Walden University

College of Education and Human Sciences

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Linette Deneen Lewis

has been found to be complete and satisfactory in all respects,
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Walden University
2023

Abstract

Nontraditional Students' Perceptions of Using Google Docs in Traditional Settings

by

Linette Deneen Lewis

MPhil, Walden University, 2021

MEd, University of New Orleans, 1996

BS, Tennessee State University, 1986

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Educational Technology

Walden University

November 2023

Abstract

The problem this qualitative phenomenological study addressed was the lack of understanding of the experiences of adult learners and their perceptions of online tools and interactivity as they engaged in the use of Google Docs in a traditional entry-level writing course. The purpose of this study was to gain insight into adult learners' perceptions of online tools and interactivity as they engaged in the use of Google Docs in an entry-level writing course. Knowles's theory of andragogy and Puentedura's model of substitution, augmentation, modification, and redefinition (SAMR) provided the conceptual framework. Data were collected from semistructured interviews with nine adult learners from two small liberal arts colleges in metropolitan Atlanta. The research question focused on the classroom experiences of adult learners in Freshmen composition using Google Docs and how their experiences affected their writing process. Notes and interview transcriptions were coded using a priori codes from SAMR and andragogy. Themes that emerged included a collaborative experience, engagement with peers, productivity from collaboration, and writing motivation. Positive and negative experiences in the themes of collaborative experience and productivity from collaboration were reported. Findings may inform the development of evidence-based strategies to support education and training programs for faculty, writing programs, and staff to better meet the unique needs of the growing population of adult learners.

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Dedication

This degree is dedicated to my Heavenly Father who continues to remind me that all things work for the good of those who love the Lord.

And to my Mother and Father who began this journey with me, but are now looking down on me from their heavenly balcony, thank you for your love, encouragement, and support. Thank you for reminding me to persevere no matter how difficult the journey or what stumbling blocks come along the way.

To my loving husband who traveled with me through each hurdle in my journey with unconditional, unwavering support, thank you.

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Thank you to my committee chair, Dr. Michael Marrapodi, who has traveled this arduous and long journey with me. Thank you for your help in navigating my path. Thank you to Dr. Gladys Arome for your guidance and support. To other members of my committee for your input throughout completion of my study, thank you.

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Chapter 1: Introduction to the Study

Technological advances are integral parts of almost every facet of life. From medicine to science to education, these innovations open communication, create artificial intelligences, and bring possibilities to the world that previously did not exist. In the educational setting, technology is more integrated in Grades K through 12 and higher education (Bradley & Thouesny, 2017; Chawinga, 2017). Students are using technology across disciplines to write and collaborate using Google Docs to produce essays (Ebadi & Rahimi, 2019; Lawrence & Lee, 2017). As curriculum is rolled out in public K–12 educational settings, technology is integrated and aligned with state standards (Bazerman et al., 2017; Cartner & Hallas, 2020; Foulger et al., 2017). In higher education, institutions understand and value technology integration as part of the fabric needed to produce a population of graduates able to thrive and compete globally in the 21st century (Bazerman et al., 2017; Cartner & Hallas, 2020; Foulger et al., 2017). One such population is adult learners. Discovering how technology integration, specifically Google Docs, is perceived as adult learners use it in the classroom could lead to best practices among practitioners.

Despite the decline in overall higher education enrollment, adult learners are becoming a higher percentage of the student enrollment (Carlson-McCall et al., 2018). Many adult learners are placed in entry-level classes such as freshmen composition. As Erisman and Steele (2012) explained, many adult learners need foundational courses in math and writing to refresh their skills or teach them new ones. Several studies have been conducted on first-year college student engagement in writing and the writing process in

freshmen composition (Ferris & Eckstein, 2020; Hembrough & Jordan, 2020; Walker & Whitver, 2020; Woody, 2020). Other studies have been conducted on first-year students' engagement in writing and technology in freshmen composition (Chiang, 2020; Hembrough, 2019; Hembrough & Jordan, 2020). The current study was needed to explore adult learners' engagement in writing and technology in freshmen composition. Providing teachers who teach entry-level college writing courses with tools to better prepare them to work with adult learners using Google Docs could lead to better outcomes for adult learners.

Chapter 1 is organized to present the scope of the study and the research problem. Each section provides information relevant to the background and context of the study to address the research question. The chapter concludes with a section on the significance of the study and its impact on social change.

Background

The introduction of wikis, blogs, Web 2.0 technology, and Google Docs to adult learners is more available in higher education compared to a decade ago (Alwahoub et al., 2020; Anusha & Rani 2021; Medic & Sun, 2021). Proponents of technology integration contend that tools such as Google Docs give students a greater feeling of collaboration and lead to better product quality in grammar and lexicon when producing documents (Alkhateeb, 2020). Writing facilitated by the use of Google Docs helped to sustain students' fluency, accuracy, and complexity of written texts (Azodi et al., 2020). Because social interaction plays a meaningful role in how students perceive collaboration, Hosseini et al. (2020) used wiki technology to increase competence in an English as a

foreign language writing class. They found wiki-based collaborative writing programs beneficial to enhancing learners' writing skills. Other proponents of these technologies found students developed psychological ownership through collaborating and editing (Blau et al., 2020).

Although the previous research did not indicate that Google Docs impacted students' essay grades, the research demonstrated that the collaborative nature of Google Docs influenced learning (Tran & Lamar, 2020). What remains to be explored is the perception of how much Google Docs impacted their learning. Furthermore, what is not understood is students' perceptions of Google Docs as they use technology in entry-level English classes in higher education. In the next 5 years, colleges and universities are slated to see a 35% increase among adult learners (Hussar & Bailey, 2018). These projections indicate an uptick in adult learners' enrollment that began in 2015 and will continue to 2026. As projections for adult populations increase and enrollment among traditional students remains steady or decreases, studies to improve teaching and learning in first-year writing classes need to continue. More research is needed to better understand the writing needs of adult learners' firsthand experiences. Accurate knowledge of adult learners' issues can enable instructors across disciplines to facilitate teaching and learning in the classroom and writing services (Azmi & Anggrainy, 2020; Muduli et al., 2018)

Problem Statement

A large body of research exists on postsecondary entry-level writing courses. King (2020) examined students' reading journals and linked the connection to writing as

crucial for stimulating ideas for discussion and thinking. Cequeña (2020) explored how students' positive self-perception of reading enhanced writing performance, arguing that educators should practice pedagogical strategies that develop positive attitudes toward reading to generate ideas in web-mediated and traditional composing environments. Chen (2021) investigated how writing print essays and producing multimodal products on the same topic helped students better understand their words and prepared them for what they will face as writers in the digital age. Each of these studies indicated that there is a great deal of research as first-year students engage in writing and the writing process in freshmen composition.

The recent research revealed a sublevel of writing activity using digital tools that impact first-year students' skills. Tools identified in the group included wikis, blogs, social networking, Facebook, Twitter, and other Web 2.0 tools. Rahimi and Fathi (2021) argued that wiki-based collaborative writing improved writing performance, writing self-regulation, and writing self-efficacy. Kunka (2020) contended Twitter facilitated teaching and learning and raised student-to-student engagement as well as student-to-instructor engagement in the freshman classroom. Klimova and Pikhart (2019) argued that using Facebook to teach English writing and grammar to first-year college students is an effective strategy to enhance motivation and shape and organize writing skills among English as a foreign language (EFL) learners.

Although much research on writing and interactivity can be found on traditional learners, there was little evidence on the impact of interactivity on the writing process of nontraditional learners. The number of adult learners returning to complete their

education rivals and will soon surpass traditional learners as a percentage of the postsecondary population (Hussar & Bailey, 2018). According to the National Center for Education Statistics (NCES, 2015 as cited in Hussar & Bailey, 2018), between 2011 and 2015, 35% of students enrolled were adult learners. The most recent data from NCES showed that the number of students enrolled in degree-granting institutions age 25 and over was 5% higher between fall 2007 and fall 2018 (Hussar & Bailey, 2019).

With the growing number of students enrolled in college and taking entry-level writing classes (Wallenstein, 2020), gaining insight into adult learners' perceptions in a freshman entry-level writing course is significant for higher education. Many factors determine the effectiveness of writing instruction in higher education, yet there is a lack of information pertaining to adult learners' perceptions as they engage in the writing process. As the number of adult learners' increases in college and universities, instructors will need to determine how educational technologies will prepare these students to meet learning outcomes in writing courses. Understanding the perceptions of adult learners' use of Google Docs may contribute to the body of knowledge needed to address the problem and may provide instructors with adult learners' experiences to determine how educational technologies will prepare these students to meet learning outcomes in writing courses.

The problem examined in the current phenomenological qualitative study was the lack of understanding of adult learners' experiences and perceptions of online tools and interactivity as they engaged in the use of Google Docs in a traditional entry-level writing course. Understanding the perceptions of adult students as they use Google Docs in an

entry-level college writing course may help identify potential ways to use technology effectively and efficiently. Findings may also be used to prepare teachers for integrating Google Docs in entry-level college writing courses for adult learners.

Purpose of the Study

The purpose of this phenomenological study was to gain insight into the lived experiences of adult learners and their perceptions of online tools and interactivity as they engaged in the use of Google Docs in an entry-level college writing course. The aim of the study was to increase the understanding of adult students' perceptions of the use of Google Docs to support student interaction and expository writing in genres such as essays, narration, description, comparison/contrast, and cause/effect. Studying students' perceptions may provide useful insights with the potential to enhance the writing process in entry-level courses for adult learners in a classroom setting.

Research Question

The research question that guided this study was the following: What are the lived experiences of adult learners' and their perceptions of online tools and interactivity as they engaged in the use of Google Docs in a college entry-level writing course?

Conceptual Framework

The frameworks that guided this study were the substitution, augmentation, modification, redefinition (SAMR) model by Puentedura (2006) and Knowles's (1975) adult learning theory of andragogy. The SAMR model has been used throughout school districts and institutions in higher education (Blundell et al., 2022). SAMR is a four-step, taxonomy-based framework that identifies how instructors can enhance and transform

teaching and learning for their students by integrating technology (Blundell et al., 2022).

SAMR includes four levels/tiers of technology integration. At each level, technology

serves a different function because each level demonstrates a higher level or benchmark

for student outcomes. SAMR levels of integrating technology connect with Knowles's

ideas on the ways adult learners learn. Each level in SAMR correlates with the

assumptions of adult learners to create learning activities (T. Mason, 2021).

Studies situating andragogy with technology tiers of integration date back to

2010. Fidishun (2012) pointed out that technology integration guided by Knowles's

assumptions fosters the learner's self-concept, the learner's need to know, and the role of

the learner's experience. In the first level of SAMR, technology is used to substitute other

tools used in instruction that could be accomplished without technology (Puentedura,

2006). Using technology does not change the function of instruction. At the augmentation

level, technology is integrated to improve a task but serves the same function or purpose

(Puentedura, 2006). At the modification level, technology is used to redesign a task

completely (Puentedura, 2006). At the redefinition level, technology integration creates

new learning experiences (Puentedura, 2006). Technology integration at these levels may

complement Knowles's identification of differences in the way learning occurs among

adults.

In 1980, Knowles made four assumptions about adult learners. Self-concept of

adult learners moves from dependency to becoming more self-directed. Experiences of

adult learners increase, which become the resource they draw upon for learning. Adult

learners' readiness to learn must be oriented to their roles, socially and professionally.

For adult learners, applying immediate knowledge is the focus, so they shift from being subject centered to problem centered (Knowles, 1980). In 1984, Knowles added the fifth assumption: Adult learners are motivated internally to learn.

These assumptions must be factored into the effect technology-based interactivity has on the experience of adult learners. As the growing body of adult learners transitioning into college taking entry-level writing courses increases, SAMR combined with andragogy provided a dual lens to understand adult learners' perceptions of their lived experiences using technology-based interactivity.

Nature of the Study

The nature of this study was qualitative and phenomenological. The phenomenological qualitative design was best suited to describe how adult learners perceive classroom experiences of Google Docs in a college writing course. A common denominator among theorists of phenomenology (Heidegger, 1927/1962; Husserl & Gibson, 1983; Merleau-Ponty, 1945; Moustakas, 1994; Sartre, 1939/1948) is that phenomenology allows researchers to portray a holistic, in-depth picture of participants as they experience the phenomenon under investigation by being as descriptive as possible. In the current study, phenomenology was selected because I sought to discover shared lived experiences of one quality or phenomenon in participants. From this process, I hoped to arrive at a detailed description that may inform the freshmen year experience.

Other qualitative research designs considered were grounded theory and case study. The aim of grounded theory is to move beyond description and to generate a theory that is grounded in the data from the participants who have experienced the

process of the study (Creswell & Poth, 2016). Because the primary focus of the current study was to investigate human experience and perception rather than to explain or theorize about the experience or perception, grounded theory was excluded. A case study approach was not chosen because it was not appropriate to address the research problem. The intent of a case study is to explore a bounded system (a case) or multiple bounded systems (cases) over time.

According to Creswell and Poth (2016), the case study requires detailed, in-depth data collection involving multiple sources of information. Some of the sources may include observations, interviews, documents, and reports. The in-depth focus on an individual, event, or group requires additional contact with participants using multiple data sources for evidence, which was restricted due to COVID-19. For these reasons, the case study design was rejected. In addition, an exploratory mixed-methods research design was considered. Creswell (2013) noted that an exploratory mixed-methods approach begins qualitatively and is best suited for exploring a phenomenon to gain a deeper, quantifiable understanding of participants' firsthand experiences.

However, Creswell (2013) noted that using a mixed-methods exploratory design is best suited when the researcher wants to generalize results to different groups or measure the prevalence of the phenomenon. Because the aim of my study was to explore the lived experiences of one group (adult learners), the mixed-methods approach would not have satisfied the purpose of the study. To address the research question, a phenomenological design was chosen to explore the lived experiences of adult learners interacting while using Google Docs in an entry-level college writing course.

Definitions

Terms may have connotative and denotative meanings. To clarify the terms used in this study, the following definitions are provided:

Adult learner: A student who is 25 years or older returning to college after a period of absence (Bloomberg, 2021).

Entry-level writing course: The foundational course of freshmen composition in a sequence of two courses in which students produce well-organized essays following the conventions of standard English (University System of Georgia, 2020).

Freshman year experience/ Freshman experience: A combination of academic and cocurricular efforts within and across postsecondary institutions during students' first year of college (National Resource Center, 2014).

Google Docs: A free online word processing program offered by Google. Google Docs allows users to create documents, edit them, share them with other users, and collaborate. Users can access a document created in Google Docs from any computer with an internet connection (GCF Global, n.d.).

Nontraditional student: The term that refers to students 25 years of age or older who delayed enrolling in postsecondary education after they finished high school and who are financially independent, attend college part-time, work full-time, have dependents, are single parents, and do not have a high school diploma (Bloomberg, 2021). According to NCES (2012), any student age 25 or older who meets at least one of these criteria is categorized as a nontraditional student. In the current study, the terms "adult learners" and "nontraditional students" were used interchangeably.

Technology integration: The way technology is used in the classroom to promote teaching and learning processes (Ertmer et al., 2012). For the current study, technology integration referred to the way Google Docs is integrated into the lessons to gain insight into students' perceptions of the technology for educational gains.

Assumptions

According to Patton (2002), a key assumption of a qualitative study is that the world consists of patterns that are known and can be explained. Many assumptions in the current qualitative study related to the participants. One assumption was that the participants would respond to questions with honesty and candor. I also assumed that because participants agreed to participate in the study on a volunteer basis, they would be sincere in participating rather than participating for other motives or extrinsic rewards. Another assumption was that participants would accurately remember and honestly report their lived experiences using Google Docs. Based on inclusion criteria, I also assumed that participants would have similar experiences.

Scope and Delimitations

The scope of a study refers to what is to be explored (Simon & Goes, 2013). Delimitations in a study narrow the scope by focusing on elements such as participants, variables, sites, etc. Delimitations of a study also relate to the boundaries or rules established of the researcher (Simon & Goes, 2013). The purpose of the current study was to gather in-depth information regarding adult learners' lived experiences in a college freshman English course as they used Google Docs. The delimitations of this study were the criteria for participant selection. To answer the research question, I

delimited the study to students taking entry-level college writing courses within 100

miles of metropolitan Atlanta. Entry-level college writing courses that did not have adult

learners enrolled in their classrooms were excluded from the study. The study included

Knowles's andragogy and SAMR as the conceptual framework.

<div align="center">**Limitations**</div>

Although rich, in-depth descriptions were gained from this qualitative study, there

were limitations to the research design. Because of the limited number of participants in

the study, the results cannot be generalized to a larger population. All participants were

from the metropolitan Atlanta area; therefore, results may not be transferable to other

students in entry-level college writing courses in suburban and rural areas outside of

Atlanta or in other parts of Georgia. Also, results may not be reflective of other students

in entry-level college writing courses on other undergraduate college campuses in other

states or countries. The findings may not be transferable to students in other disciplines as

well as students in upper-level college English courses. Another limitation of this

research was that it relied on self-reporting. Adult learners may not have been honest,

may have been influenced intentionally or unintentionally by other participants, or may

not have accurately remembered their lived experiences.

The type of classroom activity assigned using Google Docs may also present

limitations. Through lack of focus on a specific aspect of Google Docs for the current

study, results may reveal a wide range of information rather than insight. A bias that

could have influenced the study's outcomes was my undergraduate teaching experience

because it involves adult learners. Another potential bias was my experience working as

an instructor of English as a second language (ESL) where instructors are required to integrate technology to beginner students using the word processing platform Microsoft Office or Google Docs. To reduce or eliminate these biases, I identified my previous experiences with adult learners. Using bracketing, I separated previously held judgments and saw things through the lens of what was being studied.

Significance of the Study

This study may be significant because it addressed the under researched area of adult learners, a group whose population is anticipated to significantly increase (Hussar & Bailey, 2018). The study has the potential to advance the integration of educational technology and change the instructional practices of teachers as they attempt to use strategies that increase interactivity and reflective practices for students. Reflecting on the perceptions of adult learners' interactions, writing, knowledge, and rhetorical choices, this research has the potential to identify evidence-based strategies to support interaction and the educational technology-based enhancement of the writing process for adult learners. The findings from this research have the potential to inform instruction and use of educational technology tools to improve the teaching of writing in the first-year experience. Freshmen entry-level writing courses are often fraught with angst for adult learners (Hembrough & Jordan, 2020; Karmelita, 2018). Technology can improve or exacerbate the first-year experience for adult learners. The current study was designed to gain insight into the lived experiences of adult learners and their perceptions of online tools and interactivity as they engage in the use of Google Docs in an entry-level writing course. Findings may help to improve the instructional practices of writing teachers.

Findings may not only impact the landscape of current institutions but may also have an impact beyond the writing program because the growing population of adult learners will soon surpass traditional populations. Findings from my study may identify best practices and processes for integrating technology to promote the development of adult learners. Acquiring technological skills may positively influence adult learners' dignity and self-worth in school, the workplace, and society.

Adult learners in higher education may have access to a range of educational tools best suited for their needs. The study may have an impact in other disciplines where first-year adult learners are enrolled. The results of the study may be applied to any subject offered in brick-and-mortar, online, and blended environments and broaden pedagogical offerings. The findings may promote the academic development and progress of adult learners in higher education.

Summary

Technology in higher education is a central part of teaching and learning. The population of adult learners continues to increase, and integration of technology will be important for this growing population (Sharp, 2018). This means that practitioners in higher education will face a new demand: finding the best teaching practices and integration techniques to support adult learners in entry-level English courses. Research has focused on technology integration with Web 2.0 technologies that include Google Docs in K–12 (Ebadi & Rahimi, 2019). Another body of research has focused on technology integration with Web 2.0 technologies that include Google Docs in higher education (Cho, 2021; Kumar et al., 2020; Tran & Lamar, 2020), but not as much has

been done in higher education with adult learners (Alwahoub et al., 2020; Anusha & Rani, 2021; Medic & Sun, 2021). Information gained from the current study may contribute to adult learners' understanding of integrating Google Docs in an entry-level writing course in higher education classroom settings.

In Chapter 2, I describe the search strategy used to obtain the literature that provided support for this study. In addition, I discuss how these studies justified the need for the current study. Finally, I discuss the conceptual framework and provide the literature review followed by a summary.

Chapter 2: Literature Review

Integrating technology into classrooms from K–12 to higher education is important in the 21st century. There is a large body of research on postsecondary entry-level writing using technology with traditional learners (Alam & McLoughlin, 2018; Ali et al., 2020; Anusha & Rani, 2021; Jena et al., 2020; Medic & Sun, 2021; Slotta & Qin, 2020). There was little evidence of similar research on the impact of using technology in the entry-level writing courses of adult learners.

The number of adult learners returning to college to complete their education will soon surpass traditional" learners as a percentage of the postsecondary population (Bergman, 2020; Grawe, 2018). Statistics from the NCES (2018) showed increased enrollment among adult learners from 8.5 million in 2019 to 9.3 million by 2024. As this flood of adult learners reenters the academic arena, teachers of writing must address the unique characteristics of adult learners by honing their teaching skills to facilitate learning that captures the students' real-life experiences. These increases in enrollment among adult learners will impact student populations in higher education as well as classrooms (Carlson-McCall et al., 2018). Adult learners' unique experiences must be met at the classroom level. If not met, both instructor success as well as student success will deteriorate (Carlson-McCall et al., 2018). As enrollment increases, the growing number of students taking entry-level writing classes will also increase. This increase may challenge writing teachers' ability to facilitate learning that captures the students' real-life experiences. The purpose of this phenomenological study was to gain insight into the lived experiences of adult learners and their perceptions of online tools and

interactivity as they engaged in the use of Google Docs in an entry-level college writing course.

Major sections of this chapter include a report of the literature search strategy. I also highlight and synthesize the literature published on the topics of adult learners, andragogy, the use of Google Docs in higher education, social media use in education and aspects of social media, writing education in K–12 classrooms, and entry-level writing courses. I also discuss barriers to technology integration revealed through students' lived experience while using the technology. Furthermore, opposing views about technology and solutions to technology integration are presented followed by a summary. Conclusions based on perceptions described and the research gap addressed will close the chapter.

Literature Search Strategy

The reviewed literature was collected using the Walden University Library databases and began with limiting databases to peer-reviewed articles while using keywords related to the subjects of education, educational technology, interactivity, Google Docs, and digital tools. The literature search was designed to identify research related to teaching writing in entry-level courses in higher education that explored the perceptions of writing with educational technology. The literature search began by looking for academic journals in the Center for Research Quality in Scholar Works. All sources were compiled using journals published after 2017. Some research conducted prior to 2017 was used to establish historical content. Review of literature for Google (the web-based docs and spreadsheet launched late in 2006) was searched first from 2010 to

the present. The following keywords were used to search the Academic Search Complete Premiere, Education Research Complete, ERIC-Educational Resource Information Center (ERIC), ProQuest Central, SAGE Premier, and ScholarWorks databases: *adult learners*, *digital tools*, *first-year writing programs*, *composition 101*, *collaborative writing*, *cloud-based computing*, *andragogy*, *entry-level writing course*, *SAMR model*, *wiki-based writing in higher education*, *blogs for writing in higher education*, *online writing suites for higher education*, *perceptions of digital-based writing programs for students in higher education*, and *learning communities*.

Conceptual Framework

According to Miles and Huberman (1984), a conceptual framework identifies key constructs or key factors and presumes the relationship between them. The conceptual framework designed to guide the current study included the SAMR model by Puentedura (2006) and Knowles's (1980) adult learning theory of andragogy. In combination with andragogy, the SAMR model provided a framework that could be used to classify and evaluate adult learners' experiences with Google Docs in an entry-level classroom. These two concepts helped me provide a comprehensive answer to the research question.

Social Media Use in Education

Web 2.0 tools and other technologies paved the way for students to study and collaborate online for academic purposes (Alam & McLoughlin, 2018; Ali et al., 2020; Anusha & Rani, 2021; Jena et al., 2020; Medic & Sun, 2021; Passig & Maidel-Kravetsky, 2016; Slotta & Qin, 2020). Passig and Maidel-Kravetsky (2016) explored indicators in students' writing using a control group and experimental group among 48

participants, six males and 42 females. Each group of 24 information and communications graduate students was assigned a chapter in a book to read collaboratively and write a collaborative summary. The experimental group read the chapter online and composed a summary using Google Docs. The control group read the chapter and wrote a summary in a face-to-face setting. Passig and Maidel-Kravetsky found that students produced a significantly better quality in writing summaries when collaborating with the tool online than those writing summaries by hand and face-to-face.

Fithriani et al. (2019) reported that using Facebook in an EFL class to teach English to Indonesian students boosted student confidence and improved student engagement. The qualitative case study of 53 participants (13 males and 40 females) also revealed that using Facebook increased writing frequency among students. Fithriani et al. concluded that using Facebook enhanced the EFL learning process. Manca (2020) investigated four social media platforms (Pinterest, Snapchat, WhatsApp, and Instagram) as viable digital learning tools to enhance teaching and learning. Manca reviewed 46 empirical studies to illustrate how social media was used in higher education across disciplines. The analysis of the peer-reviewed papers revealed that social media platforms such as WhatsApp were used more for teaching and learning. Pinterest was used, and Instagram and Snapchat were used less often. The findings also revealed that only 17 studies (37%) showed evidence that teaching and learning were enriched through social media. Instagram was found to increase student expression and willingness to communicate long-term in class among otherwise reluctant students. The McGraw-Hill Higher Education President Brian Kibby contended that when students are focused, one

of the best methods to ensure that they are successful in class is to study effectively and
to use the right type of technology (Belardi, 2013).

There is a growing number of faculty using social media in the classroom as
reported in NMC Horizon Report: 2017 Higher Education Edition (Becker et al., 2017).
Data from Babson Survey Research Group and Pearson (Chmura, 2011) first revealed
this trend. A survey of over 2,000 teachers showed that more than 80% used social media
for teaching and learning, and about three quarters of faculty members used social media
as a teaching tool. Although the data did not reflect 2019 fiscal year use, it did indicate a
trend of increase in subsequent years, with a 33.8% increase from the previous year. The
trend seems to be continuing each year. Since the research group's first survey in 2010,
Babson Survey Research Group codirector Jeff Seaman noted that faculty members' use
of social media steadily increased (Moran et al., 2011; Rogers, 2013). Pinterest is being
used for art-based education, media, and film for curating images. Gikas and Grant
(2013) found that using smartphones, cellphones, and social media in classes in higher
education created opportunities for students to collaborate and engage in interaction.
Gikas and Grant conducted their study with students from three universities in the United
States. After conducting focus group interviews, Gikas and Grant found that when
students used Web 2.0 tools and mobile computing devices, they created better content,
promoted more engagement, and led to more opportunities to communicate.

Integrating technologies for the purposes of teaching and learning is pervasive in
higher education. Rogers (2013) showed that since 2010, faculty members increased their
use of social media. Social networking components such as Facebook and Twitter, wikis,

and blogs demonstrate students' ubiquitous reliance, professionally and socially, on technology. According to Greenwood et al. (2016), Pew Research Center Project reported that by November 2016, 7 out of 10 adults in the United States used social media. This number represented a 58% increase from the previous decade, when adult users accounted for only 11% of social media users. Of U.S. adults using a least one social media site, 73% were college students. A breakdown of social media use among college students revealed 77% Facebook, 35% Instagram, 31% Pinterest, 25% LinkedIn, and 24% Twitter (Greenwood et al., 2016). Saw et al. (2013) found that international and domestic students used social media for social and professional activities. The qualitative study included an online survey administered to 575 international and domestic students at Bond University. Saw et al. found that the most preferred form of social media use was Facebook. Students used Facebook for gathering information, sharing information, and doing group work. The findings also revealed that although most international and domestic students chose Facebook, other sites that needed to be considered were Twitter and YouTube.

Other studies on technology integration revealed use in higher education with less frequency despite the many potential advantages of incorporating social media. Keenan et al. (2018) discovered that although the amount of use by teachers and students for nonformal education in higher education exists, there was a large disparity between the extent of positive perceptions of social media and the amount of practical use. A questionnaire was administered to United Kingdom medical educators at a regional and internal conference attended by higher education institutions. The study consisted of 130

staff members at Newcastle University (100 took the questionnaire at the conference, and 30 took the questionnaire on campus); 200 from Northumbria, Teeside, Sunderland Universities; and two from Brighton and Sussex Medical School. The research findings also indicated that U.K. medical educators found social media educationally valuable, but that the perception did not translate to use due to varying barriers.

Similarly, a study among Italian university faculty indicated social media integration was limited and restricted. Manca and Ranieri's (2016) survey of 6,139 faculty indicated that teachers were reluctant to incorporate social media as teaching tools due to concerns over privacy and institutional constraints. Pedagogical issues and cultural resistance were other reasons cited. Concerns of lack of student professionalism was an overarching barrier to social media use. The survey also revealed that instructors' concerns over social media use included lack of time for teachers to learn to use social media effectively, social media being a distraction, and the potential for social media to alter the student–teacher dynamic.

Lin et al. (2016) questioned whether the informal nature of social media tools such as Twitter complemented structured educational settings. Their qualitative case study revealed that despite recommendations, fewer faculty used Twitter in undergraduate and graduate students' courses. The study, conducted in three classes, revealed that when Twitter was used for teaching and learning, student perception changed throughout the semester. Through self-reporting, students revealed they tweeted fewer times and the content of their tweets showed less interest as the semester

progressed. The study also revealed that students enjoyed receiving tweets rather than replying to tweets.

What makes this phenomenon interesting is these tools designed to increase personal user activity by connecting and collaborating with family and friends are being leveraged to increase educational user activity. Klimova and Pikhart (2019) found that delivering content using social media networks such as Facebook served dual purposes. It provided content to students that is engaging while also meeting learning objectives in a manner consistent with how students want to learn. Jensen's (2016) mixed-method study explained that although there are challenges inherent in using social media in public education, "some educators are using social networks to harness this fervent atmosphere" because Web 2.0 has evolved into a "dialogic, creative, and curatorial" (p. 18) space, and social networks are perfectly situated for classroom discussions where students can share their ideas, content, post comments, and repost. The study profiled the experience of four educators who used Pinterest and their perceptions regarding implementing Pinterest in online and blended environments. These sentiments, echoed by Jena et al. (2020) and Kunka (2020), explain why educators are using social networking for student-to-student interactions and teacher-to-student interactions. Implementing these technologies for learning activities capitalizes on what college students already distinguish as necessities (Greenwood et al., 2016).

Social Aspects of Google Docs

Google Docs is a cloud computing model that enables users to collaborate on word processing documents in real time (Mohammed & AL-Jaberi, 2021). Google Docs

Editors suite, like Microsoft suites, includes a wide array of products to create

documents, spreadsheets, and presentations. When using Google Docs, participants can

create a document, share it, and collaborate on the document online. Sharing documents

in Google Docs eliminates the need to create a document, send it as an attachment, and

wait for others to view it, share their ideas, and send the document back. This method

creates multiple revisions that must be merged into one document. With Google Docs,

users can work on the same document at the same time (Mohammed & AL-Jaberi, 2021).

Users can see the changes to a shared document as edits are being made. Users can also

add comments to the document and reply to comments in documents. Google Docs

allows users to chat as they collaborate. Users can share their documents-with many

users, make them public, or make them private (Mohammed & AL-Jaberi, 2021). By its

nature, Google Docs is social.

Google Docs is one technology capable of facilitating teaching and learning by

increasing student engagement, collaboration, and assessment (Google for Education,

2021). Google Docs provides collaborative learning activities that begin in the classroom

but may extend beyond the classroom. Learners from different classes, sections, even

disciplines can collaborate with Google Docs. This creates a social and academic learning

experience (Google for Education, 2021). The collaborative nature and extension of

Google Docs can develop into learning communities (LCs). The growing body of

literature suggested that LCs provide opportunities to have more meaningful college

experiences. Students' sense of community is beneficial to the learning process

(Moumoutzis et al., 2021; West & Williams, 2017). Moumoutzis et al. (2021) noted that

students' sense of community through LCs provides positive learning outcomes and an overall satisfaction with the learning experience. Moumoutzis et al. argued that crucial components of an effective LC integrate the learning content, social interactions, and technology. As such, LCs may influence how learners socialize. The platform for Google Docs supports an environment for students to develop lifelong computing skills, social skills, and teamwork, which are integral components to contributing and competing in the global economy (Alwahoub et al., 2020; Cho, 2021). These skills are necessary for 21st century learners. Iftakhar (2016) noted that Google Classroom, which provides access to Google Docs, Google Forms, and Google Drive exclusively, provide other life skills essential for teaching 21st century students. Iftakhar stated that "Google Classroom has the potential to streamline communication and workflow for students by providing a single access point to discussion threads and assigned work" (p. 12), which was also suggested in a study by Mohammed and Jaberi (2021).

Another level of research on writing activity using digital tools that impact first-year students' skills identified wikis, blogs, social networking, Facebook, Twitter, Google Classroom, and other digital and Web 2.0 tools. Hazari et al.'s (2009) exploratory qualitative study of 70 participants (45 females and 25 males) suggested wiki-based writing programs may enhance student confidence when using new technology because it promoted collaboration and negotiation. Using a factor analysis, researchers found some pedagogical value in using Wiki technology, but noted that indicators of usefulness pointed to differences between genders. Value that resulted in a sense of a learning community among its participants was revealed in Abdelmalak's (2015) study. The 25

students enrolled in an online master's program at a medium-sized university in the southwest revealed that using tools like Twitter, wikis, blogs, and Google Docs, increased collaboration and engagement and made completion of projects easier. The participants in the research action study ranged from age 23 to 40 years. They consisted of Mexican-American, African-American, and Caucasian students, 75% of whom were first-time online students. Zaky's (2021) quantitative study of 149 students in an undergraduate Composition class found a statistically significant relationship between students' perceptions of using Google Docs and the types of feedback they preferred. In both face-to-face and virtual classes, the study investigated the impact Google Docs had on students' learning style and found a high correlation between student's desire to interact after writing in class and using Google Docs as a collaborative writing tool. While the study found students' perception of using Google Docs useful in feedback like enhancing ideas in grammar, vocabulary and mechanics, there was no statistically significant linear relationship. Zaky also found no statistically significant perception between males and females or among different age groups when using Google Docs for peer assessment.

Chawinga's (2017) mixed-method study of students in library and information science classes consisted of student Twitter and blog accounts, and a questionnaire. Participants were divided into three groups for weekly blog and tweet assignments. Questionnaires distributed to the population of 28 males and 36 females, which included open-ended questions on the benefits and challenges of Twitter, revealed the learner-centered approach facilitated by the use of Twitter and blogs raised student-to-student engagement as well as student-to-instructor engagement in the classroom. On the

contrary, Wu (2015) found no significant gains in EFL students' writing ability through the use of blogs compared to traditional collaborative writing. Wu noted that the anxiety of EFL students, with little to no writing experience, decreased while utilizing pen and paper collaboration. Rodliyah (2016) found that using dialogue e-journals through Facebook to teach English writing and grammar to first-year college-level students was an effective strategy to improve the skills and knowledge among students. The case study of 15 EFL students conducted over a four-month period revealed that students' writing in the areas of vocabulary and grammar improved. Furthermore, Rodliyah argued that improved writing was a direct result of the interaction of sharing. Lin et al. (2016) found utilizing Google Docs to draw concept maps in physics courses fostered students' ability to represent the concepts. While the study did not show significant gains in student achievement, when students used Google Docs to illustrate concepts, it enhanced students' attitude about science. Jeong's (2016) study of 20 Korean students enrolled in a first semester English class found integrating Google Docs in the EFL Writing classroom beneficial in helping students organize their work, exchanging feedback, and receiving instant feedback. Findings from the study, which consisted of samples of students' essays and a semi-structured focus group, revealed that 95% of students surveyed said their perception of the cloud-based online writing tool was overall favorable. These examples illustrate that there is a growing body of research in areas where first-year students engage in writing with digital tools in non-writing college courses and Freshmen Composition, while also demonstrating that a relevant problem in the current literature

exists. This study is designed to address a gap in the literature on the perceptions of Google Docs and adult learners in an entry-level college writing course.

Beyond wikis, blogs, social networking, Facebook, Twitter, and other Web 2.0 tools, there exists another level of research on what impacts the writing activity of first-year students. Moore et al. (2016) examined the choices first-year students made as they entered into the composing process, both traditionally and digitally. Through self-reporting, the authors found more students used cell phones, iPads, blogs, and wikis as technologies to enhance their learning while some still used pen and paper. Cook and Kirchoff (2017) argued that post-secondary instructors of writing use graphic novels to develop multimodal and digital literacy skills among its students. The authors revealed that digital graphic novels helped students become better analyzers when focusing on key elements of an essay such as audience, purpose, and tone. This keen insight after reading graphic or digital graphic novels lead to students creating their own multimedia texts or presentations by weaving together multiple modes of communication. The authors noted that this use of technology results in students composing dynamic, interactive texts.

The remaining sections of this chapter provide a detailed description of the strategies used for gathering current research on the theme and sub-themes applicable to this study. Following the explanation of the search strategy is an explanation of the conceptual framework that guides the study. In addition, how the framework has been applied in other educational settings is detailed.

Understanding SAMR

SAMR is designed to transform learning in the classroom by integrating a four-part framework that leverages technology by replacing and enhancing educational strategies and learning processes. Developed by Ruben R. Puentedura in 2006 as part of his work with the Maine Learning Technologies Initiative, the SAMR Model was conceptualized to encourage educators to significantly enhance the quality of education provided via technology in the state of Maine. The SAMR Model consists of the four classifications of technology use for learning activities. These classifications and their respective questions for implementation can be found in Figure 1. The classifications are:

- Substitution: The technology provides a substitute for other learning activities without functional change.

- Augmentation: The technology provides a substitute for other learning activities but with functional improvements

- Modification: The technology allows the learning activity to be redesigned.

- Redefinition: The technology allows for the creation of tasks that could not have been done without the use of the technology.

Figure 1

SAMR Model
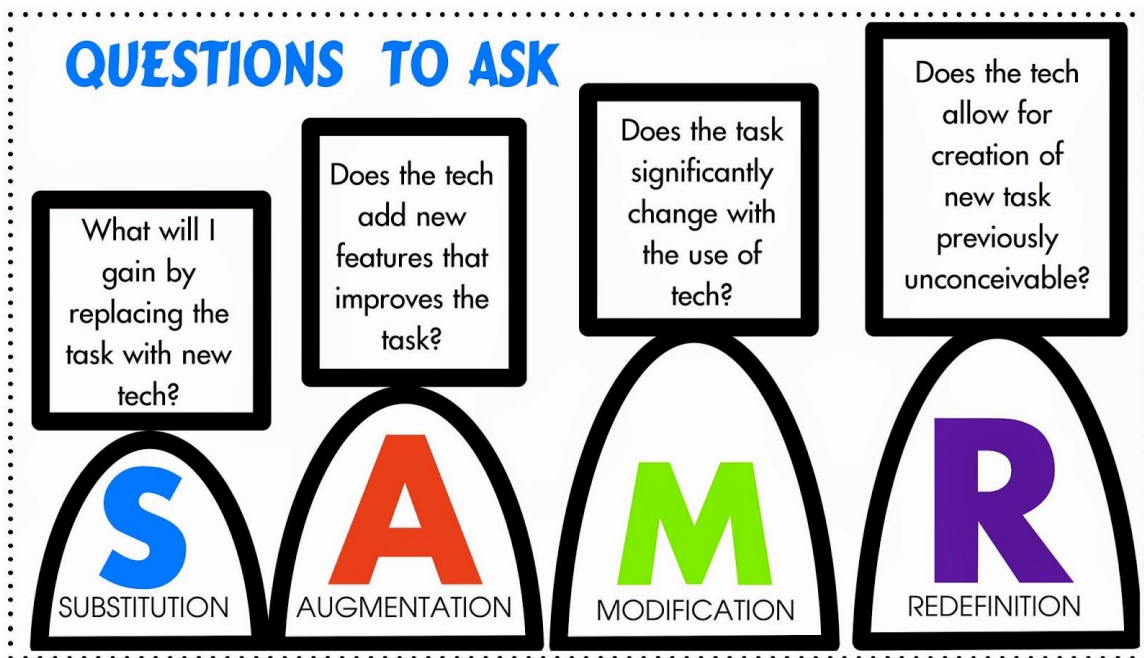
When designing activities in the classroom, SAMR also seamlessly aligns with Bloom's Taxonomy. To illustrate how activities can be designed in an entry-level classroom, in level one, Substitution, educators embed technology and it replaces the learning tasks (Puentedura, 2006). For example, students can take notes in an online word processing tool instead of taking notes on paper with a pen or pencil. In the Substitution Level, the technology is only used as a substitute for a direct tool, but the function of that tool remains the same (Puentedura, 2006). In level two, Augmentation, technology is used as a direct tool. In addition, the technology changes the functionality of the direct tool and provides improvements to the learning process (Puentedura, 2006). An example of Augmentation is to use the same technology used in Substitution, but for a different purpose. To illustrate, some of the functions like spell check and grammar check,

available in the online word processing tool, like Google Docs, can be used at this level.

Both Substitution and Augmentation align with the lower levels of Bloom's Taxonomy's:

remember, understand, and apply.

Level three Modification and Level four Redefinition of SAMR align with the

higher cognitive levels of the taxonomy of Bloom: create, evaluate, analyze. The end goal

is to get students to the deeper levels of tech integration. In Level three, Modification,

technology is used to redesign the learning task (Puentedura, 2006). An example of this

level in an entry-level writing course in higher education is students take an existing

document or text, such as the note-taking document, and adding images, sounds, or

graphics, etc. In level 4, Redefinition, technology enables learning activities to occur that

would not be possible without it (Puentedura, 2006). For example, students are able to

share their documents with other students in other sections of the same class, or in other

parts of the world, taking the same course, on the same subject, to collaborate and co-

construct knowledge. At the Redefinition level, learning is transformed beyond the walls,

and many activities that were previously impossible to hold in the classroom become

possible (Puentedura, 2006). Another example at the Redefinition level, is students are

allowed to publish their documents for public viewing, such as a blog or any audience

outside of the students and teacher. At this level, classroom activities connect with what

is learned in the classroom to authentic, real-world learning. Connecting learning

activities to real world tasks is integral to andragogy (Knowles,1980). I aligned my

interview questions to the framework.

Understanding Andragogy

Knowles' (1975) theoretical findings on andragogy are key to understanding adult education. Knowles identified the differences in the way learning occurs among adults. Knowles key statements inherent in the framework posit five assumptions about adult learners as they mature. In 1980, Knowles identified four assumptions about adult learners. The self-concept of adult learners moves from dependency to becoming more self-directed. The experiences of adult learners increase which become the resource they draw upon from learning. Adult learners' readiness to learn must be oriented to their roles, socially and professionally. For adult learners, applying immediate knowledge is the focus, so they shift from being subject centered to problem centered (1980). In 1984, Knowles added a fifth assumption. Adult learners are motivated internally to learn (Knowles, 1984). These are illustrated in Figure 2.

Figure 2

Andragogy Model

Andragogy: The Art and Science of Helping Adults Learn

Self-concept

Adults are self-directed. They:
- Are independent
- Like to find their own way
- Can make their own decisions
- Want to manage their own learning

Readiness

Adults want to learn things that are relevant in a real-to-life context. They:
- Are goal focused
- Want just-in-time learning
- See value in meaningful learning experiences
- Need a clear 'why' and 'what' for learning goals

Motivation

Adults are intrinsically motivated by various value-drivers (not simply more money!):
- Job satisfaction
- Self-esteem
- Quality of life
- Personal growth and development

Experience

Adults have breadth and depth of experiences to draw on and apply to new learning. They:
- Have diverse experience and knowledge
- May have ingrained ideas about things
- Use problem-solving, critical reflection and reasoning skills

Orientation

Adults are engaged by learning that is problem-centred and practical. They:
- Are practical – learning should apply to their lives or job
- Want to be involved in planning their learning
- Focus on aspects that are most useful to them

According to Knowles (1975), social roles that adults take on, and the tasks they are involved in, determine readiness. Knowles (1975) further expounded on these assumptions by suggesting principles that should be applied to adult learners. Knowles (1980) noted that adults need to be involved in their instruction. Knowles (1980) also suggested that learning activities based on the learners' experiences be applied. The core principles of andragogy, Knowles' defining theory on how adults learn, must be factored into the effect technology-based learning has on the experience of adult learners. As the growing body of adult learners transitioning into college and taking first year writing courses increases, insight into how to apply these principles may potentially impact teaching and learning. I used the framework to generate a start list to inform my coding.

Applications of Andragogy

The andragogical approach has been adopted in multiple disciplines such as English and language acquisition (Jeyaraj, 2017; Sharifi et al., 2017; Wang & Neimann, 2017), cognitive neuroscience (Pemberton & McCadden, 2019); management (Dachner & Polin, 2016), and nursing (Nguyen et al., 2016). Additional studies on andragogy in higher education have been applied in similar ways to the current study. They include Azmi and Anggrainy's (2020) applications of andragogy aimed at teaching English speaking skills to Islamic college students, McCaughley's (2016) application of andragogy to study the effectiveness of an adult literacy program situated within a four-year institution, Muresan and Gogu's (2014) approach to confronting the digital divide to facilitate elearning, and Imlach et al.'s (2017) idea of meeting the needs of older students by developing cognitively stimulating activities. Wang and Neimann (2017) utilized the andragogical approach as a tool to transition high school students into higher education.

Andragogical principles offer a variety of mediums for student engagement and collaboration, all of which promote teaching and learning. Sharifi et al. (2017) found e-portfolios, also called web portfolios, using andragogy moved learners toward vocabulary acquisition. The quantitative study included 90 Iranian students in two intact English classes (one control group and one experimental group). The experimental group kept e-portfolios whereas the control group did not. The study revealed that Iranian adult learners in the control group outperformed the control group on the posttest in learning vocabulary. Sharifi et al. found that developing e-portfolios provided learning in the context of real-life problems as learners created, analyzed, visually designed the web

portfolio, and selected a site. During the development, learners navigated the process and were driven innately. The findings also revealed that overall, the e-portfolio group were naturally motivated and engaged toward learning new ideas. In similar fashion, Dachner and Polin's (2016) systematic literature review study noted applying andragogical principals to emerging adults in undergraduate management courses can potentially bring adult learning to its highest point. They argued that emerging adults learn best when they identify what they are learning in school and how it relates to outside roles and responsibilities. Dachner and Polin contended that these components of emerging learners align with two remaining assumptions of adult learning, that is, learners have high levels of experience that drive them, and learners see the benefits of education beyond grades. Azmi and Anggrainy's (2020) qualitative descriptive research study of andragogical principles among teachers found that most adult language learners improved in their speaking skills in English, when teachers applied andragogical principles. Students preferred andragogy over pedagogy in Muduli et al.'s (2018) study of 387 postgraduate business students in India. The quantitative study consisting of a paired sample *t*-test of students across two universities in India: one private and one public or state and found learners' level of perception of andragogy as method of instruction significantly higher than pedagogy as a method of instruction in all categories: self-awareness, experience, motivation, and orientation to learning.

Conversely, Cohen and Billsberry (2014) found the application of andragogical principles in constructing rubrics for management courses in undergraduate education less useful. The authors literature review research method argued that because rubrics are

instructor driven, the negotiation inherent in the andragogical approach is taken out of the equation. Furthermore, the authors noted adult learners are instrumental in what is taught, how it is taught, and how it is assessed. They argued this is a primary obstacle inherent in rubrics, providing for an unnatural fit in the adult-learner paradigm They concluded that rubrics may be better suited in management education courses for traditional learners.

These views of andragogy juxtaposed with instructors' primary responsibility for curriculum planning is central to teaching and learning. Nguyen et al.'s (2016) study explored learners and instructor's views on andragogy-informed Arts-Based Learning (ABL) in a second-year nursing theory course. Nguyen et al. used ABL to develop learning skills and self-directed inquiry among students in a 24-week theory course in an undergraduate nursing program. The study consisted of 200 students across four classrooms. Students participated in drama scenes, applying theory to their approaches in caring for clients and families. The activities were designed to stimulate affective processes and active learning while also fostering creativity. The study also sought to develop critical thinking skills and emotional intelligence for students as they engaged in understanding the human experiences of their future patients. The authors used art as a medium and designed three activities for students through the learner-centered ideology of andragogy, divided into adherence, uncertainty, and empowerment. Students and instructors provided feedback through questionnaires.

The findings from student questionnaires revealed ABL enriched understanding of themselves (Nguyen et al., 2016). The authors revealed that most students reported that their learning was enhanced. Some reported they would prefer more guidance, and many

indicated a more didactic preference to instruction. Students reported they developed empathy as they considered their peers' perspectives. The researchers found empathy a key element for nurses to build rapport and relationships as they care for their clients. The researchers explained that Andragogy-informed ABL and assisted in developing empathy among nursing students. Questionnaires from instructors revealed that while learning was enhanced because it supported deep inquiry and different learning styles, it also illuminated the barriers they face using and mainstreaming the approach.

A sub-level of research focuses on the use of andragogical principles outside of the classroom environment. Fornaciari and Lund Dean's (2014) systematic literature review study situates andragogy beyond teaching and learning and focuses on applying andragogical principles to selecting course content to influence and transform syllabi in management education. Using the literature on andragogy as the framework, the authors argued that syllabi can be a viable tool for student-centered learning through collaboration and communication. They contend when adult learners collaborate in syllabi construction, student performance increases. Furthermore, they explained the andragogical assumption of readiness provides students with the tools necessary for syllabi collaboration. The authors acknowledged that while applying andragogical principles to syllabi collaboration allowed students into the process, there must be a balance so that students will not attempt to make course decisions that will benefit them.

Researchers have also explored andragogy through the lens of enrollment. Caruth (2014) found that the role of facilitator, as obstacle-laden, when grading and evaluating adult students. The researcher added that when assessing adult learners [it] "posed an

additional challenge for educators who attempt to practice andragogy by becoming more of a 'guide on the side rather than a 'sage on the stage' in the classroom" (Caruth, 2014, p. 31). Her findings, through a systematic literature review method, revealed that higher education is not effectively teaching adult learns, and institutions must learn how adults learn, in order to keep their doors open.

Although some published Google Docs studies in higher education are based on learner-focused themes such as collaboration, peer feedback—few use frameworks specific to adult learning. The findings from these studies on andragogy, and adult learners, demonstrate, particularly, that educational technology-based writing is embedded in adult learners' work and personal lives.

Applications of SAMR

Much research on integrating technology into the learning environment through tiers or levels as a method to facilitate teaching and learning is common in educational settings. According to the Horizon Report 2019 Higher Education Edition's Executive Summary, in higher education institutions globally, integrating technology to measure and drive learning is prevalent (Alexander et al., 2019). Pre-service teachers in teacher preparation programs for school districts and colleges are taught how to effectively integrate technology. Instructional designers turn to some of these same frameworks or models when developing curriculum in higher education. Common frameworks used in higher education for integrating technology into the classroom are TPACK, SAMR, and ADDIE. Authors and designers sometimes combine frameworks to provide multi-tiered support systems for technology integration.

The framework of SAMR has influenced several key writers. Bond and Dirkin (2020) investigated what frameworks generally guide instructional design practices in F2F and online educational setting in higher ed. Bond and Dirkin found that SAMR ranked seven of the 10 frameworks most identified amongst instructional designers. The survey was distributed to members of higher education in the areas of teaching and learning, e-learning, instructional design, and leadership roles across the United States. Organizations and institutions included were Arizona State University, Michigan State University, the Professional and Organizational Development (POD) Network, and the University Professional and Continuing Education Association (UPCEA). Among the 297 individuals who responded to the survey, 247 (67% female, 30% male) provided complete and useable questionnaires. The findings revealed that ADDIE and Backward design also known as Learning or Understanding by Design were used most frequently when designing instruction, 41% and 30% respectively.

It is important to note that the aim of the study was to ascertain which instructional design models were employed among those working in and leading instructional design teams. It is also important to note that instructional designers do not consider SAMR as an instructional design framework or model that is process-driven like ADDIE and Understanding by Design (Bond & Dirkin, 2020). Rather, SAMR supports the learning environment at the classroom level, and serves to determine the level or nature of learning for that particular lesson, classroom activity, etc., as opposed to accounting for the entirety of a course (Bond & Dirkin, 2020). In light of this, SAMR was still ranked among the top ten models used to guide course curriculum design.

As teachers train to teach in classrooms from K-12 to higher education, understanding how to effectively integrate technology to enhance learning and produce better student outcomes is paramount. To this end, Aldosemani (2019) explored how using the SAMR model to integrate technology helped prepare in-service teachers. Specifically, the case study was conducted to investigate what commonly used educational strategies could be substituted with Web 2.0 technologies and other digital tools. The study was part of the Smart Teacher 2030 Initiative.

The participants for the study included 33 preservice teachers enrolled in professional development training in the college of education at a Saudi University, represented a range of disciplines including social studies, English, math, and religion (Aldosemani, 2019). Using a survey research design, the study investigated teachers' perceptions of the effectiveness of the professional training program based on the first stage of SAMR model, substitution. All participants completed the 20-question survey with a 100% return rate. Items on the questionnaire were assessed on a 5-point Likert-type scale.

Findings from the survey revealed that 90% of participants rated their experience as positive and very high (Aldosemani, 2019). Similarly, 90% rated the adoption of SAMR model as a training framework as very effective in improving their knowledge of possible technological tools for teaching strategies. Other findings revealed that teachers strongly agreed that they were well prepared to use other applications discussed and Web 2.0 after training. In terms of if the training workshop improved their skills on how to use Web 2.0 applications, only 56% reported favorably. It is important to note that findings

from the survey research design, only investigated teachers' perceptions of the effectiveness of the professional training program based on the Substitution level on SAMR. Training on other levels of SAMR, Augmentation, Modification, and Redefinition, were not investigated as the other levels are slated for future workshops. As such, Aldosemani (2019) noted the current study will be extended for future studies.

Echoing Aldosemani's (2019) sentiments, Sardone (2019) added that teacher candidates must understand that integrating technology is a complex task and must be done so learning tasks are designed to engage students. Investigating the level of complexity preservice teachers were able to design learning activities using the SAMR model, Sardone's qualitative study included seventy-five preservice teachers who were enrolled in a required course as part of an Elementary Education Program. The prospective teachers, ages 20-35 (15 males, 60 females) were students at a small liberal arts college in metropolitan New York. The findings revealed that (73%) integrated technology at the Substitution and Augmentation stages, with far fewer, 27% designing learning activities with technology at the Modification and Redefinition stages. Participants used their own Apple or Android mobile device when designing lessons and activities. The lessons were analyzed through content analysis of the QR codes used when designing instructional lessons. Some lessons revealed pre-service teachers reached some complex level and inventive level of technology integration, creating richer learning experiences through technology. Other lessons failed to reach the targeted level of sophistication. Overall, the findings revealed that participants created lessons that enhanced the learning experience, rather than transform the learning experience.

At the classroom level, Castro (2018) examined how technology, specifically Google Forms quizzes, used as formative assessment, seamlessly aligned with the benchmarks in SAMR. Findings from the literature review study revealed that using Google Forms quizzes, teachers were able to create dynamic and original content that included all four (substitution, augmentation, modification, and redefinition) benchmarks when delivering formative assessment tasks. Castro noted that because technology is constantly evolving and changing, integrating technology into the classroom is fluid. Furthermore, Castro explained that the technological advancements and shifts impact how teachers will be able to meet SAMR benchmarks. More importantly, he noted "these improvements and enhancements have a direct impact on decision making by beginning and advanced technology educators and play a critical role when implementing SAMR" (Castro, 2018, p. 8).

Djiwandono (2020) explored what vocabulary learning strategies learners used while completing tasks and activities designed with SAMR in the classroom. The descriptive study involved first-semester students in an English class in a private Indonesian University. In the class, learners had to learn new words in a series of tasks within the SAMR model. The 39 participants taking the vocabulary class were assigned to complete tasks requiring them to use digital technology. At the end of each task, they were instructed to report which strategies they used for accomplishing the task. Then tasks were assessed, and scores were assigned on a scale of 1 to 3. A score of one was given for using digital technology to enhance learning, A score of two was added each time a learner reported using digital technology productively, such as to process

language. The second score was also given for the diversity of strategies a learner reported using. When a learner reported accomplishing tasks that resulted in utilizing a sequence of strategies, a score of three was awarded. According to Djiwandono, an example of a sequence of strategies could include reading a word list, using a mnemonic to memorize, and composing sentences using the new word. Using an analysis of Cohen Kappa with SPSS to find the reliability, Djiwandono found an adequate coefficient of interrater reliability of 0.813. Overall, the findings revealed that EFL learners increasingly used a diverse range of strategies using digital technology to accomplish their tasks using the SAMR model, and SAMR caused students to use digital technology to enhance their learning.

Nair and Chuan (2021) explored the SAMR model as a framework to integrate technology into an undergraduate Business Communications course at a private university in Malaysia. The eight-week quantitative case study of 60 students involved two groups, 30 in the control group who took part in traditional teaching and learning activities and 30 in the experimental group who took part in teaching learning activities designed with technology using SAMR. At the Substitution level, students wrote essays as Word documents and submitted them through Facebook, At the Augmentation level, students communicated through Facebook to gather information and brainstorm on the assigned/chosen topic (diversity in the workplace). For Modification, students were assigned to use the data gathered through Facebook to write a final draft. At the Redefinition level, students were required to record and upload an assignment for the public (an outside audience) to view.

Both groups took a pre-test on the topic before the experiment and a post-test after the experiment. The tests were compared to measure student performance on what they learned on the topic. The findings revealed that at the Substitution level, there was not much of a significance on both groups, but the findings at the Augmentation level and the Modification level showed positive results. The most significant results were found at the Redefinition level. The study showed that there was a significant difference in students' performance between the experimental and control groups at Redefinition. Conclusively, Nair and Chuan (2021) argued that in their study, integration of technology using SAMR as a pedagogical framework improved student performance in augmentation, modification, and redefinition with positive results, enhancing and improving student performance.

Studies using similar frameworks integrating technology through tiers or levels are prevalent in academia. Whether designed for K-12 or higher education, technology integration at any level is meant to enhance the student learning experience. As previously illustrated, integration models designed for K-12, are adapted as frameworks in higher education to achieve the same goal. Simply put, technology integration can be adapted to earlier or later educational settings. International Society for Technology in Education (ISTE) has provided foundation standards as a framework for integrating technology to facilitate teaching and learning for students in teacher-education programs. In addition, ISTE and the Common Core Standards provide a roadmap to assist teachers with interactivity among learners as they acquire the skills, knowledge, and content needed in the digital age (ISTE, 2016). These benefits demonstrate an

additional need, that is, the focus of learning and the adult learner. Using Knowles'
concept of andragogy, this study will integrate technology-based learning activities
guided by each level of SAMR to enhance learning using Google Docs in an entry-level
writing course. Knowles (1980) explained andragogy as "the art and science of helping
adults learn" (p. 54) through teaching strategies, which develop the skill of learning.
From this perspective, adult learners are self-directed learners (Knowles, 1990a). More
importantly, adult learners must understand why what they are learning is necessary and
learn best when what they are learning is related to how it will help them in real-life
situations (Knowles, 1990b) and need to feel intrinsically motivated to learn (Knowles,
1990a).

To conclude, SAMR's ability to infuse technology-based learning activities that
engage, create, and transform learning opportunities that previously were un-imaginable,
is of value for informing how to understand adult learners' perceived barriers using
Google Docs in the writing process. For adult learners, as their self-concept moves from
dependency to becoming more self-directed, applying immediate knowledge is the focus.
It is here also that Knowles' (1975, 1980) identification of the different ways learning
occurs among adults is of value for informing adult learners themselves how to best use
Google Docs in the workplace and school. The growing body of adult learners
transitioning into college taking entry-level writing courses is increasing. This conceptual
framework of the ways of receiving and processing information, provides a dual lens to
understand adult learners' perceptions of their classroom experiences, using technology-
based learning.

Adult Learners in Higher Education

National Adult Learner Population

The adult learner population in the United States continues to expand with the majority of institutions in 2019 having the highest population of adult learners enrolled at four-year institutions. Four-year private for-profit institutions recorded the majority of older full-time students. Fulltime undergraduates ages 25 to 34 at public institutions saw an increase of 7% while fulltime undergraduate students at private nonprofit institutions saw an increase of 8%. At two-year institutions in 2019, more students ages 25 to 34 were enrolled full-time in private institutions. Undergraduate students at private for - profit institutions ages 25 to 34 made up 38% of postsecondary students, the largest age group of students enrolled (McFarland et al., 2019).

The increase in adult learner enrollment in 2019 was a welcomed change as the nation saw a decline in enrollment at for-profit four-year institutions for adults over the age of 24 the previous fall 2016 and fall 2017, which according to Juszkiewicz (2020), was the highest period. He noted that enrollment subsided the following fall but increased between fall 2018 and fall 2019. According to Juszkiewicz, "the decrease in enrollment of this age group was more than double that for young adults, ages 18 to 24" (p. 6).

Nationwide adult learners enrolled reported satisfaction with their campus experience. According to Ruffalo, Noel, and Levitz (RNL), the 2017 National Student Satisfaction and Priorities Report of 72, 124 adult learners from 153 colleges and universities nationwide, revealed students were satisfied most in the areas of instructional effectiveness, academic advising, and campus climate. These areas of the campus

experience mattered most to adult learners, while the areas of service excellence, admissions and financial aid, safety and security, and academic services ranked as least important of the eight scales measured on the survey (RNL, 2017). Adult learners also revealed that the top three strengths of their campus experience were that faculty was knowledgeable in their field. Of those surveyed, 95% rated this as important of which 82% rated as satisfied. In the area of course content as valuable to their major, 94% ranked this as an important factor, while 75% were satisfied. The third strength identified by adult learners on their campus experience is that there was a commitment to academic excellence at their institution. While 95% ranked this as important, only 73% were satisfied. These findings demonstrate that there is a need for improvement for faculty to increase their knowledge, as well as for departments to revisit and revamp curricula, and institutions redefine their commitment to this population of learners (RNL, 2017).

While these were identified as the strengths adult learners rated most important and most satisfying, some challenges adult learners identified were in the quality of instruction in the program, tuition as a worthwhile investment, and faculty providing timely feedback about progress. Rated as the top three areas for improvement, 95% ranked the quality of instruction in the program as important, compared to 73% who ranked it as satisfied. Only 60% of adult learners were satisfied that the tuition they paid was a worthwhile investment, however, 92% ranked it as important. The third top-ranked challenge, faculty provides timely feedback about progress, 91% of adult learners ranked as important, yet only 66% reported being satisfied (RNL, 2017).

To better serve the needs of adult learners enrolled in higher education across the nation, colleges and universities are identifying potential gaps in their services and finding solutions through efforts like the Adult Learner Focused Inventory (ALFI) survey. Glancey (2018) used an ALFI survey to study the experiences of adult learners at institutions in Georgia, Louisiana, and California, which revealed that full-time working adults need better access to services. The institutions (Atlanta Metropolitan State College, Northwestern State University in Louisiana, and Shasta College in California) that participated in the study all found that access to many campus services were unavailable. Northwestern (NSU) and Shasta, in particular identified the financial aid office and the registrar's office as inaccessible services. Atlanta Metropolitan State College (AMSC) and Shasta also noted that better availability of offerings of required courses were needed to accommodate fulltime working adults' schedules. Other gaps identified in the survey by NSU and Shasta revealed the need to expand or make available Prior Learning Assessments (PLA). Furthermore, AMSC revealed that efforts to make information about the available support services were needed. Overwhelmingly the study revealed that adult learners need to have services more available at times that are most convenient to them. Also, AMSC acknowledged that better efforts for faculty engagement with adult students needed improvement.

Lanford's (2021) qualitative research design of classroom observations and semi-structured interviews also explored what primary challenges exist among adult learners while also looking for what forms of support would enable adult learners to be successful. The study also explored if the theory of andragogy is relevant for today's

adult learners, as well as adult learners' motivations for returning to college. The study of 43 adult learners at an urban community college in California was conducted over an eight-month period. The community college has a student population of about 35,000. Female students outnumber male students 3 to 2. The ethnic makeup of the total student population is 77% Hispanic, 15% Asian/Pacific Islander, 2% African American, 2%, Multi-Ethnic, and 2% White. Like Glancey (2018), Lanford's findings revealed that adult learners desire better engagement with their instructors as central to their learning and progress. Other findings revealed that adult learners are motivated to return to college not only for jobs but also by factors such as the need to feel respected by co-workers, family, and friends. Further findings revealed adult learners favor face-to-face over online classes because face-to-face courses are more engaging, enable them to create bonds, and enable them to engage in meaningful dialogue and meet new people. The findings revealed adult learners value these experiences.

Griffin's (2020) mixed-method study revealed that psychosocial techniques were useful in engaging nontraditional learners in higher education classrooms, enhancing learning, and resulted in positive student outcomes. The study of 250 nontraditional students from 17 years of age to 65 was conducted over a period of six semesters from spring 2015 to Fall 2017. The mean age was 26; however, age was not the only parameter for nontraditional student classification in the study. About 45% of participants had at least one child and or family responsibility to a younger sibling or elderly parent and worked at least part-time while attending college. Previous literature also used these characteristics to define nontraditional students. The majority of participants identified as

students of color, 95% self-reported as Black, Hispanic, Non-White, Caribbean, or native

African. The remaining 5% self-reported as White.

Griffin's (2020) theoretical framework integrated pedagogical and andragogical

principles, psychosocial techniques, and what the author coined as Cultural

Empowerment Teaching Andragogy (CETA). The study included students enrolled in

one of the behavioral science courses within City University of New York (CUNY)

system of which 44% of the student population is made up of nontraditional and first-

generation American students. The CUNY System includes 11 senior colleges, seven

community colleges and Macaulay Honors College as undergraduate institutions. CUNY

also includes five graduate and professional institutions.

Data was collected using archival reports of students' previous grades and

tracking of current grades and participation through Blackboard. Griffin's (2020) results

from *t*-tests and student narratives revealed positive affirmations, purposeful mentoring

and real-life examples from her own experience helped to engage students. Griffin

extended Lanford's (2021) work that adult learners' engagement with their instructors is

central to the learner's progress by adding that this engagement helps the learner progress

toward self-actualization. Griffin's findings further revealed that students felt empowered

in their academic journey, more confident, and had more self-esteem as a student and a

career professional. Academic findings revealed that students saw an increase in their

grades. Grades increased from the first exam to the second exam by more than 6 points

from an average of 65.22% to 71.998%, which was significant at p, .05; $t(249) = 99.7$, p

$= 000$. These increases indicate many students went from failing to passing within the

first semester. During the final grading period, the findings revealed that the difference in the range of grades from the initial assignment to the final grade to be significant $p < .05$; $t(249) = 170. p = .020$.

These statistics demonstrate the growing population of adult learners entering college across the nation, areas where they are satisfied, and areas where improvements can be made to better their college experience. To better serve current students as well as prospective students this data is crucial. It is important to understand this population as an integral subset of undergraduate students in higher education as universities create programs and departments implement teaching strategies for freshmen. As institutions create programs and departments implement teaching strategies and incorporate technology for nontraditional learners returning to college, many will be freshmen. Understanding the perceptions of nontraditional students as they engage with technology like Google Docs in an entry-level writing course, may inform these departments and programs.

Adult Learners in Georgia

Fifteen states saw an increase in postsecondary enrollment between fall 2018 and fall 2019, and Georgia was among them. (Juszkiewicz, 2020). The findings from Trends in Community College Enrollment and Completion Data reported Georgia saw a 1.5% increase, tying the state of Kentucky for fourth place. Utah, New Hampshire, and Arizona ranked first, second, and third place, respectively, with increases of 4.9%, 3.4%, and 1.8%, respectively. While the number of adult learners included in the enrollment increase is not known, what is known is that most community college students are

nontraditional learners. The average age of a community college student is 28 years old, and the median age is 24 (American Association of Community Colleges Fast Facts, 2021).

To increase enrollment among adult learners in Georgia's colleges, many institutions are creating and implementing strategic approaches. Oglethorpe University (OU), a private, traditional residential institution in Atlanta is targeting increasing diversity in the areas of economic, racial/ethnic, and age. As part of that initiative, OU is looking to increase enrollment in the transfer and adult programs by offering a more personalized approach with more flexibility. At present the school has only reached its minimum adult enrollment numbers, In the Fall of 2017 (the latest data), 9% of the school's undergraduate population was 25 years of age or older, up from the minimum target range of 3% the previous year. The school is targeting a goal of 10% (OU Enrollment, 2021). There are roughly1450 students currently enrolled. Oglethorpe was the first college in Georgia to offer evening college classes through its Adult Degree Program (ADP). ADP began in 1870 and is one of the nation's first-degree programs for working adults. Adult learners can major in Accounting, Business Administration, History and Communications, and Rhetoric Studies. (OU ADP, 2021)

The University of North Georgia (UNG, 2021) created a Nighthawk Engagement and Student Transitions (NEST) program to increase its nontraditional student population. UNG is made up of four campuses Blue Ridge, Cummings, Dahlonega, Gainesville, and Oconee. Created in August 2020, the program is designed to help veterans and nontraditional learners with their college experience by providing assistance

with navigating, connecting, and preparing during their college career. NEST is located at UNG's north campus location in Gainesville. NEST houses a student center specifically for adult learners to socialize, relax, collaborate in groups for class assignments, and work one-on-one with a tutor. The resource center, located across from the student center, is equipped with computers and is designed to meet the learning needs of adult learners and foster a sense of community. The schools' total Fall 2020 student population was 19,793 of which almost 9% were 25 years of age or older. There are 1758 adult learners across all five campuses. (UNG Enrollment Fast Facts, 2020).

In the University System of Georgia's (USG) 26 public institutions of higher learning, in the fall of 2016, the System's statewide enrollment of first-time freshmen aged 25 or older reached nearly 1,000. After fall 2016, the numbers decreased slightly from 999 in 2016 to 769 in 2020. (USG Enrollment Reports, 2020). These figures indicate a trend in decreased enrollment, during the same time period, 2016 to 2020; the System saw a decrease in fall student enrollment across all levels (freshmen through senior), with 5217 students in 2016 down to 4938 in 2020. Since enrollment decreased overall for the entire student population (freshmen through senior), it is likely to have impacted the adult learner population enrollment numbers. (USG Enrollment Reports, 2020).

In an effort to reach more of the nearly 95,000 adult learners in Georgia, USG rolled out a plan in 2020 to offer an eight-week online course, targeting students who want to earn a bachelor's degree. Georgia Board of Regents Chief Academic Officer (CAO) Tristan Denley stated that USG began working on the plan to target more of the

state's adult learners in March 2020, prior to the start of COVID-19. He added that at

present, only 30,000 adult learners are taking classes in the USG (Stirgus, 2020). CAO

Denley said, "we need to find ways for higher education to be more adaptable to their

[adult learners] needs and their lives" (as cited in Stirgus, 2020, p. 1). A vote on USG's

plan was expected in September 2020 but has since been included in the system's

Strategic Plan 2024. USG also offers Complete College Georgia through the Adult

Learning Consortium which is designed to improve the services and programs for the

adults enrolled in the system as they earn a one-year certificate, associate's degree, or

bachelor's degree. The Consortium consists of 13 institutions within USG. Consortium

members set policies and procedures geared to provide more resources to support and

facilitate retention and college completion.

      At Georgia State University (GSU), Sutton (2020) reported the J. Mack Robinson

School of Business targeted adult learners by offering a suite of digital classrooms to

students for convenience and access to their program. Touted as Robinson Anywhere, the

aim was to allow students working a nine to 5 job the convenience of sitting at their work

desk, and at the end of their workday the ability to live stream lectures right from their

office. According to Sutton, the high-end digitally enabled classroom resulted in a surge

in fall 2020 enrollment in the program. The surge in enrollment in the business program

was also attributed to the need for students campus-wide to feel safe in the wake of

COVID-19 (Sutton, 2020).

      Morehouse College, a historically Black male college in Atlanta, rolled out an

online undergraduate program aimed at helping adult men with some college credits

complete their degrees. The program which was launched in March 2020 was hoping to bring back 500 Morehouse men in the ensuing five years, although the program is open to college stop-outs from other institutions. As an incentive, Morehouse decreased its tuition by nearly 50%, from $1150 per credit hour to $600. The school is targeting an often-overlooked population—the working adult. (Kyaw, 2021)

In August 2021 Spelman College, Morehouse's sister institution for African American women, unveiled its online program. Spelman offers certifications and other credentials that will assist working adults upskill and reskill their careers. The program is aimed at providing working adults better credentials and skills in the areas of business, leadership, project management, and teacher preparation. Working adults seeking to advance their skills by becoming bilingual can also become certified in Spanish. The goals of the certificate programs are to create paths for adult learners to advance into leadership positions, provide foundational skills that directly map to essential skills for frontline manager roles and increase access to explore educational opportunities to shift careers (Spelman College, 2021).

These efforts to reach more of the state's nontraditional students will change the current landscape of classrooms, yet it is only part of the picture. As more nontraditional learners enroll in freshman classes, the need to better serve them becomes increasingly clear. Understanding which instructional strategies and/or uses of technology work best is among one of the ways practitioners can meet learners at the classroom level to serve their needs. Beyond the classroom level, institutions are creating ways to better serve nontraditional learners' needs, getting students to and through college. Findings from this

study, designed to gain insight into the lived experiences of adult learners and their perceptions of online tools and interactivity as they engage in the use of Google Docs in an entry-level writing course, is another potential way to serve these learners inside and outside of the classroom.

Technology Integration in Higher Education

Integration of digital technology and its extended tools are gradually impacting traditional educational settings. Various social networking sites from Facebook to Instagram have found their way into higher education for academic purposes. Educators are using these platforms to leverage student engagement and enhance the learning environment for out-of-class assignments and in-class activities. Kumar et al. (2020) found integrating Google Classroom (GC) into the higher education classroom at one Malaysian institution effective as its learning management system (LMS) and to support out-of-class activities. The study of 17 students and 3 instructors revealed that all participants reported that the ease of use as well as usefulness were the primary factors for adopting GC. Some student participants reported privacy issue concerns and issues with peer interaction, the findings also revealed that instructor participants expressed concerns with privacy and also found challenges with the learning analytics and cloud storage. While student and instructor participants raised concerns with these issues, all found the Google classroom effective for communicating and sharing. Akhiar et al. (2017) revealed that students had positive perceptions of Instagram and its impact on learning English in descriptive essay writing. The study consisted of 101 Malaysian undergraduate students, (30% male, 70% female) ages 19 to 26, enrolled in five levels of

descriptive essay writing. While student perception was high, the mixed-method study found that students showed mediocre attitudes towards Instagram, as a tool for mobile learning. Using a 20-question closed-ended questionnaire and focus group discussion of five open-ended questions, the findings revealed that 82% of students reported an overall highly positive experience using Instagram as an educational learning tool and writing platform. Similarly, Al-Abdullatif et al. (2021) concluded that students' perceived usefulness, perceived ease of use, and attitude towards integrating digital technology positively influenced their learning engagement and academic performance. Through the lens of the technology acceptance model (TAM), the authors used project-based learning (PBL) to also examine students' attitudes towards integrating digital technology. A questionnaire was administered to the 185 undergraduate participants enrolled in the study to determine their digital technology acceptance, learning engagement, and academic performance in a project-based learning course. The data was analyzed using a structural equation model (SEM) and the findings, specifically, revealed that when digital technology was integrated into a learning environment like PBL, the learning engagement positively affected factors related to TAM and students' academic performance. In the same vein, Ahmad (2020) found that 10 out of 12 students, roughly 83%, viewed using cellphones as a learning tool as generally positive. Most participant placed the greatest value on using mobile technology to collaborate (84%), and 75% revealed communicating was the most important use. Another group of respondents, 79%, thought using mobile devices to seek teacher assistance as important. In sum, students' perception of adopting mobile technology for the purpose of teaching and learning at a Caribbean

institution in Jamaica of higher education, was highly favorable. Students also reported that the use of mobile technology in the classroom lead to greater interaction and encouraged higher levels of engagement.

Ch'ng (2019) examined the "learning emotions" of adult learners-digital immigrants. Learning emotions is defined as "the feelings of the learner during the process of learning, when using the learning technology" (Ch'ng, 2019, p. 35). The qualitative study of 14 adult learners (ages 40-55), enrolled in a first-year program at a private university, conducted during the students first semester, revealed that participants were conscious of their emotions and experienced a range of emotions as they engaged in elearning activities from studying to completing assignments to preparing for exams. The study found most participants (six) experienced negative emotions while completing assignments and eight participants felt tense preparing for exam. Positive emotions revealed by the study included when participants were meeting and interacting with peers. Twelve participants reported they experienced happiness.

Other findings revealed that participants felt the same negative experiences working with technology such as accessing the learning management system (LMS), while other negative emotions resulted from problems using the internet and devices such as laptops and mobile phones (Ch'ng, 2019). Overall, the findings indicated that while most adults were able to control their emotions, they admitted that their emotions affected the learning process and progress. One of the weaknesses of the study was that problems that arise from internet connectivity and devices should not be factored into learning emotions. However, strengths of the study lie in the reliability of self-reporting by

participants. Many were able to identify and bracket some emotions as characteristic of their personality before they recorded their emotions in their journal. This study aligns with my study because understanding nontraditional learners' fears, apprehensions, joys, and excitements are key to understanding how practitioners can meet the needs of adult learners as they engage in course material and use technology in the first year.

Cherrstrom et al. (2019) examined nontraditional students' perception of educational technology tools. The qualitative study included 28 students (19 undergraduate and 9 graduate) in a large public, higher research institution in Texas. The authors collected data from 239 tech tool templates (participant created) and held 10 discussion forums. The templates allowed students to select an educational tool and analyze it using a two-page guide that consisted of five sections. Participants were required to provide a one-sentence description, analyze the tools features using Bloom's taxonomy, complete a prompt that described how the tool supported their learning, and enumerate the tools strengths and weaknesses. The study also required students to screenshot the illustrative tool and provide a resource with a Web link to the journal article it referenced.

Data from the tech templates represented 125 different tech tools students self-selected to analyze (Cherrstrom et al., 2019). The findings revealed that 15% of participants used educational technology tools for learning by sharing and filing data, 15% for learning management systems. Other purposes included for presentations (14%), and 12% for devices, while 12% used educational technology tools to support learning for video/online instruction. Some 10% cited they used social media as educational

technology to support learning, and 10% for correspondence. Only 3% reported they used educational technology tools for research. The findings concluded that YouTube, wiki, iPad, Blackboard, and Google Docs/Google drive were among the top 10 ranked educational technology tools students used. Other tools such as MOOCs, Quizlet, Skype, Twitter, and Edmodo rounded out the top ten.

This study is meaningful to my study because it not only highlights students' perceptions of educational technology, but also identifies which technology tools they use and for what purposes. Identifying these tools that are self-selected may aid in reducing the challenges nontraditional learners face using technology. Cherrstrom et al.'s (2019) research aligns with my study as it adds to the resources that programs and universities can use to address best practices and instructional strategies for nontraditional students.

The advantages and disadvantages of technology integration have a long-documented history. Manu et al.'s (2021) study examined students' perception of social media as an effective teaching tool among 14 undergraduate participants enrolled in a banking and finance course. Using a 5-point Likert-type scale to measure how students perceived Social Networking Sites (SNS) to improve the learning experience, where 1 = strongly disagree and 5 = strongly agree, 32% of students strongly agreed and 20% strongly disagreed, while 6% of respondents strongly opposed both for using SNS for teaching and learning. Based on these findings, Manu et al. argued that some Millennials, also known as digital natives, have not fully embraced social medial for educational purposes. Other findings revealed that despite students being unfamiliar with some SNS like pinning sites, blogging, microblogging, they were willing to use all types.

Furthermore, Manu et al. concluded that nearly 86% of the students said they had a good or full understanding of the various tools. Students reported using SNS weekly 94% and daily use at 89%. In sum, students reported they used social networking and video content and sharing the most and understood it the most. Manu et al. used both quantitative and qualitative data, collected between October 2018 and October 2019, with 143 surveys completed during the first round of surveys, and 133 questionnaires collected during the second round. In addition, 14 in-depth interviews were conducted. Echoing sentiments of social networking perhaps better suited outside of academia, because it is not the technology that enhances learning, Sullivan and Bhattacharya's (2017) phenomenological interview study conducted over a 4-month period with a retired foreign language teacher revealed 20 years of experience with integrating technology. The authors conducted four, semi-structured open-ended interviews to explore the ways in which technology had evolved and then been integrated in the foreign language classroom through the eyes of a retired Spanish teacher, Sama. In sum, the essence of Sama's experience revealed that throughout her career, top-down mandates on technology integration forced teachers into compliance; however, she added she was able to find value and authenticity when forced into new teaching and learning environments. Sama contended "Technology does not create better learners and teachers. Pedagogy and good training in various teacher education programs do" (Sullivan & Bhattacharya, 2017, p. 763). The findings also revealed that teachers are not hesitant nor unwilling to integrate technology into the classroom, rather, they need proper training.

Training educators to properly integrate technology in higher education classrooms could potentially lead to better student outcomes. O'Dell (2020) noted that instructors must set aside time to learn new technologies and conquer the learning curve in order to present the technology to students. O'Dell's mixed-methods study of 59 students enrolled across five sections of First-Year Writing Seminar (FWS) examined student voices and how they experienced digital software in the classroom. The study revealed that the Cornell undergraduates' perception of the digital annotation software, Genius, changed how students experienced reading text and writing. The study consisted of anonymous student surveys among 59 participants (57 freshmen and 2 sophomores) from a range of disciplines. Using a Likert-type scale, the survey revealed that the majority of students viewed the digital annotation software as useful and productive in the composition class and helped them to create a better final product. Participants (47% females and 53% males) also acknowledged that the digital software tool was also time-consuming, complicated, and required too many new skills. While students underscored these barriers, they reported that using digital tools in writing assignments made it easier to organize and communicate their ideas. Zgheib and Dabbagh's (2020) multiple case-study design of six faculty who used social media in their courses for at least two years found that four out of five cases used social media learning activities (SMLA) like wikis and blogs to share course content and communicate. Faculty reported that wikis and blogs were also used unofficially to replace the university's learning management system. Twitter was used in three out of five cases in the study. The findings also revealed that faculty perceived social media to have the potential to not only support learning but also

promote different levels of cognitive processes and types of knowledge on the Bloom's taxonomy. The study revealed that in each case, faculty's choice of SMLA was predicated on familiarity with the tool rather than a systematic approach. The study's findings also support Sullivan and Bhattacharya's (2017) argument that faculty had very little pedagogical training to use technology in the classroom and needed support. Collectively, these related studies demonstrate new and emerging technologies, other platforms, and SNS that have been integrated into the higher education classroom. These technologies paint a picture of what is known. What is not known and is the focus of my study is insight into the lived experiences of adult learners and their perceptions of online tools and interactivity as they engage in the use of Google Docs in an entry-level writing course.

Instructional Strategies Using Technology With Adult Learners

Many instructional strategies targeting adult learners have been utilized both inside and outside of the classroom. As the adult learner population grows, instructors as well as librarians have identified some best practices to assist students. While varying opinions on best practices for teaching adult learners exist among theorists, Kleisch et al. (2017) argued for adaptive learning. Sharp (2018) explained that collaborative digital learning was best. They agree that instruction for adult learners must not resemble instruction for traditional students because adult learners have different needs and bring different life experiences to the learning environment. In addition to understanding the best practices, theorists like Kleisch et al. and Sharp agree that integrating instructional technology must be authentic and relevant to the adult learner's needs.

Sharp's (2018) quantitative study explored adult learners perceived level of confidence and importance using collaborative digital tools and interactivity such as blogs, wikis, discussions, and paired peer feedback. The pre- and post-test design study revealed statistically significant findings for how implementing technology heightened students' level of confidence. Other findings revealed that collaborative digital tools effectively supported curricular goals while helping adult learners meet individual goals Since most participants had no previous experience using these digital tools, one inherent weakness in the design was that the adult learner tended to rate their level of confidence higher after using the technology. Similarly, Kee's (2020) case study of 14 middle-aged adult learners (12 males and 2 females) enrolled as first year freshmen with no digital literacy skills explored the extent *digital immigrants* interacted and engaged in e-learning environments. Coined *digital immigrants* because the way they perceive technology is different from digital natives, *Digital immigrants* see social networking tools as valuable but have less experience using them. On the other hand, digital natives are brought up with technology and are very familiar. Kee found that adult learners learned better when interacting with technology than interacting with peers and interacting with learning materials. The study also revealed that learners used the WhatsApp group chat more to communicate, more than communicating face-to-face. Taken together, these phenomenological studies demonstrated that successfully integrating technology in the classroom with adult learners must begin with seeing adult learners as agents of their own learning.

Kuo (2018) explored nontraditional learners' perception of using technology in a similar way to Sharp's study. His study, however, focused on minority nontraditional students, mostly, African American students. The study included 61 other minorities, 353 undergraduate African American nontraditional students, enrolled in an Interdisciplinary Studies program. It also investigated the influence of student characteristics on their technology perceptions and explored the relationships between variables in technology perception. The study's findings also revealed technology perceptions, and the usage among nontraditional minority students was influenced by student characteristics such as age, hours spent online, and online learning experience. These characteristics correlated with other variables like user attitude, computer anxiety, computer self-efficacy, and internet self-efficacy.

Of the 460 students selected, 414 responded to the survey. One weakness in Kuo's (2018) study began in the design or failure to recruit the correct population. According to NCES (2020), age (24 or older) is the defining characteristic of a nontraditional learner. A breakdown in the characteristics of the participants in Kuo's study revealed that only 24.4% were 25 or over. Another 25.6% were age 18–24 years of age, more traditional rather than nontraditional students. Another key weakness was the study relied heavily on African American nontraditional learners, 95%. As such, it is difficult to determine if the findings were unique to this ethnic group or race rather than to the population of nontraditional students. On the other hand, a strength of the study is that it includes online and face-to-face learners. This created a more complete picture of the population of nontraditional students.

The quantitative survey used by Kuo (2018) found that non-traditional minority students used basic software more than advanced technologies. Furthermore, the findings revealed technology perceptions and usage among nontraditional minority students were influenced by student characteristics such as age, hours spent online, and online learning experience. These characteristics correlated with other variables like user attitude, computer anxiety, computer self-efficacy, and internet self-efficacy. The findings revealed that technology perceptions were significantly influenced by internet self-efficacy and computer self-efficacy. This study is meaningful to my study because it sheds light on what influences students' perception of technology beyond the technology itself. It also increases the understanding of barriers to technology, a subsection of my overarching research question.

Graham (2021) approached technology integration among nontraditional learners from the vantage point of exploring the problems community college instructors observe as nontraditional students complete coursework using technology and examined what type of support the instructors offered to students in the classroom. The qualitative case study of nine instructors at a community college in the south revealed through semi-structured interviews that nontraditional students frequently experienced frustration with basic computer skills, which prevented them from being successful in the course. The findings also revealed that most instructors pointed students to other resources that the college offered as a means of support and offered very little instructional-technology support in the classroom. These findings also noted student frustration with technology in the classroom which led to some students dropping out of the course. This study is

significant because it illuminates what nontraditional students are experiencing, potentially paving the way for intervention. Colleges and universities spend a great deal of time, energy, and money recruiting nontraditional students. As an increasing number of nontraditional students enter classrooms, understanding their frustrations is key to retention. In addition, this study informs my study by shedding light on the skills or lack thereof that nontraditional students come to the class with as a predictor of how successful they will be as they engage with other more advanced word-processing software like Google Docs.

While using the perspective of instructors to comment on what they observed as nontraditional students' frustrations with technology is equally valid, particularly as they attempt to address the issues and support students, one of the weaknesses in the study was not hearing from students themselves. This flaw was akin to receiving information second-hand. Graham's (2021) data collection tools from the colleges' policy manual and brochures, as well as pamphlets from Student Success provided another lens that examined what type of support the instructors offered to students in the classroom. This increased the trustworthiness of the study because the emphasis on investigating this part of the research derived from multiple sources.

Rabourn et al. (2018) also examined the barriers nontraditional learners faced in the classroom. Like Graham (2018), the study revealed that nontraditional students' perception of the support they received from faculty in the classroom was negative, citing their institutions supported their learning as well as development less than their counterparts. Echoing Graham's sentiments, students had positive perceptions interacting

with peers in the classroom. Rabourn et al. collected data from the National Survey on Student Engagement (NSSE) to identify and compare the characteristics of nontraditional learners to traditional-aged learners using a regression analysis. Other findings revealed that nontraditional learners were more engaged academically than their counterparts and had a positive perception of the teaching practices of their instructors. Although the study revealed that nontraditional learners felt less supported in the classroom, it failed to reveal the specific reasons why nontraditional learners felt less supported than traditional-aged learners. This was one of the weaknesses in the study. One of the strengths of the study was that data collected from NSSE represented a sample of diverse colleges and universities with face-to-face and online student populations.

Beyond technology, there is another set of challenges nontraditional learners face as they re-enter college. Spagnola and Yagos' (2021) experiential study based on evidence gathered through observations made while teaching nontraditional students at a medium-sized private university posited five practical strategies for managing fear that exists in classrooms of nontraditional learners. The study revealed that building trust with nontraditional students by showing empathy and support is a key strategy to eliminating and reducing their fears. Nontraditional students come to the classroom with different responsibilities than traditional students. With this in mind, the study revealed that developing a holistic learning approach by honoring nontraditional students' personal and professional lives is another strategy that helps reduce students' fears. Conversations and coaching that shape learning experiences is another strategy the study identified as being key to helping nontraditional learners address their fears. Developing networks was

identified as another practical strategy. The final strategy the study revealed that may be useful in assisting nontraditional learners to overcome or manage fears that might impede academic success is build a network for student engagement.

Inherent weaknesses in the study begin in the lack of a framework or theoretical concept to guide the study, no specific participants, and no methodology for collecting data (Spagnola & Yagos, 2021). These lead to other weaknesses such as validity and credibility. There is a great deal of knowledge, however, that can be gleaned from working with students and gathering data indirectly. I think this is one of the strengths of the study.

Although addressed through the lens of neuroscience, Spagnola and Yagos' (2021) study is useful and connects with my study because it uncovers other methods that can be used at the classroom level to help nontraditional students eliminate other causes that may be preventing their academic success—fear. My study aimed to find students' perceptions of one type of technology, Google Docs. It aligns with my study because it demonstrates that as departments and programs in higher education strategically locate types of technology that are the newest and latest innovation, create stimulating, engaging in-class activities, implement interactive assignments, universities must also address the topic of fear and recognize it as another challenge for instructing nontraditional adult students.

Mason and Atkins's (2021) qualitative study of 12 nontraditional students (age 21-52) examined the lived experiences learners faced completing writing assignments while enrolled in a work-based Foundation degrees (FdA) program in a small university

in England. The program is comparable to the first two years of an undergraduate degree program in the United States. Data was collected from feedforward tutorials (one-on-one sessions with the student and tutor) from participants of the two-year study at the beginning and end of each semester, four times over a two-year period.

During each feedforward tutorial, data was collected from the participant as they lead the discussion and the researcher asked questions when necessary. The focus during the one-on-one session was on the participant's individual differences, and history. The authors conducted 48 feedforward tutorials.

The findings revealed that nontraditional students struggled with meeting the demands of academic writing as first-year students. Specific challenges included some found it difficult to find an authorial voice (assignments informal and chatty). Other participants experienced difficulty using evidence as appropriate for class assignments (making bold statements without substantiating them). Other findings revealed that once the participants' writing was assessed, it caused them to question their academic identity. This demonstrated that participants' personal, professional, and academic identities were interrelated, and impacted their perceptions of themselves as academic writers.

Hart and Park's (2021) mixed-method exploratory case study in a blended learning class examined how nontraditional students perceived their participation goals, what motivation regulation (MRS) strategies they used to consciously control their actions and complete learning tasks, and their perception of the goals they accomplished at the end of the course. The study included five participants, three females and two males, enrolled in a beginning technology course at a large public urban community

college in the southeast that combined both face-to-face and online learning throughout a twelve-week semester.

Data was collected through researchers' reflective journals, semi-structured interviews, and electronic journals (Hart & Park. 2021). For quantitative data, the researchers administered a demographic goal survey and the MRS survey which consisted of eight Likert-type scale questions. The study revealed participants' goals were to overcome the fear of technology, improve computer skills, become more computer savvy, design presentations, and create spreadsheets. The findings from participants' perceptions of their use of the types of MRSs revealed different uses when the survey was administered at week six and week 11, but all included: proximal goal setting, self-consequating behavior, enhancement of situational interests, enhancement of personal significance, mastery self-talk, performance approach-self talk, performance avoidance self-talk, and environmental control as strategies used. In the first survey, the findings revealed proximal goal setting and performance-approach self-talk were the two strategies used most. The survey was conducted in week six and week 11 to monitor the changes in students' internal motivational regulation. The findings revealed that students adjusted their rankings from the first time to the second time they took the survey. Enhancement of personal significance and mastery self-talk were reported as the two most used strategies when the survey was conducted at week 11. The least used strategies, as revealed in the study, were proximal goal setting, enhancement of situational interest, performance-avoidance self-talk, and self-consequating, (a behavior where students choose to reward or punish themselves for performance, often used as

motivation to accomplish goals). The findings in the area of perceived achievement goals revealed that all five participants perceived they achieved their goals in the areas of gaining new knowledge or skills and/or to advance their career or business. Other areas where participants perceived they achieved their goals were in the area of respect, communication, ability to explain computer technology concepts, and acknowledgement of responsibilities and barriers.

The findings from the study reveal that although nontraditional learners may lack experience in digital environments, they have internal strategies that they can tap into to motivate them to complete academic tasks (Hart & Park, 2021). We know that nontraditional learners come to the classroom with life experiences. Leveraging these experiences, such as self-direction and self-motivation, may help them to achieve academic success, when faced with barriers technology presents.

The Hart and Park (2021) study aligns with my study by revealing another component of nontraditional students' motivations to use technology, demonstrating how we can use these factors to meet the need as institutions select learning management systems (LMS) for course delivery and programs and departments design courses that integrate technology.

Robinson's (2019) quantitative research study conducted with students in online courses at a small community college in Virginia examined the technology acceptance of non-traditional students in comparison to traditional students in an online learning environment. About 40 out of 980 students participated and completed the survey, 63.5% female and 36.47% male. The survey, which was distributed through the school's

website, required participants to complete the online questionnaire using the scales of the

technology acceptance model (TAM.) The survey included four independent variables

based on the TAM that they were asked to measure: perceived ease of use (PEOU),

perceived usefulness (PU), attitude, (A), and intention to use (IU). The means for TAM

variable attitude for nontraditional students was 3.53 and the means for TAM variable

intention to use for nontraditional students was 5.82. The standard deviations were 1.09

and 1.17 respectively. The findings showed that perceived ease of use had a significant

effect on attitude. Perceived usefulness also had a significant effect on attitude, and

attitude had a significant effect on intention to use.

One strength of the study was in data collection (Robinson, 2019). The data

collected in semi-structured interviews and the students' electronic journals better

explained the data collected on the TAM survey. One weakness of the study was the

variables used in determining students' acceptance of the technology, particularly in the

area of PEOU. In Robinson's (2019) study, it is unclear if these variables can be tied to

the students' experiences in the course, or if the variables are tied to familiarity with the

technology in their professional and/or personal lives.

The findings from Robinson's (2019) study are meaningful to my study as it adds

another dimension to what nontraditional students face as they return to the classroom.

These findings may have the potential to help colleges and universities design

applications and programs, as well as select online learning platforms to deliver

instruction and cloud-based collaboration tools, to nontraditional student populations.

Taken together, these studies demonstrate other challenges nontraditional students face as they re-enter academia, the ways they manage these challenges, and how the challenges impact their academic identity. Collectively, these studies on student satisfaction, motivation, technology acceptance, and finding an academic voice identify other ways classroom instructors may be able to assist nontraditional students as they navigate these difficulties and re-enter the classroom As instructors assist students as they face roadblocks in areas outside of course content and technology, this guidance may provide for a smoother transition into introducing leaners to rigorous course expectations, and lead to better student outcomes.

These students also demonstrated that adult learners are struggling at the classroom level. In spite of their motivation to learn (Knowles, 1984) and academic engagement (Rabourn et al., 2018), they are challenged with trying to find a place in an environment designed for traditional learners. These studies align with my study in that they seek to help institutions identify better methods to help adult learners in their quest to achieve academic support and success.

Researchers in the field have used the notions of self-discovery and motivation to learn as guided assumptions in meeting the needs for adult learners. With this in mind, there is no one method or universal design to fit the varying needs of the adult learners, and their goals. What remains to be explored is how learning occurs among adult learners using technologies and/or what is the perception among adult learners in technological-mediated environments.

Summary and Conclusions

Adult learners returning to college compared to traditional learners is rising and will continue to rise (Grawe, 2018; NCES, 2018b). As such, writing instruction must be tailored to address the unique characteristics and ways adult learners learn. Technology is one method for supporting adult learners' academic growth and may be beneficial to their advancement in a technology-driven global world. Teaching and learning that capture these students' rich-life experiences requires careful selection and integration of technology. Major themes from the literature include social media, learning management systems, and other platforms that promote collaboration, student engagement, sharing, and communication as integral to successfully integrating technology.

There is a need for further research on the connection between teaching writing to adult learners and technology integration, specifically using Google Docs (Kim et al., 2014; Liu & Yu-Ju, 2016). Technology integration of Web 2.0 tools that support adult learners is relevant to the proposed research questions regarding the perceptions of their lived experiences with such technologies when applied in entry-level writing settings. Careful selection and integration of technology in tiers may enhance student attitude toward subject material (Lin et al., 2016; Liu & Yu-Ji, 2016). Adult learners' experiences influence the effective use of technology in classrooms which make SAMR relevant to this study.

Technology offers a plethora of mediums for active student participation and engagement, collaboration, co-editing, and social interaction, all of which promote learning. Researchers have explored the integration of Web 2.0 technologies in higher

education classes such as e-citizenship such as dialogue e-journals (Alam & McLoughlin, 2018); social media (Klimova & Pikhart, 2019; Manca, 2020); Twitter and Facebook (Altakhaineh, & Al-Jallad, 2018); YouTube and WhatsApp (Jena et al., 2020); Google Docs and wikis (Alwahoub et al., 2020); eportfolios and blogs (Marín, 2020); and reported findings where students' writing increased. However, a majority of those studies were conducted in a general entry-level writing classroom, in a traditional composition class, with traditional undergraduate students.

As adult learners' enrollment in higher education classes impact overall student populations, teachers must engage in classroom practices that meet adult learners' unique experience. At present, entry-level writing courses are geared to the experiences of traditional college freshmen, students aged 18 to 24. The goal of this study is to contribute to the knowledge base of what can be offered to enhance entry-level writing using technology with post-secondary writing courses of adult learners. Understanding adult learners' experiences may generate frameworks and teaching strategies for First-Year Writing Programs, may inform Writing Across the Curriculum, and enhance the knowledge base regarding technology integration with populations of adult learners. The research method most applicable for gathering information to reduce the gap in the literature will be discussed in Chapter 3.

Chapter 3: Research Method

Technology is used to connect people from continent to continent, socially and professionally. In educational settings, technology promotes communication, collaboration, and learning in a multitude of ways such as dialogue e-journals (Alam & McLoughlin, 2018), social media (Klimova & Pikhart, 2019; Manca, 2020), Twitter and Facebook (Altakhaineh & Al-Jallad, 2018), YouTube and WhatsApp (Jena et al., 2020), Google Docs and wikis (Alwahoub et al., 2020), and e-portfolios and blogs (Marín, 2020). The number of adult learners returning to college to complete their education rivals and may soon surpass traditional learners as a percentage of the postsecondary population (NCES, 2018b). As of 2018, adult learners represented 37% of students in higher education in the United States (NCES, 2018b).

The purpose of this phenomenological study was to gain insight into the lived experiences of adult learners and their perceptions of online tools and interactivity as they engaged in the use of Google Docs in an entry-level college writing course. The aim of the study was to understand students' perceptions of the use of Google Docs to support student interaction and expository writing in various genres such as essays, narration, description, comparison/contrast, and cause/effect. Studying students' perceptions may provide useful insights with the potential to enhance the writing process in freshmen entry-level courses for adult learners in a classroom setting.

In this chapter, I describe the rationale for the research design and the role of the participants. An explanation of data collection and data analysis methods follows. The

strategies used to ensure trustworthiness and ethical procedures that were followed are also addressed.

Research Question

The following question was used to understand the lived experiences of adult learners and their perceptions of the use of Google Docs in an entry-level college writing course: What are the lived experiences of adult learners and their perceptions of online tools and interactivity as they engaged in the use of Google Docs in an entry-level college writing course?

Research Design and Rationale

Nationwide, a large number of adult learners has entered higher education (NCES, 2018b). In part, the resurgence can be attributed to the need to remain competitive in their current careers. Adult learners return to finish degrees or to pursue new credentials (Wallenstein, 2020). In addition, some adult learners return to college hoping to change their careers. Other adult learners who return to college simply want to keep learning (Wallenstein, 2020). According to Grawe (2018), in the next 6 years, campuses nationwide will likely experience an increase in the numbers of adult learners who return to college as the number of traditional college students age 18–24 decreases by 15%. This trend will likely impact the collegiate environment, which presents an opportunity for educators in higher education, both inside and outside the classroom, to find ways to address the needs of this population. To provide nontraditional students with an exceptional experience, Bergman (2020) noted that colleges and universities must evolve their operational and delivery models. Higher education teachers of writing must also

address the unique characteristics of adult learners. As practitioners hone their skills, they may be able to facilitate learning that captures their students' rich life experiences. If adult learners' unique experiences are not taken into account, both instructor success, as well as student success, may deteriorate.

The current study's aim was to gain insight into the lived experiences of adult learners and their perceptions of online tools and interactivity as they engage in the use of Google Docs in an entry-level college writing course in metro Atlanta. Google Docs is technology that provides opportunities capable of facilitating teaching and learning by increasing student engagement, collaboration, and assessment (Bradley & Thouesny, 2017). Google Docs provides collaborative learning activities that begin in the classroom but may extend beyond the classroom. The use of Google Docs creates a social and academic learning experience that can develop into learning communities. The growing body of literature suggested that learning communities foster rapid and significant progress among participants (Bradley & Thouesny, 2017; Ebadi & Rahimi, 2019; Moumoutzis et al., 2021).

Google Docs in higher education provides a platform in which adult learners can increase their engagement in group discussions, peer feedback, collaboration, and assessment, and allows for interactive and collaborative learning opportunities (Bradley & Thouesny, 2017; Ebadi & Rahimi, 2019). Through features such as working on a shared document; tracking changes; making suggestions; editing; reviewing the history; and using research, define, style, and mechanics features, adult learners can enhance their writing skills (Bradley & Thouesny, 2017; Ebadi & Rahimi, 2019).

Traditions of qualitative research focus on exploring a problem or issue and involve interpretations of people in their natural settings (Yin, 2015). In addition, qualitative research focuses on understanding people's perspectives. Through qualitative research methods, researchers are able to study participants' experiences in-depth and gain insight into how participants make meaning out of those experiences (Yin, 2015). Because the aim of phenomenology is to describe the nature of the phenomenon (Creswell, 2007), looking at the common experiences' individual participants within the group share was the focus of the current study. The qualitative approach allowed for the perspectives of adult learners in the first-year writing course to be explored to capture the essence of the phenomenon (see Husserl & Gibson, 1983).

The nature of this study was phenomenological. Phenomenological inquiry was appropriate to depict the lived experiences of how adult learners use Google Docs in an entry-level writing course. Theorists (Heidegger, 1927/1962; Husserl & Gibson, 1983; Merleau-Ponty, 1945; Moustakas, 1994; Sartre, 1948) argued that phenomenology allows researchers to portray a holistic in-depth picture of the human experiences of participants within a particular group to arrive at universal meaning or experience that the group shares. I focused on a natural setting using purposeful sampling of adult learners in an entry-level college writing course in metro Atlanta. To answer the research question, I chose a phenomenological approach to highlight the lived experiences of adult learners and their perceptions of online tools and interactivity as they engaged in the use of Google Docs in an entry-level writing course.

Role of the Researcher

At the time of the study, my role was an observer, serving as an instrument for data collection. My professional role is a lead ESL instructor in the adult education program at a community-based organization that is affiliated with the 34 colleges in the University System of Georgia (USG). I was not affiliated and did not have a present teaching role with any of the 34 colleges in the USG. As an ESL instructor, I conducted interviews with college freshmen 25 years of age or older who were enrolled in an entry-level writing composition course. Even though I had served as a former instructor at one of the 34 colleges and universities in the USG, I did not have a personal or professional relationship with the participants in this study. My employment at one former USG college ended over 24 years ago. This passage of time eliminated the possibility of interaction with students who may have been enrolled in an English course I facilitated at this former work site. I did not have a relationship with the participants outside of my role as the researcher. In addition, I did not have an administrative role or prior personal relationship with the participants that might have influenced their participation in the study.

As a former instructor of English, I brought experiences to this study may have helped me interpret the information I gathered from participants. The experiences may have also presented a challenge because they may resulted in bias related to the benefits of using Google technology for adult learners in a freshmen English class. To reduce bias, I used the same interview protocol when interviewing each participant.

Ethical issues that could have posed harm to my participants were considered. Because I was not affiliated with the university where the study was conducted, participants did not have to concern themselves with undue influence on the course, department, division, or writing program. Students may have feared that participating or not participating in the study may have impacted their course grade because their instructors solicited their participation by distributing the recruitment flyer. However, to minimize any fear of participation in the study, I assured students that their identities would be kept confidential and their personal information would not be shared at any time. To minimize fear among students who chose not to participate in the study, I reminded them that the study was voluntary.

Methodology

The methodology for this phenomenological study included the sampling strategy, criteria for participant selection, and how participants met the criteria. Also included in this section are the number of participants included in the study and the rationale. The participant procedures and the relationship between data saturation and sample size are also discussed.

The population for this phenomenological study consisted of adult learners in freshman composition courses in an undergraduate institution of higher education. Adult learners are students who are 25 years of age or older. Researchers in higher education identify common characteristics of nontraditional students or adult learners as students who work full-time while attending school part-time, students who have one or more dependents, single parents, and/or students who delayed college enrollment at least 1 year

after completing high school (Bergman, 2020; NCES, 2018b). Students who do not have

a traditional high school diploma are also adult learners (NCES, 2015). Bergman (2020)

explained that nearly 74% of all college students matriculating in the United States

exhibit some common characteristics of nontraditional students. Bergman posited that

"not since the end of World War II have these adult learners played such a key role in the

health and viability of higher education" (para. 1). These adult learners comprise close to

40% of college enrollment (NCES, 2018b). Studying this population may illuminate

ways to facilitate teaching writing in the short-term and enhance learning for adult

learners in the long-term.

The sampling strategy I used for in this study was purposeful sampling. Studying

students' perceptions may provide useful insights with the potential to enhance the

writing process in an entry-level college writing course for adult learners. Therefore, it

was logical to use purposeful sampling because it provided the opportunity to obtain in-

depth information. According to Patton (2002), information-rich cases are those from

which a researcher can learn a great deal about the study topic. The goal of purposeful

sampling is to focus on a specific characteristic of a population that will lead to answers

for research questions (Patton, 2002). The purpose of the current phenomenological study

was to gain insight into the lived experiences of adult learners and their perceptions of

online tools and interactivity as they engaged in the use of Google Docs in an entry-level

college writing course.

Purposeful sampling provides the opportunity to learn a great deal more than

convenience sampling. This approach allowed me to understand the needs, interests, and

incentives of a small number of carefully selected adult learners enrolled in one or two

sections of an entry-level college writing course, rather than gathering standardized

information from a large, statistically representative sample of adult students in entry-

level college writing courses. The purpose of purposeful sampling is to select

information-rich cases that will provide data to answer the research questions (Patton,

2002). The strategy I employed was typical case sampling, which is a technique used

when a researcher is seeking to find what is usual, normal, or typical in an event, case, or

phenomenon (Patton, 2002). Typical case sampling allowed me to present what is the

normal or typical perception of using Google Docs to gain insight into student

perceptions. Patton (2002) suggested that a typical case sampling will uncover critical

issues that need to be addressed. Because the aim of phenomenology is to describe the

nature of the phenomenon by looking at the common experiences participants share, the

qualitative approach allowed for adult learners' experiences in the first-year writing

course to be explored.

Participants were selected based on the following criteria. Students had to be

freshmen and 25 years of age or older. Students had to be enrolled in a first-year English

college writing course, and students may not have taken an entry-level college-level

writing course previously. To establish that participants met the criteria, I invited students

from one or two sections of entry-level writing courses to participate in a screening.

Instructors from each section were asked to distribute a recruitment flyer (see Appendix

A) that contained a brief description of the study, my phone number, and my email

address. The flyer invited students to contact me directly via email or phone.

The study included nine participants. According to Mason (2010), sample size in qualitative studies must be large enough to uncover most if not all of the perceptions that are important. Mason noted that the sample must not be too large because data that emerge may be repetitive or superfluous. Patton (2002) stated that sample size in qualitative inquiry should be determined by the research questions, purpose of the research, available resources, and time.

When considering the relationship between saturation and sample size, researchers should address two concerns. First, the notion of how large the sample size must be for patterns and themes to emerge on a consistent basis must be considered. Emerging patterns eliminate redundancy or repetition (Mason, 2010). When repetition begins, or there is little left to discover, and the point of saturation has been reached (Mason, 2010). Sample size should also be large enough to ensure that the diversity within the targeted population is represented (Mason, 2010).

Once participants who met the criteria were identified in the current study, the participants were contacted through their email addresses. Participants were sent a letter of invitation to join the study. A consent form explaining the study was also sent with the letter of invitation through email.

Instrumentation

Data collection consisted of a semi-structured interview protocol (see Appendix C). The questions on the interview protocol were designed using the conceptual framework as a lens and created to match adult learners' interests, needs, and cultural makeup. The interview protocol was designed to reflect the population under study. This

design made the instrument appropriate to the current study and adaptable to other studies. Prior to collecting data, the instrument was vetted by experts in the field including my committee chair Dr. Mike Marrapodi and second committee member Dr. Gladys Arome. Minor modifications were made; however, the original integrity of the instrument was maintained. In order to establish content validity of the instrument, all measures were taken to ensure that the instrument measured students' perceptions, and that the questions accurately assessed the research question.

Many traits that relate to adult learners are culture-specific. Among the traits that are common to adult learners are the reasons they return to school, to the obligations they have while in school. Adult learners juggle a myriad of responsibilities while attending school. Many adult learners often have one or more dependents or may be a single caregiver. Others attend school part-time and work full-time. As noted earlier, NCES (2015) determined that adult learners often delay college enrollment after completing secondary schooling, and many do not have a traditional high school diploma. As such, a phenomenological approach with a single interview accommodated the challenging time constraints of this student population.

Data Collection

Upon receiving approval from the Institutional Review Board at Walden (IRB, Approval No. (03-15-22-0355482), I obtained a list of potential host colleges within 100 miles of the metro-Atlanta area and selected two colleges that enrolled adult learners. I secured IRB approval from each of the two colleges, and after obtaining IRB approval from the host colleges, I contacted the Chair of the English Department at each college,

explained the nature of my study, and asked for permission to allow instructors in the

Department of English to assist in recruiting students. After being provided a list of

faculty emails from the Chairs, I contacted English Instructors who taught entry-level

college writing at each college, provided an overview of my study, asked if the instructor

used Google Docs, and had adult learners enrolled in their course. Once I obtained

instructors to partner with, recruitment for participants in the study was carried out. I

distributed flyers (see Appendix A) via email to instructors. Instructors distributed the

invitation flyer during class and via email to all students. These flyers were distributed in

four entry-level college writing classes. Students who were interested in participating

self-selected.

I collected data from interviews using the video conferencing platform Zoom for

the first round of interviews. For the second round of interviews, I collected data by

email. Since the Coronavirus pandemic, many out-of-state students, as well as students

who live in state, but outside of metropolitan Atlanta, have returned home.

Videoconferencing allowed for synchronous communication among the many

participants who lived outside the metro-Atlanta area. Prior to the interview, I emailed

participants a consent and non-disclosure form (see Appendix B). The form identified the

nature of the study and included a sample of the questions they would encounter in the

interview. In lieu of signing the consent form electronically, I asked participants to reply

with the words "I consent," acknowledging that they understood that the interview would

be recorded, and return the form before their interview. Prior to the interview, I sent

participants an example of the types of research questions my study explored. Sending

participants a sample of the research questions before the interview may have reduced student apprehension and eased discomfort. Live interviews via online also allowed the researcher to capture nonverbal cues from participants while also establishing a rapport that could not be captured through emailed interviews. During recorded live interviews, participants were asked to identify and elaborate on the elements of Google Docs that posed challenges, and what elements were easy to use. The questions on the interview protocol were used to solicit information from participants that identified what elements of Google Docs were most useful and asked to rank the degree of usefulness. The questions were designed to capture a holistic view of what students' lived experiences were while using Google Docs.

As participants exited the study, I clarified the purpose of the study, and thanked them for their time and contribution to the study. Participants were reminded that their participation in the research was strictly voluntary and that they would not receive any compensation for their participation. The participants were also reminded that the information they shared would be held in strict confidence, and that their details would not be shared outside of the purpose of the study. Participants were also assured that the information they provided would be kept confidential, and that their name would not be used in my findings. In addition, I requested permission to contact participants if follow-up responses were needed. Participants were informed that if a follow-up interview was needed, the interview would only take 10 to 15 minutes and would be recorded to clarify responses. Participants were informed that while no one else would hear the recording of our conversation, committee members could request access to recorded interviews.

Participants were informed that if they had any questions or concerns regarding the study, its purpose or procedures that I could be reached by phone or email. Furthermore, participants were reminded that if they wanted to receive a copy of the final report of the study, I could be contacted via email.

In order to secure more participants, I reached out to other organizations, specifically, the Technical College System of Georgia. Once I located English faculty who used Google Docs in one college within the system, I began the IRB process for that institution. After approval from the college's IRB, I contacted the host college instructor who identified that she used Google Docs in her courses, and sent her my recruitment flyer. The instructor distributed the recruitment flyer to two classes, English 1101 and 1102. From the two courses, I secured seven additional participants for the second round of interviews. Based on the accessibility of participants (work schedule, personal schedule, willingness to meet, and comfort with video conferencing platforms), the seven interviews were conducted via email Prior to collecting data via email for the second round of interviews., I contacted the Walden University IRB and modified data collection to include written interviews because initial IRB approval only included conducting interviews over Zoom. I received IRB approval for modified data collection to include written emails. Then over a secured network, I emailed the seven participants, whose interview would be conducted via email, the consent form and waited until I received each consent form back with the words I consent before I emailed participants the interview questions. Participants were asked to return the interview questions within five days to the researcher.

I received completed interview questions from four participants within the first 5 days. I began reading transcripts and making reflexive notes. Using the same process from the first round of interviews, I combined all four transcripts into one Word document so that all responses were grouped under the question it answered. Then I proceeded to hand code data. I collected the remaining interview questions from the remaining three participants via email after day five but within 10 days. I read each transcript, made reflexive notes, then combined all three transcripts into one Word document and grouped the responses under the question it answered. I completed all data collection for round two of the interviews just under two weeks

Data Analysis

This phenomenological study began using precoding. I generated a provisional 'start list' of codes from the conceptual framework and research questions prior to field work. To begin the start list of codes, I made some assumptions about patterns and themes that might emerge from the data based on the review of the literature. Miles and Huberman (1984) argued that selecting prior coding can initially show what a researcher saw and heard, by giving researchers a beginning point to a story line. According to Maxwell (1996), precoding requires the researcher to take a metacognitive stance, which requires the researcher to re-examine his or her conceptual framework and research questions. a priori coding was used for initial coding; however, as patterns and themes not on the list were observed, the list was modified to include them. A researcher must remain open-minded so that the inductive process inherent in qualitative design is not hampered (Miles & Huberman, 1984). Discrepant cases were discussed and explained in

the findings. Ruona (2005) argued that discrepant data is a way of checking and seeking

for outliers in order to determine the meaning of the unusual event or unique treatment.

Honing in on discrepant data should be welcomed because it strengthens the explanation

of what is considered typical (Ruona, 2005). Therefore, discrepant data from transcripts

were used to illustrate unexpected findings and report different participants' experiences.

Each Zoom interview was recorded, and an interview protocol was completed for

each participant identified using an alphanumeric code. Following each interview, the

interview was played back to ensure that the participants responses were correctly

transcribed. Each interview protocol was read at least twice. The first reading was

necessary to get a sense of the experience of the participant. Maxwell (1996) encouraged

this technique for generating insights about data a researcher collects. Analysis began on

the second read. As the recorded interview was played back, each participant's response

was compared to responses taken on the interview protocol during the live interview. I

transcribed the audio portion of each interview. Transcripts were read and marginal

notations were made in order to begin coding procedures. Data was hand coded and all

documents were stored in a locked file cabinet in my home office.

Open coding or literal coding was used initially to code data into blocks and

capture participants' exact language. To identify emerging patterns and themes, each

participants' responses to question one was read, sorted, and coded. Axial or interpretive

coding was used as this continuous process was applied until all data were analyzed.

After completion of identifying common themes and patterns from the responses, a

codebook was created using Excel. Each tab in the code book represented a theme. On

the first tab, I created a codebook for the themes. On tabs two through six, I exported

each question from the interview protocol and the response for each participant for each

question. On tab seven, I coded the data. Discrepant data was analyzed and categorized as

subthemes and explained. Data was stored with password protection on my home office

computer using a secure network.

Morse et al. (2002) argued that comparing the accounts of different participants

with similar experiences, offers the researcher deeper insights, and leads the researcher to

analyze why experiences are different or related. According to Morse et al., posing

analytical questions should continue with the comparison of each new interview until all

interview transcripts have been compared with each other. Mason (2010) noted that

constant comparative analysis, also known as a reflexive approach, allows each

interpretation and finding to be compared with existing findings as they emerge. Using

this type of naturalistic inquiry helped me to understand the human phenomena within the

context in which my participants experienced it.

Issues of Trustworthiness

This section includes how I ensured trustworthiness and the credibility of the

study. Qualitative research also requires that certain subsections of trustworthiness be

addressed. Specific elements of trustworthiness addressed in this section were credibility,

transferability, dependability, and confirmability. The section concluded with ethical

procedures and a summary.

Data from each participant was collected through an interview in order to create a

richer, in-depth description of their lived experiences. Creating a rich description with a

thorough evaluation of each full interview, not just key points, will increase internal

validity (Maxwell, 1996; Miles & Huberman, 1984). Thorough evaluations will also

increase the trustworthiness of the study. Lincoln and Guba (1985) re-conceptualized

trustworthiness of a study as the naturalist's equivalent of internal validity.

Transferability is a hallmark of qualitative research. To establish transferability,

Lincoln and Guba (1985) mentioned that a researcher must provide evidence that the

findings of the study could be applicable to other populations, or contexts, or situations

and times. To establish transferability, a thick, rich description of the phenomenon as it

relates to the daily lives of the participants and the research setting were detailed.

Providing thick description may enable other researchers to use the data to emulate in the

context and setting that is most applicable to their study.

In addition, all recordings were transcribed verbatim. Records on how data were

collected, analyzed, and maintained were outlined to allow for transparency. Explaining

detailed data collection procedures were provided in an effort to allow for duplication of

the study. To ensure that data were not compromised, as well as protect the integrity of

the data, a secure database for managing, coding, and storing the data was used. Miles

and Huberman (1984) noted that being consistent with the process of the study relates to

what is identified as dependability and reliability. Dependability was established through

rigorous and consistent research procedures.

Confirmability is established in qualitative research through many avenues (Miles

& Huberman, 1984). One method a researcher can use to ensure confirmability is to

acknowledge that his or her experiences are a part of the research process and then to

make them visible. In order to establish confirmability, rationales provided for decisions I made during the study. Explanations on how data were coded as themes emerged were thoroughly recorded. A reflexive journal was used as I collected and analyzed data. Lincoln and Guba (1985) acknowledged that confirmability can be achieved as the researcher brackets biases and allows the outcomes of an investigation to be informed by the context of the research. Jotting down my reflections on what happened throughout the study helped me to analyze my own position, biases, and background, in order to ensure that these feelings did not influence the research.

Ethical Procedures

Ethical issues of how or if my research could pose harm to my participants was considered. Because I was not affiliated with the university in anyway both present or past, participants did not have to concern themselves with undue influence on the course, department, division, or writing program. Students may fear that participating or not participating in the study may impact their course grade. However, to minimize this fear for students who participated in the study, they were assured that their identities would remain confidential. To minimize fear for students who choose not to participate in the study, they were reminded that the study was voluntary. Participants in the study and teachers were informed that although results of my study would be published, they would remain confidential. Participants also received an informed consent letter that included a description of the study detailing background information and purpose of the study, procedures, information regarding their voluntary rights, their rights to remove

themselves from the study at any time, protection of confidentiality, and risks and benefits of participation before the study began (see Appendix B).

To ensure quality, data was transcribed immediately in order to get an accurate description of what the participants said. This was also done to ensure that I ruled out one main threat to validity, that is, to present inaccurate or incomplete data. Unpacking my own personal feelings in order to separate them and better understand the perspective of my participants was another method I employed to achieve quality. Carefully transcribing the words of the participants verbatim, also helped to ensure quality. Furthermore, in order to increase validity, bracketing was used to identify and address biases and actively seek alternative explanations to interpret findings present in each data collection method.

Summary

This chapter includes research questions along with the rationale for the research design of a phenomenological study approach to better understand the lived experiences of adult learners and their perceptions of online tools and interactivity as they engaged in the use of Google Docs in an entry-level writing course. The role of the researcher and the methodology of the study were described. Instrumentation, data collection, data analysis, trustworthiness, and ethical procedures were also discussed. The study results will be discussed in Chapter 4.

Chapter 4: Results

This chapter provides an analysis of data collected from participants' interviews during the study. The purpose of this phenomenological study was to gain insight into the lived experiences of adult learners and their perceptions of online tools and interactivity as they engaged in the use of Google Docs in an entry-level college writing course. The research question that guided this study was the following: What are the lived experiences of adult learners and their perceptions of online tools and interactivity as they engaged in the use of Google Docs in an entry-level college writing course?

This chapter contains a description of the data collection process and the results of the data analysis. First, I discuss the study setting and demographic sample characteristics. Next, I discuss the data collection time frame. Then, I report the results of the study, which are organized by themes that emerged from participant interviews. Finally, I provide a summary of the results and information addressing the evidence of trustworthiness for this study.

Setting

Due to the COVID-19 pandemic influencing participants' interest and availability, interviews were conducted via Zoom with participants from one college within metro Atlanta and one small college within 100 miles of metropolitan Atlanta. The initial setting for the study was a small urban college in metro Atlanta. One condition that may have influenced participants' experience at the time of the study was that the last day of class at one of the colleges was May 2, 2022. Final exams were scheduled for May 3 through 9, 2022. Students may have been experiencing angst associated with exams, or

they may have been preoccupied with the thought of taking the exam. These factors may have impacted recruitment and participation. As a result, the study was scheduled to be conducted the following semester. However, another condition worth noting is during the following semester (summer), adult learners are typically not enrolled in courses. As a result, the study was not conducted until the fall of 2022. These fluctuating enrollment patterns influenced prospective participants' availability and the study sample size.

All participants were students enrolled in English 1101, an entry-level composition course and prerequisite for all majors. All participants were given alphanumeric codes for this study. The first round of interviews took place in early September 2022 following the Google Docs class assignment and included two participants in a face-to-face class. All interviews were conducted using the Zoom video conferencing platform and were audio recorded. The second round of interviews was conducted in December via email. The second round of interviews included seven participants enrolled in English 1101 and 1102, both entry-level writing college courses and prerequisites for all majors.

<center>**Demographics**</center>

All participants lived in a dense suburban area outside of Atlanta, Georgia. Table 1 includes demographic information for each participant. Of the nine participants, three were male and six were female. Participants self-identified as freshmen or sophomores. All participants were enrolled in a degree-seeking program and were enrolled in the English course as a requirement for their degree. One participant was a biology major. Two participants were seeking an associate's degree in nursing. One participant was

seeking an associate's degree in diagnostic medical sonography. Five participants did not

identify a major. All participants commuted to campus.

Table 1

Demographics of Participating Adult Learners

Participant	Gender	Classification	Major	Credential sought	Age
P1	M	Freshman	Nursing	Associate's	25
P2	F	Sophomore	Biology	Bachelor's	29
P3	M	Freshman	Not identified	Associate's	25
P4	M	Freshman	Not identified	Associate's	26
P5	F	Freshman	Not identified	Associate's	27
P6	F	Freshman	Not identified	Associate's	28
P7	F	Freshman	Not identified	Associate's	25
P8	F	Sophomore	Nursing	Associate's	29
P9	F	Freshman	Diagnostic medical sonographer	Associate's	25

Data Collection

Recruitment of participants was a lengthy process, taking approximately 9

months. In addition, the number of participants was slightly less than anticipated. Once I

obtained IRB approval from Walden in mid-March 2022, I contacted several colleges and

universities within the metro Atlanta area. After being unsuccessful in locating English

faculty in metro Atlanta who used Google Docs in their entry-level writing course, I had

to expand my search and contact colleges within 100 miles of metro Atlanta. Once I

located a potential partner site, I had to obtain IRB approval at each site. Once I received

IRB approval at the partner sites, I distributed the recruitment flyer to each chair of the

English department (see Appendix A) for potential participants. One college was in the

metro Atlanta area. After waiting approximately 2 weeks, I did not receive interest from faculty who initially indicated an interest in distributing the flyer to students in their entry-level classes. I distributed the flyer to another college within 100 miles of metro Atlanta and waited 1 week for responses. When I did not receive responses after 3 weeks, I contacted and distributed the flyer simultaneously to individual professors and instructors at both sites. At the first partner site, the last day of class was May 2, 2022. Final exams were scheduled for May 3 through May 9, 2022. At the second partner site, the last day of class was May 2, 2022, and final exams were scheduled for April 30 through May 9, 2022. These institutional exam conditions influenced prospective participants' availability, which stalled recruitment efforts.

I reestablished communication with the chair of the English department after final exams to extend recruitment to the next semester (summer). The chair indicated that adult learners were not typically enrolled in summer courses, and I was encouraged to recruit in the fall. I began redistributing the flyer in the fall to individual English 1101 and 1102 faculty at both sites. Two participants from one partner site/college replied to the recruitment flyer. No participants from the second partner site responded. Given the lack of faculty interest at the second partner site, I was encouraged by the English department chair to contact the university's office of research and ask if they could distribute the recruitment flyer to all students enrolled in 1101 and 1102. I reached out to the office of research, but they indicated that they could not meet my request. Recruitment at the second partner site yielded no participants.

I secured two participants to begin the interview process and confirmed that they met the criteria. Participant 1 and Participant 2 confirmed that they met the criteria, and they signed the informed consent form before the Zoom interview by responding to the email I sent through a secured network via email with the words "I consent." At the first interview with Participant 1, I spent a few minutes getting to know her. During this phase of the meeting, I had my video enabled. When the interview began, I recorded the audio of each interview and disabled the video. The semi structured interview protocol (see Appendix C) for the interviews consisted of 10 open-ended questions and five questions containing responses on a Likert-type scale. The Likert-type scale questions provided participants with an easier option to express their experiences. These questions also provided insight into each participant's familiarity with Google Docs outside of use for academic purposes, which may or may not have influenced their experiences.

Each interview conducted via Zoom lasted approximately 20 minutes. At the close of the first interview, I enabled my video and thanked Participant 1 for her participation. Then I asked her to pass the recruitment flyer along to any adult learners in her class or other sections of 1101 or 1102 who might meet the criteria. After the first interview, I listened to the audio recording and transcribed the information. I played the audio back, paused, and stopped until I transcribed all responses to the 10 open-ended questions and five Likert-type questions verbatim. I read the transcript twice, once to compare it to the audio recording and again to gain a sense of the data. I repeated the same process for the second interview with Participant 2 until all interviews were completed. After I transcribed both recorded Zoom interviews, I combined both

transcripts into one Word document so that all responses would be grouped under the question it answered. Then I proceeded to hand code data. My decision to hand code the data aligned with my tactile learning style and enabled me to physically engage with the data. I completed data collection and transcription of these two data sets over a period of 2 weeks.

To secure more participants, I reached out to other organizations including the Technical College System of Georgia. Once I located English faculty who used Google Docs in one college in the system, I began the IRB process for that institution. After approval from the college's IRB, I contacted the host college instructor who identified that she used Google Docs in her courses and sent her my recruitment flyer. The instructor distributed the recruitment flyer to two classes, English 1101 and 1102. From the two courses, I secured seven additional participants for the second round of interviews. Based on the accessibility of participants (work schedule, personal schedule, willingness to meet, and comfort with video conferencing platforms), the seven interviews were conducted via email. Prior to collecting data via email for the second round of interviews, I contacted the Walden University IRB to modify data collection to include written interviews because initial IRB approval had included conducting interviews only via Zoom. Over a secured network, I emailed the consent form to the seven participants, whose interviews would be conducted via email, and waited until I received each consent form back with the words "I consent" before I emailed participants the interview questions. Participants were asked to return the interview questions to me within 5 days.

I received completed interview questions from four participants within the first 5 days. I began reading transcripts and making reflexive notes. Using the same process from the first round of interviews, I combined all four transcripts into one Word document so that all responses would be grouped under the question it answered. Then, I proceeded to hand code the data. I collected the remaining interview questions' responses from the last three participants via email after 5 days but within 10 days. I read each transcript, made reflexive notes, combined all three transcripts into one Word document, and grouped the responses under the question it answered. I completed all data collection for Round 2 of the interviews in under 2 weeks.

Data Analysis

Collecting data and analyzing data were not mutually exclusive. Data collection and analysis occurred simultaneously as I noticed categories and patterns while reading and rereading transcripts. I engaged in various steps for coding, which included in vivo and descriptive. Miles et al. (2014) recommended engaging in ongoing analysis while modifying data collection strategies.

Based on the research question and the conceptual frameworks of SAMR and andragogy, I created a list of a priori codes before I began collecting data (see Appendix B). I also generated a list of codes from interview questions before I began collecting data. When preparing to analyze data, I used these codes as a starting point or prompt, fully aware that multiple approaches to coding data can be used, as noted by Miles et al. (21014). Using Microsoft Excel, I created a spreadsheet and coded each tab with one of the 18 a priori codes. To gain a deeper understanding of the data, I conducted line-by-line

coding of each transcript. As I reviewed the transcript, I confirmed, refined, and expanded my codes into more specific and detailed codes, moving from deductive coding to inductive coding. Using descriptive coding, I reviewed the line and added each new code to the Excel spreadsheet. To capture the richness of the data, I used in vivo coding and copied the text of each participant's responses into the Excel spreadsheet.

Another strategy of data analysis I applied that enabled me to fully engage and be hands-on with the data was hand coding, which aligned with my tactile learning style. I printed out each transcribed interview, cut each question into a strip, and placed the strips into piles so that all responses to each question for Number 1 from each participant would be combined. I did the same for Number 2 through Number 10. I repeated the same process for the five Likert-type questions. Seeing data aggregated by code instead of by participant transcript allowed for a greater sense of the richness of the data. Using Post-it notes, I coded each note with one of the 18 a priori codes from the spreadsheet and laid out the Post-it notes on the floor. Then I reread the strips from Question 1 and placed them under the coded Post-it note. I continued this process until all strips were reread and placed under a coded Post-it note. This strategy enabled me to move data around to capture the more appropriate code. This strategy also allowed me to highlight discrepant data and identify data that could be split between codes. As I engaged with data by hand, I allowed the data to show me other codes. I noticed that not all of the a priori codes accurately captured the participant's response, so I added additional codes on Post-it notes when needed. Once I began coding, the process was not linear. I returned to the Excel spreadsheet and created three more codes.

As I continued the nonlinear process of coding, allowing the data to show me other codes, I began looking for relationships between codes. The hands-on approach helped me to become more comfortable with the data, and the categories became clearer. I began to see patterns in the data. As I recognized patterns in the data, I condensed the patterns by using descriptive coding. The hands-on coding process enabled me to create categories that helped me identify themes. Once I identified themes, I returned to the Excel spreadsheet and looked for evidence to back up the themes from the in vivo coding. This strategy also helped me to ensure that hand coding and the spreadsheet were aligned. I evaluated and revised the themes and removed themes that were not distinct. I merged themes that were similar and renamed them when needed. I also removed themes that did not have enough evidence or data to support them. As I made sense of the themes, I rearranged the themes I deemed most important. I decided to arrange themes by what I considered top-level themes. Because my study was guided by one research question, themes that emerged from the data adequately provided responses to the question. Categories and themes that emerged to answer the research question are depicted in Figure 3.

Figure 3

Research Question and Emergent Themes

RQ: What are the lived experiences of adult learners and their perceptions of online tools and interactivity as they engage in the use of Google Docs in an entry-level college writing course?

Theme 1
Collaborative
Experience

Theme 2
Engagement with
Peers

Theme 3
Productivity from
Collaboration

Theme 4
Writing
Motivation
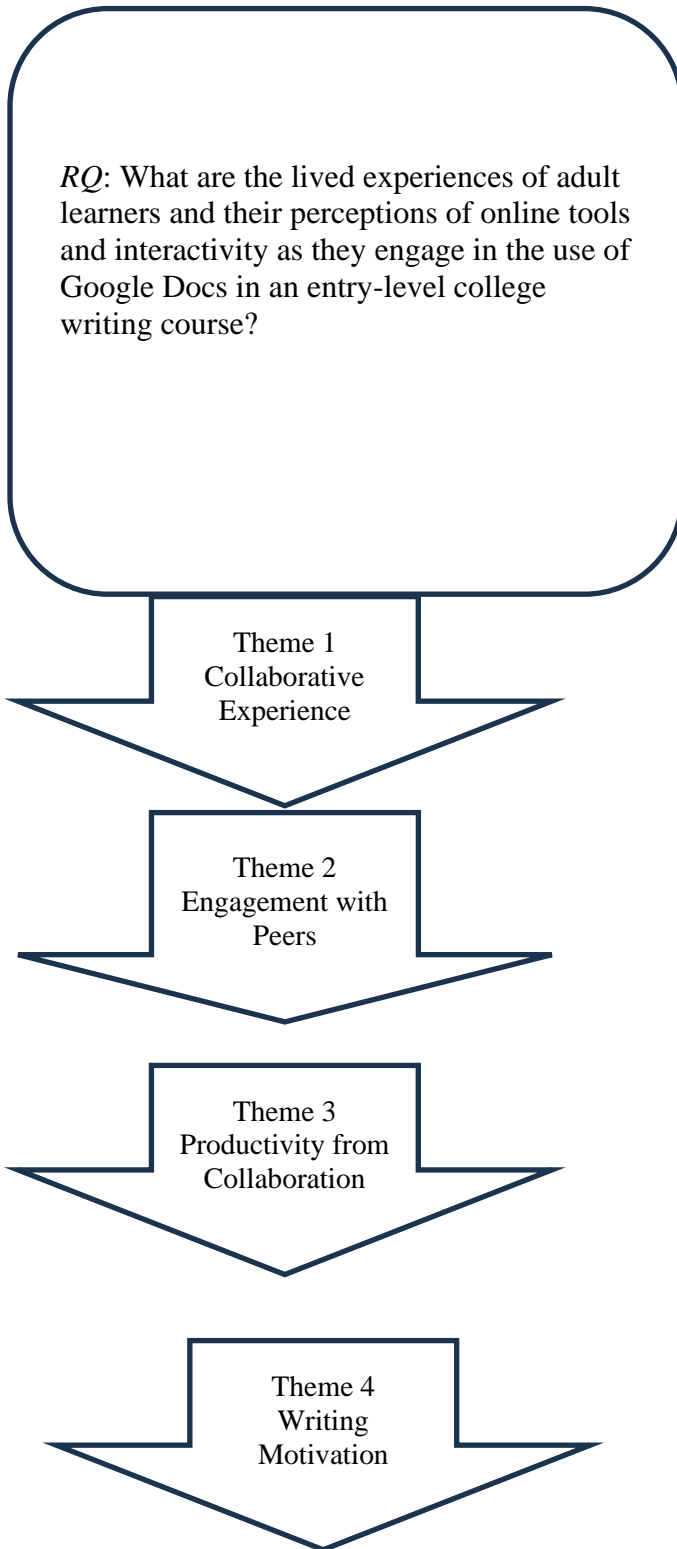
Discrepant Cases

During data analysis, some nonconfirming or discrepant data were identified as perceived barriers to using Google Docs. Also, some of the responses to the interview questions could be characterized as indirectly related, nonspecific, and out of context. The areas identified did not relate to the word-processing software but to the inability to use Google Docs because of connectivity issues. The unrelated issues participants identified were slow internet or lack of internet access to their learning management system (LMS Blackboard). For example, in response to the interview question addressing what aspects of Google Docs slow down productivity, P4 said "because Docs is online, a stable internet connection is required." Another response from P9 was "one barrier I have is when Blackboard is down."

Another participant using Google Docs off campus experienced connectivity issues that she attributed to Google Docs also. For example, when responding to the same interview question what aspects of Google Docs slows down productivity, P6 said "it can be glitchy sometimes and insert images too big, moving and sometimes deleting important information." These issues are likely inherent in these participants' location as many rural counties in Georgia experience sub-par high-speed internet or the Digital Divide.

Other non-confirming data identified by participants who represent the Digital Divide (the gap between people who can access technology and those who can't) or experience substandard high-speed internet access revealed additional concerns. For

example, P8 said "the internet and computer issues are some barriers I had" when

responding to the interview question what are the barriers that you encounter using

technology for writing purposes. Another example of one participant's response may be

more reflective of something largely technical in nature when responding to the interview

question what are some of the challenges using Google Docs in the writing process. This

was evident in P2's response that "the program doesn't support your PowerPoint

presentation." Each of these responses are more reflective of the participants' experience

with their connectivity.

Other data collected different from all other participants and were also discrepant

included P3's remarks. He commented that Google Docs has "the quick ability to go

between other Google apps (slides or sheets) to help your information be translated

quicker." Another participant noted another Google Suite feature. P2 remarked "it can be

complicated when sharing and 3rd parties cannot open what you shared because they

don't have Gmail. Each of these responses are more reflective of the participants'

experience with features within the Google Classroom.

There was one participant whose response to most interview questions was devoid

of any substance. P3 responded "IDK" to five out of ten interview questions, and "none"

to the interview question, what are the barriers that you encounter using technology for

writing purposes and what are some of the challenges you face using Google Docs in the

writing process? In text communication, IDK is a phrase used that means "I don't know."

In each of these cases P3's lack of specifics rendered her responses not useful.

Evidence of Trustworthiness

This section includes how I ensured quality through trustworthiness and the study's credibility. Qualitative research also requires that certain subsections of trustworthiness are addressed. Specific elements of trustworthiness that were addressed in this section are credibility, transferability, dependability, and confirmability. The section concludes with ethical procedures and a summary.

Credibility

Data from each participant was collected through an interview to create a richer, in-depth description of their lived experiences. I created a rich description with a thorough evaluation of each full interview, not just key points, which increased internal validity (Maxwell, 1996; Miles & Huberman, 1984). Thorough evaluations also increased the trustworthiness of the study. I reread each transcript as I listened to the recording to ensure the participant's language was captured verbatim. For interviews collected via email, I reread each transcript to ensure I understood the responses. To ensure my reactions, thoughts, and comments remained separate, I jotted reflexive notes in the margins of the transcript. Lincoln and Guba (1985) re-conceptualized the trustworthiness of a study as the naturalist's equivalent of internal validity. Finally, I conducted a thorough analysis of potential non-conforming or discrepant cases, which is considered another means of establishing credibility. (Patton, 2002).

Transferability

Transferability is a hallmark of qualitative research. To establish transferability, Lincoln and Guba (1985) mentioned that a researcher must provide evidence that the

findings of the study could apply to other populations, contexts, or situations and times. To establish transferability, I provided thick, rich description of the phenomenon as it relates to the daily lives of the participants and the research setting. By providing thick description that includes demographics, methods, context, strategies, and location, other researchers may be able to use the data to emulate in the context and setting that is most applicable to their study.

In addition, all recordings were transcribed verbatim. Records on how data were collected, analyzed, and maintained were outlined to allow for transparency. Explaining detailed data collection procedures were provided to allow for duplication of the study for all rounds. To ensure that data was not compromised, as well as to protect the integrity of the data, a secure database for managing, coding, and storing the data was used. In addition, all interviews via email were sent over a secured network. Miles and Huberman (1984) noted that being consistent with the process of the study relates to what is identified as dependability and reliability.

Dependability

Dependability was established through multiple rigorous and consistent research procedures. I aligned the conceptual frameworks of SAMR and andragogy with my research question and the design of the study to achieve dependability. I also repeated a rigorous coding and analyses process. At each stage, I reviewed and remained consistent with what was enumerated on my approved IRB application. When I needed to modify data collection methods, I updated my IRB application and awaited approval.

Confirmability

Confirmability is established in qualitative research through many avenues (Miles & Huberman, 1984). One method a researcher can use to ensure confirmability is to acknowledge that his or her experiences are a part of the research process and make them visible. To establish confirmability, rationales were provided for the decisions I made during the study. Explanations of how data were coded as themes emerged were thoroughly recorded. To adjust to conformability, I did not use a reflexive journal as I collected and analyzed data. Instead, I wrote reflexive notes on each interview transcript. I decided to do so because data were collected from a smaller number of participants than planned and was manageable. Lincoln and Guba (1985) acknowledged that confirmability can be achieved as the researcher brackets biases and allows the outcomes of an investigation to be informed by the context of the research. Jotting down my reflections on what is happening throughout the study helped me to analyze my own position, biases, and background, to ensure that these feelings did not influence the research.

Results

The results of the overarching research question revealed patterns that resulted in four themes: the collaboration experience, engagement with peers, productivity from collaboration, and writing motivation. Some of these themes demonstrated negative emotional reactions to using Google Docs among adult learners in writing classes, while others demonstrated positive emotional reactions.

RQ: What are adult learners' perceptions of online tools and interactivity as they engaged in the use of Google Docs in the writing process in an entry-level college writing course?

Theme 1: Collaborative Experience

Participants shared their experiences using Google Docs was collaborative. There was a consensus in that regard. However, the types of experiences participants engaged in resulted in a difference in range of emotions. Some of the key words used by participants regarding their experiences during collaboration include *barriers, challenges, frustrations, uncertainty, interesting* and/or*/surprising*. Codes were classified into categories to better understand patterns in participants' experiences.

After an interpretive analysis, I determined the categories of attitudes, enhances and impedes best explained the participants interactivity and led to the identification of the first theme, collaboration experience. Codes, categories for Theme 1 are described in Table 2. Sharing ideas, brainstorming, editing and working as a team, for some participants, was an experience that was enhanced while others noted collaboration impeded their experience using Google Docs in the entry-level writing course. These ideas explained their similarities and differences in attitude of how they worked with others and led to the first theme.

Table 2

Example of Generated Codes and Categories for Theme 1

Code	Category	Theme 1
Barriers/challenges/frustrations	Attitudes	Collaborative experience
Uncertainty	Enhanced	
Interesting/surprising	Impeded	

Some participants expressed that their collaboration experience was interesting, fun, and surprising. These participants expressed positive collaborative experiences. For example, P2 stated, "Yes, so when we are using it everyone is kinda putting their own ideas in it at the same time, so people can kind of feed of each other if maybe they are unsure about the topic."

Some participants stated that their collaboration experience was enhanced using Google Docs as evident in the following comment by P1:

It makes it really easy to share compared to Microsoft Word where you have to send it with email as a copy or something you can just send them a link and they can automatically write whatever they need on live time so you can see it on your own computer without a problem.

P3 goes on to express how Google Docs enhanced collaboration with peers stating, It can save automatically when done, and make immediately visible." Another positive experience collaborating with Google Docs was expressed by P9 who stated, "It's great for collaboration because everyone can work on the same document at the same time."

One participant's positive experience resulting from collaboration was expressed by P4 who stated, "By allowing us to change docs it forces us to speak to each other before making changes." P5 goes on to share how using Google Docs during collaboration enhance the writing process: "The team aspect of it with multiple participants and active inputs make it [work]." P6's positive collaboration experience stemmed from the convenience, expressed in the following response, "It allows people to connect over the same document at any time."

Other participants expressed that their collaboration experience was sometimes challenging, frustrating, and laden with obstacles. For example, P2 stated, that when collaborating on essays, "Ah the only thing I've noticed is that when a whole bunch of people are writing in it [Google Docs] at the exact same time, it's like you're kinda getting lost as the page is shifting down." P2 goes on to say that the kind of problems working with Google Docs that impede collaboration all depends on the person.

Another participant found that the challenges associated with collaborating using Google Docs are also based on the user's experience. P1 stated,

> That's more dependent on the person because sometimes people like in class we were all using Google Docs simultaneously and it was kind of like overloading it and sometimes people would accidentally get into other people's sentences and start typing by mistake and it can kinda of mess up your writing flow, that's the proper way of saying it.

Another participant, P4, found the collaboration experience frustrating, evident in the following response, "If someone changes and cannot explain to others why then it may confuse you."

Other participants attributed issues such as privacy, integrity of the document, and acts of dishonesty (unintentional and intentional) as their reasons for unfavorable collaborative experiences. P6 stated, "Sharing documents with others may cause plagiarism." P7 commented, "The fact that a single person could harm the document, so trust is needed between peers." P9 remarked, "Peers can change what you say and make it worse possibly." Echoing similar sentiments of challenges during collaboration, P3 shared his perception in the following way, "Some people take advantage and let the other peers do their work for them."

Theme 2: Engagement With Peers

Working and collaborating with their peers using Google Docs oftentimes provided the impetus for how well students engaged with others. Because participants expressed feelings that ran the gamut and underlined how they approached how they engaged with peers, I decided to group the codes under the umbrella or category I named process, coping approaches/strategies. Coping approaches/strategies and process accurately captured the active participation and cooperation of participants. This category led to the identification of the second theme, engagement with peers. Sone of the key words used by participants regarding their engagement during collaboration include substitution, *self-directed, readiness to learn, augmentation, internally motivated,* and *motivations.* Some students were engaged internally to respond and comment on their

peer's papers. Others were self-directed. Both of these findings on engagement align with

Knowle's (1984) andragogy. Codes and categories for Theme 2 are outlined in Table 3.

Table 3

Example of Generated Codes and Categories for Theme 2

Code	Category	Theme 2
Substitution		Engagement with peers
Self-directed		
Readiness to learn	Process	
Augmentation		
Internally motivated	Coping approaches/strategies	
Motivations		

In terms of engagement with peers while using Google Docs in their writing

course, these students' engagement experiences were found to be positive and

advantageous. P2 stated, "I think that all of the different tools on Google Docs are really

helpful for spell checking or even like the percentage it tells you on how effective your

writing is." P1 explained that Google Docs increased his engagement, stating,

> It helps me feel more secure about the writing because it has like extra help, it
>
> tells you if you got something wrong or if you might not be using something
>
> formally. If the power goes out, I don't have to worry about saving it, it saves it
>
> every once in a while.

Participants reported how using Google Docs in the writing process facilitated

positive interaction. The following comments by P4, P9, and P3 reflect the importance of

the capabilities and built-in features of Google Docs that lead to their positive

engagement.

P4 noted he is able to stay focused and engaged by, "Collecting with others it [Google Docs] helps share and edit ideas." P9 expressed similar comments about the features of Google Docs that led to positive student engagement, as evident in the following statement: "It helps with errors, grammar and mechanics." P3 stated that, to create and share documents which can be shared with others led to his positive engagement. Similarly, P6 found engagement positive stating, "It [Google Docs] helps us create writing assignments."

P5 attributed his positive engagement with peers to working with others, as evident by the following comment, "Teamwork and increased visual tips and feedback helps me stay engaged." One participant, P8, simply responded, "yes" that her engagement with peers was positive but failed to offer any context.

Theme 3: Productivity From Collaboration

A third theme emerging from the data was productivity from collaboration. As I grouped data into the codes, I continued to look at the relationships between different codes. Then I created another level of grouping into categories from similar codes. Codes and categories for Theme 3 are described in Table 4. As I analyzed the categories, I interpreted it as a story of perceived outcome of performance by participants, partly based on convenience and accessibility, and partly due to convenience and ease of use. Convenience accessibility and convenience ease of use led to the identification of the third theme, productivity from collaboration. Sone of the key words used by participants regarding their productivity during collaboration include *barriers, challenges, need to*

know, uncertainty, interesting, surprising, and *modification*. Most participants perceived

their experience as favorable because Google Docs increased productivity.

Table 4

Example of Generated Codes and Categories for Theme 3

Code	Category	Theme 3
Barriers/challenges/frustrations		Productivity from collaboration
Need to know	Perceived outcome	
Uncertainty	Convenience accessibility	
Interesting/surprising	Convenience ease of use	
Modification		

Most participants reported how using Google Docs in the writing process

facilitated positive productivity during collaboration. The following comments by P6

reflect the importance of collaboration using Google Docs that led to her productive

outcomes.

P6 stated, "It allows you to work with others, giving tips to edit your work." P7

identified some of the benefits of positive productivity using Google Docs during the

writing process as, "The history of everyone working on it and the illustration of people

working on it both increase productivity."

Some participants (P2, 3, 4, 5) were productive while collaborating using Google

Docs in the writing process, for example, P2 shared, "I would think it just makes it easier

to have a whole classroom kind of communicate at the same time without having

everyone speaking over top of each other." P4 noted that he was more productive using

Google Docs as evident in the following comment, "Because "using video call, if anyone

has questions, you can call and ask someone." P3 attributed his productivity using

Google Docs to speed and efficiency, as noted in the following comment, "It's [Google

Docs] faster than other programs." P5 stated, "Wide collaboration again w/teamwork and

multiple projects and tools."

On the other hand, three participants perceived their productivity experience as

unfavorable because Google Docs slowed down productivity. P1 expressed,

> I was more familiar with Microsoft Word, so Google Docs was confusing, but
>
> there are more videos on Google Docs nowadays to find content. I know it has a
>
> kinda search function on there that helps me find tools faster.

> Expressing similar dissatisfaction, P8 commented, "A lack of knowledge or

understanding of how Google Docs works if never used it prior, can slow you down."

When asked interview question was the experience using Google Docs positive or

negative, P8 commented, "it was ok." P8's response was interpreted as not positive.

Theme 4: Writing Motivation

As students create essays and write for academic purposes some challenges may

be present. Some experience challenges formulating ideas, while others may not feel

confident in their writing abilities. In group writing, these issues also arise. The data

revealed that students were more motivated to work and create prose using Google Docs.

Participants reported that incorporating Google Docs in an entry-level writing course

with adult learners was effective in writing motivation, the fourth theme that emerged

from the data. Data were grouped into codes I generated as immediate application of

knowledge and redefinition. From the codes, I created a category that captured the

essence of the codes that drove student motivation which I named extrinsic and intrinsic

factors. This category led to the identification of the fourth theme, writing motivation.

Sone of the key words used by participants regarding their motivation for writing using

Google Docs include *immediate application of knowledge, redefinition extrinsic factors,*

intrinsic factors, and *writing motivation.* Codes and categories for theme 4 are described

in Table 5.

Table 5

Example of Generated Codes and Categories for Theme 4

Code	Category	Theme 5
Immediate application of knowledge	Extrinsic and intrinsic factors	Writing motivation
Redefinition		

Participants revealed the impetus to write stemmed from varied forces. The wide

variety of forces could be reduced to one of two categories: external or internal

influences. Some participants noted that Google Docs increased their self-confidence

which fueled their motivation as evident in the following comment by P2: "I think that all

of the different tools on Google Docs are really helpful for spell checking or even like the

percentage it tells you on how effective your writing is."

P1 echoed a similar statement:

It helps me feel more secure about the writing because it has like extra help, it

tells you if you got something wrong or if you might not be using something

formally. If the power goes out, I don't have to worry about saving it, it saves it

every once in a while.

P5 commented,

I like it because it is a lot easier compared to just using pencil and pen and erasing

everything because like if I get an entire sentence wrong it takes time to erase that

instead of just typing it out and highlighting and removing the problem.

Some participants reported that Google Docs helped to motivate them during the

writing process, evident in the following comment by P7. "I'm motivated because it's a

quick tool to share and work in a project with a group." P8 found inspiration and

motivation stating, "It [Google Docs] makes my life so much easier because I am a bad

speller." Several other participants agreed, as evident in the following comment by P9. "It

helps me with grammar and mechanics." P6 goes on to express that "it helps me create

writing assignments, like to begin." P4 stated, "It helps me use the best words to

communicate thoughts." P3 added that "I can create documents and share with others."

Summary

In this chapter, I presented the setting, participant demographics, how data were

collected and analyzed. I also discussed evidence of trustworthiness and the results of the

study. This chapter provided unique insights into nine adult learners' experiences and

their perceptions of online tools and interactivity as they engage in the use of Google

Docs in an entry-level writing course. The results demonstrate the role Google Docs play

in the writing classroom and sheds light on how adult learners use interactivity in online

environments. The data shows that adult learners' lived experiences include a plethora of

practices for spelling, grammar, organization, editing, and thought development that range from positive and negative emotions during collaboration and productivity. The results also demonstrate that participants also expressed mixed feelings during student engagement as well as expressed mixed feelings on their writing motivation. For example, the results of the overarching research question revealed that more adult learners expressed that their experiences using Google Docs motivated them to write. However, during collaboration sometimes productivity was not favorable. Collectively the four themes revealed from the study: the collaborative experience, engagement with peers, productivity from collaboration, and writing motivation, results show that adult learners' perceptions of online tools and interactivity as they engage in the use of Google Docs in an entry-level college writing course was positive. In Chapter 5, I describe key findings, interpret the findings, present an analysis of the data, and explain the limitations of the study. I also suggest the recommendations for further research, share the implications for positive social change, and provide a conclusion.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this phenomenological study was to gain insight into the lived experiences of adult learners and their perceptions of online tools and interactivity as they engaged in the use of Google Docs in an entry-level college writing course. The phenomenological design was the best approach to capture the essence of the perceived classroom experiences of Google Docs in the college writing course. To answer the research question, I chose a phenomenological design to highlight the lived experiences of adult learners interacting while using Google Docs in an entry-level writing course.

Interpretation of the Findings

The study was guided by one research question. Analysis of the data resulted in four themes. First, adult learners perceived Google Docs in an entry-level college writing course as an online tool or resource that provided a collaborative experience. The theme collaborative experience confirmed results by Zaky (2021) regarding the impact Google Docs had on students' learning styles and the high correlation between students' desire to interact after writing in class and using Google Docs as a collaborative writing tool. Second, adult learners perceived Google Docs in an entry-level writing course as a space for positive student engagement with their peers. The theme engagement with peers was consistent with Knowles's (1975) framework regarding adult learners being more self-directed and the experiences of adult learners becoming their resource for learning. Third, adult learners perceived Google Docs in an entry-level writing course as a space for productivity during collaboration. This theme confirms and extends Jeong's (2016) findings of students enrolled in a first-semester English class integrating Google Docs in

the EFL classroom to organize their work. Fourth, current participants perceived Google Docs in an entry-level writing course as a resource for motivating writing. This theme confirms Passig and Maidel-Kravetsky's (2016) finding that students produced significantly better writing summaries when collaborating with Google Docs compared to students who wrote summaries by hand and face-to-face.

Theme 1

The first theme of providing a collaborative experience point to participants' experience as varied and diverse. Participants expressed a range of experiences, from negative to positive, when reporting that collaboration provided some improvements and distractions to the learning process. Participants reported that collaboration using Google Docs made it easier to rewrite sentences. This theme is consistent with the work of Moonen (2015) in that the features of Google Docs offer a variety of opportunities for students to improve their writing using collaboration, real-time feedback, and reevaluation of their ideas and thought processes. Current participants reported that using Goggle Docs enhanced collaboration. This theme is consistent with Jeong's (2016) study of EFL students regarding the benefits in helping students organize their work and exchange and receive instant feedback. However, within the theme of the collaborative experience, some current participants reported unfavorable experiences. Participants noted that multiple people working on the same draft creates problems with pagination, plagiarism, and editing, and results in unintentional changes. This finding is not confirmed in the recent literature.

Theme 2

The second theme was engagement with peers. Participants reported their engagement experiences as rewarding and positive while collaborating. Some participants reported that because they could work on the part of the assignment that was easiest for them, they were engaged more. Participants also reported positive engagement because Google Docs is faster than other programs. Other participants pointed to positive engagement because they were engaged in learning activities that enabled them to create stronger documents. This theme extends the work Iftakhar (2016) and Mohammed and AL-Jaberi (2021) regarding the 21st century skills of streamlined communication and workflow that students learn through Goodge Docs, Google Forms, and Google Drive.

Theme 3

In reference to the third theme on productivity from collaboration, participants reported positive productivity because of the wide collaboration that allowed for teamwork with multiple projects and tools. Some participants found the tips to edit work to be invaluable. Study participants highlighted the importance of the readily available history of others' work as a productive component of collaborating. Participants also reported that being able to work on the document at any time and being able to work on it live increased productivity. These theme of positive productivity extends Passig and Maidel-Kravetsky's (2016) findings that students produced significantly better writing summaries when collaborating with Google Docs compared to the students who wrote summaries by hand and face-to-face. Lin et al. (2016) found that using Google Docs to draw concept maps in physics courses fostered students' ability to represent the concepts.

Current participants also reported that positive productivity was a result of their high levels of experience and that they were less concerned with favorable grades, findings that reinforce principles of andragogy (see Knowles, 1975, 1980).

This theme also supports the differences in the way learning occurs among adults as they mature. Three of Knowles's five assumptions are relevant to this theme: (a) experiences of adult learners increase, which become the resource they draw upon from learning; (b) adult learners' readiness to learn must be oriented to their roles, socially and professionally; and (c) applying immediate knowledge is the focus for adult learners. Participants reported value in how the entire class's contribution at the same time made writing easier. Some participants noted the importance of being able to save work automatically and then make the work immediately visible as crucial, so they shift from being subject centered to problem centered. Adult learners are motivated internally to learn (Knowles, 1975, 1980).

The theme also extends Dachner and Polin's (2016) findings that applying andragogical principles to emerging adults in undergraduate management courses can bring adult learning to its highest point. Dachner and Polin argued that emerging adults learn best when they identify what they are learning in school and how it relates to outside roles and responsibilities These components of emerging learners align with two assumptions of adult learning: learners have high levels of experience that drive them, and learners see the benefits of education beyond grades.

Theme 4

The fourth theme was writing motivation. Participants shared how Google Docs provided the impetus to write and for a variety of reasons. Participants pointed to the idea of connecting with others as well as sharing and editing ideas as a motivating factor. This finding is consistent with the work of Alwahoub et al. (2020) and Cho (2021) regarding Google Docs as a supportive environment for students to develop lifelong computing skills, social skills, and teamwork, which are integral components to contributing and competing in the global economy. Current participants also reported that they were motivated internally to write because they could work on the part of the assignment that was easiest for them. This finding is consistent with Knowles's (1975, 1980) assumptions of being more self-directed and that the experiences of adult learners increase, which become the resource they draw upon for learning. Some current participants reported that making changes to a collaborative document forced them to be sure and become more confident. Other participants revealed that they were encouraged to write because of the self-correcting features embedded in the online tool. The wide variety of forces could be reduced to external or internal influences. Three participants noted that Google Docs increased their self-confidence, which fueled their motivation, also consistent with Knowles's andragogy.

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Limitations of the Study

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Although rich, in-depth descriptions were gained from this qualitative study, there were limitations to the research design. One limitation was the results cannot be generalized to a larger population because of the limited number of participants. Nine

participants were interviewed. The small sample size, however, is characteristic of a

qualitative study (Mason, 2010). A second limitation was that all participants were from

metropolitan Atlanta or within 100 miles; therefore, results may not be transferable to

other adult learners enrolled in entry-level writing courses in areas outside of the state of

Georgia. Also, results may not be transferable to other adult learners in entry-level

writing courses on other undergraduate college campuses in other states or countries.

Additionally, the sample was limited to adult learners in entry-level writing courses in an

urban or rural setting in metropolitan Atlanta. Participants' responses may not be

transferable to adult learners in other disciplines or adult learners enrolled in upper-level

English courses.

A third limitation of this study was that it relied on participants' self-reporting.

Adult learners may not have remembered their experiences fully. Inherent in self-

reporting is that it may cause participants to be dishonest or report what they believe is

the better response. Some participants may have been influenced intentionally or

unintentionally by other participants, or the memories of participants may not have

accurately represented their lived experiences. Another key limitation was that

participants may not have been able to recall certain experiences that may have informed

the research.

A fourth limitation of the study was that the type of classroom activity assigned

for using Google Docs did not focus on a specific aspect of Google Docs. Therefore,

results may have revealed a wide range of information rather than insight. Inherent in the

limitation of the classroom activity assigned to use Google Docs was the length of the

instruction to guide students on how to use Google Docs. The results revealed students with multilevel abilities using the technology.

Another limitation was potential researcher bias as a practitioner that could have influenced the study's outcomes. In both my undergraduate experience teaching freshmen composition in higher education as well as my experience working as an ESL instructor, students were required to integrate technology using word processing platforms such as Microsoft Office or Google Docs. To minimize researcher bias, I identified the previous experiences I had with adult learners in the classroom. Using bracketing, I separated previously held judgments, which allowed me to see things through the lens of the current study.

Recommendations

Further research should explore using Google Docs in entry-level writing courses with adult learners. Other qualitative approaches and mixed-methods designs would add to the understanding of technology integration using SAMR, implementation using Google Docs in entry level writing, and educating adult learners in traditional freshmen writing courses. As enrollment of adult learners increases to 9.3 million by 2024, as projected by NCES (2018b), the number of adult learners who reenter the academic arena will lead to an uptick in adult learners in entry-level writing classes. Teachers of writing must be prepared to address the unique characteristics of adult learners and how they learn best. Perhaps studies on specific aspects of using Google Docs in freshmen writing courses with adult learners designed with SAMR that tracks implementation during or after writing assignments may lead to a deeper understanding of adult learners' needs.

The large influx of adult learners may also necessitate continued research using Google Docs to facilitate the learning style of students. Zaky (2021) investigated the impact Google Docs had on students' learning styles and found a high correlation between students' desire to interact after writing in class and using Google Docs as a collaborative writing tool. Other recommendations include extending the research to other disciplines, as noted by Lin et al. (2016) that using Google Docs to draw concept maps in physics courses fostered students' ability to represent the concepts. Both of these studies conducted with traditional learners illustrated that using Google Docs may enable seamless integration of multiple learning styles. Further research among adult learners is needed.

Adult learners bring unique characteristics to the classroom setting. Because adult learners balance many responsibilities from being caregivers to working full-time jobs, further research is recommended on using Google Docs to create learning communities among them. A growing body of literature suggested that LCs provide students with opportunities to have more meaningful college experiences. Students' sense of community is beneficial to the learning process (Moumoutzis et al., 2021; West & Williams, 2017).

Continued research on technology integration with SAMR using Google Docs in entry-level writing courses in undergraduate classrooms among adult learners could include a larger sample size so results can be generalized. Such research may enable writing teachers to better facilitate learning that captures this student population's rich-life experiences. Perhaps studies on specific aspects of using Google Docs in freshmen

writing courses with adult learners designed with SAMR that tracks implementation during or after writing assignments may lead to a deeper understanding of student needs. Different methods to collect data could be considered for triangulation and to corroborate findings.

One assumption of the current study was that all participants were adult learners who were enrolled in an entry-level writing course with an instructor who used Google Docs. Perhaps including instructors who were Google Docs certified or who had an extensive knowledge base using Google Docs for academic purposes would provide more data that lead to greater insights. Using Google Docs certified instructors or instructors who have an extensive knowledge base may widen the understanding of best practices when implementing Google Docs.

Implications

The use of Google Docs and SAMR technology integration in entry-level writing courses among adult learners to support the acquisition of basic writing skills such as communication, organization, and editing is relevant to writing in higher education. Information gained from this study adds to the knowledge base of research on the use of Google Docs in entry-level writing courses in higher education with a population of adult learners. Alwahoub et al. (2020) and Cho (2021) expressed an understanding of the Google Docs platform as one that supports an environment for students to develop lifelong computing skills, social skills, and teamwork. These integral components increase learning opportunities for students to contribute and compete in the global

economy. Competing globally is one of many implications for positive social change in the current study.

Other implications from the results of this study are relevant to social change for teacher practitioners, adult learners, writing departments, and policy makers in the Freshmen Year Experience. Understanding the perceptions of students as they use Google Docs in an entry-level writing course will also help identify potential ways to use technology effectively and efficiently. Further implications, such as how to prepare teachers for integrating Google Docs in the context of entry-level writing for adult learners, can extend from this study.

Another implication for social change resulting from the findings of this study for teacher practitioners is the study has the potential to advance the integration of educational technology and change the instructional practices of teachers as they attempt to use strategies that increase interactivity and reflective practices for students. Reflecting on the perceptions of adult learners' interactions, writing, knowledge, and rhetorical choices, this research has the potential to identify evidence-based strategies to support interaction and the educational-technology based enhancement of the writing process for adult learners.

On a larger scale, results obtained from this research have the potential to inform instruction and the use of educational technology tools to drive and improve the teaching of writing and impact positive social change in the first-year experience. Hembrough and Jordan (2020) and Karmelita (2018) expressed that freshmen writing courses are often fraught with angst for adult learners. Technology can either improve or exacerbate the

first-year experience for adult learners. This research is designed to gain insight into the lived experiences of adult learners and their perceptions of online tools and interactivity as they engage in the use of Google Docs in an entry-level writing course. This may help to inform choices programs make for the first-year experience.

Another implication for positive social change derived from the results of this study has the potential to not only impact the landscape of current institutions but may also have an impact beyond the writing program as the growing population of adult learners is projected by NCES (2018b), to increase to 9.3 million by 2024. These projections could potentially surpass traditional populations. Findings from this study may identify best practices and processes for creating and applying these ideas for integrating technology to promote the development of adult learners. Acquiring technological skills will positively influence adult learners' dignity and sense of self as they matriculate but also as they compete for positions and promotions at work and in society.

A final implication for social change based on the results of this study is that adult learners will have access to a quality of education best suited to their needs. More importantly, the study may have an impact on other disciplines, where first-year adult learners are enrolled. The results of the study can be applied to any subject offered in brick-and-mortar settings, online, and blended environments and broaden the palette of pedagogical offerings. These applications can potentially promote the academic development and progress of adult learners in higher education in traditional freshmen class settings.

Conclusion

Teachers who teach entry-level writing courses in higher education are faced with the challenge of meeting the needs of a growing population of adult learners re-entering academia. Google Docs and technology integration using SAMR model are widely used in entry-level writing classes among traditional learners, demonstrating that collaboration enhances the learning process. Google Docs, in particular, encompasses features that allow students to collaborate in real-time and enhance engagement.

This qualitative study was designed to gain insight into the lived experiences of adult learners and their perceptions of online tools and interactivity as they engage in the use of Google Docs in an entry-level writing course. The outcome of this study revealed both negative and positive experiences while collaborating and being engaged with their peers. Students' productivity experiences were both negative and positive. Many participants were motivated to write using Google Docs. The myriad of experiences suggests that when properly implemented, Google Docs can meet the needs of adult learners. The results from this study may be used to inform and improve the instructional practices of teachers who teach entry-level writing courses in higher education.

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Appendix A: Recruitment Flyer

Insert appendix content here.

Appendix B: A Priori Codes

RQ: What are adult learners' perceptions of online tools and interactivity as they engaged

in the use of Google Docs in an entry-level writing course?

Codes created from my research question:

Motivations	Challenging
Frustrations	Ease of use/Easy
Reactions	Frustrations/Challenges/Obstacles/Barriers
Teamwork	Uncertainty
Cooperative	

Alkhateeb (2020); Anusha & Rani (2021); Azodi et al. (2020)

Codes created using SAMR as informed by the literature:

Substitution definition - technology replaces a Pen/Pencil in a Writing Assignment.

Modification definition - technology like text-to-speech function where feedback can be received and incorporated to help improve the quality of writing.

Argumentation definition - technology like text-to-speech functions is used to improve the writing process.

Redefinition definition - technology replaces a written assignment; students convey analytic thought using multimedia tools

Aldosemani (2019)

Created codes using Knowles' Andragogy as informed by the literature:

Learner's self-concept	Need to Know
Role of the learners' experiences	Learning from Experience
Readiness to learn	Internally Motivated
Orientation to learning	Immediate Application of Knowledge
Internally motivated	

Azmi & Anggrainy (2020)

Appendix C: Interview Protocol

Background Information

The purpose of this phenomenological study is to gain insight into the lived experiences of adult learners and their perceptions of online tools and interactivity as they engage in the use of Google Docs in an entry-level college writing course.

Research Question

RQ: What are adult learners' perceptions of online tools and interactivity as they engaged in the use of Google Docs in an entry-level writing course.

Interview Questions

Q1. How do you feel about the effectiveness of technology used by your professors in your writing courses?

Q2. How do you feel about the effectiveness of the technology you use for writing purposes?

Q3. What barriers do you see when professors use technology in your courses for writing?

Q4. What are the barriers that you encounter using technology for writing purposes?

Q5. How does Google Docs help you in the writing process?

Q6. What are some of the challenges using Google Docs in the writing process?

Q7. How does Google Docs enhance collaboration with peers?

Q8. How does Google Docs impede collaboration with peers?

Q9. What are some specific elements of Google Docs that increase productivity?

Q10. What aspects of Google Docs slows down productivity?

During the interview, respond to the questions below. Indicate on a scale of 1 to 5 (1 being the lowest and 5 being the highest) how much amount of time do you spend each week using the following.

Q11. How often do you use Microsoft Word for personal use?

1   2   3   4   5

Q12. How often do you use Google Docs for personal use?

1   2   3   4   5

Q13. How often do you use Microsoft Word for professional use?

1   2   3   4   5

Q14. How often do you use Google Docs for professional use?

1   2   3   4   5