others.” Her confidence and assurance in talking about using social media reflected this interest and passion. Her attitude and body language demonstrated her excitement and enjoyment when she talked about how different kinds of social media helped her accomplish her goals. In answering the interview questions, she would often grab her cellphone, saying, “Look, look! I will show you!” Actually, she could hardly contain her excitement as she showed me app after app. Finally, I asked her to show me with her device how she does her homework (see Figure 6).

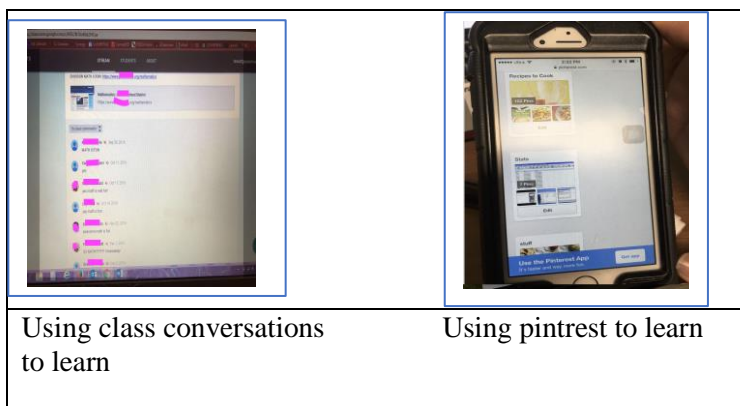


Figure 6. Devices Helen used to learn.

When I asked her to draw what she thought of being a university student and using different kinds of social media, she eagerly and immediately started to draw. In Figure 7, she emphasized how social media allowed her to access anywhere and at any time, connecting learners “to increase the relevance and engagement of learners.”

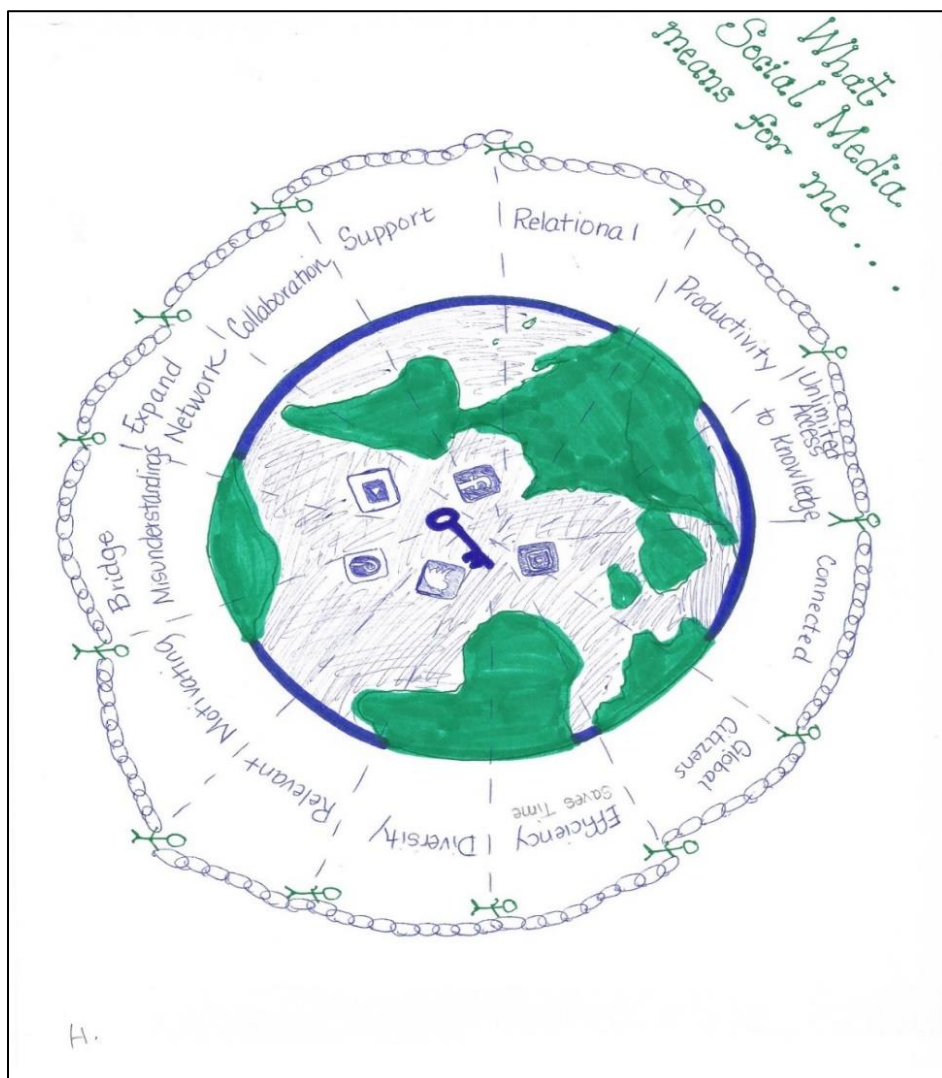


Figure 7. Helen's perception of social media.

In Figure 7, Helen's drawing is very precise; it presents a chain circle connected by many people holding the chain together to connect learners surrounding the Earth; a dark key in the center is surrounded with different platform icons such as YouTube, Twitter, Facebook, and Pinterest. The key is used as a metaphor as she stated it "unlocks knowledge" and "has the potential to increase relevance of learning and engagement of learners." She also wrote the following words in a circle shape between the Earth and people who are holding the chains: Connected, Global Citizens, Efficiency (saves time), Diversity, Relevant, Motivating, Bridge Misunderstandings, Expand Network, Collaboration, Support, Relational, Productivity, and Unlimited Access to Knowledge.

Lisa

Lisa is an early middle-aged, American female graduate student majoring in counselor education and supervision. Informal observation: Lisa was very excited when I asked her about whether she used social media; she immediately responded, "Yes." She indicated social media is the fluid power to gain information to learn. In Figure 8, Lisa drew a brain showing how it processes infinite information with emotions using visual, sound, and images. She also used stick figures to illustrate the connection between people.

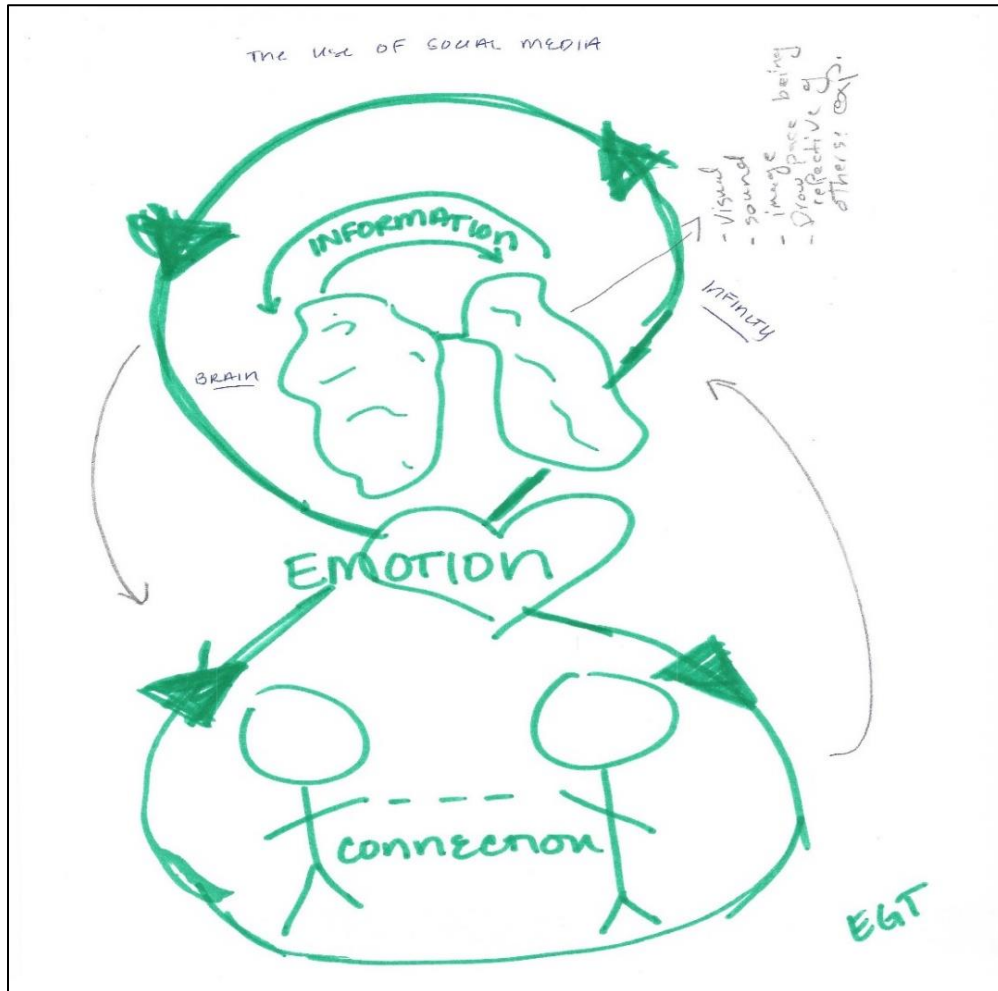


Figure 8. Lisa's perception of social media.

Belle

Belle is an American female graduate student with a major in Higher Education and Student Affairs Leadership. When I asked her about her opinion of using social media, she said social media “to me is any...website, application; any platform which you can obtain information...in a way that isn't written in a book or isn't tangible to hold on to. It can be something very fluid and updated regularly.”

In Figure 9, Belle drew two large faces with arrows that represented learning and both pointed to and came away from the individuals. She titled her first face Before Social Media, which had only four of those “learning” arrows while in the second face titled With Social Media, there were many more learning arrows. Moreover, in Figure 10, two screen shots of Belle’s cellphone show different platforms and apps that helped her learn and gain knowledge.



Figure 9. Belle’s perception of social media.

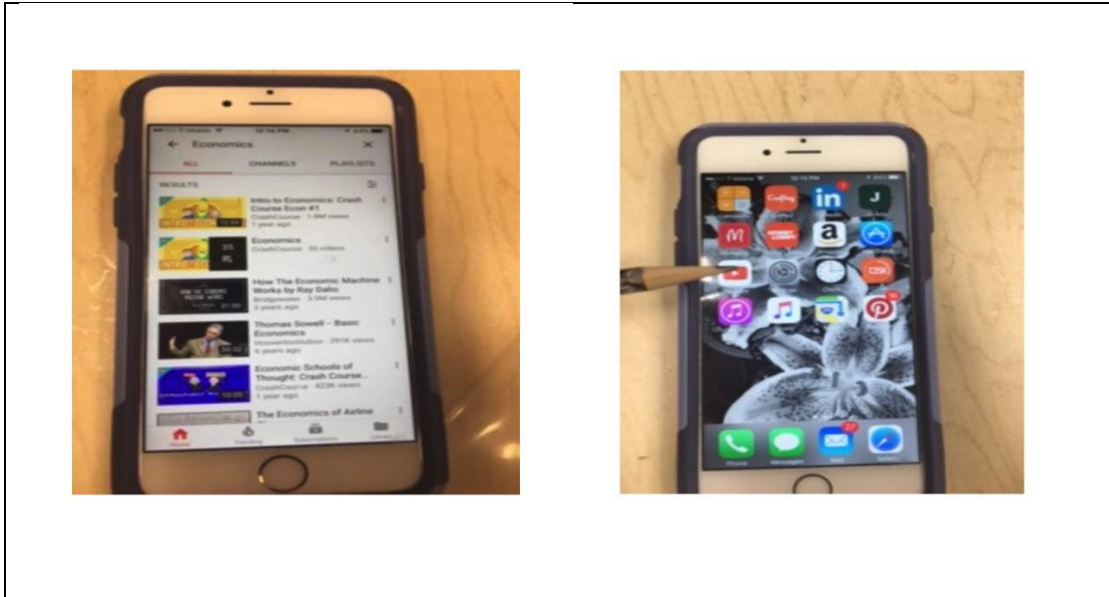


Figure 10. Belle's screen shot of using YouTube to learn.

Kalen

Kalen is an American male graduate student with a major in Applied Statistics and Research Methods who loves to use and watch YouTube short videos in his learning. He also teaches at the university and thinks that using YouTube is a great way to have his students get different perspectives and helps them with their assignments. In Figure 11, Kalen drew a red large replica of the YouTube icon and added text to explain how much he used YouTube to find answers and to help him learn more.

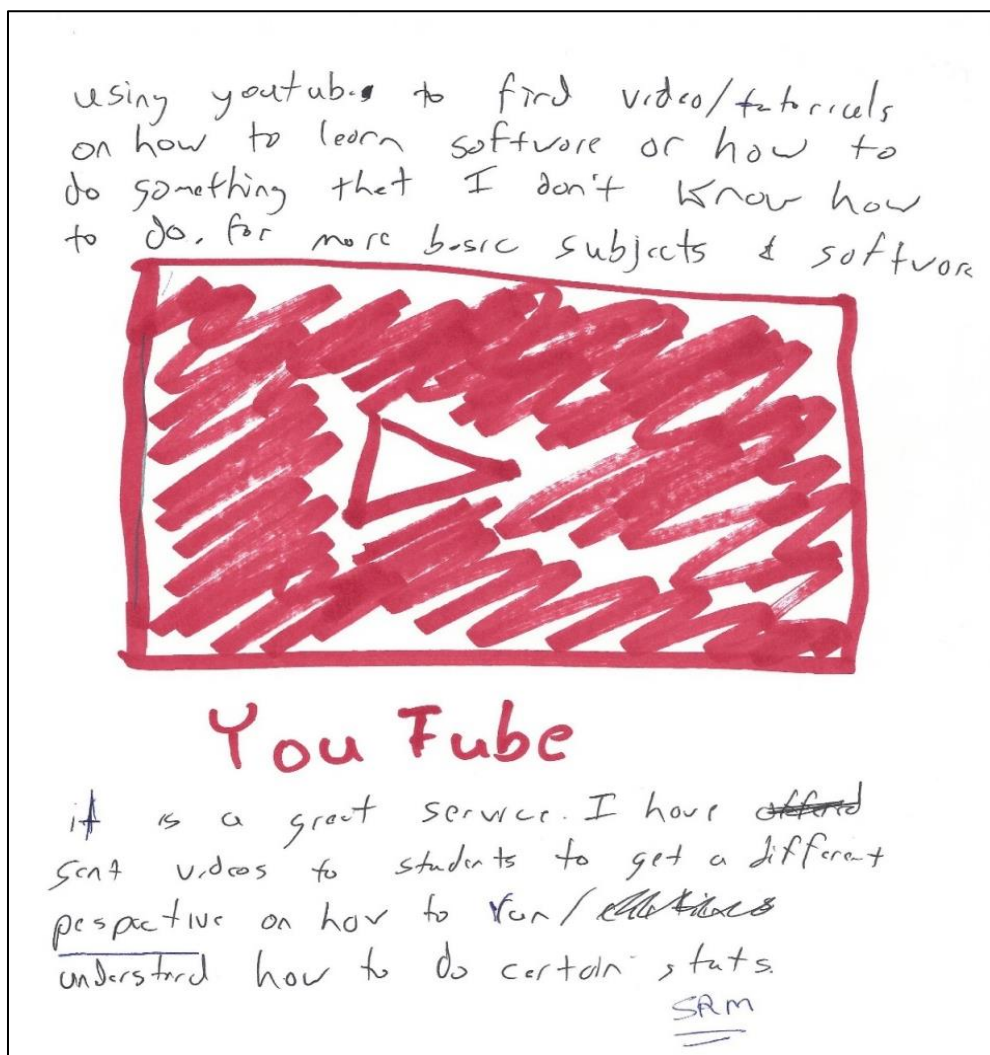


Figure 11. Kalen's perception of social media.

Hamad

Hamad is a male international graduate student in his last year studying Educational Technology who loves to use social media in his learning. He considers he uses social media a lot in his education and learning life and spends hours and hours to learn. He indicated he uses many different devices for social media including cell phone, desktop computer, laptop, iPad, Tablet, and others. The platforms he uses most are

Twitter, Facebook, LinkedIn, Google, and Wikipedia. When I asked him to draw, write, or illustrate on a piece of paper what social media meant to him, he preferred not to draw.

He wrote:

I use a lot of social media. This can be Facebook, Twitter, WhatsApp, and FaceTime. I think this makes learning easier when I can connect with others working in the same field. Social media makes the world a smaller place where it's easier to reach anyone at any time when I have questions. I can use my smart phone or my laptop, whichever I have available.

Commonalities in All Drawings

All the drawings (except one) showed a YouTube icon. In addition, most of the drawings contained arrows and people. Four of the seven included stick figures as an important component in utilizing social media for learning. Finally, most of the drawings, in one way or another, illustrated how social media could answer questions and reduce confusion.

Commonalities in All Screen-Captured Shots

All the screen-captured pictures from the participants came from using “smart cell phones.” They all used YouTube, Facebook, and Twitter along with other platforms on their devices. Participants demonstrated how they found quick ways to solve problems through social media platforms or applications.

Participants' Perceptions of Social Media

Before discussing themes, it is important to understand how students understood the concept of social media, both in terms of how the construct was defined and how students perceived its use in education. Students had widely varying perceptions of what the term social media meant to them. Most of the participants thought social media meant only to communicate informally using platforms like Facebook, Twitter, or

Snapchat and not to communicate formally using email and discussion boards in learning management systems (LMS) such as Blackboard and Canvas. Helen said,

When I think about social media, I think primarily of Facebook, Instagram, Snapchat and other interactive apps and sites such as this. Social media seems very informal. Other technologies that enable interaction, like email, Blackboard, Canvas, and sites like this feel very formal, I do not view them as social media.

Overall, participants' conceptions about social media were limited. Many participants did not consider some learning platforms or apps and communication systems as social media, e.g., discussion boards for Blackboard and Canvas or email. Moreover, there was confusion particularly about YouTube. This platform was originally developed for the one-way Web 1; however, when Web 2 emerged, social and interactive features were added. Most of the participants thought YouTube was not social media but a form of one-way communication. Also, some participants considered Google Docs and text messaging as forms of communication and not a kind of social media. Kalen said, "No, I don't really consider Google Documents a form of social media. I consider it more of way for me to work on something while you are also working in the same document at the same time."

Definitions of social media that participants expressed in interviews were inconsistent and participants' responses indicated limitations in the degree to which students viewed social media as an effective learning tool. When asked how they would define social media, most participants gave a narrow view of how social media was experienced relative to learning than would be expected based on definitions in the literature. Many thought some social media sites (e. g., YouTube) or learning platforms (Blackboard, Canvas) were *not* types of social media. Emails were also excluded from

many participants' definitions of social media. When I asked Kalen about his own definition of social media, he said,

For me, social media, for the most part, is more about the social aspect of, I guess, human relationships, *not* so much the aspect of using it for educational purposes. I guess social media for me as a student, in that context, is very *limited*. I look at social media as more of that relationship aspect. When I think of social media, it's that socializing through the internet. And I think of...I'm developing those relationships to socialize with people, whereas in education, I'm not trying to socialize. I'm trying to learn, I don't think that socialization is a key component to learning.

Kalen's responses were contradictory in that he said that he did not use social media in education: "I use SM daily, but more for a social aspect and not so much for the education." However, he indicated he used different kinds of social media such as YouTube a lot to help him learn. Kalen indicated he did not consider Canvas, Blackboard, text messaging, discussion board, Google Docs and email as social media; he thought those were only a written form of communication. Kalen said,

I've never considered email social media because, I guess, to consider email as a social media, to me, that would be like considering text messaging as a social media and I don't. I consider it a form of communication. It's a written form of communication, and it's not a [way to] socialize. It can be used for a socializing too. But again, I look at email and text messaging; it's a form of communication. It's just a form of written communication, and it's a lot quicker. It's quicker than mailing a letter to my professor. So, email and discussion board, this kind of thing, you consider them as form of communication that's not social media.

When I asked Belle for her definition of social media, she responded,

I think social media is a portal for putting information on the web and making it accessible to anyone anywhere. So it could be news information, how to do things, sharing information about your family. It just encompasses so much.... You are learning what is going on in the world just outside of your little bubble. It is opening your eyes to things that are happening everywhere that you wouldn't normally know about and it is making it available right away so you don't have to wait for the evening news or the newspaper the next day. You see things just as they are happening...so obviously social to me...means people and media means what is happening with the people.

When I asked Belle if she thought Blackboard, discussion board, and Canvas were kinds of social media, she explained she thought those were only learning tools for students in a specific class; they were *not* social because they were not open or available to everyone. Helen defined social media as “a social platform where people can interact with each other through technology. This media may be used for groups or individuals, and some use it to promote their business.” When I asked her what the term social media meant to her as a student, she said,

As a student, I think about social media as a place where I can connect with my classmates online, or digitally; a place where we may be able to collaborate together or keep in touch, even when we don't live close to each other. I think any platform where you can interact with many people individually or in groups through technology would be a social media. I think that the difference between social media and closed collaboration tools is that there may be a presence of people you don't know on social media. It is open to everyone, and you can choose what to share and how public to make your profile, but it is still considered a public platform. Facebook, Instagram, LinkedIn, and Twitter are all public platforms. In being public it allows you to reach out to people you may have not met otherwise. Collaboration in a closed place, like within Blackboard and such I would not consider social media...as it is limited to the participants within a class and is not open to the public.

Lisa contributed the following definition of social media: “Social media to me is any platform which you can obtain information...in a way that isn't written in a book or isn't tangible to hold on to. It can be something very fluid and updated regularly.” When I asked her if she thought email was a kind of social media, she answered,

No, I'm communicating through emails personally, [but it] doesn't hold that social media component because it's usually just factual specific information [that I distribute] regarding...like the emails I sent today were 'Here is your feedback for your paper.

Iman's definition of social media was “a way to connect many minds to solve a problem in seconds.” She added, “It is a scaffold.” Hamad's definition was “social media, today, makes the world a small village. It's [decreased] the distance between the

world and makes the world very small, and you can get any information, or any idea, or anything as soon as you can.” Sara, however, felt "social media is something that has to be available online, and you get to interact with people that you may or may not know.” She did not think Canvas or Blackboard was a kind of social media, stating, “I don’t think of Canvas/Blackboard etc is social media, but thinking about it, I do interact with my professors and my students via these platforms.”

Thematic Analysis

The following section describes the thematic analysis for all three research questions. Most participants expressed similar experiences using social media for their own learning. Overall, these individuals found information was easily accessible and abundant but they expressed somewhat limited perspectives on the use of social media for educational purposes. Social media applications were also viewed as being useful for developing relationships that facilitate ongoing learning.

A constructivist perspective about technology integration and thus social media use in education grounded this investigation and guided the analysis of the data. Raw data from all seven interviews were first open coded according to recurring words and phrases. After all interviews were individually coded, axial coding was used to group these words and phrases into similar categories, which were then subjected to selective coding to identify key themes related to the research questions. After reaching saturation, general themes were finalized (Merriam, 2009). Interview data were triangulated with data obtained from artifacts and observations to confirm key themes. I also triangulated the illustrations from each participant to draw conclusions about the credibility and so on of the thematic analysis. The results of the artifacts analysis supported the themes and

subthemes identified in the thematic analysis of interview transcripts. Table 2 provides a summary of the themes and subthemes that emerged from the data as they related to each research question. Next, an initial consideration of why students used social media for learning is followed by a narrative presentation of the themes and subthemes.

To organize my thoughts and to confirm what I was hearing in my interviews, I included a table as part of the interview to see why students used social media for educational purposes (see Table 3). The purpose of triangulation was to obtain information from more than one source to provide a more complete picture of the research. By using the table and following it up with an interview, I obtained a more complete picture.

Table 2

Summary of Emergent Themes

Research Question	Category	Themes	Subthemes
1	Experience	Source of Learning	<ul style="list-style-type: none"> • Major Information Source: <ul style="list-style-type: none"> ○ Powerful Tool for Easy Access ○ Clarification, Clarify Concepts ○ Indispensable/Dependable • YouTube Platform
		Motivation and Engagement	<ul style="list-style-type: none"> • Leverages Multiple Sensory and Learning Modalities • Immediate Feedback & Comprehension
2	Advantages	Convenience	<ul style="list-style-type: none"> • Access to Variety of Sources Anywhere Anytime / Portable • Saves Time • Helpful Tool <ul style="list-style-type: none"> ○ Help International students. ○ Help break the ice. ○ Help take a break
		Collaboration and Connection	Collaboration/Connection
	Disadvantages	Overwhelming	<ul style="list-style-type: none"> • Distracting & Boring • Time Consuming • Feel of Rejection/Oppression • Lack of Academic resources/ credibility resources
		Educators' Integration of Social Media	<ul style="list-style-type: none"> • Integrate Social Media in Class <ul style="list-style-type: none"> ○ Allow student use their devices in class ○ Instructors must be skilled, trained and know how to use social media (be familiar before integration) ○ Use relevant social media
3	Suggestions	Students' Management of Social Media	<ul style="list-style-type: none"> • Students Attitudes and Attributes <ul style="list-style-type: none"> ○ Responsible ○ Respectful ○ Look for Credible sources ○ Time management (self/control) ○ Students Skills ○ Self-awareness ○ Look for updates

Table 3

The Small Survey for Triangulation

Used Social Media for Educational Purposes	Frequency	
	Yes	No
Improves the quality of work I do.	6	1
Gives me greater control	6	1
Enables me to accomplish my learning tasks, more quickly.	6	1
Supports critical aspects of my learning.	6	1
Increases my productivity.	7	0
Improves my learning performance.	6	1
Allows me to accomplish more work than would otherwise be possible.	6	1
Enhances my effectiveness in my courses.	6	1
Makes it easier for me to complete my coursework.	6	1
Is time consuming	3	4*

*These participants qualified their response to this item by noting if they allowed themselves to get distracted, then it would be time consuming.

Table 3 indicated that most of the participants thought using social media for educational purposes helped them improve the quality of their work, gave them greater control, enabled them to accomplish learning tasks more quickly, supported critical aspects of learning, increased productivity, improved learning performance, allowed them to accomplish more work than would otherwise be possible, enhanced effectiveness in courses, and made it easier to complete coursework. However, the last item regarding whether or not social media was time consuming was divided almost equally. This and

other remarks made by the students indicated to me that while all students thought it could be time consuming, it was not time consuming if their behavior was controlled. For example, Belle reported, “It is time consuming if you do not stay focused and on task.”

Themes that emerged fell into three primary categories--Experience, Advantages and Disadvantages, and Suggestions--that corresponded, respectively, with the three research questions. In terms of experience, social media being viewed as a Source of Learning, Motivation, and Engagement emerged as themes. Convenience and Collaboration were themes associated with the advantages of social media; a primary disadvantage was labeled as Overwhelming. Suggestions related to two main themes: (a) Educators’ Integration of Social Media and (b) Students’ Management of Social Media. Each theme is presented along with subthemes that related to it.

Experience

Q1 How do university students describe their experiences of using social media for their own learning?

Source of learning. Participants expressed that in their experiences, social media served as a source of learning in several respects. Participants unanimously remarked about the volume of easily accessed information available using social media. The capacity to access information about the same topic from different places and through different modalities was also prominent in participants’ comments. Two subthemes were related to social media as a source of learning: (a) major information source and (b) YouTube as a primary learning platform.

Major information source. This subtheme indicated (a) social media is a powerful, easily accessed tool; (b) social media is a helpful tool to facilitate clarification;

and (c) social media can become indispensable. Social media is a major information source for value-added learning. Some participants, such as Kalen, indicated that using social media helped him learn what he could not learn in school. He said, “The only social media that I consider that I use for learning purposes, to facilitate my learning is Google, it helps facilitate it but I don’t consider it a social media platform, I consider that a resource to learn.” He also said,

I have used YouTube as a resource... Sometimes you’re trying to figure out how to do something with a program, and there’s a lot of really good YouTube videos out there that have step by step instructions on how to do something that you’re looking to do...especially when you’re in a more basic level of a program and you’re just trying to learn the basics.

Social media is a powerful, easily accessed tool. Participants consistently remarked that social media was easily accessed and powerful in that a wide variety of information was available quickly and from nearly any location. Lisa said, “For me, it’s this fluid ability, like the fluid ability to gather and obtain information.” Iman said,

I consider it as 911 for students and educators as well, because you will have a response for whatever you ask. Sometimes you're stuck in a point and you need to answer it, you need to read maybe 3 or 5 paragraphs to get the answer. Sometimes your friend has an experience with this point; you can go quickly and ask her or ask your professor and give the response very quickly.

Regarding accessibility, Helen said, “That is part of the beauty of social media; it is accessible from nearly everywhere.” Similarly, Belle said, “The good part again is the access to information right away, right as you need it. You know if you are somewhere and get on YouTube and want to find a video on how to do something. Right away, boom; you can get it.”

Social media is a helpful tool to facilitate clarification. Participants indicated social media was especially helpful when they needed to clarify their understanding of a

concept or process. For example, if a term or concept was unclear after reading an assignment resource, students could use social media to find additional presentations on the subject that provided clarification in a way that was more understandable. Iman noted feedback was quickly available via social media platforms, saying, “I think when I get the immediate response, [it is good] to clarify if I am correct or not, so I am successful.” When I asked Iman about ways she used social media, she replied,

I use it more or very often for completing my assignments to compensate what I have taken in the class, when I get confused in some information or I [am] stuck with many terms that I don't know, I go directly to social media and ask about it. Sometimes...I'm thinking about a problem and I can directly go to...YouTube to clarify something... I use it in my home, my university, from anywhere.

In observing her attitude, I could see she was very excited and smiling when she talked about how different kinds of social media helped her accomplish her homework. Participants reiterated how social media helped them complete assignments in two valuable ways: by gaining information individually and by being able to verify or double-check their understanding. Students explained how social media helped them clarify by reducing confusion, increasing relevance of learning, aiding in completion of assignments (both in gaining information individually and also by verifying), and clarifying (especially by using the YouTube platform).

Social media can become indispensable. For most students, social media has become an indispensable tool on which they depend. Sara said, “I thought I [didn't] use social media much, but I became dependent on it.” Lisa added, “As a student, since I do a lot of presentations and lecture work and things like that, I found it to be very necessary in my educational life.” Helen said, “I depend a lot on using social media to enhance my

learning so I don't imagine that I can live without it to help me be a good student." She added,

Growing up in an age of blooming technology, I realize how much I depend on technology. When specifically thinking about social media, I have really become reliant on it. If we didn't have social media, I wouldn't be able to keep in touch with my family that lives across the world. I wouldn't be able to share pictures with friends and family that I hardly have time to see. I wouldn't be able to collaborate with colleagues digitally at a distance. If I didn't have social media, I really don't know how I would accomplish all I do. It has really become a foundational part of my life as it helps me to maintain the important relationships I hold dear, and communicate with others without the boundaries of time and location.

Iman said, "I cannot live without SM in my learning process because in many cases it assists in providing the info in summarized way. I mean, you do not need to read a book with 200 pages to obtain what you need. In simple words, it makes [a] long story short."

Participants' responses related to social media as a source of learning centered on the tremendous amount of information available using social media platforms. Students clearly expressed that demonstrative information, e.g., videos on YouTube, were particularly helpful. Further remarks indicated social media was easy to access and social media platforms allowed students to access a variety information sources to clarify concepts or processes they need to understand better. Several participants remarked that social media has become indispensable to them.

YouTube platform. All of the participants indicated they used the YouTube platform in their learning for finding quick answers to enhance learning. For example, Kalen said she used "YouTube to find video tutorials on how to learn software or how to do something that I don't know how to do for more basic subjects and software." Iman said,

I always use my cell phone to watch YouTube all the time for solving problems, about terms, and assignments. YouTube is a very known application. I use YouTube videos based on my own time and pace. I'm not restricted to consume the whole time reading a book in the university, while I can use some YouTubes to watch.

Helen added,

A professor I had that had an online course used social media through posting his lectures on YouTube, a place where we could repeatedly view the content, even after the course was over. For a doctoral program, this was especially helpful as much of the content in our courses overlap and require interactive knowledge from many different courses. If you are not recalling something, these videos are easily accessible.

Belle stated, "I use YouTube a lot to learn how to do things." Whereas, Sara said: "As a student, I usually watch YouTube tutorials by 'known' professors, or perhaps I will watch a lecture on a particular topic. I wouldn't have access to this information in any other way that is into via social media."

Motivation and engagement. Participants' interview responses frequently indicated social media applications increased their motivation to learn. The results also suggested social media facilitated student engagement. For example, Helen thought using different kinds of social media platforms increased her motivation for learning and engagement:

I do appreciate the emphasis within the different platforms. For Instagram, the idea is to share your life, experiences, or message through images; for LinkedIn, the idea is to market yourself and connect with other professionals in your field to collaborate with ideas or to search for potential career options; Twitter is for sharing and following the most up to date news stories; and Facebook is for connecting with friends and family and sharing your personal life with them, or sometimes used to create groups for likeminded individuals where open discussions can be had. One professor I had used Google sites to *engage* the class in learning. We helped to create and add resources to this website so that it was interactive for all of us as a class. It also served as a place where we could access our work years into the future. This helped to make our class interesting as it engaged us through learning in different modalities. It was interactive and helped to extend our learning of what we talked about in the classroom.

When I asked Hamad why he used social media for his own learning, he said, “One the most important [things] is [that it] encourages interaction between students. This is especially helpful in a college environment.” Moreover, social media provided exposure to multiple perspectives. Participants viewed the exposure to numerous perspectives available through social media as motivating and engaging. For example, Kalen added to his diagram, “It is a great service; I have sent videos to students to get a different perspective on how to...understand how to do certain stats.” In the same vein, Lisa said, “[I] like access to multiple forms of information; [this] provides alternatives even to my own view. After I learn about something, I can go and research later to further my own interests or research interests on my own.” The subthemes for motivation and engagement were (a) Leverages Multiple Sensory and Learning Modalities, and (b) Immediate Feedback and Comprehension.

Leverages multiple sensory and learning modalities. Participants expressed they valued the opportunity to access information via different sensory and learning modalities social media platforms provided. When I asked Lisa if she liked to use social media in her learning as a student, she replied,

Yes, because it provides that integrative piece that allows me to learn in a different way than just lecture, because I don’t perform at my best when that is the only form. There has to be another form for me to fully grasp concepts. It’s good for your study or for your learning when you use your...senses. I need more than one way to integrate information for it to make sense, and social media provides an additional experience in a multisensory way for me to gain information. Typically, [with a] multisensory piece, I can hear it, I can see it, I can watch something about it, I can experience it. Just that, experience it in a different way than just [lecture].

Iman said, “Social media scaffolds my learning process by providing visualization facility, providing more than one format for the same information so you can choose the

ones that are suitable for your learning.” Sara thought social media allowed her to understand ideas, issues, and content more in-depth because she could access the information through different formats and work at her own pace: “I took a mixed face-to-face/online course. I liked that even if I missed the daily chat with the professor and classmates, I could still watch it, and I could even slow down the lecture.” Kalen added, “While students can find out on their own in the syllabus, it takes that actual hearing aspect and visualization of seeing somebody telling you this is what needs to be done as opposed to just trying to do it themselves.” Students also indicated social media provided access to multiple arenas. Some students believed they learned more using different social media in education. When I asked Lisa if she wanted her professor to use social media with her as a student, she said:

Yes, it provides a different arena for learning for me specifically because I am very much a visual learner. Just standing up and having lecture materials and taking tasks doesn’t resonate as much with me. I tend to learn more when there are other media like other forms of learning or experiences.

Immediate feedback and comprehension. When I asked Iman about her experiences using social media to help her learn, she said:

Actually, when I get immediate feedback, I feel I am successful (when I send a question and instead of just thinking about it for one day.) I think when I get the immediate response to clarify if I am correct or not, so I am successful in this case, because it is a part of our technological world that provides you with information from around the world in seconds.

When asked why she used social media for learning, Lisa said, “To ensure that I have a comprehensive understanding of what I’m trying to learn, ...that comprehensive piece is important to me.” When I asked Lisa what she meant by comprehensive, she added,

Because it's being very honest; it takes me a long time to learn things, I feel like, or it's harder for me to grasp concepts sometimes. If I can have an approach where I look at multiple things or read multiple articles or watch multiple videos or be able to incorporate all those things, I have a more comprehensive understanding.

In summary, the participants in this study expressed that their primary experience with social media as a source of learning was social media extended their reach considerably in terms of finding and accessing information. Comments from the participants illustrated that finding information presented in different ways, such as video, chat, or text, and accessing multiple perspectives about a concept provided them with tools to clarify ideas they did not at first understand. Further, the results indicated YouTube had become a dominant force in learning how to do things and many YouTube videos presented complex concepts effectively. Also, the participants expressed that social media could be a source of motivation and engagement by providing opportunities to interact and share feedback. Lastly, several participants expressed that social media had become an indispensable part of their learning process.

Advantages

Q2 What do university students perceive as advantages or disadvantages in the use of social media for their own learning?

The findings indicated several advantages and disadvantages social media platforms offered to learners. Participants expressed that the ease and speed with which they could access information using social media was a primary advantage. However, the volume and variety of available information on social media platforms could be a disadvantage as well as an asset.

Social media applications are readily accessible on both portable and non-portable devices. Participants also indicated that opportunities to interact with others offered advantages to learners. Themes related to the advantages of social media included (a) Convenience, and (b) Collaboration and Connection.

Convenience. Participants repeatedly emphasized how much time they saved by using social media. They also valued the portability and accessibility of their devices and how this allowed them to use their preferred social media platforms anytime and anywhere. Subthemes related to convenience were (a) Access to a Variety of Sources Anywhere Anytime/Portable, (b) Saves Time, and (c) Helpful Tool. Helen said:

I really appreciate social media as a way to stay connected to those people I care about, who may not be near me. I also find it convenient as a way to efficiently share information and work together with someone without having to meet in person.

When I asked Sara why she used social media in her learning, she said: “Fast, easy, access to information I may not have in my daily life. If I watch a lecture online, it may help with what I am learning in the classroom. If I am looking for a tutorial it may help me complete an assignment faster.”

Access to a variety of sources anywhere anytime/portable. Social media platforms facilitated access to information at the touch of a button. All the participants used smartphones and Laptops. Hamad said,

In school, I'm using the social media for education and learning because it's easy to reach each other. I am using my iPhone and my laptop [at] all times to work in this education while using my devices to log in to the social media... Because my iPhone is a smartphone and with me everywhere and it's easy to find information anytime and everywhere. I'm using my laptop in my classroom and my office and the library and my home and it's easy to carry my laptop with me.

When I asked Iman where she accessed social media to help her in education, she answered that she used it anywhere including waiting rooms and shopping malls:

Actually, my home and at the university most of the time. Sometimes if I am outside of my home and I have some problems or I am thinking about something related to my homework or exam, I can reach the social media; sometimes if I am going shopping and I'm thinking about a problem and I can't directly go to maybe the WhatsApp or YouTube to clarify something or send a message for my educator or my friend to clarify this stuff.

Iman recognized social media was accessible from anywhere: "Social media allows access to information needed anytime and anywhere; hence, there is no restrictions on time to learn." But when I asked Helen where she used social media to help her in her education, she replied she accessed it everywhere--while she was waiting at a doctor's office, in classrooms, and in and outside of school:

When I'm at work, I will use social media, even when I'm at my job. When I'm at home, even when I'm in my class, I think sometimes it's helpful to have social media. Maybe not this class, but other classes I have been able to chat or talk with people in the class about things we're talking about in the class without me having to raise my hand, 'cause I'm very shy.

Hamad said, "Social media makes the world a smaller place where it's easier to reach anyone at any time when I have questions." Participants also indicated they used social media because it was portable. Devices used most were cell phones and laptops (see Appendix F). Helen used a lot of different devices for accessing social media in education including her cellphone, laptop, desktop computer, and iPad: "Because they are portable...I'm able to move around with them more often and it's accessible, I can use them anywhere so I can keep in touch with people or look at my assignments, or something coming up anytime." The applications or platforms she used most were YouTube, WhatsApp, Facebook, Twitter, Instagram, Pinterest, LinkedIn, and Marco Polo, although she also reported that she used Flickr and Skype occasionally. Helen

said, “I like using these devices as they are portable and easy to take wherever I am going!”

Saves time. When I asked Helen why she used social media for education, she replied,

I have five kids and I work a full-time job. Sometimes it's really hard for me to ever meet with anybody outside of school, and so with my schedule being so crazy, social media gives me the opportunity to do group assignments or work with classmates or even contact my professors or reach out to anybody without having to physically go. I live over an hour from campus, so to be able to connect with people about school; this saves me a lot of time.

Iman said, “It speeds my assignments. Also, it saves my time because sometimes reading about something is time consuming; by asking your friend or your educator, you will save time.”

Helpful tool. All international students in this study indicated that using social media in their learning helped them understand more, broke the ice, and helped them adjust to a new culture. Iman said, “Actually, for international students, social media breaks the ice; it helps me feel less shy talking.” She added, “I believe SM is very significant tool to scaffold international students in their learning process. It allows them to grasp a topic using their first language in case... they missed understand[ing] it using English.” Hamad said,

International students, they're using Snapchat, they're using Twitter, they're using WhatsApp, they're using Facebook. There is a lot of people, they want to teach through this social media channels, and they help international student (*sic*). They are speaking English as a second language to learn from them how can they pronounce the word, and how can they connect with others, and how can they learn a new word, and how can they use it in a completed sentence.

Sara, also an international student, said, “Even if I missed the daily chat with the professor and classmates I could still watch it, and I could even slow down the lecture,

which helps because I am an international student.” Participants indicated using social media helped them take a break. Kalen said,

It’s also sometimes a reprieve for me. So I’m working on things and I’ve got to get these things done for the classes or whatever research I’m doing. So then I’m listening to music, I’m doing whatever I have to do to get my stuff done. And then it’s like, “Oh, I’m going to take a break.” So I take a break and I go on Facebook for a minute. I go around and around, grab a cup of coffee, so to me, I’ve developed it and incorporated it into my education, [so this is] more of a break. So it’s taking my mind off and maybe [decompressing] or [seeing] what else is going on in the world besides just what I’m literally focused on in my research. I can definitely say that because I do know that I’ll be sitting there and I’ll be like, “All right. I’m frustrated. I’ve been trying away for, you know, an hour. I need a break.” Well, what I normally do, I go find a cup of coffee, fill my water glass up and also probably go on Facebook or go on Snapchat.

Collaboration and connection. The findings indicated the interactive features of social media were potentially as important as the availability of information. Access to different opinions, other students, and friends, all from the same platform, allowed students to integrate learning with relationships. When I asked Helen about ways she used social media, she replied,

Part of it, I think, is to *collaborate*, to keep in touch with different classmates and to work on assignments with people when we're not necessarily together, collaborate, to work together. To find information about things that I wouldn't necessarily know, to look up information about different topics.

When I asked Helen to describe to me how she experienced success using social media to help her learn, she said,

I think successfully I would say I've been able to accomplish those assignments I've had. I wouldn't have gotten assignments done if I wouldn't have had the social media, because I wouldn't have had the time to be able to collaborate with people. I think my successes come from being able to communicate and collaborate with people.

Lisa said, “SM is good because it allows Blackboard and Canvas to work in groups that wouldn’t typically be able to work with. Having a guest lecture, I’ve had a

professor that guest lectured through Skype and that was very helpful.” Moreover, connection could be illustrated by the comments of participants about the ability to keep in touch with others including instructors as well as classmates and friends. Lisa added, “I think [a good use of SM] is to collaborate, to keep in touch with different classmates and to work on assignments with people when we’re not necessarily together.” Social media enabled the ease of collaboration without the necessity of being present in a common physical location and the opportunity to give and receive immediate feedback. Kalen said, “The term social media, to me as a student, is just a way for me to connect through the internet with other students and other faculty.” Helen said, “As a student, I think about social media as a place where I can connect with my classmates online, or digitally. A place where we may be able to collaborate together or keep in touch, even when we don’t live close to each other.” Hamad said,

Social media, it's helped me to connect with all my friends and all my students related to my major and... find the information...easily to get as a group in Facebook or a Twitter or a WhatsApp or any kind of social media. And it's big, big jump for education to using social media in education. I think this makes learning easier when I can connect with others working in the same field.

Sara said, “It helps me connect with other statisticians (with stats bloggers for example) with my own professors and classmates.” All participants gave some examples of the benefit of connection such as getting support, socializing, building/creating relationships, gaining informal ways to meet others, learning more about class mates, and helping students complete their assignments.

For connecting teachers, students, and friends without needing a physical location, Lisa said,

If you really want someone to come speak in your class, but they live across the country and you can’t buy a thousand dollar plane ticket to have them be able to

come in for free and still speak to your class, [SM] can be incredibly beneficial, and I've experienced that.

In summary, the results of this study indicating the ease and speed with which students could access a wide variety of information was a primary advantage of using social media to learn. Also, participants consistently expressed that interacting with others during the learning process provided opportunities for them to get needed clarification about topics, concepts, or process; social media allowed them to interact with others without meeting in person. Learners expressed that collaborating with other students and experts as part of the learning process facilitated understanding, immediate feedback, and relationships. Additionally, participants indicated social media platforms were particularly helpful to international students because they facilitated both learning and cultural adjustments.

Disadvantage: Overwhelming

Although social media offered strong advantages to learners, some characteristics of social media platforms potentially hindered the process. Participants expressed that the volume and variety of information could make focusing difficult and, sometimes, long lessons delivered online could become boring. Also, despite the advantages, students could be vulnerable to social difficulties that were part of being online. The theme of Overwhelming related to the disadvantages of social media.

The results of this study indicated the unprecedented availability of information on social media platforms could leave students saturated and mentally exhausted. Participants consistently commented that large volumes of information could lead to both boredom and distractions. Furthermore, sorting through volumes of information and

establishing the credibility of sources could be very time consuming. Participants also expressed that negative social interactions could be a problem. Lisa expressed,

I personally felt infiltrated. I felt overly saturated with the information that was coming in through Facebook; whether it be negative politics [or] whether it be pictures of people's dogs. It just became overwhelming in a way that I did not want to be part of anymore...I mean I do disagree with some of it. More so, for me it's one person says one thing and then they get in a fight with 10 other people and then their thing keeps coming up and coming up. If you and I were having a discussion on Facebook and I said something that angered you and you commented on it, then that would repeat in my feed again and then you would comment back and it would repeat in my feed again. Toward the end there is 20 comments where people are fighting back and forth, not face to face with one another saying things that I just can't be part of.

Subthemes related to the overwhelming nature of social media included (a) Distracting/Boring, (b) Time Consuming, (c) Rejection/Oppression, and (e) Lack of Academic Contents/Credibility of Resources.

Distracting/boring. It was interesting that participants' comments indicated social media for learning could be both boring and distracting. Both of these issues related to learners' ability to maintain focus while learning. According to Kalen, too much information or long videos could be boring or contain irrelevant information.

Similarly, Lisa said,

There was a social through Blackboard--there was a lecture component and it was a mixed media. It was part time lecture in class and then part time online course, I can't even think what they are called right now and it was a research course. We had to all of us come together as a class on a Monday evening +for an hour to hear a lecture and it was painful, like it was not helpful.

Sara said, "I like social media in a personal way because it keeps me in touch with people I no longer see daily. However, this can be distracting as a student."

Time consuming. The results also indicated social media could be time consuming *if* students did not use self-management and resorted to random surfing.

When I asked Helen if she thought using social media wasted her time, she said, “It can be if used TOO often--or if I get distracted from my purpose for using it.” Hamad said, “It's very bad if you will use it all times.” When I asked Lisa whether she thought using social media wasted her time, she said, “Yeah, if you don’t have good boundaries around that. I know because I’ve been guilty of that.”

Rejection and oppression. The findings of this study indicated the social element of using social media platforms for learning introduced potential risk to learners. Unfortunately, engaging on social media exposes students to others who might reject them or take advantage of them. When I asked Lisa what she thought of social media in general, she said,

In general, I think it can serve both a very positive purpose to getting information out, and I also believe that it can be oppressive. For me, I do believe it’s important that I don’t say things that I wouldn’t say to someone’s face. I feel like right now, social media is not good at that middle piece of like, can we have a balance and respect one another... My feeling is that often times if you are not for us, you are against us. That’s not something I particularly like being a part of, which is why I removed myself from Facebook specifically.

Kalen added,

That’s what I’d [say], is that I draw a pretty hard line between my social life and my professional life. And it’s like drawing that line and mixing. ...Starting to intertwine social media with my professional life, I don’t think is appropriate... There’s been a lot of issues with that in, we’ll say, the past 10 years when we watched the social media explode from when Facebook started, what, 10, 12 years ago to now where people are... You have to think about what you’re posting, what you’re putting out there. There’s always that potential that you post the wrong thing and people get fired for it. It happens all the time. In my old, previous job, I watched people get reprimanded and fired for things that they had posted negatively towards the company.

In summary, the overwhelming aspect of using social media platforms for learning involved both informational and social elements. Participants indicated huge amounts of information could simultaneously create distraction, boredom, and confusion.

Substantial amounts of time could be lost searching and wandering through cyberspace. Also, students expressed they could be subject to rejection and deception.

Lack of academic contents and credibility of resources. Participants indicated that establishing the credibility of resources and ensuring they used accurate information for learning were among the disadvantages of using social media. The ease of posting content on social media platforms allows a person with any level of expertise to contribute to information in text or conversations. For example, Iman said, “[The main problem is] copy rights issues and trustworthiness of the information.” Lisa said,

If I’m going to use it as a student I will back it [up]. It may start with a .com but then I go to more substantial credible sources... I see an article that I want to cite on Psychology Today; I will then go to the journal that they refer to and that article to gain more information about it.

Belle added,

I think you have to be very careful about what you believe and what you don’t believe. I think you can’t take everything at its word. It is bad in the way that people can put anything they want up there and there is no way to verify that the information is correct. Information like news information comes out, fake news versus real news; I think personally you have to take a vested interest in going and searching that out and making sure it is a real thing. Not believing every single thing you read. And then if it is important to you and it is something you want to learn more about, you need to investigate that on your own.

The lack of a face-to-face contact was raised by some students. For example, Lisa said, “I think there is also a disadvantage to social media when we consider no face-to-face contact.” Some students also thought a disadvantage of social media was the potential exposure to fraud. Hamad said,

[SM] opens up the visibility for hackers to commit fraud, and launch spam and virus attacks. [It] increases the risk of people falling prey to online scams that seems resulting in data or identity theft. Waste your time to sit and use social media to contact with your friends and others, and to read a lot of things. You don't need to read...and waste your time with [those] things.

In summary, the disadvantages of using social media platforms for learning that participants expressed centered on the vast amount of available information, which could be overwhelming and lead to oversaturation and boredom. Distractions were also easily available and the credibility of learning resources could be suspect. These results indicated that maintaining focus and learning the rules of digital citizenship might be important to using social media effectively for learning.

Suggestions

Q3 What suggestions do university students make for increasing the use of social media for their own learning?

Participants of this study generously offered suggestions to both educators and other students about how to use social media effectively in the educational process (see Table 4). Participants' comments indicated they encouraged the idea of using social media platforms in the classroom. However, the use of social media platforms for education involved focus and discipline from both students and educators. Two themes associated with suggestions were (a) Educators' Integration of Social Media, and (b) Students' Management of Social Media.

Educators' integration of social media. Participants believed it would be helpful for educators to integrate the use of social media platforms into the regular learning process. They also indicated the need for educator training in the use of social media as part of delivering class materials.

The subtheme that related to suggestions for educators was to integrate social media in class. Most participants wanted their instructors to use and integrate social media in class to support their learning. Hamad said,

My recommendation for a professor to use social media, it's to change his lecture to be in a classroom or using a social media... They want to use the new technology. They want to change the way of learning to using technology; not old ways, or books, or lecture, or PowerPoint.

Lisa recommended that instructors “must encourage students to use social media in class to do some research in class or do other things, maybe as other lectures are going on.” When I asked Iman to describe how successful she thought her professor was in using social media to help her learn, she replied,

I think they are successful when they ask us to use YouTube. They provide us, maybe, the abstract about a topic and they ask us to watch some YouTube videos based on our own time and our pace. We are not restricted to consume the whole time reading a book to save my time.

Helen added, “Maybe using videos or examples in classrooms within their instruction...then, while the instructor is talking or teaching you something, the class can make comments...and [synthesize] their learning better while the teacher is instructing.”

Hamad mentioned that instructors should use different aspects of social media in the classroom to help in learning:

My professor, he used Google Classroom. He used that to explain his lecture through the application, and he focused on how much we can learn from each other and from him without test, without using book, without using anything...it's amazing.

For this subtheme of integrating social media in class, instructors should let students use their devices in the classroom. Hamad reported,

I'm using Education for Learning with the WhatsApp... Because the WhatsApp, it's easy to reach your classmates, because he downloaded this application in his cellphone, or his device, smartphone, and he can look for this text message, or message, any time and everywhere.

Illustrating the usefulness of social media in classrooms, Iman shared she used different devices for social media in education including her cellphone and her laptop.

The platforms she uses most often were YouTube, WhatsApp, and Viber (where she created a group for her class to chat about the problems, terms, assignments, due dates, and other relevant issues).

Additionally, instructors require training in using social media in the classroom. The results strongly indicated instructors must know how to use social media platforms effectively for teaching. This involves knowing which platforms are appropriate for different assignments and using the most relevant platforms. Comments indicated instructors need to ensure all of their students know how to use the platforms included in the class in addition to knowing how to use the platforms themselves.

In questioning Iman about ways professors used social media that did not help her learn, she explained,

When professors provide us with inappropriate applications that didn't help me to meet the requirements that my adviser wants. For example, in one of my classes our professor gave us a kind of software. They call it authoring tools to create a few things. We tried, me and all my friends tried using this application to do what my educator wants. At the end, she related that this tool will not help us to match or to do the prototype that she wants... They have to make sure that all students in the classroom are able to use this or they know how to use it in order to provide them with the most appropriate application.

When I asked Helen about ways professors used social media that did not help her learn, she replied, "I think if you use too many different ones within a classroom, I think it can get confusing for people." She thought professors need to be skilled, have training, and to take time to teach the students how to use social media. Hamad agreed: "I will recommend them or my students or my friends to be using something...familiar."

Instructors must also use relevant social media. Helen recommended that educators incorporate social media into educational and learning settings:

Finding something that's relevant to what we're learning. I sometimes think... technology is a great way to bring the world into the classroom without having to take students out to the world...instructors could maybe find an expert to speak to the class [without] him having to be there, or showing people something that's relevant.

In summary, participants favor the use of social media platforms actively during class time. However, it is critical for both educators and students to be proficient in the use of social media platforms. If chosen platforms are not relevant to lessons or those involved cannot operate them, they contribute little to the learning process. Including a limited number of social media platforms also helps to reduce potential confusion.

Students' management of social media. To use social media platforms effectively for learning, participants suggested that students take responsibility for the appropriate and effective use of social media. Comments identified several student attitudes and attributes that facilitated the effective use of social media platforms for learning. Subthemes associated with student management of social media included (a) Responsibility, (b) Respect for Others, (c) Credible Sources, (d) Time Management, (e) Student Skills, (f) Self-Awareness, and (g) Look for Updates.

Responsibility. Lisa said, "I think we are all responsible for our own learning and we need to be respectful of the ways in which other people learn."

Respect for others. Several students commented on being respectful. For example, Lisa said, "To help you learn as a student when using social media you have to be respectful, intentional, use different resources, [and] respect opinion[s] and different point[s] of view." Lisa continued:

Also know that I don't have all of the answers, which then leads me to do more research. To simply having a conversation and gather more information so that one, I don't offend someone or sound like an idiot, but two, because that's

important for me to have a deeper understanding and appreciation for other people.

Credible sources. Another attribute important for students was to use credible sources. Lisa, for example, reported that “if I’m going to use it as a student I will back it [up]. It may start with a .com but then I go to more substantial credible sources.” She added,

To be intentional and respectful and considerate of others learning. To use credible sources to gain information. Since there is some misinformation ...available to students, [you must know] how to be intentional about what you are researching and be on a quest to find factual information, I mean be aware, research more. To decide, to make an educated choice. Just before I formed an opinion, I would just want to know more information.

Time management. All students recommended to other students that they must build self-control to avoid distraction and time lost. Belle said,

As long as I stay focused and I don’t start clicking links and going off and reading all different things. So stay on task. If I am using social media to research an assignment on social media there are links to all other things and things pop up. So don’t fall into that little trap of, oh this looks neat and then go off here and then go off here.

Student skills. Some participants suggested other students must be skilled in using social media. Hamad recommended,

To my friend or to other students...using the social media, it's easy to get more information. I recommend anyone who wants to learn [a] second language to ...[use] social media for education to connect with each other, to find there [are] a lot of groups. There [are] a lot of people; they want to help. They want to put a lot of time to create channels [for] students to learn.

Lisa said, “My recommendation is to make sure that...educators need to understand their students' needs and skills in order to provide them with the most appropriate application.”

Self-awareness. Lisa said, “I am very much aware. I try to do more research than someone else because I strive and in my professional practice as well as a student and as a human being to be as culturally aware as possible.” Belle said,

I think you don’t know that everything is true, there is no control over what is put out there. you really have to investigate. You can’t just believe what the headline is. You have to read into it and go to other outlets, real news outlets, to find out exactly what happened and things like that. You have to be willing to go out and investigate it yourself.

Look for updates. Lisa said, “I would suggest to other students do research both over the internet and through social media before [they] relay or communicate information or pass information along and do research about it.” She added, “All students [need] to be open to different points of view. We have unlimited access to all the information in the world - how can we be respectful with that open information? I believe it allows students to learn more effectively.”

In summary, regarding suggestions to other students about using social media for learning, most participants suggested to other friends or classmates that they take responsibility for using social media effectively to learn. Comments indicated self-management skills were critical in maintaining focus and quality while using social media platforms for assignments. Participants indicated that students must also practice good digital citizenship, taking care to respect the needs and perspectives of others. The results also indicated students must learn to identify credible sources and be responsible for the quality of the information that they use.

Summary

Three categories with seven themes emerged during this study that answered the three research questions. Themes included Source of Learning, Motivating and

Engaging, Convenience, Collaboration and Connection, Overwhelming, Educators' Integration of Social Media, and Students' Management of Social Media. These themes indicated participants believed social media platforms could be powerful for learning as vast amounts of information are readily available from numerous sources. Also, opportunities to collaborate and build relationships with other people throughout the world increased the depth of quality and learning in many cases. However, the use of social media platforms in education could present challenges as well. Students could easily become distracted from the task at hand or become overwhelmed with the abundance of available information. Suggestions for both educators and students pointed to ways to decrease the potential disadvantages of using social media platforms for learning (see Table 4).

Table 4

Educators' and Students' Recommendations for Using Social Media

Suggestions for Educators	Suggestions for Students
Skill trained	Student skills
Teach how to use needed platforms for the course	Responsible
Guide/monitor	Respectful
Incorporate videos and various platforms in class	Credible sources
Keep updated with social media	Look for updates
Keep it simple to maximize efficiency	Time management
Avoid using social media students do not know how to use	Self-control
Avoid using social media instructors themselves are unfamiliar with	Self-awareness
Avoid incorporating too many unnecessary media types	
Limit amount of platforms used at one time	Self-management

CHAPTER V

DISCUSSION

This phenomenological study focused on describing university students' use of social media in educational settings to understand their perceptions, experiences, and opinions about the use of social media as a learning tool. This research investigated participants' educational use of social media using the following data sources: informal observation, interviews, and an examination of applicable artifacts. This chapter contains a discussion of the reported research findings, implications for students and educators, recommendations for future research, and conclusions. The study was guided by three research questions:

- Q1 How do university students describe their experiences of using social media for their own learning?
- Q2 What do university students perceive as advantages or disadvantages in the use of social media for their own learning? Q3.
- Q3 What suggestions do university students make for increasing the use of social media for their own learning?

A thematic analysis of interview transcripts yielded seven major themes related to students' experiences with social media for learning: (a) Source of Learning, (b) Motivating and Engaging, (c) Convenience, (d) Collaboration and Connection, (e) Overwhelming, (f) Educators' Integration of Social Media, and (g) Students'

Management of Social Media. The following sections discuss the issues associated with the findings and how they fit with the findings from other research studies.

I made striking informal observations as I watched participants complete their drawings and show me the platforms they used. Several points seemed particularly significant to me as I completed the interviews and prepared the written report of my findings. These observations, reflections, and insights are discussed and linked to research presented in the literature review. Before discussing details of the data analysis, I address issues with current definitions of social media and present my own definition for social media developed via this research experience.

Limited Conceptions of Social Media

The perceptions expressed by most participants reflected a limited conceptual understanding about the meaning of social media and its use in formal learning contexts. Many participants in this study thought social media meant only to communicate informally via different platforms or applications. They did not view many formal communication platforms as being social media including email, text messaging, discussion boards in LMS (Blackboard, Canvas), and other formal LMS. The artificial separation of formal and informal learning environments potentially contributed to the confusion regarding what was and was not social media.

According to Greenhow and Lewin (2016), formal learning refers to situations in which an agent such as a teacher, an LMS, or a software program directs student learning; whereas, informal learning is “described as that which is not directed by school or externally mandated but is learner controlled” (p. 10). However, Colley, Hodkinson, and Malcolm (2003) conducted an extensive review of literature and research involving

the use of the terms “formal” and “informal” in learning situations. They found almost all learning environments contained formal and informal characteristics or attributes. The researchers also concluded that in reality, there was a balance of these attributes and how they interrelated varied across different learning contexts.

While the results of the current study illustrated many areas where students benefited from social media in learning contexts, their limited conceptions of social media potentially hindered their ability to use it as a learning tool or fully integrate it into learning contexts. Because they did not think social media was for education, students tended to limit themselves to merely accessing educational content. One possible explanation for the artificial separation of formal and informal social media use might be related to the practices of students who separated their personal life from their educational life (Odom et al., 2013). Some participants in the current study were quite comfortable with blending these two aspects of life while others preferred to keep their personal life separate from their academic life. For example, Kalen said:

The term social media, to me as a student, is just a way to connect through the Internet with other students and faculty, but it's no longer educational anymore. I do not consider SM platforms for my educational purposes myself; I have learned using them to keep me in touch in a nonprofessional way.

The ambiguous definition of social media, specifically as it related to formal educational contexts, created challenges in integrating social media into classes because it often was not perceived as an educational tool. Ambiguity regarding the meaning of social media confirmed findings from previous studies that indicated confusion in understanding terminology related to social media (Li, 2014). Li (2014) mentioned that one of the participants interviewed “used the two terms, social media and technology, interchangeably many times in the interviews” and concluded that “the blurry definition

of social media and technology may influence her [a participant] beliefs about the benefits and challenges of integrating social media in foreign language teacher education” (p. 134).

Inasmuch as modern education emphasizes the acquisition of 21st century skills (e.g., communication, collaboration, critical thinking, creativity), theoretical models that underlie research on education and social media will need to be more complex to account for numerous variables that interact along continuums. Greenhow and Lewin (2016) drew upon social constructivist and connectivism concepts, which they claimed were appropriate theoretical bases from which to examine interactive environments where learners coproduced knowledge. The results of this study strongly indicated social media is potentially one of the most useful tools for developing 21st century skills currently available.

For example, a student might frequent Facebook throughout the day to communicate with friends or visit pages about things meaningful or interesting to them. If an academic class has a Facebook page and the student perceives Facebook as a viable space for learning, then the student might engage with classmates more often, maintaining a stronger connection to their academic progress and developing collaborative problem-solving skills. By excluding social media as a learning space, teachers limit students’ ability to engage in incidental learning, engage in social spaces students frequent, and exercise skills they will need to succeed in their professional endeavors.

The finding in this study that participants often used social media in learning without recognizing various technologies as social media poses an avenue for further

investigation. Does this lack of awareness about the wider expanses of social media for learning or the differences in what social media is or is not appear in other populations of students? Has previous research recognized these differences and limitations of student perceptions and have these affected the findings and interpretations in unforeseen ways? The results of this study indicated students who expanded their understanding about applying social media technologies in formal learning would be able to use social media tools to assist them in understanding the concepts presented in class better than those who did not.

As I witnessed the mixed perspectives of students regarding the use of social media for learning, I wondered if this phenomenon reflected educators' perceptions. If educators also have different interpretations of what social media is and is not, it might affect their incorporation of social media into their teaching. If this was the case, their teaching could be improved by their gaining a better understanding of what social media is as has been suggested by other researchers (Greenhow et al., 2009; Odom et al., 2013).

As faculty gain a better understanding of how their students use social media, they might be able to incorporate students' social media use into their teaching to increase relevance and to join the broad use of social media as an integral part of environments that characterize the 21st century (Elitas, 2015; Joosten, 2012; Tess, 2013). In addition, as educators themselves widen their perspectives about the possibilities of social media in enhancing learning, it might stimulate them to think creatively about wider integration of many applications of social media into their own teaching. Perhaps they can direct students to appropriate sources and encourage class collaboration and cooperation in sharing the value of the varieties in social media. This implication was supported by

Odom et al. (2013) who found social media could enhance collaboration and develop strong social communication among classmates.

Many organizations are using social media to improve their business process, product, service, or distribution procedure. If we as educators do not keep up with current trends surrounding us, we will do a poor job of preparing our students to enter today's world, which uses social media extensively, and we will become outdated and obsolete. I am impressed at how pervasive and universal the use of social media has become in so many important areas of life in the world today.

My Own Definition of Social Media

The results of this study clearly indicated students have limited perceptions of what social media is and they often consider it to be something to be used for fun and non-educational purposes. However, the concept of social media I have determined based on the current research findings, a literature review about social media, and my own experience is as follows: The term *social media* includes any digital platform, application, or website that allows people to use the internet to co-create and share ideas, information, and content. It enables students to establish contacts and participate in social networking interacting with other people via electronic means. I put forth this definition to encourage further discussion and refinement in our attempts to define precisely what social media is. This definition excludes those internet media that are one-way, e.g., an online newspaper from which the reader only gains information. A medium is excluded if it lacks two-way communication. Table 5 provides my definition of what social media *is* and *is not*.

Table 5

My Definition of What Social Media Is and Is Not

Social Media	Not Social Media
Encourages socializing	No socializing
Needs Internet connectivity	No Internet use
Uses <i>only</i> digital mediums	Uses both digital and nondigital communication mediums.
Two or more ways communication: Web 2.0 and up	One way communication only: Web 1.0 “read-only” content.
Read, comment or reply	Any use of only reading, listening or watching electronic news
Receive, reply, share and create	Receive ONLY
Supports collaborative creation of digital materials	No collaborative digital materials
Fast, simple functions to use or share information	No sharing
Transparent (users know what others are doing)	Private
Integrates with different settings (e.g. business, education, commerce, humor, medical)	Proprietary application (controlled by company)
Impermanence of information (once it’s posted, you lose control or ownership at least to some degree)	No control
Encourages participation and allows for commenting: “liking,” rating, text or audio comments	No interactive component
Can be time consuming (take time to create, share, or find) for final post	Individual is not required to create content.
Connects people without regard for location, time, and often operating system	Direct or print advertising, marketing, or promotions
Allows for synchronous or asynchronous communication between two or more people	Static information (unchangeable)
Is both formal and informal	More often formal

Thematic Analysis

Themes that emerged during the data analysis for this study fell into three categories that aligned with the research questions. This section is a discussion of the core themes and subthemes as they related to each research question. Additionally, I examine how the results of this study compared to those found by other researchers.

Experience with Social Media for Learning

The first research question asked how participants experienced social media for learning. Despite confusion and limited conceptions of social media, the participants in this study reported that social media could be a major information source for value-added learning (the first main theme). They sometimes referred to one-way communication but at other times, they focused on the interactive communication feature of social media. Subthemes indicated it helped them learn what they could not or did not learn in school. Participants frequently used social media platforms to supplement their classroom learning or to clarify concepts they did not understand. In the words of one participant, it “unlocks knowledge.” The findings of this research revealed participants thought connecting, sharing, and using social media platforms had become indispensable for them, especially YouTube. YouTube was so frequently accessed for learning that it emerged as a subtheme of its own.

The second main theme, Motivation and Engagement, highlighted positive elements of using social media for learning. It was truly astounding to witness the elation and exhilaration students displayed during data collection. Words, summaries, tables, and discussions simply did not convey this elation nor did it seem to appear in previous research. Throughout the study procedure, participants showed enthusiasm, excitement,

and willingness as they demonstrated social media apps they used. So often, this eagerness and excitement is missing from classrooms; the results of this study implied that if teachers could tap into social media, they could infuse their teaching and their students' learning with enthusiasm and motivation.

All participants described what social media meant to them with excitement and enthusiasm using happy smiling faces, words, and colorful illustrations with social media icons. I encourage the reader to go back and revisit the drawings presented in Chapter IV to try to capture the spirit of elation that appeared throughout the drawings. It was difficult to portray this elation as it was demonstrated in each participant's tone of voice, gestures, and facial expressions during the interviews. Their animation was infectious; if properly harnessed in the classroom, it could serve as a motivating resource for other students.

One possible reason for such animation might be the opportunity for students to share their perspectives on subject matter with which they were very familiar. Under normal circumstances, that subject matter might often be discounted by educators as inappropriate for learning; or perhaps the student thinks this is how educators feel so they hesitate to contribute. In the interviews, student perspectives, demonstrations, and experiences were not just sought but validated; clearly, the students interviewed were excited to share their experiences and discoveries in using social media in creative ways that helped them learn. The students' excitement might be a key to helping educators implement social media more effectively in class to enhance their learning. The idea that excitement and enthusiasm increased students' academic engagement agreed with O'Brien and Glowatz (2013) who suggested social media in formal learning

environments included several important aspects of social interactions like interactions with colleagues and faculty for academic purposes. O'Brien and Glowatz concluded that using a social media site could produce communication and information sharing between students, allowing them to collaborate in an easily accessible online environment.

The results of the current study were also consistent with Bista's (2015) study of graduate students' experiences with Twitter to facilitate classroom discussions. The researcher showed that students had positive experiences and identified Twitter as a social media platform with the capability of enhancing engagement. Bista's results showed the use of a social media platform enhanced engagement behaviors such as asking friends and the teacher questions about homework, participating in class discussions, and completing assignments. Students in my research were very excited and enthusiastic about using social media in their learning, which related to the advantages of using social media for education that participants reported.

Advantages and Disadvantages of Social Media for Learning

The second research question for this study focused on determining the advantages and disadvantages of using social media for learning. Participants consistently expressed that social media was a helpful tool that was easy to use. Easy access to a wide variety of information sources and the convenience offered via social media platforms emerged as major advantages of integrating social media platforms into the educational process. However, social media for learning could be a double-edged sword if students became distracted or overwhelmed by the volume of available information.

Convenience emerged as a core theme describing one of the most important advantages of using social media for learning. Participants' statements about convenience related to the accessibility of social media platforms and ease of use. Students used different kinds of social media formally and informally in class or outside of school because they used portable devices that allowed easy access. Although Tess (2013) found social media was used by both undergraduate and graduate students primarily for informal and personal situations, the current study indicated students were extending their use of social media to educational and learning situations as well. This suggested that as the use of social media continues to grow and expand across many fields, the distinction between informal and formal learning environments might be disappearing. The expansion of social media into business, commerce, government, and other areas is already visible; the challenge is for the field of education to keep pace with this growing and integrative use of social media.

Collaboration and Connection emerged as the second main theme describing advantages of using social media for learning. Students repeatedly illustrated the importance they placed on staying connected with one another for their learning throughout interviews, informal observations, and clearly in their drawings as noted by the predominance of arrows and links displayed in the drawings. The prominence of using social media to make and maintain connections was also observed by O'Brien and Glowatz (2013) who showed how a social networking site like Facebook could increase students' academic engagement and develop synergistic knowledge. Related to the Connection theme, some participants mentioned that using social media helped them with their shyness or hesitation to participate; it was not easy for some students to speak up in

the classroom. This could be particularly problematic for students from other cultures where this kind of assertiveness is discouraged. Hamid et al. (2015) also found students identified a number of positive outcomes from using social media to interact with one another and the use of social technologies offered a comfortable form of interaction for students who did not like to speak up in class.

The results of this study concerning the advantages of social media for learning were notably similar those of Odom et al. (2013) who reported that using social media platforms for learning offered the following advantages: (a) social media use increased quality and efficiency in communication between students and between students and instructor, (b) using social media integrated useful technology that could be used throughout life, (c) social media facilitated access to class information, and (d) social media enhanced collaboration and strong social communication among classmates.

In terms of their perceptions of the disadvantages of social media in learning, the participants who had a broader concept of what social media was thought social media could be an efficient learning tool. However, those who had a more limited concept of social media thought that it was time consuming. Recent research indicated time spent on social media websites could negatively affect student achievement (Paul, Baker, & Cochran, 2012). Another study (Tess, 2013) also implied that the use of social media in education required appropriate skills as the results showed the majority (51%) of the participants were committed to Web 2.0 technology as a main instructional tool that could increase student engagement but this technology needed guidance to implement its efficient and effective use in the classroom in order to reduce distractions and loss of focus. The results of the current study agreed with the results of the latter studies in that

participants viewed social media as a potentially powerful tool but they did warn that distraction and poor self-management could possibly lead to an increase in consumption of time. The participants in my study also discussed some concerns they had with the use of social media in learning. Most pressing of these concerns was the possibility of blunt negative feedback and judgmental statements, eliciting feelings of rejection and fear, as expressed in one participant's interview. Part of this reaction might stem from the anonymous nature of social media in informal use and the ensuing freedom to say or post comments that would otherwise not occur in face-to-face conversations. Although the probability of hostile comments is lower in academic settings, the fear of these judgmental statements still hindered some students in using social media in educational settings.

Because of these negative responses, the challenge would be for educators to take particular care in encouraging and fostering good digital citizenship (Ohler, 2010) in both academic and informal settings. With freedom comes responsibility and while the freedom to post whatever people want to post is apparent, a lack of responsibility has been associated with this freedom. Thus, values inherent in society need to be instilled in digital societies as well. This will not occur without direct intervention and educators have an opportunity to play a key role in embedding social values and behavior that foster positive direct conversations into indirect digital conversations.

Despite the potential disadvantages of time-consuming distractions, the clear advantages of better collaboration and connection were emphasized repeatedly by participants. This result was consistent with other research, indicating social media features helped students connect with their friends and teachers (Everson et al., 2013).

Participants in this study offered specific suggestions for minimizing the potential disadvantages of using social media in educational settings.

Suggestions for Educators

All seven participants in this study gave suggestions for educators on how to integrate social media in classes to enhance their learning. Participants strongly suggested that instructors integrate social media in classes; for example, instructors could make watching a short YouTube video part of a weekly assignment. Participant comments also indicated instructors should not just allow students to use portable devices and social media platforms during class time but tap into the potential of incorporating these into learning activities. For example, instructors could allow a specific amount of class time for students to search social media using their portable devices and contribute knowledge gathered from social media platforms to in-class discussions or small groups could work together to collaborate on assignments and projects.

Data collected in this study clearly showed the generous use of video clips and social media platforms during class helped keep things simple and potentially maximized efficiency. For example, in my own experience as a lecturer, when I discovered my students had independently formed a group through WhatsApp, I myself joined my students' group in the social media platform to help them understand the class more and to interact with them easily. However, in terms of efficiency, my findings strongly suggested that instructors avoid using too many platforms at once. Furthermore, instructors must help students understand the definition of social media to avoid a limited view of how social media could facilitate informal and formal learning. A very important suggestion from the participants of this study was instructors must have appropriate

training on social media platforms for education and be proficient in the use of the technology. This means they must know how to operate the programs and also know which platforms are appropriate and relevant to use for different learning objectives. Additionally, instructors must be able to ensure that all students in a given classroom are able to use social media platforms needed to complete assignments.

To the best of my knowledge, other studies of social media in education have not directly addressed recommendations to educators for successfully implementing social media for learning based on students' perceptions and actual use. The findings of this study showed students had clear and consistent need. Participants in this study made practical recommendations in this area based on their own experiences and creative uses of social media in learning. The results of this study indicated social media platforms could be highly appropriate for teaching and learning but instructors must be skilled in their use; setting specific boundaries around the use of social media for a given class would be important.

Suggestions for Students

In addition to providing suggestions for instructors, participants in this study offered suggestions to other students for using social media platforms as learning tools. The findings indicated several student attitudes and attributes were important to the effective use of social media platforms for learning that were related to disciplined learning and positive interactions with others. Participants raised the issue that students must take responsibility for their own learning and practice effective self-management in using social media for class assignments. This meant that despite the abundance of information and variety of potential interactions, it was up to students to focus on their

purpose when using social media for learning. The results of this study strongly suggested students would benefit from establishing effective technological and time management skills. In addition, students must understand effective ways to determine the credibility of information they found via social media platforms and make a special effort to search for updates to any information they might find.

Another important suggestion for students as indicated by the results of this study was they must interact with others in a conscientious and respectful fashion and maintain self-awareness relative to their own culture, knowledge, and perspectives. Social media platforms facilitate interactions with people from different cultures and perspectives worldwide. Students must learn how to reach out in a diplomatic and professional fashion to protect themselves from potential negative interactions and danger. Negative interactions and negative feedback could fuel animosity and feelings of rejection. These are elements of learning and practicing good digital citizenship.

Implications

The results of this study had several implications for the use of social media in our digital age. I really think that educators, students, and administrators must search out creative and innovative ways to use social media more widely in their teaching, studying, and administrating to enhance learning. For educators, I suggest incorporating social media into education much more widely and more creatively by cooperating with the administrators and students to reach their goals. Here are some ways this might be accomplished:

1. Examine how businesses and corporations use social media. We, as educators, should connect with those businesses that have already used

social media as part of doing business and explore their ideas to adapt them within education to enhance learning.

2. Work more closely with publication companies who have pioneered new ways to incorporate Web 2.0 resources into interactive online textbooks—these are the people with the advanced technological skills and visions—and explore ways to tap into that expertise in applying social media to specific classroom situations.
3. Students' technical expertise is often superior to that of current educators, who might seek out these students and integrate their suggestions to create groups that can work together to improve innovation and incorporation of social media into formal and informal learning. For example, an educator could begin the first class session with a discussion about social media, how students could use it, and explore their ideas on applying social media to learning, collaborative projects and assignments, and communication among themselves and with educators.
4. Today's world-wide web spans the entire globe. Yet, educational settings still seem to conduct their teaching in insular classrooms of the past century. Because of the ease and speed of communication throughout the world, possibilities for students, educators, researchers, and field professionals to link together for collaboration are nearly limitless. I can envision a world where students from one part of the world work together with students in other parts of the world, where they are connected with researchers actively engaging in pursuing more knowledge, where educators can share their

ideas and creations freely and support one another, and where professionals link with and mentor today's students who will become tomorrow's professionals.

Future Research

As Internet technology has advanced, the boundaries between formal and informal learning environments have become less defined. While a number of studies have examined student use of social media in higher education and students' opinions about social media in higher education, these studies have not led to conclusive findings on what students considered were the most educationally beneficial features and aspects of social media in university settings, how they actually used social media in their education and learning, and in what contexts they used social media (Elitaş, 2015; Graham, 2014; Roblyer, McDaniel, Webb, Herman, & Witty, 2010; Sinclair et al., 2015). The results of this study highlighted some of the beneficial features and uses of social media for learning and provided contextual insight into university students' use of social media for learning. However, the findings clearly suggested future work should establish a widely accepted definition of social media. According to Greenhow and Lewin (2016), the use and value of social media applications in learning environments is still being debated. The results of this study provided clear support, however, for the potential power of social media for education. The following areas are fruitful avenues for future research:

- Through this research, I created my own definition of social media; future studies need to be conducted to confirm and validate this definition.

- Additional studies need to replicate this research with participants from other universities or other states.
- Future studies should expand to include a broader sample of the student population, e.g., undergraduate students or children.
- Future studies should be conducted that include students from a variety of academic domains to compare their perceptions and experiences related to social media for learning to those of the education majors who participated in this study.
- It would also be important to explore how children perceive using social media for learning and compare the differences between children and adults.
- Comparative studies could investigate how both students and educators perceive using social media in their classes and compare the differences between students and educators.
- The results of this study also call for an in-depth examination of how using social media can be overwhelming and serve to distract students from learning.
- Since the students in this study perceived social media as an important tool for their learning, future research should investigate the relationship between students' use of social media and academic achievement.
- More research is needed to explain theoretically how social media applications might be helpful for learning. Greenhow and Lewin (2016) noted few theoretical studies have been done that offer a structure for the consideration of learning applications in complex learning environments and

multiple contexts. A lack of theoretical work has focused on different learning contexts. More simply, few studies have been done to explain, theoretically, how social media applications could enhance learning.

- Studies that evaluate the perspectives of educators regarding what does and does not constitute social media and the degree to which these perceptions influence their incorporation of social media in their teaching would serve to clarify existing issues and guide efforts to expand learning opportunities using social media platforms as suggested by previous researchers (Greenhow et al., 2009; Odom et al., 2013).
- Experimental studies are needed to compare the advantages and disadvantages of various social media technologies for formal education.
- Continuing research into the use and meaning of social media on the part of students could help fill the void in formal research literature noted by O'Brien and Glowatz (2013).

Summary and Conclusions

This phenomenological research was an in-depth exploration of seven graduate students' experiences with the use of social media. The purpose of the study was to explore graduate students' interpretations of their experiences with the use of social media for learning. Using well-established qualitative research methods including a thematic analysis based on multiple data sources, I identified and described seven major themes that addressed the following research questions:

- Q1 How do university students describe their experiences of using social media for their own learning?

- Q2 What do university students perceive as advantages or disadvantages in the use of social media for their own learning?
- Q3 What suggestions do university students make for increasing the use of social media for their own learning?

The results from the data analysis were organized into three response categories that related directly to the research questions: Experience, Advantages and Disadvantages, and Suggestions. Seven main themes and 13 subthemes emerged that consistently and suitably fell within the relevant categories, offering a rich and detailed description of participants' interpretations of their experiences with the use of social media for learning. The seven main themes were Source of Learning, Motivation and Engagement, Convenience, Collaboration and Connection, Overwhelming, Educators' Social Media Integration, and Student Management of Social Media.

The results of this study strongly indicated social media platforms offered legitimate learning opportunities and university students already used social media platforms to learn in both formal and informal contexts. The students who participated in this study expressed that social media technologies were a source of vast amounts of easily accessed information. Convenience, collaboration, and connection were main themes that emerged in this study; they were associated with advantages of using social media for learning. Participants also indicated that multiple information modalities and the interactive qualities of social media were motivating and engaging for them. Participants noted two primary disadvantages of social media: (a) it can become distracting and time consuming, and (b) there is the potential for cyberbullying or other incidents of negative interpersonal interaction.

The results of this study clearly suggested social media platforms could be powerful tools for both teaching and learning but participants had clear suggestions for both educators and students about how best to use social media for learning. First, educators need proactive training in social media use and they should set specific guidelines for the use of social media in a given class to maintain focus and productivity. Also, educators should limit the number of different platforms they use and ensure that everyone in the class knows how to use the needed social media platforms.

For students, time management skills and focus are critical to avoid becoming distracted and losing large amounts of time “surfing” through vast amounts of information. Students also need to know how to establish the credibility of the information they find via social media platforms. Finally, it is critical for students to learn good digital citizenship practices so they can interact globally in a diplomatic and professional fashion.

In response to concerns regarding the lack of theoretical foundation for how social media applications could enhance learning in complex learning environments and multiple contexts (Greenhow & Lewin, 2016), my findings supported social constructivist theories in that collaboration emerged as a key theme. Social media platforms were consistently reported as being central to working with others to solve problems and to clarify concepts and issues. The importance of connection and collaboration in the learning process reported by the participants in this study provided support for social constructivist theory because students and instructors interacted with each other to create a rich learning experience.

Social constructivism posits that people create meaning through interactions. Furthermore, these interactive experiences create new knowledge, perceptions, and relationships with both physical and social environments. The current study illustrated this phenomenon. For example, Helen's drawing reflected how different social media platforms broadened her world and connected her with new concepts, people, and places. Interactions via social media created a new reality for her. This observation demonstrated how people could co-construct meanings with the physical environment and other people, building their own meanings with social media by interacting and building relationships with others. Thus, social constructivism as a theoretical framework for research in this area gained support as the results of this study suggested the interactions that happened within and across social media platforms contributed to individual perceptions, views, beliefs, and knowledge.

The findings of this phenomenological study of university students' perceptions of social media use for educational purposes could assist educators and scholars in the field of educational technology to develop more effective instructional strategies that integrate the use of social media platforms into physical and virtual classrooms. The current findings suggested specific changes in teaching practices, instructional materials, and learning environments that would benefit today's students.

Changes in Teaching

Constructivism has provided the theoretical framework for much educational improvement during the last two decades. According to Ertmer and Newby (2013), many uses of constructivist theories like social constructivism, motivation, and situated learning are the basis for newer teaching methods such as computer-supported and collaborative

learning. The emerging connectivism theory reflects the newest changes that digital technology has introduced to the world and today's learners. Overall, teaching practices need to become facilitative and interactive to be effective in the digital age.

Changes in Materials

Education providers must make consistent changes in curricula, resources, materials, and the integration of social media technology in order to meet the skill level, needs, and demands of today's digital learners. Curriculum should include Web 2.0 or generation 2 e-textbooks such as dictionaries, practice tests, examples, discussion questions, and links to resources beyond the textbook. Supplemental materials are readily available through the Web such as related videos, information, and academic websites, all of which could be enhanced with social media use.

Changes in Learning Environments

Teachers could support student-focused learning in a technology-rich environment through using active participation in collaborative projects. Students and teachers could extend their dialogue beyond the physical and time limitations of the classroom using social media live chat applications and platforms. In this respect, digital technology has substantially improved the availability of opportunities for students to communicate and collaborate with others.

One of the most fundamental conclusions I made based on the findings of this study was digital technology-infused classrooms offer precisely the tools educators need to transform traditional classrooms into the interactive, transformative learning environments today's students demand (Blair, 2012). Research efforts directed at understanding the technologies, changes in students, and changes in industry and work

environments are needed to guide, create, and sustain effective educational environments and learning spaces. Today's students are the educators of tomorrow and they bring unprecedented technological knowledge and skills with them. Through the development of technology-rich learning opportunities that use technology familiar to students, the gap between personal collaboration and communication through social media and these same practices in educational contexts can be narrowed.

It is a brave new world and we need to reinvent education in 21st century terms. Young people who are our students today are already doing it; our challenge is to keep up with them. Teaching methods, objectives, materials, and learning environments that were effective in the past for less technologically skilled learners are no longer effective, efficient, or even stimulating enough for technologically savvy learners; students today want to learn differently (Ertmer & Newby, 2013). Reinventing education is a necessity and social media is already becoming an indispensable tool for both educators and students.

REFERENCES

- Aifan, H. A. (2015). *Saudi students' attitudes toward using social media to support learning* (Unpublished doctoral dissertation). University of Kansas, Lawrence.
- Alghaith, S. (2016). *Understanding Kuwaiti women entrepreneurs and their adoption of social media: A study of gender, diffusion, and culture in the Middle East* (Unpublished doctoral dissertation). Colorado State University, Fort Collins.
- Alhababi, H., Alfadil, M., Alzamanan, M., & Williams, M. K. (2015). *Students' perception on the use of social media on their academic learning*. Paper presented at the Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education, Kona, HI. Retrieved from <https://www.learntechlib.org/p/152150>
- Almansour, N. (2015). *Educational use and perceived benefit of social media among graduate and undergraduate education students* (Unpublished manuscript). University of Northern Colorado, Greeley.
- Almansour, N. (2016). *Educational uses of social media by university students in education: A case study* (Unpublished manuscript). University of Northern Colorado, Greeley.
- Alsharqi, L., & Hashim, K. (2016). University students' perceptions of social media as a learning tool. *The Journal of Social Media in Society*, 5(1), 65-88.

- Alzouebi, K., & Isakovic, A. A. (2014). Exploring the learner perspective of social media in higher education in the United Arab Emirates. *Global Education Journal*, 2014(2), 13-31.
- Andrews, T. (2012). What is social constructionism? Grounded theory review. *An International Journal*, 11(1), 39-46.
- Beal, V. (2018). *Social media*. Retrieved from http://www.webopedia.com/TERM/S/social_media.htmlhttp://www.webopedia.com/TERM/S/social_media.html
- Beliaevsky, N. (2006). Revisiting Vygotsky and Gardner: Realizing human potential. *The Journal of Aesthetic Education*, 40(2), 1-11.
- Berger, P. L., & Luckmann, T. (1966). *The social construction of reality*. New York: Doubleday.
- Biesta, G. (2011). Transcendence, revelation and the constructivist classroom; or: In praise of teaching. *Philosophy of Education Yearbook*, 358-365.
- Bista, K. (2015). Is Twitter a pedagogical tool in higher education? Perspectives of education graduate students. *Journal of the Scholarship of Teaching and Learning*, 15(2), 83-102.
- Blair, N. (2012). Technology integration for the new 21st century learner. *Principal*, 91(3), 8-13.
- Boyd, D. M., & Ellison, N. B. (2008). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13, 210–230.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.

- Brown, J. S. (2002). Growing up digital: How the web changes work, education, and the way people learn. *USDLA Journal*, 16(2). Retrieved from www.johnseelybrown.com.
- Bruner, J. (1966). *Toward a theory of instruction*. Cambridge, MA: Harvard University Press.
- Chenail, R. J. (2012). Conducting qualitative data analysis: Managing dynamic tensions within. *Qualitative Report*, 17(4), 1-6.
- Christensson, P. (2008, January). *Facebook definition*. Retrieved from <http://techterms.com/definition/facebook>
- Christensson, P. (2009a). *Twitter definition*. Retrieved from <http://techterms.com/definition/twitter>
- Christensson, P. (2009b). *YouTube definition*. Retrieved from <http://techterms.com/definition/YouTube>
- Colley, H., Hodkinson, P., & Malcolm, J. (2003). *Informality and formality in learning: A report for the Learning and Skills Research Centre*. London: Learning and Skills Research Centre.
- Cotten, S. R. (2008). Students' technology use and the impacts on well-being. In R. Junco & D. M. Timm (Eds.), *Using emerging technologies to enhance student engagement* (pp. 55-70). San Francisco, CA: Jossey-Bass.
- Creswell, J. W. (2007). *Qualitative inquiry and research design* (3rd ed.). Thousand Oaks, CA: Sage.
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage.

- Crotty, M. (1998). *The foundation of social research: Meaning and perspective in the research process*. London: Sage.
- Crotty, M. (2003). *The foundation of social research: Meaning and perspective in the research process*. London: Sage.
- DeVries, R. (1997). Piaget's social theory. *Educational Researcher*, 26(2), 4-17.
- Driscoll, M. P. (2005). *Psychology of learning for instruction* (3rd ed.). Boston: Allyn and Bacon.
- Duffy, T. M., & Cunningham, D. J. (1996). Constructivism: Implications for the design and delivery of instruction. In D. H. Jonassen (Ed.), *Handbook of educational communications and technology* (pp. 170-198). New York: Simon & Schuster/Macmillan.
- Educational Broadcasting Company. (2004). *Constructivism as a paradigm for teaching and learning*. Retrieved from https://www.thirteen.org/edonline/concept2class/constructivism/explor_sub5.html
- Elitas, T. (2015). Social media usage by open education faculties: Atatürk University case. *Procedia-Social and Behavioral Sciences*, 176, 243-250.
- Erickson, F. (1986). Qualitative methods in research on teaching. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 119-161). New York: Macmillan.
- Ertmer, P. A., & Newby, T. J. (2013). Behaviorism, cognitivism, constructivism: Comparing critical features from an instructional design perspective. *Performance Improvement Quarterly*, 26(2), 43-71.

- Everson, M., Gundlach, E., & Miller, J. (2013). Social media and the introductory statistics course. *Computers in Human Behavior, 29*(5), 69-81.
- Field, R. (2001). John Dewey (1859-1952). In *Internet Encyclopedia of Philosophy*. Retrieved from <http://www.iep.utm.edu/dewey/>
- Gan, B., Menkhoff, T., & Smith, R. (2015). Enhancing students' learning process through interactive digital media: New opportunities for collaborative learning. *Computers in Human Behavior, 51*(B), 652-663.
- Gardner, H. (2011). *Frames of mind: The theory of multiple intelligences*. New York, NY: Basic Books.
- Gardner, H. (n.d.). *Biography of Howard Gardner*. Retrieved from <https://howardgardner.com/biography/>
- Gardner, H., & Hatch, T. (1989). Multiple intelligences go to school: Educational implications of the theory of multiple intelligences. *Educational Researcher, 18*(8), 4-9.
- Gikas, J., & Grant, M. M. (2013). Mobile computing devices in higher education: Student perspectives on learning with cellphones, smartphones & social media. *The Internet and Higher Education, 19*, 18-26. Retrieved from <http://www.sciencedirect.com/science/article/pii/S1096751613000262>
- Gilakjani, A. P., Lai-Mei, L., & Ismail, H. N. (2013). Teachers' use of technology and constructivism. *International Journal of Modern Education and Computer Science, 5*(4), 49-63.

- Graham, M. (2014). Social media as a tool for increased student participation and engagement outside the classroom in higher education. *Journal of Perspectives in Applied Academic Practice*, 2(3), 16-24.
- Greenhow, C., & Lewin, C. (2016). Social media and education: Conceptualizing the boundaries of formal and informal learning. *Learning, Media and Technology*, 41(1), 6-30.
- Greenhow, C., Robelia, B., & Hughes, J. E. (2009). Learning, teaching, and scholarship in a digital age Web 2.0 and classroom research: What path should we take now? *Educational Researcher*, 38(4), 246-250.
- Hamid, S., Waycott, J., Kurnia, S., & Chang, S. (2015). Understanding students' perceptions of the benefits of online social networking use for teaching and learning. *The Internet and Higher Education*, 26, 1-9.
- Harasim, L. (2012). *Learning theory and online technology*. New York, NY: Routledge.
- Harvard Graduate School of Education. (2016). *Project zero*. Retrieved from <http://www.pz.harvard.edu>
- Heming, A. L. (2008). *Multiple intelligences in the classroom* (Thesis project). Western Kentucky University, Bowling Green. Retrieved from <http://skyview.vansd.org/l Schmidt/Projects/The%20Nine%20Types%20of%20Intelligence.htm>
- Hurst, P. (2013). Britons spend 62m hours a day on social media--That's an average one hour for EVERY adult and child. *The Independent*. Retrieved from <http://www.independent.co.uk/life-style/gadgets-and-tech/news/britons-spend-62m-hours-a-day-on-social-media--thats-an-average-one-hour-for-every-adult-and-child-8567437.html>

- Hurtado, S. (2007). College freshmen and online social networking sites. *Higher Education Research Institute (HERI) Research Brief*. Retrieved from <http://www.gseis.ucla.edu/heri/PDFs/pubs/briefs/brief-091107->
- Hussain, I. (2012). A study to evaluate the social media trends among university students. *Procedia-Social and Behavioral Sciences*, 64, 639-645.
- Joosten, T. (2012). *Social media for educators: Strategies and best practices*. San Francisco, CA: John Wiley & Sons.
- Junco, R., & Mastrodicasa, J. M. (2007). *Connecting to the Net. Generation: What higher education professionals need to know about today's students*. Retrieved from <http://blog.reyjunco.com/pdf/NetGenerationProof.pdf>
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53(1), 59-68.
- Ketcham, G., Landa, K., Brown, K., Charuk, K., DeFranco, T., Heise, M., ...Shah-Nelson, C. (2011). Learning management systems review. *Doodle LMS Report*. Retrieved from https://confluence.umassonline.net/download/attachments/952024/DOODLE_LMSreport_final.pdf
- Koçak, N. G., & Oyman, M. (2012). Social media usage behaviors of individuals: An application in Eskişehir. *International Journal of Business and Social Science*, 3(22), 177-188.
- Li, J. (2014). *Instructors' beliefs about the integration of social media in Startalk teacher programs: A collective case study* (Unpublished doctoral dissertation). University of Maryland, College Park.

- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA, Sage Publications.
- Littlejohn, S. W., & Foss, K. A. (Eds.). (2009). *Encyclopedia of communication theory*. Thousand Oaks, CA: Sage Publications.
- Mastrodicasa, J. M., & Kepic, G. (2005, October). *Parents gone wild*. Paper presented at meeting of National Academic Advising Association, Las Vegas, NV.
- McKinley, J. (2015). Critical argument and writer identity: Social constructivism as a theoretical framework for EFL academic writing. *Critical Inquiry in Language Studies*, 12(3), 184-207.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education: Revised and expanded from "Case study research in education."* San Francisco, CA: Jossey-Bass Publishers.
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco: Jossey-Bass.
- New Media Consortium. (2007). *The horizon report*. Retrieved from http://www.nmc.org/pdf/2007_Horizon_Report.pdf.
- O'Brien, O., & Glowatz, M. (2013). Utilizing a social networking site as a learning tool in an academic environment: Advancing practice from information-sharing to collaboration and innovation (ICI). *AISHE-J: The All Ireland Journal of Teaching & Learning in Higher Education*, 5(3), 1371-1373.
- Odom, S. F., Jarvis, H. D., M'Randa, R. S., & Peek, C. (2013). Social media tools in the leadership classroom: Students' perceptions of use. *Journal of Leadership Education*, 12(1), 34-53.

- Ohler, J. B. (2010). *Digital community, digital citizen*. Thousand Oaks, CA: Corwin.
- Paul, J. A., Baker, H. M., & Cochran, J. D. (2012). Effect of online social networking on student academic performance. *Computers in Human Behavior*, 28(6), 2117-2127.
- Pew Research Center. (2019). *Social media fact sheet*. Retrieved from <http://www.pewinternet.org/fact-sheet/social-media/>
- Powell, K. C., & Kalina, C. J. (2009). Cognitive and social constructivism: Developing tools for an effective classroom. *Education*, 130(2), 241-250.
- Project Zero. (2016). Harvard Graduate School of Education. Harvard University. Retrieved from: <http://www.pz.harvard.edu>.
- Reiser, R. A., & Dempsey, J. V. (Eds.). (2012). *Trends and issues in instructional design and technology*. Boston, MA: Pearson Merrill Prentice Hall.
- Remler, D., & Ryzin, G. (2015). *Research methods in practice: Strategies for description and causation* (2nd ed.). London: Sage.
- Roblyer, M., McDaniel, M., Webb, M., Herman, J., & Witty, J. V. (2010). Findings on Facebook in higher education: A comparison of college faculty and student uses and perceptions of social networking sites. *The Internet and Higher Education*, 13(3), 134-140.
- Rolfe, G. (2006). Validity, trustworthiness and rigor: Quality and the idea of qualitative research. *Journal of Advanced Nursing*, 53(3), 304-310.
- Röstlund, S. (2013). What is the difference between an “app”, a platform and a social network? *Social Intelligence*, Retrieved from <http://www.mysocialintelligence.com/what-is-the-difference-between-an-app-a-platform-and-a-social-network/>
- Schwandt, T. A. (2001). *Dictionary of qualitative inquiry*. Thousand Oaks, CA: Sage.

- Scialdone, M. J. (2014). *Understanding the use and affect of social media features on the educational experiences of higher-education students in blended and distance-learning environment* (Unpublished doctoral dissertation). Syracuse University, New York.
- Selwyn, N. (2012). Social media in higher education. *The Europa World of Learning, 1*, 1-10.
- Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning, 2*(10), 3-10.
- Sinclair, W., McLoughlin, M., & Warne, T. (2015). To twitter to woo: Harnessing the power of social media (SoMe) in nurse education to enhance the student's experience. *Nurse Education in Practice, 15*(6), 507-511.
- Snelson, C. L. (2016). Qualitative and mixed methods social media research: A review of the literature. *International Journal of Qualitative Methods, 15*(1).
<https://doi.org/10.1177/1609406915624574>
- Suber, P. (2009). *Timeline of the open access movement*. Retrieved from <http://legacy.earlham.edu/~peters/fos/timeline.htm>.
- Tess, P. A. (2013). The role of social media in higher education classes (real and virtual): A literature review. *Computers in Human Behavior, 29*(5), 60-68.
- United Nations Population Fund. (2016). *Culturally sensitive approaches*. Retrieved from <http://www.unfpa.org/culture>
- University of Northern Colorado. (2017). *Canvas*. Retrieved from <http://www.unco.edu/canvas/>

- Viner, S. (2014). Social media statistics: How college students are using social networking. *Study Breaks Magazine*. Retrieved from <http://studybreakscollege-media.com/2014/social-media-statistics-how-college-students-are-using-social-networking/> https://scholar.google.com/scholar?hl=en&as_sdt=0%2C47&q=Viner%2C+Steve.+Social+Media+Statistics&btnG=
- Von Glaserfeld, E. (1989). Constructivism in education. In T. Husen & T. N. Postlethwaite (Eds.), *The international encyclopedia of education*. (1st ed., Supplement Vol. 1, pp. 162-163). Oxford, England: Pergamon Press.
- Vygotsky, L. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.
- Walker, R. (1980). The conduct of educational case studies: Ethics, theory, and procedures. In W. B. Dockerell & D. Hamilton (Eds.), *Rethinking educational research* (pp. 30-63). London: Hodder & Stoughton.
- Wang, Q., Chen, W., & Liang, Y. (2011). The effects of social media on college students. *MBA Student Scholarship*, 5, 1-12.
- Zgheib, G. (2014). *Social media use in higher education: An exploratory multiple-case study* (Unpublished doctoral dissertation). George Mason University, Fairfax, Virginia.

APPENDIX A
SCRIPT FOR INITIAL CONTACT

Hello. My name is Nora Almansour, a Ph.D. student in Educational Technology Department at UNC, and you kindly participated in a survey I conducted last year. I am extending my research into how university students experience and use social media for any kind of learning or educational contexts. This might be through class work, homework, texting with friends or classmates about a class, its contents or assignments, creating special groups for sharing information/asking questions, or to get clarification or ideas on something you are learning about. If you use social media in this way, or even more less, I would appreciate your response to the following invitation to participate in an in-depth study of this topic. I will provide a \$10 Starbucks gift card as a thank you for your time.

Your participation would include participating in a semi-structured interview, including demonstrating to me how you use social media in learning, and providing me with some samples of the use of social media in learning, such as a text message, discussion board, etc. I will not use any identifying information in order to protect your confidentiality, and any observations, demonstrations, or samples will not have identifying information or your picture. I really am interested in ways that you use social media to help you with your classes, with your assignments or projects, and any other learning situation you have experienced. Your views and examples can provide valuable information for both educators and other students in creative ways of using social media for learning.

The interviews will last approximately 60-90 minutes. Please e-mail me back if you would be willing to share your experiences and ideas with me. please contact me via: alma6580@bears.unco.edu Thank you very much.

APPENDIX B
SCRIPT FOR FOLLOW UP CONTACT

Hello dear Participant,

I would like to thank you for agreeing to participate in this study about how you use social media to help you with your learning. Your thoughts and ideas will be valuable in furthering knowledge about the use of social media for educational purposes. Please inform me about a good time, day and quiet location for us to meet on campus or in a public location for our interview (e.g. the university library). I have attached a copy of the consent form that I will ask you to sign. It explains the details of the interview for your information. I will bring a copy of this for you to sign when we meet.

Thank you in advance for your time and participation.

APPENDIX C
INTERVIEW PROTOCOL

Interview Questions

Demographic Information

Note: All the information in this form is confidential and CANNOT be used without your permission. Please answer the following questions by filling the blank and circling your answers.

- **Date of Interview:** _____ **Place:** _____
- **Participant:** _____ **Initial:** _____
- **Age:** 18 -24 25-34 35-44 45 and older
- **Gender:** Male Female
- **Level of Education:** Undergraduate Graduate
- **Student:** U.S. Student International Student
- **Major / Program of Study:** _____

- **Language(s) Spoken:** _____

- **List Social Media Platforms/Apps you use:**

- **Device Preference/Frequency for Social Media for Educational Purposes**
How often do you typically use social media for educational purposes on the following devices?

Device	Never	Sometimes	Very Often
Cell Phone			
Desktop Computer			
Laptop			
IPad/Tablet			
OTHER – specify			

Interview Questions

RQ1. How do university students describe their experiences of using social media for their own learning? Misunderstanding of SM

1. In your opinion, what is your definition of social media?
 - a. What does the term social media mean to you as a student in higher education?
2. I'd like you to build a mental picture for me. Think about a teacher who made a difference in your life using SM. Tell me a story about why that person or platform was so influential for you.
3. Give some examples of what you consider social media platforms.
4. Tell me what you think of social media? (Why?)
5. Do you use social media for your education or learning? If NO,
 - a. Why?
 - b. Do you consider yourself successful in your study?
 - c. Do you think that you are being isolated from your instructor and classmates?
 - d. Are you going to use social media in education in your future?
 - e. Go to Qs from 11

If YES,
6. How much do you think that you use social media for education or learning?
7. What devices do you use for using social media?
8. Why this device?
9. What else should I know about social media in education that would be helpful?
10. Can you show me some of the devices and platforms/applications you find most helpful? *Take pictures/screenshots*
11. Draw or write anything that express your using/thinking of social media in your learning? *Artifacts*

RQ2. What do university students perceive as advantages or disadvantages in the use of social media for their own learning? (Advantages and Disadvantages of SM)

12. What is (or could be) the advantages of using social media in your learning?
13. What is (or could be) the disadvantages of using social media in your learning?
14. Why do you use social media for education or learning?
15. How do you use social media for education or learning? For ex. Assignments etc.
16. Where? In what locations do you use social media for education or learning? why?
17. Describe **how** you have successfully used social media to help you learn.

RQ3. What suggestions do university students make for increasing the use of social media for their own learning? (Recommendation/Suggestions)

18. Describe how professors have successfully used social media to help you learn.
19. Tell me about ways professors use social media that **DO NOT** help you learn.
20. What recommendations would you make to professors for incorporating social media into educational and learning settings?
 - a. What would you do if you found a student using a platform or site with which you are unfamiliar?
21. What recommendations would you make to other student or friend for incorporating social media into educational and learning settings?

Please Fill in the Box

Using social media for educational purposes:	Yes	No
➤ Improves the quality of work I do.		
➤ Gives me greater control		
➤ Enables me to accomplish my learning tasks, more quickly.		
➤ Supports critical aspects of my learning.		
➤ Increases my productivity.		
➤ Improves my learning performance.		
➤ Allows me to accomplish more work than would otherwise be possible.		
➤ Enhances my effectiveness in my courses.		
➤ Makes it easier for me to complete my coursework.		
➤ Is time consuming		

APPENDIX D
INSTITUTIONAL REVIEW BOARD APPROVAL



DATE: April 14, 2017

TO: Nora Almansour, PhD student
FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [1047834-2] Educational Uses of Social Media in Learning by University Students
SUBMISSION TYPE: Amendment/Modification

ACTION: APPROVAL/VERIFICATION OF EXEMPT STATUS
DECISION DATE: April 14, 2017
EXPIRATION DATE: April 14, 2021

Thank you for your submission of Amendment/Modification materials for this project. The University of Northern Colorado (UNCO) IRB approves this project and verifies its status as EXEMPT according to federal IRB regulations.

We will retain a copy of this correspondence within our records for a duration of 4 years.

If you have any questions, please contact Sherry May at 970-351-1910 or Sherry.May@unco.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.

APPENDIX E
CONSENT FORM FOR HUMAN PARTICIPANTS
IN RESEARCH



CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH
UNIVERSITY OF NORTHERN COLORADO

Project Title: Educational Uses of Social Media in learning by University Students.

Researcher: Nora Almansour, PhD Student, University of Northern Colorado.

Phone Number: (970) 301-9921

E-mail: alma6580@bears.unco.edu

Researcher's Advisor: Dr. Mia Kim Williams, University of Northern Colorado.

E-mail: mia.williams@unco.edu

The purpose of this study is to investigate students' perceptions of the use of social media for educational purposes. If you choose to participate in this study, I will schedule a time that we can sit down to talk about your use and ideas about social media. The predicted amount of time for this interview is no more than 60-90 minutes. Time and location will be determined with you based on your convenience. When we meet, first, I'm going to ask you questions about your use of social media for educational purposes. These questions are developed to provide deep understandings of your experiences. Then, you will be asked to provide information regarding your gender, age, and social media platform and device you usually use. Next, you will be given an iPad (or you can use your own device) to show me how you use social media for learning, and then I will take photos and/or screen shots of your device while you are using different kind of social media platforms. Finally, you will be given a blank sheet of paper and a pen and will be asked to draw a sketch, draw a graph, write, or other way of expressing your ideas of the ideal use of social media that you believe will best support your learning goals. The interview will be audio recorded and I will collect the artifacts to support your interview responses. You will have an opportunity to review the transcripts after the interview to make any required changes before the researcher analyzes the data.

Confidentiality will be maintained regarding your responses. I will be the only person who will examine your responses. Your responses will be audio-tape recorded and later transcribed. I will also write down field notes regarding my informal observation as reflection during or after the interview. Your name will not be used in connection with any materials. Data will be saved in a password protected thumb drive and will be stored in a locked secure cabinet that is separated from any identifying information. Recordings, artifacts collected, notes and consent forms will be destroyed three years after the study is completed. Results of the study may include quotations from your responses.

You will be given a pseudonym to protect your identity. The interview is not different than a conversation regarding social media that you would expect in your daily university activities. There are no foreseen risks; however, you have the right to refuse to answer any question that I ask and to stop the conversation if you feel uncomfortable. At the end of this interview, you will be given a Starbucks \$10 gift card as an appreciation of your participation in this study.

Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and have no consequences on your university life.

Having read the above and having had an opportunity to ask any questions, please sign below if you would like to participate in this research. A copy of this form will be given to you to retain for future reference. If you have any concerns about your selection or treatment as a research participant, please contact Sherry May, IRB Administrator, Office of Sponsored Programs, 25 Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1910.

Participant's Signature: _____ Date: _____

Researcher's Signature: _____ Date: _____

APPENDIX F
SUMMARY OF DEVICES AND PLATFORMS
USED FOR SOCIAL MEDIA

Participants	Device	What Platforms	Where	Why	When
Iman	Cell phone, Laptop, iPad	YouTube, Twitter, Facebook	School, home	Portable, Connect	Daily
Sara	Cell phone, Laptop, iPad	YouTube, Twitter, Facebook Instagram, Pinterest	School, home	Connect, Easy to carry	Daily “I thought I don’t use SM much, but I became dependent on it”
Helen	Cell phone Laptop Desktop computer iPad/Tablet	YouTube, Twitter, Facebook	School, home, shopping, waiting areas	Portable, Connect	Daily
Lisa	Cell phone, Laptop	YouTube, Facebook, News Apps, Health Apps,	School, work, home	Connect, learn more	Daily
Belle	Cell phone, Laptop, iPad	YouTube, Twitter, Facebook, LinkedIn, Messenger,	School, home	Easy access, Investigate more	Daily A lot
Kalen	Cell phone, Laptop, Desktop	YouTube, Twitter, Facebook, Instagram, Snapshot, Skype	Everywhere	Easy to carry, To connect w/colleagues, Give different perspectives, Informal way to meet others. Learn more about my class-mates	When needed
Hamad	Cellphone, Laptop, iPad Desktop	YouTube, Facebook, LinkedIn, Google, Wikipedia	School, home	Connect, investigate	Daily