

DIGITAL NATIVES' PERCEPTIONS ON FEELING UNDERSTOOD BY TEACHERS: A  
TRANSCENDENTAL PHENOMENOLOGICAL STUDY  
INFORMING 21<sup>st</sup> CENTURY EDUCATION

by

Dennis Derne Perez

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

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## ABSTRACT

The purpose of this transcendental phenomenological study was to explore the academic and social experiences of digital natives at Patrick Harrison High School (pseudonym) located in southern California. The research questions addressing the study were: (a) What are digital natives' academic and social experiences; (b) How does feeling understood by teachers shape digital natives' learning experiences; and (c) How does the use of social media, the Internet and digital devices contribute to 21<sup>st</sup>-century education as perceived by digital natives? Prensky's (2001) theory on digital nativity, Gordon's (1988) theory on feeling understood, and Vygotsky's (1978) constructivist learning views informed the study. Participants came from a purposeful criterion sample consisting of 11 high schoolers who reported using digital devices, the Internet, and social media. The data collection came from interviews, a focus group, and drawings. The data analysis followed Moustakas' (1994) strategies on the phenomenological reduction process that assisted in revealing the digital native experiences. The results of the study revealed three themes commonly shared among the participants' that related to their digital, life, and school experiences. The study supported best practices for 21<sup>st</sup>-century learners.

*Keywords:* digital native, 21<sup>st</sup> century learner, feeling understood, globalization, relationships technology, transcendental phenomenology

## Dedication

With much gratitude, I dedicate this study to God. From the beginning of the doctoral program through the writing of the dissertation, Philippians 4:13, guided me through the successes and struggles of the doctoral program at Liberty University with the words “I can do all things through Christ who strengthens me” (NKV).

I would also like to dedicate this study to my loving wife, LuzElena, who with her love and commitment to our friendship, marriage, and children, provided the loving support that greatly carried me to my doctoral completion. Her own work ethic and desire to make life better for students, is a constant reminder of the necessity to carry strong leadership, knowledge, and education into our schools.

I would also dedicate this study to my two daughters Monique and Clarice. They are my shining lights. Their own commitment and hard work to achieve their goals inspired me to complete mine. Their faithful *digital natives-in-residence* personas provided me inspiration toward understanding the world of digital native experiences.

Lastly, I like to dedicate this study to the Patrick Harrison High School staff and students whose participation made this study possible. I wish all the participants well as the 21<sup>st</sup> century continues to bring understanding and commitment to serving learners with their voices and concerns center stage.

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**List of Abbreviations**

Gaming Virtual Worlds (GVWs)

Institutional Review Board (IRB)

Social Virtual Worlds (SVWs)

Virtual worlds (VWs)

## **CHAPTER ONE: INTRODUCTION**

### **Overview**

The 21<sup>st</sup>-century experience redefined almost everything life had to offer, especially education and technology (Friedman, 2005; Geer & Sweeney, 2012; Palfrey & Gasser, 2008; Prensky, 2001). The existing literature emphasized a need for greater research that informs digital-age schools from the voices of the digital natives (Moyle, Wijngaards, & Owens, 2012). This chapter included: (a) background, (b) situation to self, (c) problem statement, (d) purpose statement, (d) significance of study, (e) research questions, (d) research plan, (e) delimitations, and (f) limitations. Transcendental phenomenology and definitions concluded the chapter to support the study.

### **Background**

Friedman (2005) described a rapidly-changing world that was transitioning into a global and digital society fueled by an ever-growing Internet that was influencing politics, economics, education, and personal life. A few years prior, the 1990s ushered in globalization and the emergence of digital natives. Technologically-driven learners challenged schools to create collaborative and digitally-minded learning experiences for students unaware of life beyond their digital existence (Friedman, 2005; Gordon, 1988; Moyle et al., 2012; Palfrey & Gasser, 2008; Prensky, 2001; Rust, 2012).

As learning institutions pondered about the future of education, communities faced the uncertainty of how the Internet's ability to send and acquire information faster than any previous technology would impact schools and students (Friedman, 2005; Prensky, 2001). This uncertain impact on schools, coinciding with an advancing technological society, presented me with the opportunity to conduct a transcendental phenomenological study with the curiosity of capturing

glimpses of what it is like for digital natives to grow up as the first generation from birth to experience life completely as digital learners (Friedman, 2005; Prensky, 2001). As the study preceded, it was important to develop a theoretical framework and literature analysis that matched the goals of the transcendental phenomenological design that could serve as the backdrop to support data analysis of participants' life experiences. As I continued to address the data analysis, common terms and experiences matched descriptions associated with Prensky's (2001) theory on digital nativity and Gordon's (1988) theory on feeling understood.

In Prensky's (2001) claims, he argued schools must pay attention to 21<sup>st</sup>-century students and seek to understand digital natives or face a future with disconnected learners trapped inside unresolved instructional technology issues related to unchanging learning institutions. Prensky argued that no longer can schools afford to neglect what he viewed as a shift in the kind of learning styles and learning experiences needed to support digital natives. Prensky stated that digital natives prefer to learn with the Internet, digital devices, and social media. Prensky contended that the digital natives' lifestyles have challenged schools to re-examine the purpose of how learning should be conducted. He also contended unless schools address how to effectively meet the needs of the 21<sup>st</sup>-century learners, the relationships between students and teachers are undermined.

Besides Prensky (2001), Palfrey and Gasser (2008) showed concern about the relationships that have existed between the digital native students and digital immigrant teachers. They attributed the tensions associated between the learners and the instructors to limited acceptance of the digital native lifestyles. Palfrey and Gasser surmised that the conflict between the two groups could be attributed to the digital natives' technological learning preferences clashing with the traditional non-digital teaching strategies. As the debate continued over how to

approach digital natives at school, there also has been no consensus on whether the emergence of digital natives should be defined as a distinct generation. Sánchez, Salinas, Contreras, and Meyer (2011) had mixed thoughts about whether digital natives should be considered as a distinct generation. However, Sánchez et al. acknowledged that because of the unique characteristics possessed by digital natives to communicate more rapidly than any previous groups of students via the Internet, their digital capabilities may be “partially distinctive of a generation” (p. 553).

As communities experienced digital natives developing from the 1990s to the present, the daily navigation of the Internet and digital devices contributed to transforming how people now communicate, interact, and respond to each other (Brito, 2012; Prensky, 2001; Palfrey & Gasser, 2008). At school, students dominated school experiences with digital devices, the Internet, and social media (Palfrey & Gasser, 2008; Prensky, 2001). School administrators and teachers have continued to address the technology tensions by encouraging stronger relationships between the students and teachers (Palfrey & Gasser, 2008; Prensky, 2001).

Just prior to globalization and the digital age introducing the Internet, Gordon (1988) was examining the dynamics between teachers and students in the classroom. The work he produced suggested that successful teaching experiences contributed to students feeling understood. Prior to Gordon’s research on feeling understood, he created a theoretical framework associated with the phenomenon of effective communication between individuals. In Gordon’s work with developing a theoretical framework on effective communication, he made a connection relating effective communication to feeling understood. As he developed his theory on communication, he progressed to studying the phenomenon of feeling understood. Years later, researchers Oishi,

Akimoto, Richards, and Suh (2013) suggested feeling understood was an overall predictor of life satisfaction.

Throughout the dissertation, the experiences of digital natives dominated the transcendental phenomenological discussion rooted in their digital age existences. It was the study's goal to contribute to literature associated with 21<sup>st</sup>-century education by revealing the thoughts and feelings of digital natives in their academic and social experiences. Additionally, Moyle et al. (2012) identified that research was limited in digital native voice and perspective. In Moyle's et al. meta-analysis of research on developing 21<sup>st</sup>-century schools, they suggested a need for more digital native research that included advocating for digital natives to be active participants in developing 21<sup>st</sup>-century schools.

### **Situation to Self**

This dissertation represented my belief that self-reflecting on life experiences contributes to remaining motivated to learn (Pintrich, 1995). My professional and personal situations and philosophical assumptions were rooted deeply in a desire to see all students succeed. In this section, I explain how my life experiences and philosophical assumptions drove the motivation for conducting the study.

### **Life and Educator Experiences**

My commitment to serve all students has shaped my educational leadership journey. As an undergraduate at Humboldt State University, it was emphasized through the university's philosophy to guide its students toward socially responsible actions to serve and strengthen communities. This social responsibility philosophy led me to my first years of teaching as I pursued a master's degree in curriculum and instruction that included writing a thesis on the theory of multiple intelligences, which was heavily focused on supporting all students by

understanding their learning styles. As I completed my Liberty University doctorate, Godly principles of love, compassion, and accountability, assisted in developing further my educational leadership style, life philosophies, and educational practices.

As an educator for the past 20 years, I have interacted with students who have generally strived to build positive relationships with adults even in the mist of challenges. I have been fortunate that throughout my career, students have confided in me their life successes and struggles as a way of trusting and seeking my assistance. I have continued to use active listening and restorative practices to support the social, emotional, and academic development of students. Personally, my burning desire to make a difference in students' lives, and raising two digital native daughters, I have naturally migrated toward understanding the world of digital natives. In the past two decades, I have witnessed how the emergence of digital natives, the Internet, and globalization have impacted 21<sup>st</sup>-century learning communities. I further observed the struggles teachers and students have had over the use of digital devices and technology in the classrooms. In most cases, administrators and teachers approached the technology issues by limiting usage and establishing policies and rules governing technology with limited student input.

As an educator, whether it has been a teacher, coach, or administrator, I have encouraged students to use smartphones, Chromebooks, Smartboards, and Smart-tables and other technologies to support their learning. I see myself as a digital ally who has approached the technology issue by encouraging and expecting students to reflect and act responsibly toward their technology choices. My partnership with parents have also contributed to meaningful and productive conversations resulting in increasing positive student behavior with the use of

technology in the classroom. All my educational actions and experiences are traced to philosophical assumptions that have developed my worldviews.

### **Philosophical Assumptions**

Transcendental phenomenology operates as a framework to how to understand lived experiences of individuals studied (Creswell, 2013; Husserl, 1958; Moustakas, 1994). The framework serves as a process to receive participants' data and find meaning from data derived from their perspectives (Moustakas, 1994). Transcendental phenomenological researchers reveal participant perspectives while making their own views and biases transparent to a study (Husserl, 1958, Moustakas, 1994). Philosophically, the transcendental phenomenological design promotes presenting the *essence* of an experience from the participants' point of view. In the epoche process, information is assigned equal value through horizontalization that enables the researcher's views to be bracketed to reveal data captured from the participants' experiences (Creswell, 2013; Husserl, 1958; Moustakas, 1994). The phenomenological reduction process continues, so that the phenomenon is "perceived and described in its totality, in a fresh and open way" (Moustakas, 1994, p. 34).

For the study, examining the ontological, epistemological, axiological, and rhetorical philosophical assumptions assisted in revealing my worldview on life and digital native experiences. It was important that I had a solid understanding of my worldviews to determine what data had to be bracketed and deemed essential toward revealing the participants' experiences and perspectives. I was also careful not to assume that conclusions could be automatically generalized to a general population without a thorough examination of the information and analysis that would support such generalizations (Erickson, 2012). Moreover,

reflecting and writing about my assumptions grounded my thinking and prepared me for the phenomenological reduction process.

**Ontological assumptions.** Ontology addresses the philosophical study of the nature of being or reality (Jepsen, 2009). Jepsen (2009) viewed ontology as a “method of representing items of knowledge” (p. 22). For this study, the representations of knowledge came from the participants’ 21<sup>st</sup>-century adolescent worldview. My perspective on reality came from an adult, educator, and parent worldview. The exposure to digital devices and the Internet contributes to the participants’ reality (Prensky, 2001). The perspective of reality from the participants’ perspective emerged through their participation in the drawings, focus group, and interviews. An immanent ontological description (Jepsen, 2009) of digital nativity became more prevalent as the less structured and undetermined phenomenon of digital nativity was revealed.

**Epistemological assumptions.** Philosophically, “Epistemology is concerned with the origin, nature, limits, methods, and justification of human knowledge” (Hofer & Pintrich, 2002). The 21<sup>st</sup>-century approach to education had placed epistemological emphasis on student voice. From an epistemologically=privileged position in society, it makes sense to focus on the digital native perspective as it would be difficult to obtain their view from any other place (Erickson, 2012). Erickson (2012) advocated for qualitative research as a method to explore beyond the empirical evidence into asking the why something is occurring. Erickson carefully suggested that because every experience is unique, it is important to scrutinize generalizations as they might lead to false conclusions and bad decisions. Erickson also insisted generalized statements should be scrutinized for relevancy to the study. Wehlage (1981) believed generalizations are possible if they are formed by well-constructed analogies that can clearly make a connection from one situation to the next.

In another perspective, Yuen (2004) advocated for using drawings to obtain reliable information on children's experiences. Yuen noted that, especially for children, individuals possess the ability to express information best at times through non-verbal methods such as with drawings. Hundley and Shyles (2010) favored focus groups to gain knowledge about a phenomenon because participants can simultaneously share similar experiences. Whereas Weiss (1994) contended that interviews are useful tools for participants to show understanding of experiences. For the study, the interviews provided the participants the opportunity to share their stories and perspectives of their digital native experiences. I considered all the mentioned positions as I approached the data collection activities mindful of epistemological implications.

**Axiological assumptions.** Axiology refers to how humans determine value toward something. Baeva (2012) wrote, "Value is the striving of humans to clarify the meaning and significance of [their] existence" (p. 73). Part of the process of assigning value is prioritizing what things received attention and considered important (Axelrod, 2010). As value is assigned, clarity emerges that lead to decision making (Axelrod, 2010). In my role as an educator, student achievement and community development determine value. For the participants, digital experiences determine value. I used the transcendental phenomenological design to reveal the axiological values present within digital natives' experiences.

**Methodological assumptions.** Methodological assumptions address the process of research (Creswell, 2013). For the study, I used the transcendental phenomenological method. Since I was interested in the participants' perspectives, data collected through interviews, a focus group, and drawings provided me opportunity to gather their stories to help reveal the phenomenon of the digital native experience. I used the software program Nvivo for coding techniques that satisfied transcendental phenomenological expectations (Bergin, 2011; Saldaña,

2013). According to Saldaña (2013), “Nvivo is appropriate for virtually all qualitative studies, but particularly for beginning qualitative researchers learning how to code data, and studies that prioritize and honor the participant’s voice” (p. 91).

**Rhetorical assumptions.** Qualitative research is inductive by nature (Creswell, 2013). Young (2013) said, “The overall rhetorical assumption in qualitative research is that you are not truth seeking or omniscient but instead reporting what reality is through the eyes of your research participants” (p. 1). This was a transcendental phenomenology study, which sought to reveal a phenomenon about digital native experiences from their perspective. I wrote the study in first person narrative as prescribed by qualitative research standards (Creswell, 2013). As the study unfolded, participants’ stories increasingly defined the experiences and terms of digital native lives (Creswell, 2013). I used epoche to bracket statements that focused on my views or outside influences that would distract from the participants’ interpretations of their digital native experiences (Moustakas, 1994).

**Constructivism and social learning.** In a general sense, constructivism and social learning served to complement the philosophical assumptions for the study. The study was rooted in both constructivism and the social learning. The goal is to understand digital native experiences through the participants’ worldview. The study was an emerging process as the participant engaged in interviews, focus groups, and drawings to share and construct meaning about their digital native lives. The constructivist paradigm was ideal for the study because it focuses on creating meaning through reflecting on the knowledge and experiences they have acquired by themselves and others (Bandura, 1989; Bruner, 1960; Vygotsky, 1978).

For the study, the goal was to seek truth and knowledge directly from the participants. Their shared stories and constructive meanings of digital natives’ experiences informed the

study. Heron and Reason (1997) believed that truth resides in the development of community consensus. Transcendental phenomenological design provided the vehicle to address the meaning of the experience of digital natives by approaching it through the constructivist lens that sifts through and uses only statements or data derived directly from the participants. All research questions reflected the constructivist goal to find meaning through questions intended to reveal the digital native story. It was imperative to remain committed to the fidelity of the digital native perspective and make sure my biases and judgements were made transparent and bracketed to reveal the digital natives' story as directed and informed by qualitative research design and transcendental phenomenology methods (Creswell, 2013; Moustakas, 1994).

### **Problem Statement**

The problem of the study was that 21<sup>st</sup>-century learners have struggled to feel understood by their teachers in the digital age (Gordon, 1988; Ionita & Asan, 2013; Palfrey & Gasser, 2008; Prensky, 2001). As the digital natives' learning experiences continued to develop, Hutton, Davis and Will (2012) advocated for digital native research to serve as a valuable resource "to not only meet but also anticipate the ever-changing needs of the 21st century learner" (p. 149). Moyle et al. (2012) and Mäntymäki and Riemer (2014) cited that there is limited research available on digital native voice and their participation in developing digital age schools. The research published indicated unless changes in practices occur in education that align themselves to digital age thinking, disillusioned and disconnected students will face a crisis with teachers still attempting to instruct with outdated methods not designed around practices best for digital learners (Friedman, 2005; Geer & Sweeney, 2012; Ionita & Asan, 2013; Prensky, 2007; Rust, 2012).

Ionita and Asan's (2013) study identified a shift in the 21<sup>st</sup>-century classroom experience that exemplified the problem found in the digital age classroom:

For the first time in the history of [humankind], we are witnessing a strange phenomenon, when the teachers and the decision factors within the education system cannot cope with their role as mediators of knowledge. So far, knowledge has been transmitted on a one-way basis, according to the typical pattern, in which adults have shared their knowledge, experiences, as well as values, with the young generation, who, in turn, assimilated, used, improved, and passed them on. Nowadays it is no longer uncommon for a teenager, or a young man/woman to have more know-how, in a particular sub-field, than his/her educator. (p. 453)

Ionita and Asan's (2013) assessment of digital natives' factual competence is supported by Friedman (2005), Moody and Bobic (2011) and Prensky (2007). They also believed 21<sup>st</sup>-century students like to learn through the Internet and technology. William (2012) addressed the digital age transition by advocating that teachers should consider more the value social media and smart technologies could have on supporting learning. As technology integration develops to strengthen and shape 21<sup>st</sup>-century instructional practices, researchers suggested there are growing expectations for teachers to collaborate with digital natives with educational decisions (Moyle et al., 2012; Palfrey & Gasser, 2008; Prensky, 2001).

Geer and Sweeney (2012) revealed how students feel "limited in the way they use the technologies, which might be constrained either by the skills of their teacher, access in the classroom and currency of the technologies" (p. 295). Friedman (2005) suggested that the demands of global economies and internet dependent students call for shifts in how schools approach instructional practices. However, a digital divide between students and teachers has

persisted in technology use in the classroom that has stalled progress in modernizing schools (Friedman, 2005; Palfrey & Gasser, 2008; Prensky, 2001).

Rust (2012) highlighted the United States' response to digital natives with the discussion on the introduction of the Common Core in the United States. The Common Core was born from the digital age emphasis on the critical thinking, creative problem solving, and technology-leading pathways for student learning (Rust, 2012). Myers and Sundaram (2012) complemented Rust's summation by acknowledging the necessity to adjust schools toward a global attitude based on globalization and Internet changes that have shifted how students communicate and learn.

Digital natives live in their digital worlds but need guidance toward collaborative and productive struggles that lead to real world applications of digital skills (Prensky, 2001). Digital natives can feel not understood by their digital immigrant teachers when outdated instructional practices create less than effective academic experiences (Palfrey & Gasser, 2008). This study addressed the problem by providing the opportunity for the digital natives share stories about their academic and social experiences. The finding and conclusions are intended to inform learning communities about digital natives that can lead to best practices for 21<sup>st</sup>-century learning.

### **Purpose Statement**

The purpose of this transcendental phenomenological study was to describe the academic and social digital native experiences of 11 high school participants from Patrick Harrison High School (pseudonym) in southern California. Palfrey and Gasser (2008) and Prensky (2001) defined the digital native experiences as young technology consumers consumed with technology such as digital devices, the Internet, and social media. Wells (2012) believed that it

is appropriate to transition from non-digital educational approaches to digital strategies to meet the needs of digital natives, which are vastly different from those past generations (Beard & Dale, 2008; Bittman, Rutherford, Brown, & Unsworth, 2011; Wells, 2012; Williams, 2012). Understanding the needs of digital natives assists schools in creating instructional practices and environments best suited for 21<sup>st</sup>-century digital learners (Williams, 2012).

### **Significance of the Study**

This digital native study served to encourage students, teachers, school administrators, and families to collaborate in developing learning environments best suited for 21<sup>st</sup>- century learners (Prensky, 2001; Rudduck & Demetriou, 2003). Typically, studies build on literature with extensive frameworks and commentary on a topic (Creswell, 2013). To some degree this study was no exception, except the story of the digital native has been relatively limited with first-hand research from the perspective of 21<sup>st</sup>-century learners (Moyle et al., 2012; Palfrey & Gasser, 2008; Prensky, 2001). Prensky's (2001) viewed that the digital natives' stories shared from digital natives are well over due. In addition, Rudduck and Demetriou (2003) claimed that students' opinions on educational issues can "lead to significant and realistic change" (p. 274). Without the digital native perspective included during educational planning, the undervalued or limited student input can lead to less effective outcomes for students (Gordon, 1988; Prensky, 2001, Rudduck & Demetriou, 2003). Educational communities responsive to the needs of digital native will produce systems based on informed decisions aligned to the needs of the digital natives that populate schools throughout the United States and the world (Friedman, 2005; Palfrey & Gasser, 2008; Prensky, 2001).

Specifically, the study is important for students as it has advocated for digital natives as underrepresented voices in developing 21<sup>st</sup>-century education. Williams (2012) indicated that

teachers and schools need to recognize the importance of integrating technology into instruction as daily routines for students. Secondly, the study is important for teachers and school administrators as it informs them on what students are saying they need from their 21<sup>st</sup>-century learning and social experiences. Thirdly, the study provides the 21<sup>st</sup>-century family information on what digital learners feel is best for their education and social development (Palfrey & Gasser, 2008; Prensky, 2001). Lastly, the benefits received from this study can allow overall communities to embrace an understanding of the digital native journey to support digital natives' academic and social experiences and human growth (Williams, 2012).

### **Research Questions**

The three research questions that guided the study focused on the digital natives' academic and social experiences. The research questions were referred to as RQ1, RQ2, and RQ3 after their initial identification. The transcendental phenomenological design applied qualitative research methods to conduct the study (Creswell, 2013; Gall, Gall, & Borg, 2007; Husserl, 1958; Moustakas, 1994). The purpose of the study's research questions was to produce rich and meaningful data via interviews, a focus group, and drawings from participants that experienced the phenomenon of digital nativity and feeling understood by their teachers (Moustakas, 1994). As the research questions informed the data collection process, the digital natives' stories emerged to reveal their academic and social experiences (Geer & Sweeney, 2012; Moustakas, 1994). Each of the following research questions' section included the research question, the data collection instruments addressing the question, the information gathered to support addressing the research question, and supporting literature. A full discussion of how the data of the study addressed the research questions will appear in Chapter Four and Chapter Five.

**RQ1:** What are the academic and social experiences of digital natives? This research question was addressed within 10 hours of interviews, five focus group responses, and 11 drawings from the 11 participants. Both the interviews and focus groups gathered data from pre-established, semi-structured questions and follow up responses. The drawing activity also addressed the first research question. The first questions of the interview and focus questions addressed the individual and collaborative responses to the drawings that led to defining their academic and social experiences. Friedman (2005), Onwuegbuzie, Leech, and Collins (2010), Palfrey and Gasser (2008), Prensky (2001), Weiss (1994), and Yuen (2004) informed RQ1.

Prensky (2001) and Friedman (2005) argued that life after globalization changed drastically without permission and shifted to a global society dependent on the Internet and online communication. Friedman and Prensky described digital natives as students who learn much differently than any previous generation. By capturing the essence of digital native experiences, the study established an understanding of digital natives from the participants' perspective that can assist in developing 21<sup>st</sup> -century education.

All three data collection instruments addressed the first research question. According to Yuen (2004), using drawings aligns well with the transcendental phenomenological design to capture an "essence of being" from digital natives untainted with outsiders' views. The focus groups and interviews contributed to acquiring information on the lived experiences of digital natives through open-ended, semi-structured, provocative, and focused questions (Onwuegbuzie et al., 2010; Weiss, 1994). Each data instrument gathered data that served to build textual and structural understanding of the phenomenon of digital natives' academic and social experiences.

**RQ2:** How does feeling understood by teachers shape digital natives' learning experiences? This research question was addressed within 10 hours of interviews and five focus

group responses from the 11 participants. Both the interviews and focus groups gathered data from pre-established semi-structured questions and follow up responses. The data focused on the participants sharing about experiences related to the feeling and emotional experiences of feeling understood by teachers as they described different situations and examples of how their learning experiences were impacted. Gordon (1988), Onwuegbuzie et al. (2010), Thijis and Eilbracht (2012), Palfrey and Gasser (2008), Prensky (2001), and Weiss (1994) informed RQ2.

Thijis and Eilbracht (2012) shared that a “positive relationships between parents and teachers may bolster the quality of the interpersonal bonds between teachers and students, and more specifically counter relational conflict” (p. 795). Focus groups and interviews addressed the second research question by providing the data to unpack the lived experiences through open dialogue with digital natives (Onwuegbuzie et al. 2010; Weiss, 1994).

**RQ2:** How does feeling understood by teachers shape digital natives’ learning experiences? RQ2 was rooted in Gordon’s theory of feeling understood. The phenomenon of feeling understood was explored in the theoretical framework of the study and discussed further within the literature review. Gordon (1988) believed students’ perception of feeling understood by their teacher is an essential ingredient to building their academic successes. Also addressing RQ2, Palfrey and Gasser (2008) raised the concern of tensions between digital natives and digital immigrants that stem from how to approach technology use. Palfrey and Gasser identified how the tensions between the 21<sup>st</sup>-century learner and teachers are rooted in a generational gap that pits digital learning styles with traditional views held by digital immigrant communities that include parents and teachers accustomed to life before digital experiences. Palfrey and Gasser suggested tensions were born from digital natives whom naturally made the Internet a preferred legitimate source of knowledge and information for digital natives, while parents and educators

continue to struggle to accept technology as a primary and viable learning tool. Prensky (2001) explained that digital natives have forged their own pathways separate from what their parents' experiences could ever be.

**RQ3:** How does the use of social media, the Internet and digital devices contribute to 21<sup>st</sup>-century education as perceived by digital natives? This research question was addressed within 10 hours of interviews, five focus group responses, and 11 drawings from the 11 participants. Both the interviews and focus groups gathered data from pre-established, semi-structured questions and follow up responses. The drawing activity also addressed RQ3. The first questions of the interview and focus questions addressed the individual and collaborative responses to the drawings. The data focused on the participants sharing about experiences related to the digital natives use of social media, the Internet, and digital devices as contributory factors to their education. Friedman (2005), Geer and Sweeney (2012), Gunter and Thomson (2007), Prensky (2001), Prensky (2006), Mitra and Serriere (2012), Rudduck and Demetriou (2003), and Moyle et al. (2012) informed RQ3.

RQ3 was essential for the study as it addressed what Prensky (2001) described as the tools digital natives have known from birth. Addressing the views participants have toward how social media, the Internet, and digital devices contribute to 21<sup>st</sup>-century education is vital to understanding much of their academic and lived experiences. Input from digital natives' lived experiences offer the opportunity to influence academic decisions and are considered appropriate for developing 21<sup>st</sup>-century education (Geer & Sweeney, 2012; Gunter & Thomson, 2007; Prensky, 2006; Mitra & Serriere, 2012; Moyle et al., 2012; Rudduck & Demetriou, 2003).

Moyle et al. (2012) suggested that as digital natives and technology continue to dominate schools and communities, the discussion of learning styles of digital natives will require a greater

attention to what students feel are their learning pathways. Friedman (2005) and Prensky (2001) insisted that educational systems need parents and educators to listen more to students' concerns and suggestions about what constitutes best teaching and learning practices for producing student growth. RQ3 focused on listening to digital natives address the major components of the digital age as used by digital natives.

By identifying changes to the academic practices and philosophies, the United States can continue to move toward global and digital advancements that will be necessary to remain as an international leader in all aspects of life, especially education (Friedman, 2005). According to Friedman (2005), it is imperative that United States accept that globalization has challenged its world position (Friedman, 2005). By re-evaluating educational systems, the United States can design 21<sup>st</sup>-century educational practices that encourage developing global and digitally-minded students to compete and be valued in the international educational, political, and economic arenas (Friedman, 2005).

### **Definitions**

1. *Digital Immigrant*- A digital immigrant is an individual born before 1980 who had to learn technology almost like a second language (Prensky, 2001).
2. *Digital Native*- A digital native is an individual born after 1980 immersed in technological lifestyle (Prensky, 2001).
3. *Globalization*- Globalization is defined as a period where the world converted to digital communities through an ever-growing internet influence in politics, economics, and education (Friedman, 2005).
4. *Feeling understood* - Feeling understood is the concept developed as a theory to describe what it means and feels like to be understood (Gordon, 1988).

5. *Transcendental Phenomenology* - Transcendental phenomenology is a qualitative research method focusing on capturing the shared experiences of a group while bracketing out the biases of the researcher (Husserl, 1958; Moustakas, 1994).
6. *Digital devices* - Digital devices are devices developed during the digital age to communicate, retrieve, and send information. An example is a smartphone (Prensky, 2001).

### **Summary**

Born during the age of globalization, digital natives have embraced the Internet, digital devices, and social media as they enter schools with technology as a way of life (Prensky, 2001). In the past three decades, research focused on explaining the digital age developments with limited first-hand experiences of digital natives' academic and social experiences. As technology advances, digital native and digital immigrant teachers struggled to employ effective instructional practices. According to Moyle et al. (2012), 21<sup>st</sup>-century schools lack digital native research and their direct involvement in the developing of digital age learning environments. Husserl (1958) believed phenomenology could provide the best opportunity to capture shared experiences. Using the transcendental phenomenological design, digital natives' experiences were gathered, and my views were bracketed for transparency. Building from Moustakas (1994) and Husserl's (1958) approach to phenomenology, the study included data collected using interviews, a focus group, and drawings from 11 high school digital native participants.

## **CHAPTER TWO: LITERATURE REVIEW**

### **Overview**

The transcendental phenomenological design propelled the theoretical framework. The chapter discussed existing literature related to the digital native academic and social experience and identified gaps in the literature that promoted the necessity for this study. Prensky's (2001) theory on digital nativity, Gordon's (1998) theory on feeling understood, Vygotsky's (1978) views on constructivist learning, and Bandura's (1989) theories on social learning contributed to defining digital nativity, feeling understood, and exploring the essence of the digital native experience. Moyle et al.'s (2012) meta-analysis on digital native studies and developing 21<sup>st</sup>-century schools fueled the discussion on the importance of including digital natives in the process of building digital age schools.

### **Theoretical Framework**

The theoretical framework served to connect theories that supported revealing the study's phenomenon (Creswell, 2013). The study's theoretical framework operated with three interconnected theories to explain the academic and social experiences of digital natives. The transcendental phenomenological study was grounded in Prensky's (2001) digital native theory, Gordon's (1988) theory on feeling understood, Vygotsky's (1978) social constructivist theory, and Bandura's (2004) social learning theory. Prensky, Gordon, and Vygotsky, Bandura, and other researchers. Each theory presented a symbiotic relationship to the other theories as they work in conjunction to explain a theoretical model of the academic and social experiences of digital natives. Participants' experiences were filtered through the theoretical framework as the behaviors and explanations of those behaviors are exposed. The theories fueled the study's intentions of revealing themes and conclusions to tell the participants' stories of their academic

and social experiences as digital natives. This presented the digital native theory, followed by theory on feeling understood and concluded with learning theories.

### **The Theory of Digital Nativity**

Digital nativity was identified as a psychological construct associated with individuals who possess or use digital devices, the Internet, and social media (Bennett, Maton, & Kervin, 2008; Franco, 2013; Palfrey & Gasser, 2008; Prensky, 2001; Teo, 2013; Wang, Myers, & Sundaram, 2013). The 21<sup>st</sup>-century phenomenon of digital nativity coincided with the emergence of a generation of Internet and social media consumers unlike anything the world has ever seen referred to as digital natives (Prensky, 2001). As the world shifted to highly-connected communities through the emergence of globalization, the Internet, and smartphones (Friedman, 2005), young digital consumers born into the digital world were quickly grasping and taking command of technology (Prensky, 2001). Digital nativity was explained to support the theoretical framework of the study. According to Prensky (2001), the term *digital nativity* referred to the actions and behaviors of 21<sup>st</sup>-century students such as digital consumers of the Internet and social media while Prensky specifically used the phrase *digital natives* to identify individuals born after 1980 into a technology generous world.

Prensky (2001) also coined the phrase *digital native* as he explored the theory of digital nativity to promote understanding of the 21<sup>st</sup>-century generation of digital learners. According to Franco (2013) and Prensky (2001, 2006), digital natives have experienced digital nativity in both the social and academic lives of digital natives (Franco, 2013; Prensky, 2001, 2006). Franco (2013) and Prensky (2001, 2006) reported that digital natives prefer technology as tools and motivators toward their learning experiences. Palfrey and Gasser (2008) also advanced Prensky's digital native definition by recognizing that each digital native possess a competency

and usage of technology that is not necessarily represented by age. In a recent study of incoming first-year students in college, Jones, Ramanau, Cross, and Healing (2010) concluded there was still much to learn about 21<sup>st</sup>-century learners and suggested the youthful state of digital nativity has much room to grow. The theoretical framework of the study was built on defining how the phenomenon of digital nativity, feeling understood, and social constructivism contributed as an interrelated band to explain the academic and social experiences of 21<sup>st</sup>-century learners. Still undermined, many researchers are still deciding whether age or action can define digital nativity. Regardless, the spread of digital nativity has shown a tremendous impact on how students approach social and academic interactions with their peers, communities, and schools (Prensky, 2001).

Prensky (2006) distinguished digital natives as “native speakers of technology, fluent in the digital language of computers, video games, and the internet” (p. 9). Prensky contrasted the digital native experience with the digital immigrant experience by describing the digital immigrants as individuals who have had to integrate technology and computers into their already established lives, struggling at times like someone caring an accent as they learn a second language. Palfrey and Gasser (2008) expanded the digital native definition by suggesting that while there might be general characteristics of digital natives, each student carries a variation within this group depending on experiences with the Internet, computers, and digital devices.

Besides the technology aspect of digital natives, it was reported that they also prefer to learn in collaborative and technologically-driven learning environments (Palfrey & Gasser, 2008; Prensky, 2001; Williams, 2012). According to Prensky (2001), Friedman (2005), and Palfrey and Gasser (2008), the digital native generation, with its reliance on digital technology and online communication, presented educational systems with emerging learners that did not just

view technology as tool but a way of life. With digital natives centering their lives on the Internet, especially social media, the 21<sup>st</sup>-century learners have relied less on parents and teachers to guide and teach them (Franco, 2013; Palfrey & Gasser, 2001; Prensky, 2001).

Franco (2013) contributed to the understanding of digital native with a study on Brazilian high school students that identified the characteristics of 21<sup>st</sup>-century learners. Franco's qualitative study focused the characteristics of digital natives on what students were doing with the technology. Franco found digital natives dedicated much time to computers and video viewing, while they shared much information online without much concern about their privacy. Franco reported that digital natives have many online friends whom they have never met in person. The study further showed that digital natives navigate the Internet comfortably as they seek information and interact with individuals through online games or social media. Franco discovered that it is typical for digital natives to share photos and videos globally and instantly upload to social media via digital devices.

Franco's (2013) study demonstrated the far-reaching, seemingly boundary-less arena the Internet has for students. At a yearly social media event in the United States called Vidcon, digital natives flock to learn more about their world of social media and digital devices. At the Vidcon convention, digital natives interact and communicate as they build their social media skills through Facebook, Twitter and Instagram, and online video sites like YouTube that provide video sharing opportunities to learn and socialize (VidCon, 2014). An event like Vidcon is an example of the expanding population of young technology users who have embraced the digital age and are redefining the social norms.

In the recent years, researchers still credit Prensky (2001) for this early contribution to the understanding of digital natives. Chen, Teo, and Zhou (2016) challenged Prensky's ideas

that digital natives are only defined by age. They noticed that “because some individuals born within the digital native generation may not have the expected access to, or experience with digital technologies, a considerable gap among individuals may exist” (p. 51). While Chen et al. (2016) offered an expanding view on original definitions of digital nativity, Prensky’s original definition has remained as starting points for many research discussions on what to expect from examining digital nativity. The digital natives’ community has continued to grow collectively as digital consumers (Palfrey & Gasser, 2008; Prensky, 2001). The phenomenon of digital nativity predominately has aligned to the younger generation that are consumed with digital technology as communication devices, a way of life, and preferences to digital devices, the Internet, and social media (Palfrey & Gasser, 2008; Prensky, 2001; Teo, 2013).

### **Theory of Feeling Understood**

Feeling understood is an overall predictor of life satisfaction (Oishi et al., 2013). For the classroom, Gordon (1988) equated the feeling of being understood to effective teaching. This section addressed the components of the theory of feeling understood as it ties in with the theoretical framework of the study. Gordon’s theory of feeling understood addressed how students and teachers can build positive relationship through students feeling understood by their teachers. Gordon’s theory on feeling understood assisted in addressing classroom relationship as a persistent digital divide between digital natives and digital immigrants has continued to exist that has created tensions and misunderstandings between students and teachers (Ionita & Asan, 2013; Palfrey & Gasser, 2008; Prensky, 2001). Ionita and Asan (2013) and Palfrey and Gasser (2008) discussed concerns that the digital divide has the potential to erode the quality of learning as the teachers and students approach technology usage differently.

Franco (2013) characterized the situation as:

Unless we change how things are taught and what is taught, in all our classrooms, we won't be able to provide an education that has our kids fighting to be in school rather than one that effectively pushes one-third to one-half of them out. (p. 656)

Teven and McCroskey's (1997) study of over 200 college students concluded that when students feel understood, it leads them to perceive that their teachers care about them. Students who feel this way are more willing to attend class and participate (Teven & McCroskey, 1997). Building on Cahn's (1984) study, Gordon (1988) described the feeling of being understood as the opportunity for individuals to strengthen relationships. Gordon generalized the theory of feeling understood to include the interactions between students and teachers. While Gordon's theory emerged before the presence of digital natives, it is useful to apply to the 21<sup>st</sup>-century tensions that have challenged classroom relationships since the early 1990's (Ionita & Asan, 2013; Palfrey & Gasser, 2008; Prensky, 2001).

Gordon (1988) described the experience of feeling understood as a:

Clear feeling that [students and teachers] are truly and sincerely listening to [each other]. At such times there seems to be a lot of understanding going on, a two-way sense of "yes, I know exactly what you mean;" and [they] are getting through to one another. There is a mutual grasping of feelings, of thoughts of experiences, of points of view. [They] walk away from such an interaction sensing that [they had] really communicated with the other person. (p. 59)

According to Gordon (1988), feeling understood can be felt in individuals who achieve communication competence through a physical and emotional interaction with each other that produces a condition of feeling awakened, empowered, comforted, and attracted to another person or group. In other words, when a student feels understood by their teacher, they

experience feeling emotionally connected to them. Furthermore, as students feel understood, their heightened sensory awareness assists in forming positive self-concepts and well-being that contributes to an interpersonal solidarity with their teachers (Gordon, 1988). The student-teacher bond creates an environment where the student feels safe and secure to trust the teacher, resulting in the condition of feeling understood. Without feeling understood, students can become alienated from their teacher and the learning process (Gordon, 1988).

According to Gordon (1988), as students begin to feel understood by their teachers, the likelihood that they will experience that effective learning environment may increase. Gordon's theory established a discussion on relationships and feeling understood that is important as tensions between digital natives and teachers have continued to create barriers to building 21<sup>st</sup>-century learning environments (Ionita & Asan, 2013). Gordon contributed to not just the theoretical framework for the study, but Gordon's research served as a bridge into introducing learning theories that emerge out of classrooms that achieve effective learning by opening opportunities through positive relationships to expand the influences of theories such as constructivism and social cognitive learning models in the classroom.

### **Learning Theories**

Constructivism is a learning theory that has emphasized personal construction of meaning through the learners' own interpretation of information (Bruner, 1960; Cobern, 1993; Rice & Wilson, 1999; Vygotsky, 1978). Vygotsky's (1978) theory on social constructivism suggested that learning is a result of language and social interactions with others. The language and social interactions can be translated to what is being experienced in digital nativity and what is desired to be seen by the students from their teachers. Even before Vygotsky and Prensky (2001), Dewey drew insights into learning, which has contributed to 100 years of educational thought.

Dewey wrote: “Education comes as a result of the empowerment of the learner in a social situation” (Hirtle, 1996, p. 91). Hirtle (1996) discussed how Dewey’s understanding into social situations and learning preceded Vygotsky’s constructivism theory as the concept that students learn better in social settings. Prensky shared that as digital natives build relationships with their teachers, learning theories such as constructivism and social learning assist to inform 21<sup>st</sup>-century learning styles that emphasize digital natives’ preference toward collaborative and technological learning environments.

Furthermore, constructivism is a learning theory that has emphasized personal construction of meaning through learners’ own interpretation of information (Bruner, 1960; Cobern, 1993; Rice & Wilson, 1999; Vygotsky, 1978). Underpinning the constructivist view is the philosophical idea of epistemological fallibilism. This philosophy suggested, “All knowledge is fallible by virtue of lacking exactitude and comprehensiveness” (Cobern, 1993, p. 109). Constructivism developed under Piagetian views that students assimilated and accommodated information to create schemas or learning experiences (Miller, 2011). Modern constructivist views expanded to include viewing the learning process as an active cognitive process requiring individuals to consume information and discern for meaning (Cobern, 1993).

Within social constructivism, “Learners are moved forward through stages of cognitive development through social mediated situations” (Rice & Wilson, 1999, p. 91). Hirtle (1996) believed learners navigate “knowledge within a social context” (p. 91). Bruner (1960) studied the relationships between teacher and students as the teacher provided learning scaffolds to assist students in understanding concepts. The zone of proximal development illustrated collaborative interactions that assist in the development of individuals. The social interactions documented by Bruner’s (1960) scaffolding theory related to Vygotsky’s zone of proximal development in the

sense they both addressed the power of social constructivism as part of the learning process for digital natives. Ultimately, social constructivism defines the learning environment as rich in social interactions with the Vygotskian belief that students generally accomplish or learn more with assistance than what they can achieve individually (Rice & Wilson, 1999).

As digital nativity has been used to describe the behavior of the digital natives as learners and feeling understood is a component of the relationship between teachers and students, learning theories discuss the prominent way digital natives approach their learning. Prensky (2001) stated that digital natives would rather learn in groups, with technology, and using the Internet to research and communicate with each other. The final section of the theoretical framework addressed learning theories that are consistent with the digital native learning experience.

The other major contributor to explaining the digital native learning environment is social learning theory. Social learning theory has described how people can learn through observation, including direct instruction, modeling, and imitation. By 1986, Bandura evolved his social learning theory to a more inclusive theory called social cognitive theory. The social cognitive theory addresses how the learning process is not unidirectional but multi-directional. Bandura (1989) referred to this multi-directional influence of behavior as triadic reciprocal determinism. In this concept, “Social cognitive theory favors a model of causation involving triadic reciprocal determinism. In this model of reciprocal causation, behavior, cognition and other personal factors, and environmental influences all operate as interacting determinants that influence each other bidirectionally” (p. 2).

Within social learning, observational learning dominates the process. Bandura (2004) described four subdivisions to observational learning (attentional, retention, production, and

motivational). During the first division called attentional by Bandura, individuals decide what they are going to focus on to learn. Bandura addressed retention as the second division of observational learning; the cognitive representational processes explain how, “Retention involves an active process of transforming and restructuring information about modeled events into rules and conceptions for generating new patterns of behavior” (p. 482). During the third division, “The behavior is modified as necessary to achieve close correspondence between conception and action. The richer the repertoire of subskills that people possess, the easier it is to integrate them to produce the new forms of behavior” (p. 482). The final division of observation learning consists of motivational factors. During this phase, whether a behavior is performed is determined by three factors called direct, vicarious, and self-produced behaviors.

Powell and Kalina (2009) compared and contrasted Vygotsky’s (1978) social constructivism theory and Piaget’s cognitive constructivism. They presented Vygotsky’s belief that humans learn through the process of language and social interactions. Conversely, Powell and Kalina identified Piaget’s cognitive constructivism as learning through individual development. Both areas of constructivism are rooted in Dewey’s basic inquiry learning format, which derives learning through individual meaning. With respect to Piaget’s view of cognitive constructivism, “Ideas are constructed in individuals through a personal process” (Powell & Kalina, 2009, p. 241), as opposed to Vygotsky’s social constructivism, “where ideas are constructed through interaction with the teacher and other students” (Powell & Kalina, 2009, p. 241). Both assertions supported the ideals of constructivism and social learning theories to introduce the self-reflective qualities that students possess and interact with their communities to help them reflect on learning and behavior.

All three areas of theories: digital nativity, feel understood, and constructivism contributed to developing the theoretical framework for this study. Simply put, *digital nativity* has assisted in identifying human aspect of the digital native, while the phenomenon of feeling *understood* has contributed to showing the social and emotional relationship with students and teachers. Finalizing the summary of the theoretical framework for the study, the learning theory, *social constructivism*, indicated that students may learn better in social environments, and also this is all part of the digital native lifestyles (Prensky, 2001). The upcoming section present literature that supports and expands on the concepts related to the academic and social experiences of the 21<sup>st</sup> century learner, referred to in this study as digital natives.

### **Related Literature**

Related literature has suggested that digital natives' presence dominate classroom experiences in the 21<sup>st</sup>-century learning environments (Prensky, 2001). The related literature section was explained in four parts: (a) digital natives, (b) digital native relationships with technology, (c) digital native online social communities, and (c) teacher and student relationships. Digital natives have entered classrooms with the experience of using technology with digital devices such as computers and smartphones that are capable of texting, Google searching, and communicating with family, friends, schools, and businesses through websites and social media (Prensky, 2001).

The literature supported the study of digital natives. According to Prensky (2001) and Friedman (2005), digital natives emerged in the early 1990s as the influences of globalization, the Internet, and the digital age shaped communities into technologically-dependent decision makers. As digital natives emerged into society, the impact of globalization was quickly eroding away the powers of Cold War superpowers, the United States and the Soviet Union, as the

dominant political and economic forces in the world (Friedman, 2005; Prensky, 2001). During the transition from the Cold War into the Digital Age, the Soviet Union collapsed, the Berlin Wall fell, and the Internet and social media influenced the political, social, and economic structures of the world by providing access to all countries and individuals to connect through the Internet through websites, email, texting, and social media (Friedman, 2005).

Because of the influences of globalization and the Internet, the once divided world led by the free market philosophy of the United States and the communist philosophy of the Soviet Union, experienced global economic changes (Friedman, 2005). As the Cold War ended, Europe restructured without the Soviet Union into a united economic entity called the European Union. Other regions of the world, such as Asia and South America, accessed international business through Internet commerce that reduced the United States' economic dominance it had experienced after World War II until the end of the Cold War. The digital age shifted to an Internet-dependent society that opened the markets for smaller and less dominant nations. Countries like India could compete economically with larger countries by using the Internet to conduct online commerce. Without the expensive infrastructures and overhead costs associated with big businesses, the Internet was relatively inexpensive for smaller companies (Friedman, 2005). Another factor leading to smaller countries entering into economic markets were larger countries such as the United States could outsource labor to places like India for much less than it would cost to produce at home (Friedman, 2005).

The transformation that occurred with the global economies that used the Internet to *flatten* the world financially also produced changes in the political, social, and educational communities as digital natives entered schools as 21<sup>st</sup>-century learners using technology not just

as a tool but a way of life (Friedman, 2005; Prensky, 2001). This section included defining digital natives and their experiences with the digital age. The related literature section focused also on components of the theoretical framework, the emergence of digital natives, and the theories of feeling understood and learning that contribute to informing 21<sup>st</sup>-century education.

### **Digital Natives**

The digital native section included four sections that contributed to defining the 21<sup>st</sup>-century learner: (a) the research gap, (b) defining digital natives, (c) the digital native generation, and (d) the virtual world. Furthermore, the related literature on digital natives was used in the empirical discussions in Chapter Five.

**Research gap.** Digital natives are married to a fast pace digital life that spends little time acquiring digital devices before desiring the next version with greater features and conveniences in their lives. Digital natives, the technologically-immersed students who emerged into society as globalization and the Internet changed the world, require schools to rethink how to develop 21<sup>st</sup>-century education (Palfrey & Gasser, 2008; Prensky, 2001). Schools have struggled updating technology as they work to identify the best practices for integrating technology into their curriculum and training teachers to teach digital natives (Prensky, 2001). However, as educational institutions predicate their successes on building relationships with their students, the digital divide between digital natives and digital immigrant teachers compound the instructional dilemma. Moyle et al. (2012) reported that digital natives' input is lacking in developing 21<sup>st</sup>-century education.

Mäntymäki and Riemer (2014) also reported that the digital native voice has been limited in research. Over the past three decades, digital native descriptions have faced continuous revisions as technological advances outpace educational change. When Prensky (2001) coined

the phrase *digital native* nearly 20 years ago, the global society was in an infancy stage as schools were beginning to address how to serve best the digitally-minded student. Hutton et al. (2012) presented a concern that “Given the dynamic nature and fast-paced change of today's teaching and learning environments, any attempt to define the 21st century learner is subject to potential obsolescence before it is posted” (p. 149). Beyond their concern, Hutton et al. advocated for digital native research as a valuable resource that could assist informing educators “to not only meet but also anticipate the ever-changing needs of the 21st century learner” (p. 149).

**Defining 21<sup>st</sup>-century learners.** Prensky (2001, 2007) identified digital natives as individuals born after 1980 into a technologically-immersed lifestyle. Prensky's initial contributions toward understanding digital natives ignited the curiosity and criticisms of researchers. The research available on 21<sup>st</sup>-century learners referred to Prensky's term *digital native*. Cunningham (2007) highlighted Prensky's initial observation on digital natives by identifying them as consumers of digital devices, constantly connected to the Internet, who communicate greatly through texting and social media sites to their peers, family, and the world. As Prensky (2001) stated, digital natives learned the language of technology. Cunningham echoed Prensky's digital native sentiments by stating, “These students, like all natives, adapt quickly to changes in their environment and look for new ways to incorporate the latest technology into their fast-paced lives” (para. 2).

Palfrey and Gasser (2008) also expanded the digital native definition to include not just an age cut-off but a technological competency and usage filter. They explained that each digital native seems to possess a level of access, use, and competency involved in their digital lives that

almost places digital nativity on a continuum that involves both age and competency as criterion for emerging to advanced digital nativity in their 21<sup>st</sup>-century lives.

Also contributing to digital native research was Zimmerman (2012) who highlighted Ito et al.'s 2009 research on how digital devices have consumed the 21<sup>st</sup>-century life experiences.

Zimmerman shared:

This generation of children [have been] raised with their hands-on keyboards and joysticks. From the early Apple and Commodore computers to the early, television-attached video games, these children [have been] raised in a rapidly evolving digital and electronic age. Nowadays it is not surprising to see the same young adults constantly plugging in to their digital environment. iPods, iPads, MP4 players, Macintosh and other personal computers have become the rule of the day. Although there is a familiarity to the past in terms of the digital kids of today, they are unique in their equation of generational identity to technological identity. (p. 176)

Recently, Teo (2013) published a definitional framework outlining attributes associated with digital natives and technology as an attempt to codify or provide a working framework to view digital natives. Within the framework, Teo identified the following attributes associated with digital nativity. Much like Prensky (2001), Teo used the 1980 birthdates to establish origins for the birth of the oldest digital natives. Within his research, Teo also identified multitasking, graphic communication, and instant gratification behavior as attributes associated with digital nativity. Notably, Teo was not fettered by Hutton et al.'s (2012) claim that creating digital native definitions may not be practical based on how quickly technology advances. It is important to note, regardless of the evolution of technology and the advancement of digital

devices, the focus on defining digital natives progressed from Prensky's early description into the work of Teo to include further traits associated with the 21<sup>st</sup>-century generation.

From 2000-2010, limited phenomenological studies were available that captured digital native experiences. However, what was found were post-Prensky contributors that approached describing and defining digital natives through identifying observable behaviors associated with digital age children. These studies assisted in explaining what technology students were using and what were they using if for in their lives. Zimmerman (2012) compiled names of 21<sup>st</sup>-century learners that were associated with the Internet or online interactions. Names such as iGeneration, internet generation, MySpace Generation, Bebo Generation, Google Generation, NetGen, Millennials, and Digital Youth were all synonymous to the term digital natives. Other researchers such as Veen and van Staalduien (2001) chose to narrow the labeling of 21<sup>st</sup> century learners to an action related to digital native interactions with technology.

Veen and van Staalduien (2010) focused on two aspects of 21<sup>st</sup>-century learners: a label and characteristics of 21<sup>st</sup>-century learners. While Prensky (2001) captured the all-encompassing, age-related term *digital natives*, Veen and Van Staalduien preferred *homozappiens* to describe young digital consumers. While *homozappiens* was a word play on *homosapiens*, Veen and Van Staalduien raised the attention of how 21<sup>st</sup>-century children were demonstrating shorter attention spans as they quickly changed or *zapped* television channels and eventually Internet sites to find interesting or relevant information to read, watch, or listen.

As Veen and van Staalduien (2010) unpacked the term *homozappiens*, they identified *homozappiens* as self-directed, confident, technological multitaskers who have information readily accessible to them through the Internet. In fact, according to Veen and van Staalduien, *homozappiens* seek interesting and relevant information or face boredom. As technology

advanced into the late 2010's, smartphones and tablets combined phones, cameras, and computers into one device. This transformationa digital of devices into one stop devices, enhanced the digital native experience as digital natives began to redefine communication with "tweenspeak" (p. 122) using emoticons symbols, abbreviated texts, and graphic expressions to communicate online with each other via the Internet and social media.

From the education perspective, Veen and van Staalunien (2010) argued the multi-tasking and quickly sifting through online data frequently contributed to digital age learners being critical evaluators of information through the selecting and filtering of information. They have "little patience and short attention spans, their skills are aimed at processing various flows of different information quickly, but they have also come to expect this kind of high density information streaming; anything less and they will become bored" (Veen & van Staaldunien, 2010, p. 123). Veen and van Staaldunien also reported how homozappiens built self-confidence by teaching themselves how to complete digital tasks such as researching online or typing essays on the computer with little teacher direction. According to Veen and Van Staaldunien, much of homozappiens' self-confidence had developed not just through social media but also online and offline gaming. They claimed that through learning by trial and error, not through a manual or instruction book, students have become increasingly less reliant on anyone other than themselves and their social media groups.

**Digital native generation.** Helsper and Eynon (2010), Thompson (2015), and Sánchez et al. (2011) also contributed to defining digital natives. Helsper and Eynon's (2010) study sought to determine if individuals identified as digital natives should be considered as a distinct generation. The study examined attributes of the *doing* of daily activities and the *being* of characteristics as the primary factors determining a generation label. They coupled the attributes

with comparisons to age, experience, and breadth of use in their qualitative study to discuss results that they would relate to digital nativity. While they found that the current generation of learners preferred the Internet as the first place to seek information, they did not find enough evidence supporting how the digital lifestyles were a distinct characteristic to consider them a generation set apart from previous ones. However, the study revealed in a multistage probability survey of over 1500 digital native teenagers (ages 14 to 25) that a closer look at how technology influenced education and student was needed.

The Helsper et al. (2010) study concluded that while popular culture had grabbed on to the term digital native to label young technology users under the age of 30, there was no substantial empirical research to support digital natives as a distinct generation. It did indicate that because of the lack of empirical research, any generalizations about digital natives and their digital immigrant teachers should be made with caution when making educational decisions about digital natives and their teachers. Notably, Helsper et al. believed that using the generalizations to make decisions could have a negative impact on the students' and teachers' relationships, which could result in less productive or effective classroom environments.

Prior to 2010, the research focused on describing and defining digital natives with limited past studies to draw from; however, the most recent studies revealed greater attempts to capture empirical evidence to support the experiences of the digital natives. Thompson's (2015) exploratory qualitative study of eight digital natives revealed that they generally believe this generation of students depend on technology for both their learning and general life experiences. Within these experiences, Thompson's study found that multi-tasking and connectivity with their friends through social media was prevalent among digital natives and consistent with the popular view of how digital natives live their lives. While this study had limited generalizability due to

the small sample of students interviewed, which were collected from just a first-year college student population, it contributed to the overall conversation about the nature and perspective of digital natives. This study's usefulness was enhanced by interviewing students that aligned with Prensky's (2001) definition of digital natives.

Thompson's (2015) study also revealed consistencies in claims made by Palfrey and Gasser (2008) that defined digital natives not by just age but by levels of technology and abilities digital natives possess. In comparison with Helsper and Eynon(2010), Thompson also did not claim digital native as a distinct generation; rather it produced an awareness that the interactions between technology and learners were so compelling that society should pause to better understand the relationship and how digital natives are drawn, immersed, and dependent on technology as their way of life.

In another study on digital natives, Sánchez et al. (2011) sought to contribute to the discussion of digital natives by addressing digital natives' relationships to technology. The Sánchez et al. exploratory and descriptive qualitative study used 20 Chilean teenagers ranging from 13-18 years of age with 12 females and eight males. The semi-structured interviews in the study provided flexibility to allow the students to navigate through questions with information regarding their digital experiences. The findings revealed that students describe their use of technology in both a learning and social manner. They revealed that the use of the computer and Internet is a daily for them in providing both academic and fun experiences. Like Helsper et al. (2010), Sánchez et al. found no evidence that substantiates digital natives are a distinct generation. Sánchez et al. did discover that digital natives possess skills learned as students whose preferences lie with a lifestyle of technology use that has integrated heavily into their social and academic lives.

Thompson's (2013) quantitative study sought to produce a conversation addressing popular claims about digital native learners by examining relationships "between technology use, digital characteristics, and productive learning habits" (p. 16). First-year college students with the average age of 18 and 22 with different majors served as the 388 sampled students.

Thompson's findings found

some positive correlations between use of digital technology and the characteristics ascribed in the popular press to the digital native learners and negative correlations between some categories of technology use and the productiveness of student learning behaviors. (p. 1)

Interestingly, the moderate relationships between productiveness and student learning behaviors "suggested a less deterministic relationship between technology and learning than what the popular press writers' claim" (p. 1).

Thompson's (2013) study challenged the popular claim that digital natives might be a distinct generation. The study raised concerns for inadequate empirical research to believe that neural plasticity theory has enough evidence to make an argument that digital native brains, because of extensive technology use, were adapted into something different from previous generation of learners. In fact, Thompson's research suggested that while digital natives engaged as daily consumers of technology, only 14% of digital native users were described as power users who go beyond the typical cell phone and Internet use. It should be noted that Thompson's study, much like others reported in the review of literature, was using college students and disputing Prensky's advocacy of the emergence of new generation. Younger teenagers who were experiencing different developmental stages both physically and socially were not as present in Thompson's research.

Thompson (2013) also addressed characteristics of the digital learner by discussing Prensky's (2001) "characteristics of the game generation" (p. 14). Thompson argued that until more evidence was found that showed that attributes such as multitaskers and processors of information through non-linear ways are tied to digital learners, caution should be used toward using these attributes for making learning environment decisions. Thompson cited Prensky's (2001) own previous work to suggest that students were interested in using technology within their learning experiences. Thompson's research added value to the digital native research as it advocated for additional empirical evidence about digital nativity beyond popular claims of technology usage before making significant changes to school and learning environments.

**Virtual world.** Mäntymäki and Riemer (2014), who contended digital natives are under researched, also viewed digital natives as individuals who spend much time engaged in virtual world activities. They conducted a multi-method study on virtual world users to understand their behaviors and interactions in the real world versus virtual worlds. Mäntymäki and Riemer (2014) reported that virtual world users are described as digital natives as defined by Prensky (2001). In their study, they sought to find out what drives teenagers to seek continuous participation in virtual world arenas. They cited virtual worlds (VWs) such as World of Warcraft or Habbo Hotels as examples of where students tend to utilize many hours of their time.

Mäntymäki and Riemer (2014) defined the virtual world into two categories: Gaming Virtual Worlds (GVWs) and Social Virtual Worlds (SVWs). The SVWs operate more as an online social network and usually use avatars (digital characters) to represent themselves in these rooms or sites. The GVWs offer levels of play and individuals interact as a game. Mäntymäki and Riemer used a multi-method process to produce their findings. Mäntymäki and Riemer (2014) reported that the VWs are geared for young adults and are monitored for explicit adult

content. They also reported the interactions are described as fun and engaging, and while many revealed their real identities, others choose to remain anonymous. The Habbo Hotel site contains five million unique visitors each month from 32 different countries (Mäntymäki & Riemer, 2014). In their literature, they also identified a developmental interest for digital natives to participate in the VWs. Mäntymäki and Riemer reported teenagers using the VWs to express themselves either as who they see themselves as or who they would like to be perceived as. According to Mäntymäki and Riemer, the anonymity of the VWs provide users a safe place to experiment with their identity until they feel comfortable having others know who they are.

Based on what Mäntymäki and Riemer (2014) reported, the method used for this study was a quantitative, hypothesis-testing inquiry. The data collection was through an online survey. There were over 3,450 individuals who accessed the survey, while 1,811 completed the survey (52% completion rate). Mäntymäki and Riemer reported using only 1,230 responses from users reporting their ages as 13-18 (since this study was focused on teenagers). In conclusion to their study, Mäntymäki and Riemer stated that it led to two interesting observations:

First, teenagers make their use decisions independently. Second, the two factors with a significant effect, hedonic outcomes and social presence, are both intrinsic to the platform as they capture outcomes derived directly from the engagement and immersion in the virtual environment. (p. 216)

### **Digital Natives' Relationship with Technology**

Nothing connects digital natives to the 21<sup>st</sup>-century as much as digital devices (Prensky, 2001). The technology digital natives are associated with include smartphones, iPads, and other handheld devices such as small, portable tablets. These devices represented the communication and interactive tools used by digital natives to socialize and connect with online with their

friends, family, and acquaintances. Cunningham (2007) referred to these digital devices as necessities in the global age. As Prensky (2007) defined digital natives as the generation of learners who are “immersed in technology” (para. 2), Prensky’s research ignited the curiosity of how the technologically-driven youth influenced the digital age. The technology Cunningham and Prensky referred to include the Internet, laptops, cell phones, texting, and social media like Facebook, Instagram, and Snapchat. Other devices include PlayStations, digital cameras, DVD players, blogs, and any other number of digital technologies that allow young learners to instantly capture or communicate with the world (Prensky, 2006). Students use these tools as extensions of their bodies and minds, fluidly incorporating them into their daily routines (Prensky, 2006). Digital natives have learned the language of technology as they communicate instantly with their peers. Cunningham (2007) stated, “These students, like all natives, adapt quickly to changes in their environment and look for new ways to incorporate the latest technology into their fast-paced lives” (para. 2).

Other researchers examined other aspects of the relationships between digital natives and technology. Gu, Zhu, and Guo (2013) examined technology acceptance in the classroom. Their research revealed that “social influence together with the teachers’ personal factors instead of the outcome expectancy is the significant predictors for in-class [technology] integration” (p. 400). Gu et al. reported that the teacher technology use in the classroom was due to conforming to the growing reliance of technology in education, especially with their students. Gu et al.’s use of the terms *natives* and *immigrants* were consistent with the growing discussion regarding technology in the classroom. They referred to the digital native issue as a complicated one to address because, according to Gu, Zhu, and Guo’s research, there has not been an overwhelming

consensus to identifying digital solely on technology use as a disparity between technology consumption and access students might have.

### **Digital Online Social Communities**

As well as technology consumption, Prensky (2001) reported that digital learners brought changes via social media to how they communicate. Unlike the preceding generations from the 1960s thru the early 1990s, where educational systems faced social and academic issues related to a quality education, the Internet and social media was a game changer for communication (Prensky, 2001; Salgur, 2013). This section addressed the third research question related to the relationship of digital natives to social media and Internet use.

Salgur (2013) defined social networking as interactions between people in which individuals share information and profiles and engage online and offline. Previous forms of communication relied on hand written letters, phone contact, and in-person conversations to communicate, and while there are still present in society, social media has made interaction and communicating almost a constant activity for digital natives (Lunch Box School, 2013; Palfrey & Gasser, 2008; Prensky, 2001; Salgur, 2013). Digital natives have arguably revolutionized how individuals digitally communicate via online interactions with Facebook, Snapchat, and Instagram (Khuder, 2010; Palfrey & Gasser, 2008, Prensky, 2001; Salgur, 2013; Veen and van Stallduinen, 2010; Zimmerman, 2012).

Social media sites such as Facebook, Snapchat, Instagram, and other social media sites have continued to dominate time and space for digital natives during the most recent part of the digital age (Lunch Box School, 2013; Palfrey & Gasser, 2008; Prensky, 2001). Salgur (2013) reported that the Internet has “become a common part of the daily activities of teenagers in their home and school environments” (Salgur, 2013, p. 38). As technology has advanced, smartphones

began providing easy access for digital natives to interact and share information with their peers and family (Salgur, 2013). As a result, the “Mobile interaction and connection with social network sites has become an indispensable part of teenagers’ life style” (Salgur, 2013, p. 38). Zimmerman (2012) reported that digital natives experience constant connection to social networks daily. Zimmerman added that, “if their local networking is not enough to accomplish their ends, they (digital natives) think nothing of going onto a community forum to reach their objectives” (p. 176).

In a Hundley and Shyles’ (2010) qualitative study with 80 southern California teenagers sharing about their time spent with digital devices and Internet use, participants reported experiencing a vast amount of time students spend online with their friends. Salgur (2013) suggested the online phenomena needs greater research attention to determine how much impact the social media and internet has on instructional value for students. Salgur reported social networks have help developed a culture less interested in talking and more capable of sharing thoughts, ideas, and reactions through quick efficient methods (Salgur, 2013). The Hundley and Shyles (2010) discussion on the vast amount of time teens spend online with their friends highlighted the ambient communication as Farber, Shafron, Hamadani, Wald, Nitzburg (2012) described. Hundley and Shyles found the study useful because it produced student voice through focus groups that provided an avenue for students to express their feelings on “emerging digital technologies and the functions various devices serve in their lives” (p. 418).

Concluding the section, Veen and van Staalduien (2010) described the digital native social network experience as an ongoing connectivity with friends and online acquaintances. Veen and Van Staalduien (2010) indicated the use of social networking is still very much a growing communication phenomenon that needs more attention to understand its impact. Veen

and van Staalduien reported how through social networks, digital natives have created streams of information that openly share with friends and family in their academic and social experiences. In the next section, research revealed the impact of the digital natives' social and academic experiences in classrooms with their teachers.

### **Teacher and Student Relationships**

This section discussed how students experienced the 21<sup>st</sup>-century learning environment with their teachers. It expanded on the Gordon's (1988) discussion on the theory on feeling understood by examining literature related to students' experiences with their teachers in the digital age. According to Gehlbach, Brinkworth, and Harris (2012) and Gordon (1988), establishing effective teacher and student relationships in the classroom matters when it comes to student learning. Gehlbach et al. suggested that, "What is especially striking about teacher and student relationships is not just that they matter, but that they appear consequential for such an extraordinary number and variety of academic and motivational outcomes for students" (p. 691). This section was discussed in three parts: (a) tensions in the 21<sup>st</sup>-century classroom between digital natives and digital immigrant teachers, (b) the value in developing relationships between digital natives and digital immigrants, and (c) Gordon's theory of understanding as it related to the classroom experience.

**Tensions.** Friedman (2005) described globalization as a permanent and progressive change society has experienced that will not lose momentum any time soon. Globalization created change to political and economic systems (Friedman, 2005). The impact of globalization flooded schools with technology that presented teachers and students with creating instructional practices aligned to digital instructional practices.

Selwyn (2009) reported that the way digital natives and digital immigrants think about technology has created tensions between the students and teachers. Teachers were taught from a great autocratic pedagogy requiring students to comply and learn from the views and the positions of the teacher. Prensky (2001) indicated digital natives entered schools with a digital lifestyle as a way of life, expecting to extend their world of technology into the learning experiences at school. Prensky shared that the technology-use tensions in the classroom were a result of digital natives preferring technology integration and teachers not being fully trained or comfortable using technology in the classroom to support instructional practices.

Prensky (2001) suggested that without integrating appropriate technologies that digital natives see as a tool and as a way of life, students become easily bored with pre-digital age learning environments such as lectures or non-digital activities. Palfrey and Gasser (2008) also believed that learning style differences have contributed greatly to the struggling relationship between digital natives and digital immigrants. This contributed to a digital divide that has brought students and teachers to make little progress within learning environments as a community. Repique (2013) discussed the digital divide issue within the context of nursing school students and their professors. Repique found that access for all students is a real issue for schools. However, Repique credited the digital divide debate as “a starting point for gaining useful insights on the generational gaps and, at times, conflicts and tensions that occur as each of this group relates to and interacts with various forms of digital technologies in their lives” (p. 101).

**Value in relationships.** Within this section, research related to valuing the teacher and student relationship and overcoming the digital divide in the 21<sup>st</sup>-century classroom was discussed. According to Gehlbach et al. (2012), the digital divide between the digital natives and

digital immigrant teachers is a problem rooted in the student and teacher academic relationships. Gehlbach et al. suggested that teacher-student relationships are among “the most fundamental factors in successful schooling” (p. 691). According to Gehlbach et al., Gordon (1988), and Prensky (2001), positive teacher-student relationships are crucial to student success. Addressing teacher-student relationship is no different with the emergence of the digital native as it has been for any generation except the technology issues have raised the questions of how to educate children in a digital society (Friedman, 2005; Prensky, 2001; Palfrey & Gasser, 2008).

Moye (2010) shared that a solution to effective interactions between students and teachers is to remove the barriers that exist between teacher and students. Identified. Moye felt that when the “barriers are removed... (and) once a student realizes that a teacher has the student’s best interest in mind” (p. 8), healthier and effective relationships can be established that can lead to effective learning environments. Moye believed that as students become comfortable with their teachers, students become more willing to “to hold conversations with teachers that they like and trust” (p. 8). Sinek’s (2014) business relationships model paralleled the development of student-teacher relationships. Sinek equated leaders to parents with respect to leaders putting their members’ interests above their own to achieve a goal. Sinek discussed how relationships within organizations are built through experiences that lead to camaraderie among members not necessarily by the deadlines or mandates. He argued that individuals feel safe when they feel their leaders have their best interest in mind. Students are naturally social creatures; however, Moye remarked that students will only migrate to teachers who they feel an emotional safety to within a trusting and likeable environment. Moye contributed to the discussion on teacher-student relationship by acknowledging that not only does “effective

teach[ing] build positive relationships with students,” (p. 8) it builds on the concept of “respect fosters respect” (p. 8).

In Di Fabio and Kenny’s (2012) research, they suggested the importance of attending to the emotional and social side of the 21<sup>st</sup>-century citizen. As the digital native became more defined, Di Fabio and Kenny said a balanced approach between developing technology skills and nurturing the emotional development emerges to provide healthier effective environments where students desire to learn. Complementing the Di Fabio and Kenny literature on healthy classroom relationships, Oregon’s Department of Education (2000) published research based on resiliency theory that included how educators can maintain strong, connected student and teacher relationships. It offered five crucial areas designed to address the building of effective relationship between teachers and students. Included in that list was, “exposing teachers to teen culture, affirming students’ feelings, teaching with images that interest teachers, getting to know students and sharing your humanity with students” (p. 28).

The Oregon Department of Education (2000) based research also on student voice with respect to how students feel connected to their school and teachers. One student was critical about the way teachers may not take the time to understand students. This student believed that when “teachers relate to students and make tiny inquiries, students feel more comfortable with the situation” (p. 28). The Oregon Department of Education (200) study established both concepts about emotionally safe relationships and student voice that is aligned with Gordon’s (1988) belief that students who feel understood will connect with teachers who have created a learning environment that makes the students feel alive, empowered, and comforted.

**Gordon’s theory of understanding.** Digital natives are collaborative and digitally-interactive individuals who have moved through tension-filled experiences with educational

systems to create 21<sup>st</sup>-century learning environments conducive to meeting the needs of digital learners (Palfrey & Gasser, 2008; Prensky, 2001). As teacher-student relationships progress in the digital age, Gordon's theory on understanding assisted in providing a model to address student-teacher communication issues. Gordon's theory was based on findings from a 1961 study by Gibbs study on defensive communication. According to Gordon, feeling understood was rooted in communication competence between two individuals or groups, which is the ability to listen someone effectively. Gordon (1988) identified the components of understanding as feeling (a) awakened, (b) empowered, (c) comforted, and (d) connected to others. According to Gordon (1988), when the four elements of understanding are present within student-teacher relationships, powerful human bonds, and effective learning environments emerge. While the theory of understanding was introduced as part of the theoretical framework for the dissertation, this section continued to address the theory of feeling understood characteristics to provide a deeper understanding to the structure of Gordon's theory.

***Feeling awakened.*** Gordon (1988) identified feeling awakened as the initial characteristic of feeling understood. It was described as a heightened state of awareness where individuals feel emotionally alive with "senses seeming completely open" (Gordon, 1988, p. 59). Gordon (1988) suggested that the awakened states occur when students perceive teachers understanding them. Gehlbach et al. (2012) supported Gordon's (1988) theory by discussing the importance of how through the process of social interactions, students build classroom experiences around how they feel about their teacher. Gordon theorized that when students experience positive interactions with their teachers, feeling understood progresses to energized, excited students who display "strong interest and involvement" (Gordon, 1988, p. 59).

Gordon (1988) further described that when individuals feel awakened they possess an energy, warmth, and alertness about them that produces “greater clarity, [making] colors seem brighter, sound[s] clearer, [and] movements more vivid . . . [which culminates in] a sense that [individuals are] experiencing everything fully, completely, [and] thoroughly” (p. 59). Hartevelt (2009) believed that as students’ spirits are alive and energized, they become attracted to the passionate teacher in ways that ignite their own excitement to want to learn and perform well in school. Hartevelt’s ideas aligned with Gordon’s theory on feeling understood with students feeling awakened as one of the assisting factors.

Gehlbach et al. (2012) suggested that teacher-student relationships are among “the most fundamental factors in successful schooling” (p. 691). Moyer (2010) commented that, “Effective teachers build positive relationships with students” (p. 8). Moyer (2010) posited that “respect fosters respect” (p. 8). As students feel more comfortable talking to their teacher, this will inevitably contribute to effective learning environments (Gordon, 1988). Gordon (1988) further believed that while individuals, like students, are experiencing the condition of feeling emotionally and physically awakened, this condition promotes warmth and alertness in their environment that leads to feeling empowered.

***Empowered.*** Gordon (1988) reported feeling empowered as the second element to feeling understood. Gordon believed empowered individuals feel accomplished and fulfilled as they display camaraderie, importance, and fulfillment in their lives. According to Gordon, as students feel empowered, they experience intellectual enlightenment, self-confidence, and the ability to “think clearly, [while] understand[ing] everything” (p. 59). Gordon (1988) stated empowerment also contributes to “moments of tremendous strength,” (p. 59) to feel capable of accomplishing something. Nichols and Zhang (2011) shared that when teachers exercise balance

between academic ownership and control over learning decisions with their learners, empowered students can develop strong teacher-student relationships that promote feeling understood.

Others have contributed to discussing empowerment such as Wong (2008) who contended that, “Listening to student ideas can both empower youth to voice their perspectives and strengthen [teachers] understanding of what youth identify as salient” (p. 1). Wong touched upon how adults can contribute to student empowerment by encouraging “young people [to take] an active role in sharing their perspectives...problems and solutions” (p. 1). Bucholz and Scheffler (2009) saw empowerment as students’ opportunity to build confidence and self-advocacy as teachers encourage them to become independently-minded students. Nichols and Zhang (2011) concluded the discussion on empowerment by viewing empowerment as one of the catalysts to students feeling understood by their teacher and strengthening the student and teacher relationship by giving students “greater control of their own learning” (Nichols & Zhang, 2011, p. 231).

***Comforted.*** Gordon reported feeling *comforted* as the third characteristic of feeling understood. Gordon (1988) described feeling comforted as a state of optimism and cheerfulness, with life worth living, with the “future seem[ing] bright” (p. 60). Moving digital natives into a state of comfort would assist them in possibly feeling an “inner warm glow, a radiant sensation, a feeling of warmth all over” (p. 60). Gordon also defined someone experiencing a state of comfort as having no conflicts, a unified body and mind, and a desire to smile with a “renewed appreciation for life” (p. 60). Gordon also reported that individuals will have a very optimistic outlook toward life when feeling comforted. It is reasonable to see the relationships between reluctant digital immigrants and the over-digitally consuming digital native as improving if their

relationship can provide the feeling of understanding through feeling comforted as Gordon posited.

In a physical sense, Gordon (1988) discussed how there is a “general release, a lessening of tension” (p. 60), and people feel loose and relaxed while they feel comforted by someone. Individuals report being “peaceful, tranquil, and in tune with the world . . . a sense of harmony and peace within . . . nothing is a burden, problems fade away and [individuals feel] free from worry” (p. 60). Gordon believed that while people are in a state of feeling comforted, there is a greater self-awareness, especially how they feel internally. Gordon reported that while being comforted, individuals would experience a sense of “being free, uninhibited, open, no longer blocked . . . a feeling of being uninhibited and spontaneous, anything goes [attitude]” (p. 60). Greenburg (2014) pointed out the value of comforting children in the classroom:

Nothing is more important in making a child feel comfortable than the presence of a caring adult. If you want to make children feel comfortable in the classroom, make a conscious effort to reach out to every individual to smile, to pat shoulders gently, and to use each child's name when you speak to [the student]. Warmth and understanding make [students] feel cooperative. For a caring climate of personal interaction to blossom, the day must be planned and paced so that there are many opportunities for person-to-person encounters, for listening, and for conversing. [Teachers] also need to allow many opportunities throughout the day when children can move freely about the room, make choices, and connect with others. Too much emphasis on 'time on task' precludes these opportunities, which significantly contribute to a classroom that feels comfortable to children. (para. 1)

Bucholz and Sheffler (2009) contended that emotionally warm and inviting classrooms were the essential ingredients for students feeling safe and comfortable in their environment. According to Bucholz and Sheffler, it can also provide a catalyst towards increased achievement and a “sense of pride and belonging in [a] school” (p. 1). As Gordon (1988) stated, feeling comforted is a product of being understood. Bucholz and Scheffler emphasized that point of comfort when they discussed that when students enter classrooms that encourage “emotional well-being”, (p. 1), this supports “both learning and emotional development” (p. 1).

***Moving towards others.*** Gordon (1988) identified *moving toward others* as the final Gordon’s characteristic of feeling understood. Gordon described moving toward others as almost a state of being where individuals desire to be around one another. In the case of the classroom, students desire to be around their teachers. Gordon also discussed how it was not just the desire to be around someone but also the desire to be connected to them in an emotionally positive way. According to Gordon, the action or feeling of moving towards others produces a sense of confidence, trust, and appreciation of another person. Gordon theorized that when individuals make an emotional connection to another person(s), they desire to make others happy, to have a sense of being wanted or needed, and to have an “empathic harmony with another person” (Gordon, 1988, p. 60). Gordon also described feeling connected to another person as a “total concentration on another person, a complete understanding, a communion, a unity, [and a] closeness” (p. 60). In the case of the classroom, teachers and students present together focused on common tasks and goals with a desire to remain in an environment. Gordon also believed that when the element of emotional connectiveness is present, individuals experience kinder and gentler experiences towards each other as other aspects such as tolerance,

acceptance, and understanding become present in the environment and interactions between the different participants.

According to Gordon (1988), when individuals are connected, they are motivated to be around each other and experience life together. Individuals also form psychological attachments that include wanting to “help, protect, please and do something for the other person” (p. 50). As the condition of feeling connected increases between individuals, Gordon theorized they communicate freely and share thought and feelings openly. Packard’s (2004) research supported Gordon’s theory on how humans connect and create bonds. Packard conducted a phenomenological study on the relationship between understanding someone in the context of listening. Packard’s study unveiled the phenomenon of students feeling connected to their teacher in the context of nursing students as they shared how it felt *being with* their teacher. Packard’s use of poetry and student anecdotes to convey the images of the parent-child relationship suggested the possibility of emulating this relationship in the classroom to provide students the opportunity of feeling understood. According to Packard, “Perhaps it is in re-collecting memories of a caring love that we get closer to understanding what it means to “be-with” another human person in an authentic way—what ‘being-with’ means in the pedagogical relationship” (p. 3).

In a related discussion on understanding, O’Donohue (1997) suggested, “Understanding nourishes belonging; [and] when you really feel understood, you feel free to release yourself to the trust and shelter of the other person’s soul” (p. 14). Packard further suggested that an invitation to enter into a shared space with another individual produces opportunity to feel understood. Without creating closeness with another person, the distance can make it difficult for two people, especially a student and teacher, to feel they are understood (Gordon, 1988).

Packard (2004) raised the challenge of being with someone as it creates vulnerability and risk that does not guarantee someone will listen and understand you. However, a Gadamer (2000) study stated that the risk is a worthy challenge, which can eventually “allow for an opening up and deepening of the act of understanding” (p. xxx).

### **Academic Success**

Academic success was the final area discussed in the related literature. This section discussed how the learning environments assist digital native academic success. It is divided into two parts: creating learning environments and effective learning environments. The section included the shifts in education since the digital age. The literature examined how digital natives prefer collaborative and technologically-driven learning styles that require educational systems to re-think instructional practices and philosophies.

**Creating learning environments.** Prensky (2006) believed digital natives are remarkably different from previous generations because they do not desire or need to be “little versions of [their parents]” (p. 9). Veen and van Staaldunin (2010) reported an inverse in education in the digital native experience where digital natives were found to teach the teachers how to use technology. Another shift in education reported by digital natives was the ability to use the Internet to search for information that used to be taught by teachers (Ionita & Asan, 2013). The change to a digital-based society, especially in education, has challenged the content and classroom management styles of teachers. Teachers educated under 20<sup>th</sup>-century pedagogy were accustomed to teaching lessons via one-way messages to students who were expected to assimilate, use, improve, and pass on the knowledge, values, and information learned from their teachers (Ionita & Asan, 2013). As the Internet provided easy access to information for young

adults, their knowledge acquisition became less dependent on teachers, and what emerged was young adults surpassing their teachers with factual competences (Ionita & Asan, 2013).

Held (2007), like, Ionita and Asan (2013), understood the role of the teachers has been shifting from the “sage on stage” (Held, 2007, p. 1) to the “guide on the side,” (Held, 2007, p. 1) during the digital age. As a result, 21<sup>st</sup>-century learning environments shifted teachers to “mediators of knowledge” (p. 453). The shift part of the digital divide has seen the teacher and student relationship struggle (Held, 2007). Ionita and Asan’s discussion encouraged “establishing a constructive dialog [between teacher and students], starting from such divergent premises, [that] requires a lot of tolerance, on both sides” (p. 451). Ionita and Asan cautioned about believing that factual competence outweighs a teacher’s experience and wisdom level to build effective learning environments. Factual competence is the ability to understand facts and knowledge but not necessarily understanding the meaning of that knowledge (Ionita & Asan, 2013). Held eventually called for a greater emphasis on teachers as teacher-learners, where the teacher and the students are “growing, learning, and developing alongside and from each other—though often in different ways and different realms” (p. 1). Held described healthy teacher-student relationships to include teachers respecting the abilities and knowledge associated with digital natives. Held considered the best resources for digital immigrants can be students. Held believed the best scenarios for 21<sup>st</sup>-century relationship building includes teachers seeking out digital natives to assist in using or understanding technology. Such partnerships allow teachers to learn from digital natives and “empowers students in their own classroom learning” (p. 1).

**Effective learning.** Gordon’s (1988) research already connected effective communication and feeling understood with academic success, while Lun et al. (2008) established that individuals create social environments where and when they feel understood.

Gehlbach et al.'s (2012) study supported both of those studies within the scope of how teacher-student relationships are vital for academic success. Digital natives have been consumed with technology all their lives, showing little distinction between real and virtual worlds (Zimmerman, 2012). Students have been used to accessing information instantaneously from the Internet from portable devices, especially from iPhones and Android smart technologies that allow them to inform, communicate, and interact with their peers regardless of time and location (Prensky, 2001). Cook (2010) identified digital natives' preferred technology as a significant learning tool for their learning.

Cook (2010) said:

Digital natives learn the program by playing with it. They parallel process, network and multitask. They like random access and prefer their graphics before the text. They expect round-the-clock access to instant information, along with frequent rewards and feedback. (p. 19)

Cook (2010) identified several areas related to digital native experiences that are consistent with digital native behavior and how the 21<sup>st</sup>-century learning environments have shifted or are in the process of shifting to facilitating student learning from a greater critical-thinking position considering the voice of the student. This has become necessary as digital natives have increasingly become independent with factual competence through their access to online information and communication. The ability to obtain significant information from other than their teachers has helped shape how a 21<sup>st</sup>-century student experience.

Cook (2010) offered a list of the digital age, educational realities digital natives face that differ from the pre-global era. They include: (a) open content: teachers no longer own and choose the subject matter; (b) availability of instruction: instructions need to set limits, the

equivalent of office hours; (c) collaborative construction of knowledge: knowledge is ever-evolving; (d) conversation: not lecture, students learn their voices matter; (e) learning where: students do not need to know the answers so much as where to find them; (f) consumers of information: students need to because it is as critical in selecting web sites as they would in buying an appliance; (g) electronic notebooks, blogs, and wikis can be annotated and corrected over time; (h) writing is not limited to text: along with words and graphics, electronic uses video, audio, and code; (i) mastery as product: students have more ways to show mastery than by just passing a test; and (j) contribution as goal: students do not just finish a paper and turn it in, they can put their ideas out there for the world to see.

In summary, based on the related literature, digital natives prefer collaborative learning practices that can be explained through constructivist and social learning experiences that bring meaning to the information and knowledge they possess (Bruner, 1960; Cobern, 1993; Hirtle, 1996; Powell & Kalina, 2009; Rice & Wilson, 1999).

### **Summary**

Digital native research is important for developing 21<sup>st</sup>-century education (Geer & Sweeney, 2012; Gunter & Thomson, 2007; Mitra & Serriere, 2012; Moyle et al., 2012; Prensky, 2006; Rudduck & Demetriou, 2003). Gunter & Thomson (2007) suggested educational systems have for too long neglected the student voice as a legitimate source to developing effective learning environments. The literature reported that digital natives have redefined how schools should educate children (Beard & Dale, 2008; Friedman, 2005; Prensky, 2001; Wells, 2012; Williams, 2012). Prensky (2001) and Friedman (2005) described how globalization transformed society into digital communities that saw the emergence of digital natives. As educational systems consider how digital natives' social and academic needs are met, the research revealed

how 21<sup>st</sup>-century learners socialize and learn differently than past generations (Morgan & Bullen, 2011; Karpinski & Kirschner, 2010).

The theoretical framework and related literature supported the transcendental phenomenological study on the academic and social experiences of digital natives. The theoretical framework conjoined four theories to support the study's understanding of digital natives. Prensky (2001) addressed digital nativity, while Gordon (1988) discussed the theory of feeling understood. Learning theorists, Vygotsky (1978) and Bandura (2004), contributed to how learning is best done in social settings. The related literature section expanded on the theoretical frameworks to provide details to discuss the digital natives' academic and social experiences.

Palfrey and Gasser (2008) conveyed the message that the digital native voice should be valued and listened to with respect to developing all aspect of social and academic experiences. Moyle et al. (2012) found that “that education ought to listen to their students, encourage decision making among students, involve students in design instruction, and get input from students about they would like to be taught” (p. 15). Prensky (2006) argued that

If we don't stop and listen to the kids we serve, value their opinions, and make major changes on the basis of the valid suggestions they offer, we will be left in the 21st century with school buildings to administer—but with students who are physically or mentally somewhere else. (p. 13).

Oishi et al. (2013) suggested feeling understood is an overall predictor of life satisfaction.

## **CHAPTER THREE: METHODS**

### **Overview**

In this chapter, I introduced the research design, research questions, site, participants, data collection, data analysis, trustworthiness, and ethical considerations for the study. Husserl (1958) and Moustakas (1994) contributed to developing the phenomenological design used for this study. Creswell (2013) assisted clarifying the qualitative method. Saldaña (2013) informed coding and clusters of meaning that led to the results of the study that identified three themes related to their digital native lived experiences: (a) digital, (b) life, and (c) school.

### **Design**

The study used a qualitative transcendental phenomenology design to reveal digital natives' lived experiences (Creswell, 2013, Moustakas, 1994). The section contains three parts: transcendental phenomenological history, preference, and process of transcendental phenomenology. Transcendental phenomenological design was appropriate for the study because it provided a mechanism to capture digital native experiences through an epoche process that will bracket out my biases while focusing on the perspectives of the participants as they related to the research questions (Creswell, 2013; Moustakas, 1994). The epoche process assisted in setting aside "prejudgments regarding the [digital native voice] phenomenon being investigated in order to launch a study as far as possible free of preconceived beliefs, and knowledge of the phenomenon from prior experience and professional studies" (Moustakas, 1994, p. 22). Ultimately, the research design created the opportunity to complete a study that can be "completely open, receptive, and naïve in listening to and hearing research participants describe their experience of the phenomenon" (p. 22).

## History of Transcendental Phenomenology

Transcendental phenomenology means to perceive something freshly while “transforming the world into mere phenomena” (Moustakas, 1994, p. 34). When Husserl (1958) developed transcendental phenomenology by studying 19<sup>th</sup>- and 20<sup>th</sup>-century metaphysical philosophies and the ideas about the essence of beings, he identified intentionality, ontology, and intuition as key components to understanding transcendental phenomenology (Husserl, 1958; Moustakas, 1994). Husserl (1958) explained that the essence of being is revealed by examining a pure objective form of an experience through *epoche* to present phenomenon or experience in descriptive language. Husserl (1958) viewed phenomenology as an avenue to see *a being* or *experience* in a pure objective form that exists autonomously from an interpretive outsider’s lens.

Moustakas (1994) described intentionality as “consciousness, to the internal experience of being conscious of something” (p. 28). Moustakas’ use of *internal experience* was consistent not just with Husserl’s (1958) views on intentionality but also connected with ontological views within transcendental phenomenology to consider what it means *to be*. Both Husserl (1958) and Moustakas (1994) argued that the best approach to examining phenomenon comes from having the phenomenon explained by participants sharing their thoughts and awareness of their shared experiences. Moustakas also described, intuition as equally important to transcendental phenomenology. Moustakas assisted in strengthening Husserl’s theories by tracing Husserl’s original reflections on the *essence of being* back to Descartes’ position that “held intuition as a primary inborn talent directed toward producing solid and true judgments concerning everything that presents itself” (p. 32). According to Husserl and Moustakas, searching for answers to phenomenological research questions, such as identifying the essence of digital natives, can be best found when the phenomena are presented by individuals and returned to the individuals to

present themselves to “things themselves” (Moustakas, 1994, p. 32). While Husserl has remained a reliable source for phenomenological studies, his student Heidegger provided a different look at studying phenomena that has offered researchers opportunity to explore different aspects of qualitative research.

Heidegger (1962) advanced phenomenology by transitioning thought from a metaphysical world of objectivity to a post-metaphysical existence relying on subjective interpretation of what the experience means. Heidegger argued that only naive researchers believe that lived experiences cannot be explained through Husserl’s view of the objective being. Heidegger believed that once someone has observed an experience as a researcher, there is an automatic subjectivity attached to it. While Heidegger’s view countered a Husserlian approach to understanding digital natives, contemporary views approached by researchers like Van Manen (1990) and Moustakas (1994) offered a more balanced position toward phenomenology. The differences between Van Manen’s hermeneutical phenomenology approach and Moustakas’ transcendental phenomenological approach was significant in determining the most appropriate approach for the study. Van Manen’s work focused on greater attention to the Heidegger interpretive approach (Creswell, 2013), while Moustakas focused on providing a deep textural and structural description of a lived experience tied much to the philosophies of Husserl (Moustakas, 1994). In recent years, Creswell (2013) has led the qualitative research discussion. He cited Moustakas’ work with phenomenology and helped clarify the epoche process that informs researchers toward producing research that describes participants’ experiences from participants’ viewpoints.

### **Transcendental Phenomenology Preference**

The decision to examine digital natives lived experiences with transcendental phenomenology over hermeneutical phenomenology went further than just addressing the research gap associated with digital natives. The decision to use transcendental phenomenology for the study was based on the ability of the transcendental phenomenological approach to apply epoche and bracketing techniques to tell the digital native story (Creswell, 2013, Husserl, 1958, Moustakas, 1994). Husserl's (1958) epoche approach created a process to allow researchers to make transparent and set aside perceptions and biases so the participants can reveal and explain the origins and meanings of their own phenomena (Creswell, 2013, Husserl, 1958, Moustakas, 1994). This was without exception for the digital native study. In this case, digital natives participated in making drawings, a focus group, and interviews. The three data collection instruments allowed for coding and analysis to address the research questions. This transcendental phenomenological study was useful in advancing digital native voice research that supports 21<sup>st</sup>-century education (Moyle et al., 2012).

### **Transcendental Phenomenology Process**

Moustakas' (1994) transcendental phenomenological strategies supported addressing the research questions. Within transcendental phenomenological reduction, epoche is a process of looking at a phenomenon freshly without the interference of the biases, judgments, and knowing carried by the researcher (Creswell, 2013; Husserl, 1958; Moustakas, 1994). Epoche is rooted in the late meta-physics thought of Husserl (1958) and considered the first task in preparation of examining a phenomenon (Creswell, 2013; Moustakas, 1994). After the researcher has achieved a significant level of the epoche, the process of phenomenological reduction continues until "the experience is considered in its singularity" (Moustakas, 1994, p. 34). This process entails

looking at a phenomenon freshly while reducing it to the “source of the meaning and existence of the experience” (Moustakas, 1994, p. 34). As it related to the study, this process was necessary because of the limited studies on the student voice of the digital native experience; it was necessary to constantly focus on not the adult version of digital nativity but the experience from the participants’ perspective. During data analysis, I addressed the responses participants provided to questions and bracketed statements that distracted from capturing the essence of the phenomenon.

Moustakas’ (1994) phenomenological reduction process assisted primarily to reveal the participants’ experiences with the digital nativity phenomenon in a way it was “perceived and described in its totality, in a fresh and open way” (Moustakas, 1994, p. 34). With Moustakas’ epoche on the forefront of the contemporary phenomenological reduction process, I approached the process as the opportunity to identify and bracket out my judgment and biases in preparation to code and develop the themes with an open mind. I was mindful that horizontalization was not just about providing each data piece equal value but also spending time with the data to determine whether it really did align to the research questions and truly revealed the *horizons* of each of the data pieces (Moustakas, 1994).

As I brought clarity to the data analysis process by constantly referring to the data analysis section of this chapter, so the textual, structural, and composite description had a strong epoche and horizontalization undertaking. As I was reminded during my dissertation proposal defense, the purpose of my design was not to necessarily eliminate my judgements and biases from the study, but to make sure they were transparent and understood. Brackets to the descriptive stage ends when the participants’ voices provided through my writing a “complete

description is given of its essential constituents, variations of perceptions, thoughts, feelings, sounds, colors, and shapes (of the phenomenon)” (p. 34).

Moustakas (1994) described the data analysis approach as “reducing the information to significant statements or quotes and combining the statements into themes” (p. 34). The endless hours of the coding process and a constant re-examination to bracket, understand the horizons, code, theme develop, and finally explain the phenomenon within the structures of the research questions was what I understood Moustakas meant in by his statement “reducing the information” (p. 34) to significant statements or quotes and combing the statements into themes.

What it took to prepare to write the textual, structural, and composite descriptions was an enormous amount of time to only go back and re-visit the coding process so it accurately moves the data forward to a place to be able to bring clusters of meaning into theme development. At that point, Creswell (2013) indicated researchers then can, “Develop a textural description of the experiences (what participants experienced) [and a] structural description of their experiences (how they experience in terms of conditions, situations, or context)” (p. 80).

It was clear now that unless I went through the epoche process, I would not have been in the place to produce a transcendental phenomenological study. The descriptions for this study highly depended on my ability to place relevant data in front of me that was aligned well with the research questions. The process of coding into categories and then into themes all depended on me continuously examining not just the origins of the data (from them voices of the participants) but the relevancy to the research question. In the end, the descriptions for the study included a well thought out combination of the textural and structural descriptions to convey an “overall essence of the experience” (Creswell, 2013, p. 80). In the end, this study accomplished what Moustakas (1994) believed it should that, “Ultimately, through the transcendental-

phenomenological reduction we derived a textual description of the meanings and essence of the phenomenon, from the vantage point of an open self” (p. 34).

### **Research Questions**

The following questions frame this study:

**RQ1:** What are the academic and social experiences of digital natives?

**RQ2:** How does feeling understood by teachers shape digital natives’ learning experiences?

**RQ3:** How does the use of social media, the internet and digital devices contribute to 21<sup>st</sup> century education as perceived by digital natives?

### **Setting**

The site selected for the study was Patrick Harrison High School (pseudonym), located in southern California. The 3,100-student population offered a diverse community with demographics that included a racial breakdown of 43% White, 32.6% Hispanic, 5.9% African American, 6.3% Filipino, 4.1% Asian, and 8.1% other. The male to female ratio was 1:1. This campus served as appropriate location for the study based on the availability of digital natives as defined by Prensky’s (2001) definitions that digital natives are individuals born after 1980. Most students attending Patrick Harrison High were born between 1997-2001. The site was also able to provide necessary space to conduct the three data collection activities.

### **Participants**

The participants selected for the study shared their academic and social experiences as digital natives. Gunter and Thomson (2007) argued that participants play an essential and vital role of transcendental phenomenological studies. The participants engaged actively to provide the primary experiences for the study that otherwise would not be accessible by those outside the

lived experiences of digital nativity. Gunter and Thomson (2007) agreed that student the participants were the appropriate and necessary population to inform 21<sup>st</sup>-century educational research (Creswell, 2013; Husserl, 2058; Moustakas, 1994).

Purposeful sampling was used to select participants for this study. The criteria used to identify participants included high school students, since they met Prensky's (2001) digital native definition of being born after 1980. Another criterion for selection was the participants had to report they were consumers of digital devices, the Internet, and social media. Craft (2010) indicated 10 students would be adequate for a study of this kind. The criterion-based approach to the study (selecting high school students who were 10<sup>th</sup> and 11<sup>th</sup> graders) was consistent with Gall et al.'s (2007) research that found criterion-based approach to selecting participants was consistent with the transcendental phenomenology goal of acquiring information-rich samples to capture the digital native experiences. After finding about 30 interested students from the art and English classes, nine participants returned their assent-consent forms. I expanded the search for participants to the school's cross-country team and added three more eligible students to the nine participants already selected. The final participant count was 11 after one student left the study for personal reasons.

Students from introductory and advanced art classes in the 10<sup>th</sup> and 11<sup>th</sup> grade art classes and 10<sup>th</sup> grade English classes received an invitation flyer (see Appendix A) to attend an informational meeting about participating in this qualitative study (unless they were my previous students). I initially chose the art classes because they were a representation of the general population and all students were eligible to enroll. The high school was identified as a comprehensive high school that does not emphasize art outside an elective program. The digital natives in the art classes would not generally be oriented toward art like an art magnet or

specialized art school might have. The art room was also the primary place for the participants to complete their drawings, while the English classrooms and the cross-country practice area was also used. The study excluded ninth and 12<sup>th</sup> graders due to anticipating first-year and final year distractions. The invitation meeting (see Appendix B) overviewed the study and Prensky's (2001) definition of digital natives. Students at the meeting were given a high school student assent-parent consent form (see Appendix C) to sign and return if they were interested in participating in the study. From the students who return the consent and assent forms, nine students were selected to participate in the drawings, focus groups, and interviews. As stated, the remaining three students were selected from the cross-country team that met the eligibility requirements and returned the assent-consent forms.

### **Procedures**

This transcendental phenomenological study included semi-structured, open-ended interviews, an online focus group, and a drawing activity as the data collection instruments. Data analysis procedures were consistent with phenomenological outcomes prescribed by textual and structural descriptions (Creswell, 2013; Gall et al., 2007; Moustakas, 2007). Grbich (2007) posited a phenomenologist role requires getting "close to the essence of the experience being studied," (p. 19) while pressing through an individual epoche and bracketing to present a lived experience with transparency and reduction of biases and judgment as much as possible. Moustakas (1994) and Creswell (2013) informed all data collection instruments on the phenomenological procedures and expectations.

I secured site permission to conduct the study (see Appendix D) and Institutional Review Board (IRB) approval on April 2016. I started my study in May of 2016. The completion of the data collection data concluded July 2016. Soon after my IRB approval, I distributed invitational

letters in the art and English classes. Later when necessary, I also provided invitational letters to the cross-country runners. At the invitation meeting, an overview of the study, definitions of digital natives, and overview of the theory of feeling understood were presented to the attending students. Listed in the data collection section included the descriptions of how the interviews, focus groups, and drawings were conducted.

### **The Researcher's Role**

Following Moustakas' (1994) and Gunter and Thomson's (2007) strategies on how to conduct the study as the chief researcher, I conducted three data collection activities that included having the participants complete drawings, an online focus group, and individual interviews. I conducted the study on the campus where I was employed from 2006-2015. I selected none of my previous students for the study.

Using Deggs, Grover, and Kacirek's (2010) data recording strategies, I used a recording device and sent my audio recordings to TranscribeMe! to assist in capturing the information of the participants' stories and ideas shared. A significant consideration during the study was to provide an avenue within the activities where the digital natives guided the overall pathway for sharing digital native experiences. As designed, the participants openly and freely completed the three activities as they their answers grew deeper with emotional and description responses. Using the memoing strategies (Creswell, 2013) was beneficial for me as I bracketed data to ensure any and undue any outside influences or biased directions were minimized in the study. I used member checking and provided the participants the opportunity to see the data and the analysis to increase trustworthiness.

As I started and completed the study, my biases and worldviews about digital natives were shaped by my attitude to be a supportive digital ally (Palfrey & Gasser, 2008; Prensky,

2001). As a former journalist, the dissemination of information was interesting to me. As print media shifted to online digital print media, I always appreciated the ability to communicate with communities. As a digital native advocate and a digital ally, I was also influenced greatly watching my two daughters (now ages 15 and 22) grow up as digital learners. Though I must admit, there are always times of frustration as my daughters and students seem lost in their digital worlds. I think this focus from the physical world to an online social media experience was part of my intrigue toward studying the digital native experience, especially from their perspectives. I knew part of my role as I completed the literature review and study was to be open to listening and capturing what they saw was their world regardless of what adults might think. In addition, my graduate programs that included master's degrees focused on leadership analysis and multiple intelligence, respectively, and the completion of the Ed.D. in educational leadership has equally provided me a sound mind to complete my dissertation with the ability to be open and desiring to know what students really think.

Part of my final role as a researcher was to ensure participants were actively involved beyond the data collection activities. Lincoln and Guba's work guided how I approached providing the participants the opportunity to view and comment on the data analysis and study's findings and conclusions (Lincoln and Guba's *Evaluative Criteria*, 2008). The two researchers suggested to involve the participants in the back end of the dissertation to ensure the accuracy of the information. I expanded Lincoln and Guba's suggestion to include also ensuring the privacy and confidentiality of the participants. By having parents of the participants and the participants view the study, they had the opportunity to provide me any issues or concerns they had with the information. Fortunately, there were no issues or concerns reported. I will address more about

integrity provisions of the study as I further discuss it in the trustworthiness section to follow later in this chapter.

### **Data Collection**

The study used three data collection instruments. The participants first completed a drawing activity. The participants drew images of their digital native academic and social experiences. Secondly, they participated in a focus group session where they viewed and described their fellow participants' drawings; this was followed by responding to online focus group questions and other participants' answers. For the final activity, the participants interviewed with me for about hour to 90 minutes each. The data collection instruments brought forward participants' responses by "well informed" (Gall et al., 2007, p. 244) individuals on the phenomenon of the essence of digital nativity. The scope of digital nativity included addressing the three research questions related to the essence of their academic and social experiences as digital natives; experiencing how the feeling of being understood by teachers influenced their learning; and how experiencing the use of social media, the Internet, and digital devices contributed to their 21<sup>st</sup>-century education.

Onwuegbuzie et al.'s (2010) meta-study that encouraged non-traditional data collection approaches (such as online focus groups and drawings) informed the data collection for the study. They found the non-traditional approaches had the capability to capture authentic experiences of the participants. The three data collection instruments not only met a requirement for the study, but the three sources provided the catalyst to triangulate data during data analysis (Gall et al., 2007). Data triangulation assisted in validating the study results to "generate findings [to] see if they corroborate across the variants" (Gall et al., 2007, p. 474; Guion, Diehl, & McDonald, n.d.).

The procedures for each data instrument collection activity are described next in this section. The drawing activity consisted of 11 student drawings. The 11 students were selected from a pool of applicants who attended an information meeting and returned their high school student assent-parent consent form. The only exception to this process, was needing to select three additional participants after exhausting the eligibility and interest list from the art and English classes. The three additional participants, as already stated, were selected from the school's cross-country team. In this case, they were provided individual meetings and provided me their assent-consent forms prior to starting the study. The online focus group and interviews used 11 participants after they had completed the drawing activity. The online focus group was conducted using Haiku, a secured online academic and social media site (Farber et al., 2012). The interviews were open-ended, semi-structured and consistent with Hahn's (2008) and Saldaña's (2013) techniques. As Seidman (2006) indicated, interviews allow for intimate conversations with participants about a lived experience or phenomenon. It was useful and required to complete a pilot study. Weiss' (1994) informed me on how the purpose and process of the pilot study was to "clarify the aims and frame of the study" (p. 15). As Weiss (1994) suggested, the pilot study served to set the boundaries for a study and minimize the adjustment made to the study as it progressed (Weiss, 1994).

The following sections described the specific instructions for how the data collection study was conducted. Each pilot study was conducted as a shortened version of the full study. The research-based strategies (Weiss, 1994) guided the pilot and the full study as modifications were made to meet needs of the full study. I adjusted the full study based on what was learned and scrutinized from the pilot study. Based on IRB protocol, data from the pilot study only informed the adjustments and procedures used in the full study. Any individuals who participated

in the pilot study were not used in the full study. The pilot study information was not gathered or saved. Any physical or digital materials used by individuals during the pilot study were destroyed soon after it contributed to adjusting the procedures or process of the full study.

### **Drawings**

Drawings were used as an organic activity to introduce the students to the study and encourage participation (Yuen, 2004). Yuen's (2004) research on drawings encouraged the use of visual representation to provide an emotionally safer vehicle for participants to share their experiences. Yuen contended drawing can provide a "medium through which children express themselves and share some of their more personal experiences, which may have been more difficult to share by verbal description alone" (p. 481). In the case of the study, the participants were consistent with Yuen's research by remaining actively engaged and showing effort to complete drawings that provided plenty of examples of how they viewed their digital existence. Yuen contended the use of drawings for studies help contribute to student voice in a fun and relaxed environment. The participants in the study not only contributed their thoughts by drawing without any apparent hesitation, they were equal to the sharing task when they discussed their drawings during the interview and focus group activities.

Yuen (2004) very much supported the use of drawings as a data collection instrument. For the study, the drawings were used to address the first two research questions related to their academic and social experiences as digital natives. This non-traditional data collection instrument was consistent with transcendental phenomenology's goal of capturing the essence of a phenomenon (Moustakas, 1994). Saldaña (2013) favored visual data because it can "speak for itself" (p. 55). Banks (2007) believed that visual data is sometimes the best method to capture an

experience. Onwuegbuzie et al. (2010) also suggested using alternate data collection instruments to meet the needs of the 21<sup>st</sup> century learner.

The participants' drawings confirmed how Yuen (2004) contended drawing is a natural communication device for children with the greatest capacity to capture the essence of a phenomenon. Yuen (2004) further believed, "When involving children in qualitative research, one of the major challenges is for the adult investigator to capture the experiences and meanings from a child's perspective" (p. 461). Yuen (2004) also considered student drawings as an important data collection instrument for qualitative studies related to children because it can provide a purer student perspective without adult influence. As experienced by the study's drawing activity, the participants showed no issues drawing images about their digital natives' experiences.

Prior to the beginning of the study, the participants were selected based on self-identifying themselves as digital natives after a meeting to discuss the study. The participants reported using or that they have used at a least a digital device, the Internet, or social media. They were given 30 minutes to draw the essence of what a digital native looks like at home and in the classroom. They included in the picture typical characteristics of digital natives academic and social experiences. Participants were provided a paper and colored pencil and completed the drawings in either the art classroom, English classroom, or at the cross-country practice field. I had initially 12 participants, but one left the study after the drawing do to personal reasons. The final three participants joined the study soon after school was completed for the year and they had started their cross-country practices. They were first instructed to draw based on the definition provided based on Prensky's (2001) digital native definition and Gordon's (1988) definition of feeling understood, but after the pilot study, I determined it to be less directed by

instructing them to draw their academic and social experiences as digital natives. The data collection procedure was consistent with how Yuen (2004) took the children's picture and presented them to the focus group for discussion.

I conducted my pilot study after I received IRB approval and prior to completing the full study. Based on Yuen's (2004) research on pilot studies, I conducted the pilot study with five individuals to support the external validity (Gall et al., 2007) towards the full study.

Following Yuen's (2004) strategies, the pilot study volunteers completed the pilot drawings with the same prompt expected in the full study. Unlike Yuen, who asked the pilot study volunteers (who were campers at summer camp) if they knew of any other campers that might be interested in completing drawings, for my study, I already had enough interested students willing to join the study. The five selected students in the pilot study were selected from the English class that helped produce the participants for the study. The five individuals who completed the drawings, followed up with mini versions of focus group and interviews to support the adjustments needed for the full study. As stated, providing student input with the process, results, conclusions, and the external validity of this data collection was increased by making sure student voice was involved with the pilot so to verify the data is consistent with the research questions (Gall et al., 2007).

### **Focus Group**

The study used the online educational and social media website Haiku. The online focus group activity addressed questions one, two, and three. I provided the participants with Haiku usernames and passwords to gain access to the secure site. I controlled access to when the site was available for the participants to use. I opened the site during the initial focus group discussion and allowed participants to provide further input as necessary. Prior to the digital age,

participants completed most focus groups in person. Focus groups were ideal for researchers to meet with multiple participants simultaneously. Onwuegbuzie et al. (2010) found online focus groups to be consistent with a 21<sup>st</sup>-century approach to the digital age of gathering information. Onwuegbuzie et al. found innovative collection data techniques match Farber et al.'s (2012) research, indicating digital native preferred communicating with each other through social media like Haiku, Facebook, and Twitter. Onwuegbuzie et al. reported focus groups as an effective data collection instruments for creating a safe environment for students to share thoughts and feelings.

Other researchers such as Hundley and Shyles (2010) recommended focus groups for student perceptions and awareness of technology. They believed focus groups were useful data collection instruments that can enable a “cascading or chaining effect, which encourages [participants] to feed off each other’s’ ideas, producing a richly textured set of complementary interactions” (p. 419). The ambient and collaborative nature of digital natives (Farber et al., 2012; Palfrey & Gasser, 2008; Prensky, 2001) made conducting the focus group online appropriate as it was consistent digital natives’ preferences toward communicating with each other (Farber et al., 2012).

Based on the sufficient research to support an online focus group experience for the participants, I created a Haiku homepage with secure access for only the participants and myself (Tech Talk: Edmodo, 2011). The online focus group process served as an alternative to face-to-face meeting (Deggs et al., 2010). Haiku automatically recorded the information participants provided during the focus group sessions (Tech Talk: Edmodo, 2011). The recorded focus group data was transferred and coded in the Nvivo software program. Deggs et al. (2010) informed the data collection for the study.

In further support of an online focus group data collection instrument, Deggs et al. (2010) shared that in a study with graduate students, participants successfully completed a six-week online focus group activity. I greatly shortened my process based on the time constraints using high school students. By the time the participants of the digital native study participated in the focus group, they had already completed a drawing and agreed to participate in the focus group. The focus group activity addressed issues related to the three research questions.

Participants completed individual questions on Haiku related to their digital native experiences that required responses and commentary (Deggs et al., 2010). The 11 focus group participants had their drawings and narratives posted to the Haiku site prior to discussing digital native experiences with the focus group. The drawings were transferred as digital copies to Haiku to be reviewed by the participants during the focus group. During the focus group, the participants viewed all the participants' drawings and described and commented on what they believed the pictures revealed about digital native experiences. During the interviews, the participants focused on only describing their own drawing.

During the focus group session, I served as the moderator (Deggs et al., 2010). I only interjected if students asked for clarification. The participants answered the five questions at their own pace as well as responded to others as their own pace. The participants spent between 30 minutes to an hour on the Haiku site. Prior to the start of the focus group activity, I posted instructions, and students asked clarifying questions as needed. I was short three participants at the beginning of the focus group activity. However, soon afterwards, I selected three more students from the school's cross-country team. Those participants then completed the drawing activity and accessed the focus group site to address the five questions and respond to the other participants.

For digital natives, Haiku provided “social features [that] met a digital generation of students precisely where they [are as learners] (Tech Talk: Edmodo, 2011, p.1). The Haiku online academic social media site created a safe and trustworthy data collection vehicle that was consistent with the Institutional Review Board requirements for confidentiality and privacy.

The online Haiku focus group discussions were automatically saved onto the site as the participants addressed semi-structured open-ended questions (see Appendix E). Palfrey and Gasser (2008) and Prensky (2001) informed the development of the formal questions that were IRB approved. Palfrey and Gasser (2008) suggested there are levels of digital nativity based on competency and usage of each consumer. Prensky (2001) described the digital natives as individuals born after 1980 consumed daily with technology use and online interactions with information and people. Gordon (1988) addressed feeling accepted as a characteristic of feeling understood. The focus group questions addressed all the research questions. I concluded the focus group activity by monitoring the answers and thanking the participants for their time and responses. All the participants then met separately in-person with me at different time to continue in an interview about their experiences as digital natives.

The pilot study was conducted in the English classes that I used to select some of the participants. Non-study students were provided the questions to respond to for me to determine the appropriateness of the questions. I concluded after the first attempt to run the focus group live, but there was a power outage to allow students to answer at their own pace. While it changed the format slightly, the early pilot study and the decision to have the students choose the pace of answering supported a more comfortable environment for the participants. Once again, the pilot study supported the external validity of the study through identifying the needed changes to the full study. In summary, the pilot study for the focus group, like the two other data

collection instruments, was completed after IRB approval and prior to the full study. The pilot study was consistent to Deggs et al.'s (2010) strategies that called for monitoring participants during the focus group session to ensure they understood the focus of the questions. After the pilot study was completed, I examined the process and determined any changes necessary that supported the process of the activity and the ability to address the research questions (Gall et al., 2007).

### **Interviews**

Weiss (1994) considered interviews as the “access to the observations of others” (p. 1). The interviews provided details of participants’ lives that are consistent with gaining understanding of digital native lives through the transcendental phenomenological approach (Moustakas, 1994, Weiss, 1994). Weiss (1994) said, “through interviewing [one] can learn about places [one has] not been and could not go and about settings in which [one has] not lived” (p. 1). In the case of this study, the interviews served to culminate the participants’ contributions to the study that started with the drawings and focus groups and finished with individual stories about their thoughts and experiences as digital natives. This data collection instrument addressed all three research questions and will be discussed further in Chapter Four. Weiss explained that interviews can capture the interior experiences and the “windows of the past” (p. 1). Weiss (1994) shared conducting qualitative interviews has seven research aims that can be accomplished by interviews:

- (1) Developing detailed descriptions.
- (2) Integrating multiple perspectives.
- (3) Describing process.
- (4) Developing holistic description.

- (5) Learning how events are interpreted.
- (6) Bridging intersubjectivities.
- (7) Identifying variables and framing hypotheses for quantitative research. (p. 1)

The interviews were necessary to the phenomenological study to gather information on the participants' lived experiences as digital natives as well as experiences of feeling understood by their teacher (Creswell, 2013). Each interview consisted of semi-structured, open-ended questions (see Appendix F) that will address the research questions.

The interview questions addressed Gordon's (1988) theory on feeling understood. The theory was referenced throughout theoretical framework and related literature. Lun, Kesebir, and Oishi (2008) explained feeling understood leads individuals to seek out social environments. Gehlbach et al. (2012) suggested that the teacher-student relationship is a fundamental ingredient to student success. The questions assisted in providing the participants the opportunity to discuss their stories about their academic and social experiences (Weiss, 1994). All interviews were conducted individually between the participants and me. Interviews were digitally recorded and transcribed for data analysis. All 11 participants participated in the interviews.

The interviews were conducted as another mechanism to understand the participants' life as digital natives. Lala and Kinsella (2011) produced phenomenological research using semi-structured interviews that engaged participants initially with a structured guide of questions that ended with "emerging dialogue" (p. 248). Similarly, the digital native study contained questions designed to prompt students to explore and explain their social and academic lives as digital natives and gain knowledge and insight toward their lived experiences including what it feels like to be understood by their teachers. The drawings and focus groups provided a sound beginning to their stories as digital natives, and the individual interviews gave participants

opportunity to expand and discuss deeper in their experiences to assist in revealing the phenomenon of digital nativity. Based on theories, strategies, and suggestions from Saldaña (2013), Seidman (2006), and Weiss (1994), interviews were coded and analyzed.

I adapted the Seidman (2006) interview process that discussed details of life experiences. The purpose of the interview was to reveal their essence as digital natives and their essence of them feeling understood by their teacher. Seidman (2006) suggested to prepare for each interview to last on the average of 30 minutes. I was pleased to record interviews between 45 and 90 minutes. Based on the anticipated data collected from the first two data collection instruments, the length of interviews averaged 45 minutes (Seidman, 2006). I incorporated Weiss's (1994) strategy on interview questions that focused on the interviewer building relationships with the respondents. The relationship-building characteristics included working together to produce useful information. Weiss' (1994) strategies also included defining the area of exploration and staying away from "idle curiosity" (p. 65). I found myself remaining focused with the interviews but building relationships in a short time, so the teen participants might trust that I was listening to them. This required some level of transitional conversations. It was important for me to respect the student integrity with responses and ensure the emotional and physical safety of the student. All questions addressed Gordon's four characteristics of feeling understood by having students respond to open-ended questions that revealed their experiences.

Gehlbach et al. (2012) suggested that teacher-student relationships are among "the most fundamental factors in successful schooling" (p. 691). Gordon (1988) related school success to students feeling understood. The interviews provided participants the opportunity to discuss questions related to their academic and social experiences as digital natives. The participants answered questions from Appendix F that addressed all the research questions.

External validation for this study was addressed within the interview process by conducting a pilot study that tests the effectiveness of questions (Seidman, 2006). Prior to the actual study and after IRB approval, I conducted a test pilot on five participants at Patrick Harrison High School. The purpose of the pilot questions was to make any adjustments to ensure the information was relevant to the research question, addressed by the literature review, and supported by external validity for the study (Gall et al., 2007).

### **Data Analysis**

The transcendental phenomenological data analysis was rooted in Husserl's (1958) and Moustakas' (1994) description of epoche and phenomenological reduction. Grbich (2007) postulated that phenomenological reduction in data analysis would lead to the "essence of the phenomenon to become more visible" (p. 87). Through the process of phenomenological reduction, textural and structural descriptions were developed through the emerging themes (Creswell, 2013; Grbich, 2007; Moustakas, 1994). Creswell (2013), Creswell and Moerer-Urdahl (2004), and Moustakas (1994) identified the steps of phenomenological reduction as bracketing (epoche), horizontalizing, clustering horizons into themes, and organizing horizons and themes into a coherent textural description of the phenomenon. These steps served as a mechanism to revealing the essence of a phenomenon from the data collected (Creswell, 2013; Moustakas, 1994) in my study. Figure 1 shows the adapted data analysis process as described by Moustakas, which illustrates the consecutive order and the role of epoche.

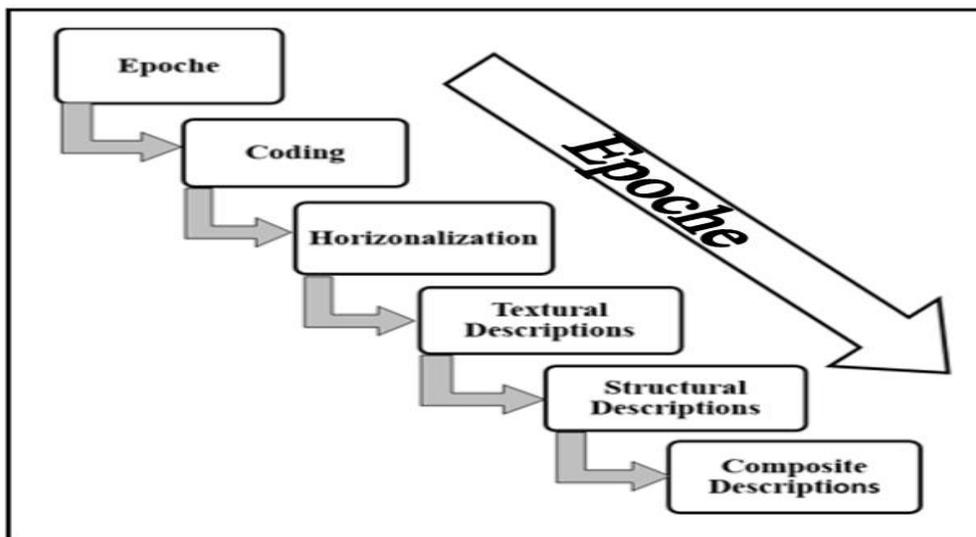


Figure 1. Adapted data analysis process as described by Moustakas (1994)

The data collected was coded and analyzed to meet the criteria for effective Husserl/Moustakas' data analysis (Creswell, 2013; Creswell & Moerer-Urdahl, 2004; Husserl, 1958; Moustakas, 1994). Included in the data analysis was an explanation of coding and how memoing will contribute to a richer and deeper examination of the data collected. I concluded the data analysis by synthesizing "The themes into a description of the experiences of the individuals, and then constructs a composite description of the meanings and the essences of the experience" (Creswell & Moerer-Urdahal, 2004, p. 6).

### **Epoche and Bracketing**

For the transcendental phenomenological design, the epoche process and the use of bracketing were essential organization tools for preparing for data analysis (Creswell, 2013; Husserl, 1958; Moustakas, 1994, Tufford & Newman, 2012).

Tufford and Newman (2012) suggested:

Bracketing is a method used by some researchers to mitigate the potential deleterious effects of unacknowledged preconceptions related to the research and thereby to increase the rigor of the project. Given the sometimes-close relationship between the researcher and the research topic that may both precede and develop during the process of qualitative research, bracketing is also a method to protect the researcher from the cumulative effects of examining what may be emotionally challenging material. (p. 81)

Tufford and Newman (2010) raised important issues by presenting research and a framework that challenged researchers to examine what bracketing is, when it should be used, and what the best approaches to it are. Tufford and Newman asked researchers to reflect upon bracketing and question the relationship the participants had to the topic and study. Tufford and Newman's discussion coached me to think about my process and I reflected, bracketed, and adjusted my practices as necessary.

The reflections to Tufford and Newman's (2010) writings supported my next steps. I really did not consider doing much bracketing during the data collection with the concern I was going to miss the participants' key ideas because I was focusing on my own journey. I was very aware about the epoche process and initially thought I was going to rid the study of any of my biases as I approached analysis and conclusions. I was encouraged during my proposal defense to reveal more about my thoughts and biases rather than attempt to sanitize the dissertation from my own opinions or biases. The obvious place for me to bracket was when the data was delivered into Nvivo. I found it useful to pause and memo my thoughts and ideas as I chunked data into preliminary codes. The memoing allowed me to examine how I was creating the preliminary codes and codes. Tufford and Newman supported the use of memos for bracketing but believed it was not an exclusive practice to bracketing. Tufford and Newman were useful as

they confirmed what Husserl (1958), Moustakas (1994), and Creswell (2013) shared in their writing but offered a closer and critical look at the practice.

I dedicated the early part of the post-data collection to the epoche process by bracketing out information that I determined to have slanted toward my understanding of the digital natives rather than the perspective of the participants. An example of the bracketing included excluding data from the interview transcripts that appeared more like me guiding a participant to answer rather than the participant formulating an independent response. For the most part, I was thoroughly guided in the data analysis research of Husserl (1958), Moustakas (1994), and Creswell (2013). I understood the researchers to mean that epoche was a concept developed under the ancient Greeks as a process that meant to suspend judgment. I also understood modern epoche was rooted in the late metaphysical thought of Husserl and was considered the first task in preparation of examining a phenomenon (Creswell, 2013; Moustakas, 1994).

I listened as I read about Creswell (2013), Moustakas (1994), and Husserl (1958) describing epoche as a process of examining data from phenomena that brackets out the judgements of the researchers to understand an experience from participants' points-of-view. Now the study has been completed, I have a clearer understanding that bracketing operates as a tool used by qualitative researchers, especially when studying phenomenology, to bring forward the experiences of the participants by minimizing the judgments of the researchers (Moustakas, 1994; Tufford & Newman, 2012). By applying epoche throughout the study, this assisted me in examining for determining external validity that was necessary to provide any applicable generalization the study might have to similar populations.

From the beginning of the study's process, Prensky (2001) and Palfrey and Gasser (2008) informed my decisions on conducting the study on digital natives. Prior to my study, and

dissertation proposal, I worked closely with a friend who I grew up with in the 1980s when we were transitioning into the digital world as the digital natives were emerging in the 1990s. It was clear to my recollection, the late Generation X adults like myself, had embraced the Internet, social media, and smart phones more as curious, innovative tools to make my life possibly more efficient rather than a way of life as Prensky described a typical digital native experience. I do not see the digital age the same as the digital natives because my lens includes experiences that have not been tied to a social network or a smart phone from the start as many of current teenage digital natives.

### **Coding the Data**

Hahn (2008) described coding as a process of focusing “a mass amount of free-form data with the goal of empirically illuminating answers to research questions. Coding moves in a stepwise fashion progressively from unsorted data to the development of more refined categories, themes, and concepts” (p. 5). Hahn (2008) developed a chart that identifies the different layers of coding (open, focused, and axial coding) that would be practical to my study.

Hahn’s (2008) systematic coding chart was consistent with the Moustakas data analysis model that develops significant statements, clusters units into meanings, and provides textual and structural descriptions in the data analysis process (Creswell, 2013; Moustakas, 1994). The open coding was applied to the data collected from the interviews, the focus groups, and drawings. The next level of coding, focused on categorical coding within the clustering of themes. All data was entered into the Nvivo software and placed with a preliminary code. The preliminary codes were coded based on relatedness. The codes for all three data collection instruments were clustered into categories. Additionally, the interview codes were not just placed into categories, but because there was a much greater amount of data, collapsed categories were used. Finally,

three themes for each data collection instrument were developed, and three triangulated themes were finalized and used to triangulate the data. This coding and theme development process led into writing rich and robust textual and structural descriptions for the study. The data analysis process was done to preserve the integrity of the transcendental phenomenological approach for the study.

Saldaña (2013) described coding in qualitative inquiry as words that symbolically assign a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (p. 3). The collection data instruments used in the study aligned well with Saldaña’s definition, especially recognizing non-linguistic data such as drawing are an appropriate and meaningful instrument to collect data for coding. Prior to coding, Creswell (2013) recommended a reading and memoing of the data. Memoing is writing, “Short phrases, ideas or key concepts that occur to the reader” (p. 183). This process occurred after I transcribed the focus group and interview data. The memoing regarding the drawings occurred also in a format designed for coding and analyzing visual data. Creswell (2013) stated the “process of coding involves aggregating the text or visual data into small categories of information, seeking evidence for the code from the different databases being used in a study, and then assigning a label to the code” (p. 184).

It was necessary to use appropriate coding analysis to complete the study. Using the Nvivo software satisfied the transcendental phenomenological expectations for the study (Bergin, 2011; Saldaña, 2013). Since the study was attempting to capture the digital native voice, the Nvivo software made the software appropriate for the digital native data analysis. Bergin (2011) analyzed Nvivo 8 through a qualitative study that interviewed Nvivo users on their experiences using the coding software. Bergin (2011) found that the features in Nvivo allowed

for not just manually inputting information for analysis, but also video and recorded information can be placed into the software the same purpose. According to Saldaña (2011), Nvivo “is appropriate for virtually all qualitative studies, but particularly for beginning qualitative researchers learning how to code data, and studies that prioritize and honor the participant’s voice” (p. 91).

### **Horizontalization**

Moustakas’ (1994) and Creswell’s (2013) research informed the process of horizontalization. Horizontalization is the second step of phenomenological reduction (Creswell, 2014; Moustakas). The step begins after epoche has been achieved to the best of the researcher’s ability (Moustakas, 1994). In other words, the horizontalizing process begins when the phenomenon is “perceived and described in its totality, in a fresh and open way” (Moustakas, 1994, p. 34). For this study, the primary function of horizontalization was to “list every significant statement relevant to the topic and give it equal value” (p. 284). The goal was to develop a list that is “non-repetitive, non-overlapping statements” (Creswell, 2013, p. 195).

### **Clusters of Meaning**

For this study, each data set (interviews, focus groups, and drawings) was grouped into “larger unit of information, called meaning units or themes” (Creswell, 2013, p. 193). The focus group was automatically transcribed from Haiku. The interviews were recorded and transcribed before the significant statements and clusters of meaning occurred. As stated previously in this section, I used open coding with much direction from Saldaña (2013). The clusters were developed from the data reference received into Nvivo from TranscribeMe! and the Haiku.com website. However, for the drawings, I had participants discuss their drawings as an introductory question during the interview and the focus groups. Participants’ responses were included in the

transcriptions that were completed by Transcribme.com and inputted into Nvivo as the data were coded. The reference data were assigned preliminary codes, followed by codes that were clustered into categories and collapsed categories. The categories and collapsed categories developed into the data collection themes and finally triangulated into the three themes that emerged as the digital, life, and school experiences of the participants.

### **Textual and Structural Descriptions**

Moustakas (1994) believed, “Ultimately, through the transcendental-phenomenological reduction we derive a textual description of the meanings and essence of the phenomenon, from the vantage point of an open self” (p. 34). Creswell (2013) described textual descriptions as the “what happened” (p. 193) phase of data analysis. Moustakas (1994) stated, “The meanings and essence of the phenomenon” (p. 34) are revealed during this step as textual descriptions. Creswell (2013) indicated that verbatim examples would be included in these descriptions. For the study, following the textual descriptions were the structural descriptions that comprised of the “how the experience happened” (Creswell, 2013, p. 194). During these descriptions, the priority was for the setting and the context to assist in describing the how and why “the phenomenon was experienced” (Creswell, 2013, p. 194).

### **Composite Descriptions**

This section was grounded in Husserl’s (1958) theories on how to approach a phenomenon with respect to capturing data that supports understanding experiences from the participant’s point-of-view. This was also rooted with Moustakas’ (1994) attempt to claim the phenomenon within this systematic examining of an experience. Creswell (2013) described the responsibility of the researcher during this section as “writ[ing] a composite of the phenomenon incorporating both the textual and structural descriptions” (p. 194). With that said though,

McDermott and Varenne, (1995) suggested to be careful in labeling and believing we can know enough about anybody or any group to say we thought them. McDermott and Varenne noted, “Not only is our wisdom not total, there is yet much to learn from others” (p. 325). I explained the *what* and *how* the participants experienced feeling understood by their teachers in this section. This section explained the essence of the experience the digital natives revealed with respect to feeling understood by their teachers.

### **Trustworthiness**

Trustworthiness is important because it assists in determining the worthiness of a study (Lincoln and Guba’s Evaluative Criteria, 2008). Lincoln and Guba (Lincoln and Guba’s Evaluative Criteria, 2008) believed to increase trustworthiness of a study, it must possess credibility, transferability, dependability, and confirmability. I followed Lincoln and Guba’s trustworthiness criteria to within the study. As I began the study, credibility was addressed as the process that pursued the “in the truth of the findings” (p. 1), while transferability examined how the findings had “applicability in other contexts” (p. 1). The two other criteria, dependability and confirmability, focused on ensuring the findings were “consistent and could be repeated,” (p. 1) and built by participants’ data and my transparencies about their experiences. The following are the details and analysis of how I used Lincoln and Guba’s (Lincoln and Guba’s Evaluative Criteria, 2008) suggested techniques to establish and maintain trustworthiness.

### **Credibility**

Lincoln and Guba’s (Lincoln and Guba’s Evaluative Criteria, 2008) suggested credibility can be achieved through prolonged engagement, triangulation, and member checking. Participants completed three activities that included a total of nearly 10 hours of interviews, 90

minutes of focus group interactions, and 30 minutes of drawings. The data was analyzed and compared to each other to provide a triangulation of information to ensure the information could be examined for similarities and differences. The participants themselves had the opportunity to review drawings, discuss digital native experiences with their peers in a focus groups, and view the interview transcripts and the complete dissertation document. They were encouraged to provide input with their thoughts and concerns. This was accomplished by the time spent with the participants during the data collection and debriefing with them to clarify or verify data.

### **Transferability**

For this study, transferability addressed how the findings can be generalized to similar experiences. Lincoln and Guba (Lincoln and Guba's Evaluative Criteria, 2008) indicated an effective practice for determining how transferable the study can be to the general population is through descriptions of the data and the experiences. I used Moustakas' (1994) data collection and analysis process by using the three data collection instruments to gather rich dialogue from the participants through their interviews and focus groups and encouraged details and specificity of the drawings toward their digital native experiences. To further support transferability, I sent my audio recordings of the interviews to Transcribme.com to increase the likeliness of accurate transcripts. The textual, structural, and composite descriptions supported transferability by ensuring the descriptions were built straight from the data that were coded and clustered by meaning to create themes consistent with what was received from the three data collection instruments.

### **Dependability**

Dependability is important to a study as it establishes a process that ensures consistency and repeatability of the study. For this study, I examined the process of the data collection and

data analysis by providing an external audit that scrutinized the study in an inquiry-based way. In my study, I used external audits to support trustworthiness. I asked two fellow colleagues from the Liberty Universities doctoral program to review my process and provide feedback. I also asked an outside college student to review the process and provide feedback. Through member checking, the participants and parents were also provided transcripts and a draft of the document to provide feedback and create a data accountability for the study. The important part here was to use the data to check for accuracy with the participants but not to assume the data by itself concludes anything (Wehlage, 1981). In all cases, the feedback was used to scrutinize how I completed the study.

### **Confirmability**

For the study, confirmability referred to the “degree the results can or confirmed or corroborated by others” (Lincoln & Guba, 1985, p. 290). I approached confirmability through an audit trail, triangulation, and epoche. I completed the epoche process by bracketing out my judgement to consider the participants’ perspective. Cope (2014) suggested rich quotes from participants that depict emerging themes can assist in confirmability. Cope added that researchers can assist in confirmability by “describing how conclusions and interpretations were established and exemplifying that the findings were derived directly from the data” (p. 89). I approached the data by making sure there was a clear link from every aspect of the data collection into data analysis. I constantly re-examined the tables and how the description as a strategy to ensure the conclusions were data based with the participants’ perspectives clearly identified, and my own thoughts were made transparent and did not undermine the integrity of the transcendental phenomenological expectations.

### **Ethical Considerations**

Ethical considerations were of the utmost priority. The data collection required participants to share openly their ideas and comments. During the focus group, participants were exposed to many individuals, so anonymity and confidentiality were essential requirements to provide the students with the security that their information would not be released to the public with knowledge of who they are. Pseudonyms were used for the school site, participants' names, and anything that could reveal participants' identity to protect their privacy. I secured approval from Institutional Review Board prior to the start of this study as required. I secured the data by locking it in an office drawer at school or in a cabinet at home. Passwords were used for the information that was recorded and saved electronically. Most of the data stored was secured on password-protected Google document. The online focus group required all participants to log onto Haiku, and only participants were allowed access to the site. I served as the moderator and owner to all the sites and only granted access to Haiku during the study.

### **Summary**

This phenomenological study sought to understand the perceptions of digital natives feeling understood by high school teachers. This study focused on the essence of digital natives and their experiences feeling understood by teachers in a southern California, suburban high school. This research was important, because previous literature was limited in discussing disconnects between teachers and digital natives (Palfrey & Gasser, 2008; Prensky, 2001). Gordon (1988) explained that teaching effectiveness is reliant on students feeling understood by the teacher. Creswell (2013), Gall et al. (2007), Moustakas (1994), Saldaña (2013), Seidman (2006), and Weiss (1994) informed the process through epoche and phenomenological reductionism that concluded the study with textural and structural descriptions that were

dependent on the coding and collection data directions presented by. Trustworthiness and ethical considerations also were also maintained to ensure the reliability and credibility of the study.

## **CHAPTER FOUR: FINDINGS**

### **Overview**

The purpose of this transcendental phenomenological study was to describe and explain the academic and social experiences of 11 high school digital natives at Patrick Harrison High School (pseudonym). In this chapter, I provided descriptions of the participants' stories as digital natives. I presented results incorporating textual, structural, and composite descriptions of participants' stories that developed themes through coding and clusters of meaning from the data produced from the interviews, focus groups, and drawings. This chapter concluded with discussions on how the themes had developed and research questions were addressed.

### **Participants**

The participants for the study included 11 teenage boys and girls in the 10<sup>th</sup> and 11<sup>th</sup> grades from Patrick Harrison High School (pseudonym). To be selected, they signed the assent/consent report acknowledging they were born after 1980 and self-reported as daily consumers of digital devices, the Internet, and social media (see Appendix C). Initially, participants were selected from introductory and advanced art courses. However, after not obtaining the minimum number needed for the study (Craft, 2010), I extended an invitation to join the study to students from the general population of English and cross-country classes. As the study began, I started with 12 participants; however, after the drawing activity, one participant exited the study for personal reasons. Per Institutional Review Board instructions, the original drawing and digital copy of the exited participant's work was removed and destroyed prior to completing the other two data collections.

In compliance with IRB guidelines, pseudonyms of the participants were used to protect their privacy and confidentiality. In descriptions and analysis, the participants will be referred to

as Alyssa, Ashley, Brittney, Elijah, Hailey, Josh, Maggie, Michael, Natalie, Niko, and Victoria. The participants participated in the interviews, focus group, and interviews during the end of the 2015-16 school year and the summer of 2016.

After securing the assent/consent forms, parents were notified via email, and I called parents prior to starting the study to clarify any questions about the study. Participants received via emails the transcripts and the overview of themes for them to comment on the accuracy of the information. During the interviews, participants also had the opportunity to view and comment on the drawings and focus group responses. Included in the following section are descriptions of the participants listed in alphabetical order. Pseudonyms were used in the study to identify the participants and site to protect the privacy and confidentiality of the individual and the institution. Participants' discussions included a biographical description, the name of the digital device commonly used by the participant, and a discussion about their digital native experiences.

### **Alyssa**

Alyssa was an 11<sup>th</sup> grader at the time of the study. She reported using an iPhone 5 and shared how she would greatly appreciate an upgrade to stay current with her friends' digital devices. Alyssa also reported using technology and the Internet between two to five hours daily for school and social reasons. Alyssa participated well in all three activities and posted more than any other participant in the focus group replies. As art student, Alyssa showed advanced drawing skills compared to other participants. She represented her academic and social experiences as a digital native with visual symbols that included not just examples of laptops and Smartboards, but also a head that was filled with the distractions of social media sites such as Facebook, Twitter, Instagram, and Snapchat. In the focus group response to the ideas formed out

of the drawings, Alyssa commented on how her generation was aware of the distractions and bullying that occurs on social media, but said her generation of digital natives are “reluctant to change [their] ways because [they]... believe that technology is no threat to [them] and barely impacts them” (Alyssa, personal communication, July 26, 2016).

Alyssa shared much about her social and academic experiences. She stated her drawings represented how much technology acts simultaneously a learning tool and a distractor for students. Alyssa discussed the lure of the smartphone as a device that has combined all the communication needs of a phone, camera, and computer. She admitted technology does distract her when completing homework. She shared how her iPhone and Twitter occupy much of her times as she socializes with her friends via FaceTime while sending emojis to express feelings online. She said she uses them to laugh at comments her friends text her.

Alyssa was critical about how her parents have perceived the digital generation. She felt it was not fair that her parents perceived her and her friends as lazy based on using technology to complete tasks that would have taken her parents much longer to do without technology. She did shift the conversation to talk about what she believed was interesting behavior about her peer group. As a digital native, she confidently spoke about how previous generations need to acknowledge how different they are. She was frustrated on how she sees digital natives treated by adults. Alyssa said, “I think they need to know that our generation learns different than their generation. They should not badmouth, we communicate differently. This doesn’t make us lazy. They should accept us more” (Alyssa, personal communication, July 26, 2016). Alyssa commented that “Parents didn’t have quick access to video to do certain stuff. Our generation has its quick access. They didn’t have. This makes us different than them” (Alyssa, personal communication, July 26, 2016). As a regular routine, Alyssa reported using the Internet to

support her school work but also checks with her parents to seek advice or clarify information she has learned online.

### **Ashley**

Ashley was a 10<sup>th</sup> grader at the time of the study. Ashley offered a great attitude about being a digital native. She described her digital native experiences as positive based on her trusting relationship with her parents. Ashley shared since her younger years when her parents placed her on websites like Barbie.com, her parents have trusted her to make good decisions about social media and the Internet. She reported her first smartphone was the iPhone 6s. In her drawing, she illustrated the progressions of phones she has used leading up to her current smartphone. Ashley reported being on the Internet 70 percent of the day using Instagram to send videos, pictures, and emojis to friends. Ashley acknowledged an excessiveness of technology and Internet use by her digital native peers and “would not know what to do without it” (Ashley, personal interviews, July 26, 2016). Ashley showed a strong self-reflection about herself and the digital native generation.

### **Brittney**

Brittney was a 10<sup>th</sup> grade student at the time of the study. Her self-described past time is being online with her iPhone. She chuckled as she shared that even though she gets slack from her parents, she is online most the time with her digital device. She highlighted her digital native experience as one that has allowed her to communicate with her friends and family with her social media and Internet use. Brittney reported looking looks for three things from a classroom experience: technology, communication, and fun. She shared that the symbol that represents the digital native generation is the iPhone. She identified the iPhone as the most significant symbol, specifically the Apple symbol, because she said the iPhone changed “so much for our generation

and brought so many new outlooks from things that we didn't have before" (Brittney, personal interview, June 28, 2016).

### **Elijah**

Elijah was a 10<sup>th</sup> grader at the time of the study. He articulated well as an introspective participant enthusiastically sharing openly his thoughts about the digital native. Elijah used simple but meaningful drawings of laptops, cellphones, and two individuals to illustrate how society has gone from handwriting documents to digital communication communities. He shared through the interview and focus group dialogue that technology has been both a positive and negative experience for him as a student. Elijah was less talkative than the other participants; however, he was committed to contributing to the study and sharing the importance of teachers taking the time to know their students and valuing technology. Elijah seemed to have a firm and confident sense of the digital native life he lives. Like all the other participants, digital nativity is a way of life and he has known no other.

Elijah reported spending five hours daily on the Internet with his iPhone 5. He said accessing the Internet as student has allowed him to complete homework and research assignments. Conversely, he admitted that the Internet is a distraction when working on his homework. Elijah shared his digital experience has been different than his friends. He said while his friends spend much time on social media, he is more interested in searching the Internet for information. In school, he shared how he is a firm believer in using technology in the classroom and desired teachers to spend time understanding the digital native's interest and preference toward technology. Elijah said the key to understanding the digital native generation is to think like they do. He provided his own example of technology use that he generalized as a way his peers learn and solve problems. He said, "If we have a problem that needs to be answered or

done, we think that the Internet or our devices can solve it” (Elijah, personal interview, July 26, 2016).

### **Hailey**

Hailey was an 11th grader at the time of the study. As a consumer of digital devices, she dislikes having to wait for the latest version of the iPhone; this frustrates her. She commented on how having to use the previous model iPhone (iPhone 6) was an issue since her friends were already equipped with the iPhone 7, which, she reported, takes higher-quality photos than her iPhone 6. She said, “It can get frustrated what the newest model has compared of what I have” (Hailey, personal interview, June 12, 2016). Her family life is described as one filled with many digital products including Mac Books and Apple TV. Her computer at home is used for homework, she and enjoys watching Netflix while chatting with her friends and family on Instagram and Snapchat.

Hailey shared that she is connected most of the day with technology and social media. She said she carries her phone all the time. She talked about instant gratification from the Netflix experience. She mentioned at the beginning of Netflix, you would have to go back to the home page to get to the next episode. Hailey shared that Netflix improved services to automatically start the next episode without delay. Hailey did talk about her parents monitoring her social media access because they tend not to trust individuals online, even though they tell her they trust her. She was a little irritated about assumptions made about digital natives. She shared how family members assume at times that she is always texting. She said that is not true, she could be doing other things like playing a game or doing work.

At school, Hailey reported using technology daily. Socially, she reported staying connected with friends at other schools predominately with Snapchat. She described having

minimal issues with teachers at school with using her digital devices. She shared a common experience for teachers who do not really like the cell phones in the classrooms was to tell students to put away their phone or risk having them confiscated. Hailey shared she liked using technology at school because it makes learning easier and fun. She said, “It is pretty much limitless in order to understand the topic better or interact with people” (Hailey, personal interview, June 12, 2016).

During the interview, Hailey explained how her drawing represented the digital native experience from both a social and academic way. Hailey described in the drawing a girl walking up on three stepping blocks. The first block contained no words. The second block had the word dictionary placed on its side. The third block contained the words English and math. The girl had one foot on the second block and the other foot on the top block. The girl in the drawing was holding a cell phone that was touching a tree branch that was part of tree that has nine other branches. On some of the branches and in the tree itself contained speakers, a laptop, a computer monitor, speakers, and a gaming console. Hailey further explained the drawing represented how people wanted to interact with technology, so they put other things aside to get in touch with it. She said this applied to herself as well as the rest of the digital native generation.

Hailey shared that her best learning experience has come from her English teacher. She compared her English class to a less desirable experience that came from her previous science class. She said that her English teacher would use technology and hands-on activities, while the science teacher used an online program and never taught her class anything. An example of a class that was not enjoyable for Haley was a class called Get Focused. She said even though there were personal computers at the desk, online activities, and online tests, she said it was not fun for her because there was not much interaction with the teacher.

Hailey described that the technology she enjoys most in the classrooms are the Smartboards, Chromebooks, and smartphones (when the teacher allows them to use it). She said that she knows that they understand us means to:

Let us use our technology and our phones, and to be okay with us knowing that. They just must show trust that we will use it responsibly. And not be goofing around playing a game or using it to further our knowledge in the class. (Hailey, personal interview, June 12, 2016)

Hailey said she would design a 21<sup>st</sup>-century classroom with Smartboards, Chromebooks, and her teacher would have a computer. She would put students in small groups. She would put the whiteboard and Smartboards on opposite walls for students and teachers to use during lessons.

She cited that digital natives have grown up with technology. As the “natives are maturing, so is the technology, and it is getting better” (Hailey, personal interview, June 12, 2016). Hailey commented on emojis. She uses them occasionally. Her favorite is the uniform one or the poop one. She said the symbol that represents digital natives is the iPhone. She said she uses it for everything, “You can call, you can text, you can use social media, you can play games” (Hailey, personal interview, June 12, 2016).

### **Josh**

Josh was an 11<sup>th</sup> grader at the time of the study. On the average, he reported using digital devices eight hours a day for school, socializing, and game playing. He was passionate telling stories about his life. Josh shared how he expects teachers to understand students by listening to their needs and learning styles. During the hour interview, he was detail-oriented, comfortable, and confident as he articulated his academic and social experiences as a digital native. Josh was detail-oriented and needed little prompting to provide answers and stories to questions. In his

drawing, he drew illustrations of disconnected students on their either laptops or smartphones watching YouTube or playing games.

Josh was critical about academic experiences and technology. He suggested in his drawings that teachers spend too much time focused on individual reading and journal assignments. He commented on the overall messages conveyed by all the participants' drawings that they were contradictory in nature. He shared that on one hand, "Technology is a form of freedom for the digital native" (Josh, focus group response, July 7, 2016), while also discussing how he sees the harmful effects technology has on digital natives. He contended that technology can "distract them (students) from what they originally wanted to accomplish through it" (Josh, focus group response, July 7, 2016), Josh reported looking for teachers to allow students to be free to communicate their needs and be understood by his teachers.

### **Maggie**

Maggie was an 11<sup>th</sup> grader at the time of the study. She described her life as a teen that has been consumed with six to eight hours of use on her Samsung smartphone and computer searching the Internet and social media sites such as Twitter, Instagram, and Snapchat. Maggie was enthusiastic and very open about sharing her life experiences as a digital native. While Maggie acknowledged how Facebook changed how the world communicated with each other, she felt Facebook as a social media site makes too much of someone's life available to the world. Maggie said she preferred social media sites like Instagram and Snapchat because she can send short messages to individuals without anyone else involved.

She explained a common experience for digital natives is to be in circle with each other, while texting or on a social media site chatting with though not with them. She said an accepted shorter version of communicating with each other has been with non-verbal, visually understood

emojis. She explained emojis are digitally-animated facial expressions sent to others usually with smartphones as a quick and visually-emotional response.

At school, she emphasized that an important quality in maintaining a positive learning experience is to be understood by her teachers. She explained, “When you know you (a student) are understood you want to learn more” (Maggie, personal interview, July 16, 2016). Maggie expressed how much of her life has been consumed by technology, and when used by her teachers appropriately, it can be a great tool for making learning fun. She shared that since 90 percent of her life has involved technology, technology has made her learning experiences fun. She illustrated her point with a story of how her previous history teacher would use a Smartboard to visit a website that provided history lessons with cartoons with funny noises. Maggie predicted that in a hundred years, people will look back and consider the Wi-Fi symbol as what reminds people of this era and generation of digital natives.

### **Michael**

Michael was an 11<sup>th</sup> grader at the time of the study. He reported using a Galaxy 5 Android phone (iPhone’s main competitor). Michael viewed social media and the Internet as an addiction for digital natives. Michael reported that personally, he was on the internet four to five hours a day, admittingly on social media sites instead of finishing his school work. He explained technology is not just a device or tool but “A way of life means, teens need it, they are not the same without their phone” (Michael, personal interview, July 26, 2016). He shared that parents should be more open to the technology use for the students, allowing the digital native to show parents the best strategies for doing things like texting or Snapchatting.

Michael also commented on the relationship between the truth, the Internet, and his parents. He shared that he believes social media influences teens as information is not always

the same as what they would receive from their parents. He shared that “Most of the Internet is the truth. It doesn’t share emotions like you can do with your parents. Like if you break up (with someone), your parents can share the love and empathy for you” (Michael, personal interview, July 26, 2016). Michael did admit though if push comes to shove, most digital natives will turn to the Internet for information over their parents’ word.

He said some of his generation are better communicating online because they might be shy to talk to others, and the online format allows them to feel more confident communicate in person. Michael said in an almost confessing way that “The truth is we are online and use technology a lot” (Michael, personal interview, July 26, 2016). Michael shared that he hears from adults that technology is bad for teens, but he doesn’t agree. He said, “I think technology is helping us and advancing us by showing we can do better things for us through technology” (Michael, personal interview, July 26, 2016).

Michael’s drawing represented his school experience. Michael explained that his drawing exemplified his typical classroom experiences. He shared that drawing depicted the teacher in front of the class talking away while students were distracted with their digital devices. He said the drawing was intended to show students doing a different online social activity. Michael drew pictures representing students on Facebook, Instagram, and Snapchat, while others were texting or taking selfies. He did share that generally he sees at least one student who would be paying attention to the teacher. Michael explained that there would be some teachers who would give detention for using their phones in classroom. He did admit some of his teachers would post things on a website such as new assignments to help students know what is coming up so the students understand.

He defined feeling understood as having “a connection with someone, they know how you feel” (Michael, personal interview, July 26, 2016). He acknowledged that teachers were not always teachers. He made that statement to show that teachers are also human, and their life exists also outside the classroom. Michael said that one way a teacher can be useful is to show empathy with the struggle students have learning their topics. Michael said that teachers can connect individually with students to help them with what is not understood. In his own personal experience, when a teacher understood him they were personally talking to him, even if they are with others, and conversely, he felt most misunderstood when teachers “make you think you are listening, but reality they just want to get on with their lives” (Michael, personal interview, July 26, 2016).

In school, Michael shared how he believes that technology helps students with learning experiences by having other points of view in the classroom. Without the Internet, Michael explained that the students are left generally with just the teachers’ point of view. With the Internet, there is opportunity to expand on to other points of view and have discussions about the different opinions. Michael also shared that technology makes life easier as students can choose to google information from the Internet faster than asking their teachers for the answers or information.

Michael paused and acknowledged during the interview that the Internet limits him “from communication from other people... but at least I get to know things when I want to” (Michael, personal interview, July 26, 2016). Michael’s observations of teachers and his own practices led him to some interesting conclusions. He shared how he believes the teacher role in the classroom is changing. He said it is most important for the teacher to discuss what is important

with the information the students are finding online. Michael said it is the responsibility of the teacher to make the students think harder so to further the knowledge about the subject.

Michael made strong recommendations for teachers to consider. He said, “It is not a necessity to get all the way to our level. They should evolve to a point that they know what we are talking about and help us with our daily lives” (Michael, personal interview, July 26, 2016). Michael said he would design a classroom with computers on the desk and a Smartboard as a primary digital device. He described the digital native experience with technology as an emotional connection where the students feel the energy of the technology. He said, “It’s like you can feel what is around you. You are safe around the technology” (Michael, personal interview, July 26, 2016). He felt teachers could understand the digital native experience by using technology themselves, such as by using applications like Haiku and Internet-related things. Michael chuckled as he said, “I know that I know more technology than they do (referring to teachers)” (Michael, personal interview, July 26, 2016). He was critical about the technology competency of teachers. He said, “Some of the teachers think they are super smart with technology, but most of the kids are smarter than them” (Michael, personal interview, July 26, 2016).

Michael shared that technology makes life easier (that he has the internet to look up information) because he feels he doesn’t have to go to someone with a lot of knowledge. He did admit through that, “It does limit me from communication from other people because I wouldn’t have a relationship and connect with other people but at least I get to know things when I want to” (Michael, personal interview, July 26, 2016). Michael discussed the role of the teacher in the situation where digital natives can look up information. Michael shared that he believes most of the kids skim through the Internet, so the teacher can assist in getting students to go further in

their understanding. The teacher can show the student what is important and expand the use of the information students might find online.

Like most the participants' interviews, Michael had an opportunity to comment on the emojis and how they are a shorter version of abbreviations such as LOL. Michael discussed how while digital natives have created shorter ways to communicate via social media and their digital devices, it really does not replace the face-to-face contact.

### **Natalie**

Natalie was an 11<sup>th</sup> grade at the time of the study. She reported using an iPhone

6. Natalie embraced the participation of the study as an utmost necessity to voice her opinion and to be understood as a digital native. Natalie's artistic persona rang clearly through the interview as she offered her stories and examples that were guided for her love of the art as she discussed her understanding and relationship to social media. Natalie shared that in social media, Pinterest, DeviantArt, and fashion and art sites have dominated her time the most.

Natalie was expressive as she defined the life and day of digital native. She stated, I do write throughout the day with Wat Pad. I do this, so I can receive constructive criticism for my writing. I check my email in the morning. I go on Pinterest. I find art site. I go on Facebook. I use this to find out what my friends are up to. (Natalie, personal interview, July 26, 2016).

She shared she is on social media all the time but qualified with, "I am on the productive ones like Wat Pad, DeviantArt sites."

Natalie sent a loud message to the older generations about digital natives. She boldly stated that,

The older generation says we are addicted to social media. I agree. I am too. It has a bad connotation. In that they think that it hinders the way that we communicate. But before this we had books and people have sort of been sitting inside ignoring each other for as long as there have been buildings I just think it is a different poison. (Natalie, personal interview, July 26, 2016)

Her eclectic conversation on her digital native world filled the interview room with her words, her personality, and her perspective. It was the most 3D version of digital life told by any of the 11 participants.

Natalie described her way of life as a digital native as “just having the technology that connects you to everyone all over the world, and it does have its negatives, just because- have you ever heard of the phrase keyboard warrior” (Natalie, personal interview, July 26, 2016). She described the *keyboard warriors* as individuals who “say things over the Internet that they wouldn’t necessarily say in real life, so you feel protected by this technological armor of they can’t harm you, because you’re over a computer screen” (Natalie, personal interview, July 26, 2016).

Natalie presented the description of her drawing in a very intellectual and introspective manner. In her drawing activity, Natalie drew a picture of a girl sitting crisscross on the ground in a yoga position while listening to a digital device and headphones. In the background of the picture was a spectrum of three colors. The three colors included purple (for the inner part of the spectrum), green (for the mid-spectrum), and blue (for the outer part of the spectrum). Her explanation of the drawing draws attention to her opinion of her digital nativity and that of her peers.

In the focus group, she explained further her overall view of the participants’ drawings:

It tends to draw attention to the discontent we have for ourselves. We understand our addiction, we know the cons, but also accept that the benefits outweigh the pitfalls. The artistic connections electronics have brought us are a revolution on its own, and many of the drawings and their descriptions tell how these sites and applications furthered them creatively. The use of music is cited in at least four times that I can see, which holds hands with isolation but also encourages-from my experiences, at least spiritual growth, and discovery of the self. (Natalie, personal interview, July 26, 2016)

She described her academic and social experience through the lens of an introvert. She described the development of technology in her life as a “self-discovery and from an academic sense of learning on your own. I saw it creatively was using music and you’re sort of having it centered on yourself and projecting your creativity out of yourself into the world” (Natalie, personal interview, July 26, 2016). She added that she wanted to project the positive side to technology that can be portrayed at times as a hindrance, something she disagrees with.

In school experiences, Natalie described how technology influences her learning experiences. She said that she uses online communication with friends and peers to check on homework. She paused and almost in a boasting but digital native way stated, “I can’t remember the last time I wrote an essay on a paper” (Natalie, personal interview, July 26, 2016) In the early part of the interview, Natalie shared about an experience with a math teacher and her desire to have students use technology to understand the math concept. Natalie said in her opinion, the lesson bombed because instead of showing us how to use the Blackboard platform, she assumed the students would be able to figure it out by themselves. Natalie used the phrase *idiot proof* to describe how she felt the teacher thought the students would have been able to master the instructions on their own. Natalie said the result included that it was more of a hassle to try to

learn the technology, and she never mastered the math concepts that day. Natalie really wanted to emphasize how she could have pulled out paper and probably would have been more successful.

In contrast, Natalie provided a solid, positive experience to demonstrate an example of how technology was used in an effective way by a teacher. She was in a class with all military kids. The teacher asked the class to write an essay using Google Docs. Natalie commented on how enjoyable it was to be able to interact and share ideas with her classmates. She said the students felt connected and collaborative because they had the opportunity to share their ideas with their classmates. As the interview progressed, Natalie continued to portray technology as a tool and not necessarily as her way of life as other participants had indicated. She used an example of a teacher who had used technology in the classroom to get students to think. She said his main point was that he was treating them as adults, expecting them to think out and reason their answers. She did concede that as she has moved along with her grade levels, using computers for such things like writing essays has helped her make the task easier to complete. She said she likes teachers to text her reminders, and Gmail is a useful tool to share and communicate with students and teachers. She also noticed that when students begin to text in class, it is time for teachers to shift and bring focus back to a lesson. Generally, Natalie has observed the phone as more of a distraction than a potentially strong learning tool. Natalie generalized that she noticed a small minority of teachers that have been open to technology, and that is usually reserved for the younger teachers.

Natalie described feeling understood by the teacher is a process that “over time, they know how you learn. So, whether it be if you’re a visual learner. They don’t necessarily tailor the curriculum to you, but they know what is a challenge for you and what’s easier” (Natalie,

personal interview, July 26, 2016). Natalie provided a story of a history teacher to illustrate an example of a teacher trying to connect and understand his students. She explained how the teacher would teach so everyone would understand. He did this in one example by citing video games that related to his lesson on the Renaissance.

Natalie would pause for many of her responses as she thought out her answers. In one instance, I asked her to talk about a symbol that represented the digital native generation. After almost a minute of a pause, she declared the Apple Logo and quickly qualified her answer as a cliché. What impressed her most about the Apple Logo was just what she referred to as the “symbology behind it” (Natalie, personal interview, July 26, 2016). She discussed further how Steve Jobs was instrumental in using symbology for Apple. Natalie credited the use of the Apple for the logo as a reference back to Sir Isaac Newton with gravity as well as the biblical reference to gaining knowledge.

Natalie offered her final thoughts of digital native experiences.

Digital natives see it as a way life... Digital natives we have grown up with the technology... We have not seen it any other way...Digital immigrant, had a different way of life...The parents and teachers lived their life without it, it was foreign for them”

(Natalie, personal interview, July 26, 2016).

She wanted the older generations to know that digital natives want to be recognized for who they are, and that they recognized the power of the information from the Internet but still rely on teachers, and parents, and grandparents for understanding and wisdom.

Natalie’s descriptions ended with the sharing of emojis. She reported not generally using them, but understood they are useful as emotions tend to be lost in texting. She did favor

bringing out more of the emotions, and her favorite emoji is the unicorn, which is very appropriate for this artistic-minded, digital native participant.

### **Niko**

Niko was an 11<sup>th</sup> grader at the time of the study. Niko shared how he relied heavily on his Galaxy 5 smartphone. He exclaimed how, “Everything is at the tip of the finger, so if you are not online you miss what your friends are doing.” He said his summer routines are different than during the school year. He said, “I go to practice (cross country). I check on my messages. I play games, and check Instagram” (Niko, personal interview, July 26, 2016). Niko scrutinized the accuracy of the Internet. He commented that Instagram is a useful social media site that helps him stay connected with his friends.

Niko described himself as shy person who uses the social media and game sites because they are not as intimidating to interact with peers like face-to-face contact. As a child, Niko received his first mini-gaming system called Gameboy and now uses Xbox (a gaming console) at home. Currently, Niko shared that he is online an average of three to four hours a day as he is mostly playing video games with his brother who is away in college.

Like other participants, Niko acknowledged how Facebook has connected people together and “clutters everything” (Niko, personal interview, July 26, 2016) as it has the potential to share information with many people. He said he prefers to use Instagram because it is more personal and visual. Niko shared that digital devices like Facebook make it possible to connect with each other. He conceded though that digital natives generally “still talk to our friends face to face but it is true we talk to our friends less than what parents were used to.”

Niko shared how he sees more people are now reliant on digital devices and the Internet compared to the past, where students would have to go to the library to research or complete

homework assignments. He shared how he believes the Internet can be less reliable at times, and he still confirmed information by checking with teachers, parents, or books. He was critical of websites that claim to provide accurate information, because he sees them just wanting to make money.

In his drawing, Niko represented his digital native academic and social experiences by drawing students in a classroom with the teacher using a Smartboard and students on laptops and phones. He included students using a Smartboard and their digital devices to answer questions in his drawing. In the drawing, one student was depicted on Instagram while the teacher was teaching. In the drawing, it also represented a monitor that was guiding students to e-books. He said he used that because it is common for students now to be online reading books.

In school, Niko shared how he likes the opportunity to research and complete essays online. He is not opposed to going to the library to research or write essays but sees the Internet and computer as an easier way to get his work done. He praised his math teacher for allowing the class to use his cell phones to answer questions. It was exciting for him because it engaged the class in a competition to find the answer. He said teachers still require library time for students to expand students' research. Additionally, Niko shared that technology helps access his learning faster. He has seen though that there is a negative aspect to technology at schools when the "teacher thinks you are slacker if they think you are not paying attention and doing their work" (Niko, personal interview, July 26, 2016).

Teachers interact more with the students if they are struggling. He shared that he wanted teachers to get to know students, so they can recognize learning styles. He commented on how teachers should get to know students better, so they feel comfortable coming up to them with their problems. Niko described a time his math teacher took the time to work with one-on-one to

assist him with his math. He said he would rather have a friend relationship with his teachers, so they can get to know him better. He commented that teachers are more successful when they are doing something that keep students intrigued in the subject. He experienced teachers that do not care about the students, while other teachers are interactive with the students and are aware of what the needs of the students are. Another example of a positive learning example came from his description of another math teacher who would use Smartboards to keep students engaged. Conversely, there was a teacher who used an overhead that would just read off the paper. His experience came from a first period math class where he found himself just dosing off. He said teachers need to know how to talk to students and be their friends by interacting with them.

Niko had a chance to hypothetically design a 21<sup>st</sup>-century class. He said it would have desks connected to each other, so students could collaborate. He explained that the work would be divided up and students would use the computer to send information to each other to understand their assignment. In concluding the interview, Niko shared the symbol of the digital native generation is the iPhone. Niko viewed the iPhone's small and portable capabilities, with its fingerprint password capability, as a preferred feature by many digital natives because they like technological advancements. He said that the advancement leads to a perfect phone. He said that technology companies, like Apple, want to develop the next efficient and dynamic phone because it makes the digital natives' and the rest of the world's lives easier. He shared that teachers can also benefit from technological advancements.

### **Victoria**

Victoria was a 11<sup>th</sup> grader at the time of the study. Victoria readily shared information about her digital native life. Victoria described herself as a self-proclaimed, avid music listener.

She reported listening to music 12 hours a day. Victoria was very clear that technology is a way of life for her and the digital native generation. She said:

It's like, everywhere we look is a piece of technology...It is so normal to us (digital natives) that we don't even think about it. And it's the same way as eating, breathing, sleeping. It's just, we know how to work this stuff. We know what we need it for.  
(Victoria, personal interview, July 26, 2016)

Victoria drew a representation of her academic and social experience that included an illustration of a girl with a headphone, a cell phone with ear buds, and a computer monitor. She explained the meaning behind the drawing was showing devices used by her daily. Victoria shared that she listens to music 12 hours a day.

Victoria introduced a conversation about how students leave reality of school, home, and other responsibilities by immersing themselves into technology. She was critical about how her generation does escape to social media to hide from showing emotions in face-to-face interactions. Victoria shared how emojis are used to communicate, but she does not really like them because according to her they do not tell the whole story. She shared how she wrote a civil war history report using all emojis. She was critical of teens creating drama through social media but also enjoys the interactions and jokes that she reads.

Victoria sent a message about addressing the issues of digital native technology usage. She sent a message to adults with a bawdy tone saying, "You think it's our fault for being like this. In fact, you're the one who pushes it on us" (Victoria, personal interview, July 26, 2016). She ended her rant by saying, "But with parental people, grandparents and everyone that judging us for our dreams. We just tend to go back to our cellphones, because it's like you want us to be quiet...There it is" (Victoria, personal interview, July 26, 2016).

Victoria stated students tend to go to the Internet more than anyone else for information and truth. She did contend that at times it is difficult to determine what is information is true. The other consideration is when to lean toward the Internet for the truth versus going to parents or teachers. Victoria recognized the value of going to her parents for advice and wisdom. She emphasized greatly a desire to have authentic conversation about the meaning of life with her parents and teachers. Victoria was very good in the interview at placing the accountability at a neutral place where both the adults and digital natives need to meet. She discussed how she felt that all humans drift away from deeper conversations about life. Victoria kept alluding to how much parents placed the digital natives into situations where they drift to an online or digital world because the parent is doing their own thing. Her almost angry toned sent a message to adults to “talk to me” (Victoria, personal interview, July 26, 2016), which captured the transition from the general understanding of her digital native world into her academic experiences.

In the interview, she was asked about her best classroom moment. Victoria shared a time when her former history teacher taught an assignment that used minimal technology and deep conversations to teach the lesson. She surmised how getting students into deeper conversations and introspection about their own lives made the lesson more understandable. She did suggest the teacher could spruce the lesson by adding video or other technological support. Victoria’s teacher story showed a general preference her digital native generation has for visually- and technologically-driven lessons.

Victoria had an interesting perspective about the Internet. She agreed how much the Internet was the part of her generation’s life and concluded that for herself, she still weighs the credibility of information from what she receives from other sources like her parents and

teachers. She acknowledged that her parents (immigrants from Mexico) had gone through a lot in their lives, and they had experiences that were valuable for her to listen to. However, Victoria was quick to say when the information coming from her parents or teachers is questionable, she turns to the Internet to seek to confirm or clarify what she was being told. This additional source is what this generation of students has differently than any other generation previously had.

Victoria was somber when sharing that while the Internet provided a source of information, there was a darker and lonelier side that adults may not realize is going on with their teens. Victoria was making a case the digital native generation and their Internet use leads to lonely people seeking to make connections with each other. She explained that in the classroom, it is no different. She looks to get to know her teachers. She explained that for her, when teachers act more like friends and show they are vulnerable, she can trust them more.

## **Results**

This section includes the explanation of how the pilot study was conducted and what necessary changes were made prior to conducting the full study. This section also provides details on how the full study was completed with results that include discussing epoche, horizontalization, coding, cluster of meanings, textual, structural, and composite descriptions, addressing research questions, and accompanied tables. The result section will conclude with a summary of the chapter.

### **Pilot Study**

The pilot study was conducted in May 2016, about a month prior to the start of the full study. The pilot study helped flush out any potential issues so the full study on digital natives would be conducted with the best practices (Deggs et al., 2010). The pilot study was useful in adjusting the timing, pacing, and delivery of the three activities. I learned that there was no

substitute for the full study, but the pilot study provided opportunity to produce stronger and cleaner practices to support the full study.

I used four volunteers to complete the pilot study. The students selected came from an English class that was used to select participants for the full study. The volunteers for the pilot study participated in the same drawings and interview activities designed for the full study. Because of technical difficulties, the pilot study for the online focus group was conducted with the questions face-to-face with the volunteers. The bit of bad luck ended up benefitting the focus group activity's final procedures. As I prepared for the full study's focus group, another issue occurred with the online focus group. There were power outages that prevented several group members from participating. As a result, I used what was supposed to be the initial session as a practice focus group. This pilot provided useful adjustments to the order of questions, and a shift that allowed participants to freely answer the required questions and responses to fellow participants at their own pace.

Yuen's (2004) study also guided the pilot study as well as the full study. As Yuen's study suggested, I selected volunteers for the pilot who were also eligible to participate in the full study (except they did not have to sign assent/consent forms). All four participants were consistent with Prensky's (2001) criteria as digital natives. Just prior to conducting the pilot drawing activity, volunteers confirmed verbally that they were born after 1980 and daily consumers of digital devices, the Internet, or social media. The four participants were asked to complete a drawing activity, a focus group, and a mini interview. Just as the full study participants would have to, I asked the pilot study participants to draw their academic and social experiences as digital natives. They had 30 minutes to complete the drawings that included writing a brief, 50-word description of the drawings. All four students completed the task within

the 30 minutes. In a debrief with the participants, they all said they seemed rushed and worried about getting the writing section completed. I knew that I wanted the participants in the full study to remain focused on the drawings, so I shifted the reflections of the drawings to the initial questions answered during the focus group and interviews.

From the drawing activity, I conducted a mini focus group with the volunteers. As indicated, the difficulties with the pilot online focus group activities led to volunteers addressing the online questions face-to-face. This limited pilot also led to changing the online platform to Haiku from Edmodo as it was the product used by students at the site. I decided to move forward with the full study even with the limitations of the pilot study. The pilot focus group with Haiku was slow and inefficient. I asked the participants present in the pilot to answer a question and respond to their fellow participants as they posted their answers. This process continued for the first couple of questions. By the third question, I honored the request of the participants to go at their own pace to finish the required questions and then go back to respond to the other participants as they posted answers. This process flowed better, and I ended up using the “go at your own pace” procedure for the full study.

The practice *live version* that experienced the power outage and password issues provided useful guidance as the full study was completed. Shifting the full study to a flexible, at-their-own pace activity provided a much more efficient and smoother focus group for the participants to share their digital native experiences. As I prepared for the full study, I also re-designed the Haiku page to provide students the opportunity to examine the drawings and respond to the question as a separate section that would support the data for the drawing activity. Additionally, I created links on the Haiku page to each of the five questions the participants addressed. The students were provided a window of opportunity to answer and respond to all the questions. I

controlled the access to the sites and the questions to protect misuse and protect each participants' privacy and confidentiality in the study.

From the focus group pilot activity (in the classroom, not the additional pilot study), I conducted a mini interview with the participants. I used the first three questions created for the full study interviews (see Appendix F). The goal was to practice asking the questions that produced a good flow and depth into a natural conversation. I did not change any questions, rather used all four participants as the opportunity to prepare for the full study interviews. I was testing the delivery of the questions, how well the students understood the questions, and to what extent I might need to expand or prepare for follow up responses. Even into the full study interview questions, I found myself adjusting based on how the previous interviews flowed.

### **The Transcendental Phenomenological Study Results**

In this section, I discussed the results. I described the study's process of epoche (or bracketing) and horizontalization as part of Moustakas' (1994) phenomenological reduction. I continued by describing coding and textual, structural, and composite descriptions that led to theme development. Concluding the results section, I addressed the research questions and summarized the chapter.

**Epoche.** Moustakas (1994) stated that the process of epoche can prepare the researcher to be receptive to meeting "something or someone and to listen and hear whatever is being presented without coloring the communication with my own habits, thinking, feeling, and seeing, removing the usual ways of labeling or judging, or comparing" (p. 89). It is used to ensure that researchers reflect, acknowledge, and share personal views about the topics they are studying. The process is ongoing throughout the dissertation but falls heavily on the data analysis section (Creswell, 2013; Moustakas, 1994).

I viewed epoche as both a physical task, and a state of mind. I took to heart Husserl's (1958) quest of capturing the *essence of being* as an opportunity for my own study to have the spirit of seeing digital nature experiences from an open mind, operating as an agent to the transcendental phenomenological design. I learned the state of a perfect epoche is impossible to achieve but must be pursued with the utmost desire to create an almost virgin state of understanding. During my proposal defense, it was emphasized for me to focus more on revealing biases to understand their impact on the study rather than pursue a perfect state of epoche. As I began the epoche process, I used self-reflection, journaling, memoing, questioning my ideas and views, and re-reading drafts. This awareness of my biases and pre-judgments assisted me in remaining in a reflective and transparent mode throughout the study.

As a digital immigrant, digital natives have intrigued me with their online communication, dependence on digital devices, and how the digital world impacts their learning experiences. As I further progressed into my study, it only increased my curiosity about 21<sup>st</sup>-century learners and helped define my digital ally pathways. In preparation of my study, I spent time with a childhood friend discussing our transition from a much less digital world in the 1980s to one consumed with smart devices and the Internet. This purposeful conversation with my friend aligned well with Prensky's (2001) digital footprint discussions about the differences between digital natives and digital immigrants. It was obvious at that point that my digital immigrant worldview was expanding to embrace a digital ally perspective to support the 21<sup>st</sup>-century learner.

Embracing my digital ally persona might carry an assumption that I might understand and support all the digital natives' lifestyle choices. This is not true. I can still become easily irritated with excessive digital device usage by digital natives. I may not ever fully understand

why a digital native would rather tune into their music and social media compared to face-to-face conversations. However, I will continue to seek to understand rather than criticize and dismiss the digital native ways.

Organizing the notes from the study was key to preparing to discuss my biases and preconceptions of the topic and participants. I was mindful that to achieve the answering of the research questions and reveal the digital native experiences, the participants' perspectives must have dominated the data analysis process, and my biases must have been minimized and documented to have more transparency to improve the epoche process. The epoche process was also visible prior to data analysis in the data collection activities. The settings for the data collection activities were considered part of the epoche process. Before any of the activities were conducted, I reflected on what would be the best environment to have the participants complete the activities. For example, when the participants were completing the drawings, I provided instructions, time, and space to complete the activity. I was also available if students needed me to clarify the instructions. As I stated, I believe part of the epoche process was acknowledging the best environments of my participants regardless of what my preference was. Prensky's (2001) suggested digital natives are motivated to learn while they are in the digital world, so I conducted the focus group online as an opportunity for the participants to engage digitally. I established myself as the moderator for focus group with minimal interjections so not to interfere with the students' interactions with each other. I provided instructions and opportunity to provide answers and responses to the questions within the Haiku site the students accessed for the focus group activity.

The interviews were face-to-face with the goal to introduce the open-ended questions with hopes of keeping them talking about themselves while not necessarily worrying about the

question asked. I designed the questions to some degree for the pace of the interviews, so the direction of the interviews was driven by the participants. I prodded the participants where I thought was necessary and provided follow up questions geared toward the participants providing expanded stories and conversations about their digital native academic and social lives.

As I coded data, I journaled and memoed while continuing to reflect on maintaining the student voice as the central focus of creating the codes, categories, and themes. I also provided the participants the transcripts and dissertation draft to read and comment for accuracy toward content and bias. I wanted their input and recommended adjustments to the study. As I began the explanation of the data analysis, there was a sense that I had created the analysis to a certain extent independently from the participants. I felt this way primarily because the data analysis was not written by the participants but by me. I resolved my feelings by providing the participants time to scrutinize and propose changes to the findings. I also continuously examined the coding process. I kept on reflecting on whether the codes reflected a fair representation of the participants' data. Similarly, I reflected on the same with the categorizing and the themes.

The epoche process was invaluable to the study's goal to preserve the essence of the phenomenon directly from the digital native experiences. It provided me both a learning experience and a necessary task within the transcendental phenomenological design. In the end, the irrelevant data that did not address the research questions were purged, and I reflected and made my views transparent to continue the epoche process through coding and horizontalization of the data.

**Coding.** Saldaña (2013) wrote, "A code in qualitative inquiry is most often a word or phrase that symbolically assigns a summative, salient, essence-capturing, and or evocative

attribute for a portion of language-based or visual data” (p. 3). The coding process for the study was complex. There were over 1,300 reference points inputted in Nvivo and assigned to a preliminary code first before reducing further to codes. As the process continued, codes clustered with categories and themes developed. The interview data was transcribed by TranscribeMe! and inputted into Nvivo for coding. The data from the online focus group was automatically saved on Haiku.com and transferred to Nvivo for coding. The drawings were scanned and placed into Haiku for participants to view during their online focus group. The participants commented on them during the interviews and the focus group. The comments were transferred to Nvivo for coding. As mentioned, all the data from the three collection data instruments were placed into the Nvivo software program and stored as *references*. Preliminary codes were applied to the references. The preliminary codes were then clustered into codes and categorized. The categories were clustered into themes based on each data collection instrument. The nine themes from the data collection instruments were synthesized into three triangulated common themes.

Prior to coding, it was necessary to remove all unnecessary notes, documents, and materials that were not relevant to telling the story of the academic and social experiences of the digital natives (Moustakas, 1994). I re-read Saldaña’s (2013) chapter addressing the different kinds of coding methods based on similar data areas. I understood this open coding can take place purposefully or emerging. As I tackled this issue, I reflected on whether I was intentional (purposeful) as I was searching for data from my participants or allowed the kind of coding to emerge as the data was being revealed and coded. What was most useful was understanding that I had provided a good lens for epoche to occur as well as the process of horizontalization. With that said, open coding was used to build the preliminary coding as they were assigned codes.

After I coded, I established categories (in the case of the large amount of data interviews, collapsed categories also were used). Categories were clustered into themes. I finally established the three triangulated themes that were developed from the nine data collection instruments' themes.

Saldaña (2013) presented useful dialogue about coding, especially when applying it to transcendental phenomenology. Saldaña suggested that coding is an essential part of data analysis but is not the end all to data analysis, and researchers need to be careful not to neglect other areas. It was important to remain committed to revealing biases rather than attempt to eliminate every single influence that might undermine getting to the pure essence of an experience or phenomenon (Husserl, 1958). Nevertheless, Saldaña (2013) did raise the critics' positions on how coding can lead to subjective, potentially bad-coding but concluded with how useful and necessary it is to place data in a manageable and reasonable way to reveal trends and patterns that emerge from coding data.

As I inputted the relevant data into Nvivo, I applied preliminary codes and additional notations to distinguish which data collection instrument the data came originated. The first obstacle was to learn the Nvivo program and to understand how to enter data into the system. I first practiced coding by hand until I had a better understanding of what I was doing. My early attempts were limiting and confusing as I was taking the time to think about the process. As I entered data for the first time into Nvivo, it was relatively easy, but I still did not understand the program that well. I had made a few mistakes early in the coding of data by creating too big of a data infrastructure. This was due to some early horizontalization decisions not to limit the data that appeared relevant. I followed Saldaña's (2013) suggestion to code one participant's data and then progress to the second participant's data until I was completed. This predominately caused

a larger amount of data that I anticipated. I initially started applying codes to the data and re-structured to apply preliminary codes first and then followed up by applying coding to the preliminary codes (Saldaña, 2013; see Appendix G). As the data were being inputted, I applied horizontalization with the interview and focus group transcripts to determine the important and necessary information. I read passages from the TranscribeMe! transcripts and placed only passages that were relevant to the research questions into Nvivo. I further conducted horizontalization by not using data that appeared to be distorted by my views. I followed the process of horizontalization that I detailed in the next section.

**Horizontalization.** Moustakas (1994) considered horizontalization as the first steps in the phenomenological reduction process. For this study, it was necessary to “consider each of the horizons and the textual qualities that enable us to understand an experience” (Moustakas, 1994, p. 95). Eddles-Hirsch’s (2015) commentary on the phenomenological reduction process assisted in clarifying Moustakas’ (1994) phenomenological reduction strategies. Eddles-Hirsch shared that horizontalization is related to epoche in the sense that each statement should be seen with an openness and desire to see the phenomenon revealed in the phenomenological reduction process. Moustakas concluded that, “When we horizontalize, each phenomenon has equal value as we seek to disclose its nature and essence” (p. 95).

The first rounds of horizontalization occurred when I examined the interview transcripts, drawings, and focus group data. This is the most prominent place epoche and horizontalization were conducted. I read and reviewed the data and completed journaling of what I was reviewing to reflect and consider what the participants were sharing. While no data was eliminated during the first round of horizontalization, I reflected and memoed prior to placing any data into Nvivo. This first round primarily served to become acquainted with the data.

After reviewing the data and considering what might be eliminated or not placed into Nvivo, I practiced coding by hand. The coding by hand gave me the opportunity to see the work ahead of me in Nvivo. I only hand coded a few pages before I shifted the coding to Nvivo. (Eddles-Hirsch, 2015; Moustakas, 1994).

I started the second round of horizontalization by inputting data from Transcribeme.com. The biggest and longest task was to horizontalize the data from the interviews. I had nearly 10 hours of recorded interviews that were sent out to be transcribed. I chunked the interviews by the questions asked to the participants. I considered my reflections and notes from the initial reviewing of data as I placed interview data from TranscribeMe! into Nvivo by interview questions. I started from each participant's data until the data was exhausted. I completed the same process for the focus group. The drawing data was incorporated into the interview and focus group data and separated later. The drawings were scanned and placed into the Haiku website for the participants to review during the focus group meeting.

The third round of horizontalization occurred as the data sat in Nvivo to be coded. From the Nvivo file, I viewed the data with equal consideration so that the coding would produce the horizons necessary to see the phenomena manifest itself through the process of coding, categorizing, and theme development. Similar horizontalization processes occurred through the coding of the drawing data and the focus group transcripts into the Nvivo files. After horizontalization was applied to the data, clusters of meanings were developed toward themes.

**Cluster of meaning.** All data inputted into Nvivo went through a horizontalization process to create horizons related to the research questions (Creswell, 2013). As the data from the transcribed interviews were placed into Nvivo, they were first stored as data references. The focus group was horizontalized in a similar way as the focus group data was transferred from the

Haiku website to Nvivo. However, the drawing data was gathered differently than the interviews and focus group data. The original drawings were scanned and placed into the Haiku website for participants to view and comment during the focus group and interviews. During the focus group, participants commented on each other's drawings while during the interviews, participants commented only on their own drawing. The participants' responses to their drawings were transferred into Nvivo as references where I proceeded to assign preliminary codes to the data references and continued cluster of meaning with codes, categories, and data collection themes (Saldaña, 2013). The final clusters of meaning revealed three triangulated themes referred to as digital experiences, life experiences, and school experiences. Table 1 indicates the triangulated theme, digital experiences. The clusters of meaning were formed from three data collection instruments gathered from the 11 participants' data. The themes were developed from Moustakas' (1994) phenomenological reduction strategies (see Table 1).

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Table 1

*Triangulated Theme: Digital Experiences*

Data Collection Themes	Collapsed Categories	Categories	Number of Codes
Digital communication (Interviews)	digital communication	connections and perceptions digital learning	8 codes and 23 preliminary codes
	identity formation	digital divide self-defined digital native	5 codes and 20 preliminary codes
Digital consumption (Focus groups)	No collapsed category	technology use devices	6 codes and 15 preliminary codes
Digital consumption (Drawings)	No collapsed category	technology impacted	6 codes and 15 preliminary codes

Table 1 illustrated the developed themes related to digital natives' digital experiences. The first triangulated theme was referred to as *digital experiences*. The digital collection themes *digital communication* (interviews), *digital consumption* (focus group), and *digital consumption* (drawings) developed from collapsed categories, categories, codes, and preliminary codes. The interview theme *digital communication* was derived from two collapsed categories referred to as *digital communication* and *identity formation*. *Digital communication* was developed from two categories called *connections and perceptions* and *digital learning*. The two categories contained eight codes and 23 preliminary codes. The other collapsed category, *identity formation*, was developed from two categories referred to as *digital divide* and *self-defined digital native*. The two categories contained five codes and 20 preliminary codes. Overall, Table 1

illustrated the developed themes that represented the experiences participants shared about their digital world. Predominately, the participants' experiences centered on consumption of technology and digital communication. Within consumption and communication, digital devices such as the iPhone and social media like Snapchat and Instagram dominated their experiences. As Table 1 further indicated from the triangulated theme digital consumption, the consumption of technology was experienced by the participants as part of their connecting with their peers both in a social and academic arena.

The focus group theme related to the triangulated theme of *digital experiences* is called *digital consumption*. The theme digital consumption was developed from two categories called *technology use* and *devices*. The two categories contained six codes and 15 preliminary codes. The drawing data collection theme related to the triangulated theme of digital experiences was referred to also as *digital consumption*. The theme did not need to include collapsed categories and was developed from the category *technology impacted* which contained 14 codes and 24 preliminary codes.

The triangulated theme, life experiences, was addressed in Table 2 (see Appendix H). The clusters of meaning were formed from three data collection instruments gathered from the 11 participants' data. The themes were developed from Moustakas' (1994) phenomenological reduction strategies. The triangulated theme of *life experiences* was divided into three themes that come from the data collection instruments identified as *defining generation* (interviews), *online interactions* (focus groups), and *digital consumption* (drawings). The organizational structure of the data analysis is the same as the first triangulated theme.

The interview theme called *defining generation* emerged from the four collapsed categories referred to as *identity formation*, *struggle*, *digital interactivity*, and *collaboration*. The

collapsed category *identity formation* was derived from the two categories called *digital divide* and *self-defined digital native*. These two categories were developed from five codes and 20 preliminary codes. The collapsed category of *struggle* was derived from the two categories of *emerging technology culture* and *struggling technology culture*. The two categories contained six codes and 17 preliminary codes. The collapsed category *digital interactivity* was derived from four categories, *21<sup>st</sup>-century communication and connection*, *emerging media*, *learning embraces technology*, and *relationship shifting*. The four categories contained 25 codes and 82 preliminary codes. The final collapsed category for the interview theme *defining generation* was identified as *collaboration*. *Collaboration* contained five categories (collaborating, creating choices, influences of technology, modern interactions, and research). The five categories were developed from 27 codes and 70 preliminary codes. For life experiences with the interviews, participants shared their overall experiences related to technology and life choices that were not exclusive to digital and school experiences.

The focus group theme for *life* was referred to as *online interactions*. It contained four categories (devices, phones, technology use, and social media). The four categories were developed from 19 codes and 66 preliminary codes. The drawing theme for *life experiences* is referred to as life experiences. It contained two categories (negative and positive experiences). The two categories were developed from 19 codes and 23 preliminary codes.

The triangulated theme, *school experiences*, was illustrated in Table 3 (see Appendix I). The clusters of meaning were formed from three data collection instruments gathered from the 11 participants' data. The themes were developed from Moustakas' (1994) phenomenological reduction strategies. The theme of *school experiences* also was divided into three themes that came from the data collection instruments (see Appendix I). The themes consisted of *emerging*

*classroom dynamics* (interviews), *classroom experiences* (focus groups), and *school experiences* (drawings). Like the two other triangulated themes, the interview theme contained collapsed categories, categories, codes, and preliminary codes, while the focus group and drawings contained the same groupings except they did not need to include collapsed categories.

### **Textual, Structural, and Composite Descriptions**

Textual, structural, and composite descriptions assisted in organizing and sharing the participants' stories compiled from the data collections (Moustakas, 1994; Wertz, McNiesh, Nosek, & Marlow, 2011). For the study, the textual descriptions sought to describe the what of the phenomenon, while the structural descriptions sought to focus on the how and the why of the phenomena (Creswell, 2013; Moustakas, 1994; Wertz et al., 2011). The composite descriptions integrated the understandings from textual and structural descriptions to develop the themes that revealed the essence of the phenomenon (Creswell, 2013; Moustakas, 1994; Wertz et al., 2011). As I prepared to write the data descriptions, considerations on how to convey the participants' stories loomed over the transcendental phenomenological design. According to Wertz et al. (2011), writing these descriptions are naturally the most tension-filled sections of a dissertation as the researcher is attempting to convey meanings from the study that "meet scientific standards of credibility, dependability, or confirmability" (p. 1).

For me, there were no exceptions to Wertz et al.'s (2011) claim as I thoughtfully completed the data descriptions with tension and anxiety, relying heavily on Moustakas' (1994) phenomenological reduction strategies and Wertz et al.'s advice on how to write the descriptions. Throughout data analysis, I reflected on the phenomenological reduction process as I applied epoche and horizontalization methods to bracket out my views and highlight those of the participants.

All the descriptions were developed from the information produced from the three data collection instruments. The information included 11 drawings, nearly 10 hours of recorded and coded interview data, and transcripts from participants' focus group responses. The Nvivo data analysis software, Haiku online website, Transscribeme.com, and colored pencils and computer paper assisted in collecting, storing, and organizing data used to complete the data analysis. Tables were also created to visually represent data that were coded, categorized, and developed as themes within clusters of meaning (Creswell, 2013; Moustakas, 1994; Saldaña, 2013). As I approached writing the textual, structural, and composite descriptions, the themes developed from the nine data collection instruments' themes, seven collapsed interview categories, five focus group categories, and four drawing activity categories supported the detail of the descriptions. In addition, the data analysis included examining 112 interview codes, 19 focus group codes, and 17 drawing activity codes from 1,303 data pieces also referred to as data references that were placed into Nvivo to support the organization of the data (Saldaña, 2013).

Structurally, the descriptions were organized by the data collection instruments (Moustakas, 2016; Saldaña, 2013). I mainly did this as it provided a detailed part of the collection with a structure suitable to triangulate the data with footprints that led to each of the instruments. I wanted each collection instrument data to stand alone so the culminating composite descriptions supported the triangulation of the data collection themes with each other. The order for the description did not have any importance except it was reasonable to start with the data collection instrument that produced the greatest amount of data. I first completed the textual and structural descriptions of the interviews, followed by a composite description of the interviews. I repeated the same format for the focus group and lastly the drawings. In each case,

the individual data collection instruments' composite descriptions contributed to the three data collection themes for each data collection instrument.

**Textual descriptions of the interviews.** The primary goal of the textual descriptions of the participants' interview was to describe the what of participants' experiences as digital natives. Most of the participants were interviewed at Patrick Harrison High School except three of the participants who were on the cross-country team. The interview room was in a classroom with air conditioning and water to provide the participants with comfort during the interview. The location of their interviews for the cross-country runners was a nearby park where they practiced during the summer. Prior to starting the interviews, the participants were welcomed and provided an overview of the interview process that was discussed in their assent/consent document. The interviews lasted between 45-90 minutes and was audio-recorded. After the interviews, the participants received a \$10 i-Tunes gift for their efforts. Parents were given the opportunity to stay during the interviews, and only one parent decided to stay. I conducted between two to four interviews a day during a three-week span as all the interviews were completed.

Participants answered pre-set, semi-structured open-ended questions designed to allow them to freely answer and expand on answers as they felt compelled. However, I did use follow up questions when limited responses required additional information and when it was necessary to probe for further depth in their answers. During the interviews, the conversation was recorded, allowing the process to pause when necessary to take a break. We took breaks from the interviews after about 45 minutes if there were still several questions to answer. I did not set a time limit for the interviews, and no participants showed concerned when the interviews went over an hour. Some of the participants chatted more than others, and it seemed to be more about

their personality than their knowledge about the question or experience as a digital native. The participants did not seem self-conscious about giving a perfect answer or messing up a response. They all understood that the audio-recordings were going to be transcribed and the data used to provide descriptions of collective experiences as digital natives.

The first question asked was an introductory question designed for them to elaborate on their drawings. The descriptions used for the introductory question was coded for the discussion regarding the drawing activity. The interviews were conducted using the approved IRB questions, and follow-up questions proceeded throughout the interviews based on what was appropriate and necessary to assist in developing the participants' responses. The participants were then asked the same 11 pre-determined questions (see Appendix F).

The questions were generally asked in numerical order; however, depending on the flow of the interview and the responses of a participant, the order was adjusted to provide a better flow or response. The interviews were audio recorded and transcribed by Transcribeme.com. The questions provided the opportunity to discuss what the phenomenon was that they experience as digital natives. All participants had the opportunity to review the transcriptions and provide input for accuracy and part of members checking. The data produced seven categories that represented the codes, preliminary codes, and data gathered from the interviews. The categories presented digital natives' experiences in the areas of productivity, relationships, identity formation, struggle, digital interactivity, collaboration, and digital communications.

The interviews produced the most codes for the study. Overall, 112 codes were assigned to the 1,080 references and 332 preliminary codes. The areas that generated the most codes were related to data about relationships, digital interactivity, and collaboration.

In the interviews, participants reported experiencing relationships, digital interactivity, and collaboration as part of their academic and social experiences. The *relationship* code related to Research Question Two and the theoretical framework associated with Gordon's (1988) theory of feeling understood. *Digital interactivity* related to Research Question One and Prensky's (2001) theory on digital nativity. The *collaboration* code connected to Research Question Three and Vygotsky's (1978) theory on social constructivism. The textual descriptions verbatim examples included from the code *relationship*, "When you know you (a student) are understood you want to learn more." From the code *relationship*, Maggie was addressing that the code *relationship* was experienced through feeling understood as part of Maggie's condition of learning more from a teacher. The textual description for the code *digital interactivity* related to what the participants experienced from technology. Victoria stated:

It's like, everywhere we look is a piece of technology...It is so normal to us (digital natives) that we don't even think about it. And it's the same way as eating, breathing, sleeping. "It's just, we know how to work this stuff. We know what we need it for."

The textual description for the code *collaboration* related to what the participants experienced from their classroom. Brittney shared her experience with collaboration. She described it as engaging and keeping interested in the lesson. She described her collaborative experiences as:

It means that you're engaged in the learning and you're not just drifting off, because I have fallen asleep in class, but if you're learning and you find it interesting and you're engaged and you're talking back and forth with the teacher and everybody's having discussions, I feel like it makes you feel alive in that way because you know what's going on and you can relate to what they're teaching. And that sort of thing.

**Structural descriptions of interviews.** The structural descriptions addressed the how of the phenomenon. In this case, the how of experiencing life as a digital native. The questions related to digital devices and experiences with social media caught their attention and had multitude of responses. The interviews created an immense amount of data. As the data was inputted into the Nvivo software program, 1,080 different data pieces, or as Nvivo referred to them, references. This created 332 different preliminary codes and 112 codes. In the end, 26 different categories were developed from the 112 codes. To manage the analysis, I utilized Saldaña's (2013) strategy to create seven collapsed categories. The collapsed categories revealed areas of the participants' digital native lives that addressed productivity in the classroom with technology and their teachers; relationships with technology, identity formation, struggle, digital interactivity, collaboration, and digital communication.

From the interviews, the structural descriptions focused on the how and why of the academic and social experiences. An example of the structural description of the participants' experiences came from the collapsed category digital communication. Participants reported experiencing the how of their social media through Facebook, Instagram, and Snapchat. The participants reported social experiences via their digital devices, specifically their smartphones. They experienced Instagram and Snapchat as their preferred social media sites by sending texts, emojis, and selfies via their smartphones. Participants reported feeling disconnected from friends if they were not checking their text messages on their smartphones. An example of this was from Niko who stated that with devices and social media, "Everything is at the tip of the finger, so if you are not online you miss what your friends are doing...I go to practice (cross country). I check on my messages. I play games, and check Instagram."

**Composite descriptions of interviews.** The composite descriptions were used to reveal the themes. All themes from the interviews were directly connected to the data produced from the interviews. The themes were developed because of examining and constructing the cluster of meanings of the data produced from the interviews and reviewed and analyzed using the Nvivo software. Prior to placing the data into the Nvivo software, hand coding and memoing were used to practice for calibrating and preparing for the coding. Even after placing the data into the Nvivo software program, initial coding was adjusted after referring to strategies and suggestions found with the phenomenological reduction work of Moustakas (1994) and Saldaña's (2013) coding strategies. As a result, the interview data were assigned to preliminary codes, then to codes that fed into categories, and finally the themes. In the end, all three data collection instruments contributed three themes that would be the basis for the triangulation of the data.

From the seven interview collapsed categories, the three themes of digital communication, emerging classroom dynamics, and digital communication were formed. Each was briefly described and connected back to the initial data. All the themes were also aligned with the three research questions that will be discussed with the how they are aligned in the separate section on the research questions.

***Emerging classroom dynamics.*** The theme centered on the participants' experiences within the classroom, especially with interaction with peers, teachers, and technology. The theme was developed from initial topic questions that were asked to the participants. The questions related to emerging classroom dynamics addressed. There are two numbering systems that were used. The numbering system for the three themes for the interviews and these themes were also addressed and numbered in a similar way when they were triangulated with the two other data collection instruments. For the interview questions related to the participants learning

experiences, definitions of digital natives, relationships with technology, classmates, and teachers, they all contributed to data that developed into the collapsed categories of productivity, relationships, digital communication, struggle, and collaboration. The collapsed categories were also used more than once as they contributed to the development of the themes.

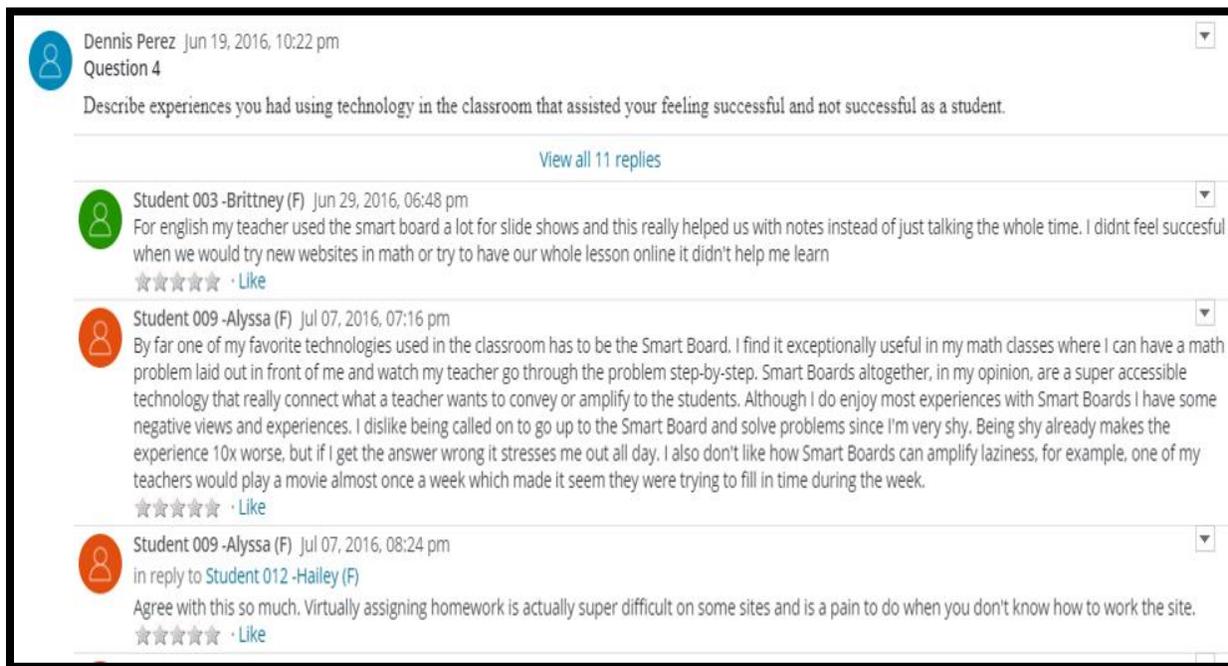
***Defining generation.*** The defining generation theme was developed from initial topic questions that were asked to the participants. These questions related to the digital native definition and experience. As the first theme, the themes were used dualistically, first within the context of the data collection instrument and secondly as part of the triangulation process. The defining generation theme was developed initially from data that came from the interview questions related to digital natives, digital devices, and their relationships with students, teachers, and technology. All the data had preliminary codes assigned to them, followed up with codes, categories, and finally collapsed categories prior to being having the phenomenon revealed within the theme of defining generation. The collapsed categories that preceded the theme of defining generation were identity formation, digital interactivity, and collaboration. The collapsed categories were also used more than once as they contributed to the development of the themes. It should be noted that social media, which can be easily included within the defining generation, had a greater story and a greater impact of revealing the phenomenon of the digital native experience within digital communication.

***Digital communication.*** The theme was developed from initial topic questions that were asked to the participants. The questions related to the digital native experience with digital communication. As the two themes, the themes were used dualistically as part of the collection of data for interviews as well as triangulation of the data with the focus group and drawing themes. The defining generation theme was developed initially from data that came from the

interview questions related to digital natives, digital devices, and their relationships with students, teachers, and technology. All the data had preliminary codes assigned to them, followed up with codes, categories, and finally collapsed categories prior to being having the phenomenon revealed within the theme of defining generation. The collapsed categories that preceded the theme of defining generation were identity formation, digital interactivity, and collaboration. The collapsed categories were also used more than once as they contributed to the development of the themes. It should be noted that social media, which can be easily included within the defining generation, had a greater story and a greater impact of revealing the phenomenon of the digital native experience within digital communication.

**Textual descriptions of focus group.** The focus group convened online the evening of July 21, 2017. There was a power outage the evening the group was to complete the session, so it had to be postponed to July 8, 2017. The session began on July 8, 2017 and lasted 90 minutes. Participants had the opportunity to respond to the five discussions questions and provide their feedback on the other participants' responses. As students were answering their own questions, they were directed to response to the other participants' questions. Like the interview, the introductory question related to the drawing activity; the difference was that the introductory question only pertained to participants' own drawings, whereas the introductory question for the focus group, the participants had the opportunity to see all the participants' drawing and describe what they were seeing. Unlike face-to-face focus groups, the participants had no knowledge of who else was participating besides seeing responses that were only identified by participants' assigned number. As a moderator, I only interacted to initially provide direction and respond to participants if they needed clarification. Students moved freely through the five response questions at their own pace, and when they were completed and had responded to others they left

the session. The three participants who were selected from the school's cross-country team were not available the day of the focus group session; however, I re-opened Haiku for them to respond. They were able to answer questions and respond to others.



*Figure 2.* Focus group textual description sample.

Participants experienced a focus group to share ideas about successful classroom experiences using technology. In this example, participants shared that they experienced technology in the classroom using a Smartboard. Smartboards are interactive white boards used to teach lessons, save information, or visit the Internet to retrieve information. Participants reported the Smartboard as one of the most useful tools in the classroom. The participants also responded to four other questions related to their academic and social experiences.

**Structural descriptions of focus group.** The structural descriptions addressed the how of the phenomenon developed from the focus group data. In this case, they addressed how of experiencing life as a digital native. The focus group created less data than the interviews.

There were initially 134 data pieces or as Nvivo referred to them, references. This created 66 different preliminary codes and 19 codes. In the end, five different categories were developed from the 134 references via the preliminary codes assignments. To manage the analysis, I utilized again Saldaña's (2013) strategy to identify the five categories. The categories revealed areas of the participants' lives that addressed devices, phones, social media, technology use, and relationships. The example of structural descriptions for focus groups included participants who reported via the Haiku chat room that they experience learning through using their phone to look online to help with math. Alyssa experienced websites and searching for information for her math class to support her learning. The use of the digital devices such as iPhones are a growing tool in the classroom for students.

**Composite descriptions of focus group.** The composite descriptions were used to reveal the themes. All themes from the focus groups were directly connected to the data produced from the focus groups. The themes were developed because of examining and constructing the cluster of meanings of the data produced from the focus group transcripts and reviewed and analyzed using the Nvivo software. Prior to placing the data into the Nvivo software, hand coding and memoing were used to practice for calibrating and preparing for the coding. Even after placing the data into the Nvivo software program, initial coding was adjusted after referring to strategies and suggestions found with the phenomenological reduction work of Moustakas' (1994) and Saldaña's (2013) coding strategies. As a result, the interview data were assigned to preliminary codes, then to codes that fed into categories, and finally the themes. In the end, all three data collection instruments contributed three themes that were the basis for the triangulation of data.

From the five categories, 19 categories, 66 preliminary categories, and 134 data references related to the three themes of digital consumption, online interactions, and classroom relationships emerged. Each theme was described and connected back to the initial data. Like with the interviews, the themes were also aligned with the three research questions that were discussed with the how they are aligned in the separate section on the research questions.

***Digital consumption.*** The theme centered on the participants' experiences with the amount and the kind of digital usage. The theme was developed from initial focus group questions that were asked to the participants. The questions related to digital consumption. Similarly to the interview themes, the themes developed from the focus groups were used to describe the phenomenon of the digital native experiences as well as triangulate the data with the interview themes and drawing themes. The focus group questions for the theme of digital consumption related to digital devices, technology experience, and classroom technology; they all contributed with data that developed into the categories related to devices, phones, and technology use productivity, relationships, digital communication, struggle, and collaboration. The focus group categories were also used more than once as they contributed to the development of the themes.

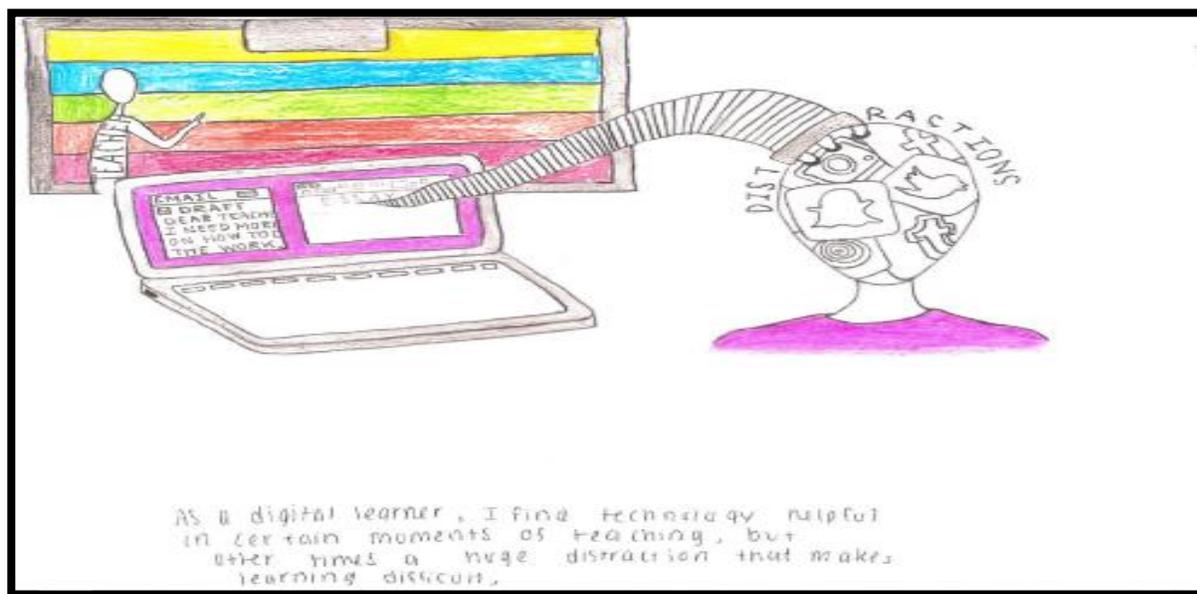
***Online interactions.*** The theme was developed from initial topic questions that were asked to the participants. The questions related to the digital native experience with online interactions. As with all the themes from the data collection areas, the themes were used to discuss the participants' digital native experiences from a thematic lens as part of a single collection data as well as a triangulation of the data with the focus group and drawing themes as triangulated themes. The online interaction theme was developed initially from data that came from the interview questions related to digital devices, technology experience, and classroom

technology. All the data had preliminary codes assigned to them, were condensed into codes, and finally categories prior to having the phenomenon revealed within the theme of online interactions. The categories the preceded the theme of online interaction were devices, phones, social media, and technology use. The categories were also aligned as necessary to more than one theme.

*Classroom relationships.* The theme was developed from initial topic questions that were asked to the participants. The questions related to digital natives' experiences with classroom relationships. As in all the themes from the data collection areas, the themes were used to discuss the participants' digital native experiences from a thematic lens as part of a single collection data as well as a triangulation of the data with the focus group and drawing themes as triangulated themes. The classroom relationships theme was developed initially from data that came from the focus question related to students feeling understood. All the data had preliminary codes assigned to them, were condensed into codes, and finally categories prior had the phenomenon discussed within the theme of classroom relationships. The category that preceded the theme of online interaction was relationships.

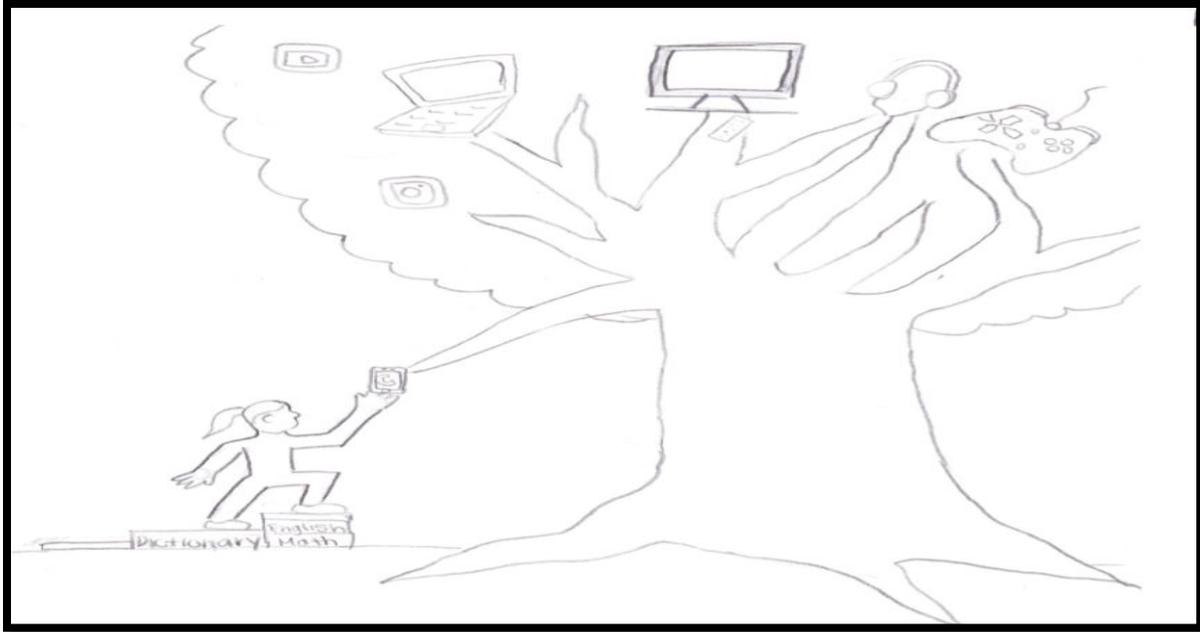
**Textual descriptions of drawing activity.** The textual descriptions of the drawings were based on participants' physical time and environment in which they participated in the activity. The 11 participants spent 30 minutes drawing pictures that represented their experiences as digital natives. All the participants completed drawings from either the intro or advanced art classes or the selected English classes. The exception were the three cross country runners who drew pictures the same day they were interviewed and completed the focus group questions online; the participants had completed the drawings during their English classes prior to summer recess. All participants were provided colored pencils and white computer paper to

complete the drawings. During the interview and focus group activities, the participants provided narratives about how the pictures represented aspects of their digital native experience (see Figure 3).



*Figure 3.* Alyssa's digital native experience.

Alyssa's drawing sample represented the academic and social experiences of digital natives. Participants tended to draw symbolic images. The participants provided both individual feedback on their own drawings during interviews and overall discussion on all the participants' drawings during the focus group. Alyssa shared how technology offered academic support and distractions from their classroom learnings. Participants did report how they might get bored in class and turn to social media as a distraction as Alyssa illustrated with her images of social media placed inside the represented head. Hailey also provided an illustration that represented her academic and social experience as a digital native (see Figure 4).



*Figure 4.* Hailey's digital native experience. Hailey's illustration was her interpreted academic experience as a digital native. Hailey explained how her digital world has different branches like a tree where digital natives are always reaching out to remain connected online.

Hailey shared how much of her life was dedicated to technology. She reported that she spent five hours a day searching the Internet or chatting with her friends. Other participants reported even higher numbers of hours online. Hailey explained during her interview how her drawing had a student stepping on academic books to reach out with her digital device to connect to her digital world. She commented on how her drawing was not just about her life but a fair representation of digital natives' experiences. Another sample of digital native academic and social experience came from Maggie's drawing (see Figure 5). Maggie provided example of her online lifestyle.



*Figure 5.* Maggie’s digital native experience. Maggie provided her interpreted drawing of her online lifestyle. Significant to the drawing was the images of Netflix and emojis. Prensky’s (2001) descriptions of digital native closely resembled the use of laptops, online interactions, and communicating with emojis as representation of digital native lifestyles.

Maggie introduced to the study from her drawing (see Figure 4) a typical digital native lifestyle that is immersed in the digital age experience. She reported she was online most the day either on Netflix or sending her friends messages via Snapchat. Maggie’s significant contribution to the findings was her explaining the use of emojis and texting abbreviations as acceptable ways digital natives communicate to each other online. The final drawing sample (see Figure 6) was an emotional and isolated digital native experience reported by Natalie.



*Figure 6.* Natalie's digital native experience. Natalie drew an image representing the digital native as an individual at times lonely, isolated, and connected to digital world they connect to escape from the physical world that may not have much control.

In Natalie's interview, she described the digital behaviors were just the next *poison* consumed by humans. She was a self-described introvert that was well represented by the drawing of the girl with her headphones. The *poison* she referred to was described by her as humans' way of distracting themselves from their physical world that can be at times isolated and perceived to be connected to others. She drew a parallel to her parents' generation who might have had books and other forms of keeping themselves occupied. As much as she professed her independence from the addicted digital online world, she was also quick to mention how she could not remember writing an essay that was not completed on the computer. She also shared how the picture demonstrated what other participants alluded to was behind the perceived busy social media lifestyles filled by young digital consumers are developing young adults at times just sitting by themselves consuming life much more individually than maybe the

older generations might think. Natalie reminded the world in her drawing that digital natives are humans first. Her message connected to Gordon's (1988) contention of the importance of feeling and being understood.

The drawings served as examples of textual descriptions of what the participants experienced as digital natives. The drawings included images of classroom settings or students engaged in technology use. They also used symbolic images such as tree branches with technology attached to them, heads filled with social media, and a girl sitting wearing headphones. These all represented aspects of what digital natives experience in their technology-filled days. The pictures also served as the verbatim examples expected from textual descriptions.

**Structural descriptions of drawing activity.** The structural descriptions addressed the how of the phenomenon developed from the focus group data. In this case, the structural descriptions addressed the how of experiencing life as a digital native. The drawing activities created much less data than the interviews. There were initially 89 data pieces or as Nvivo referred to them, references. This created 34 different preliminary codes and 17 codes. In the end, four different categories were developed from the codes via the preliminary code assignments and data pieces. To manage the analysis, I utilized again Saldaña's (2013) strategy to identify the four categories. The categories revealed areas of the participants' digital native lives that addressed technology impact and school experiences. The sample drawings were connected to how participants experience their academic and social interactions. Figures 5 and 6 represent the dichotomy of their academic experiences. Participants discussed how their classroom experiences included technology for learning such as the Smartboard; however, they indicated that technology can easily distract them if they get bored or unfocused. Participants

reported going onto the Internet and searching for random things or texting friends via social media, such as Instagram or Snapchat.

**Composite descriptions of drawing activity.** The composite descriptions were used to reveal the themes. All themes from the drawing activity were directly connected to the data produced from the drawings. Participants addressed the meaning of their drawings during the first question asked during the focus group and interviews. The data from the introductory interview question was transcribed by TranscribeMe! and the data from the introductory question was inputted, reviewed, and analyzed using the Nvivo software. Prior to placing the data into the Nvivo software, hand coding and memoing were used to practice for calibrating and preparing for the coding. Even after placing the data into the Nvivo software program, initial coding was adjusted after referring to strategies and suggestions found with the phenomenological reduction work of Moustakas' (1994) and Saldaña's (2013) coding strategies. As a result, the drawing activity data were assigned to preliminary codes, then to codes that fed into categories, and finally the themes. In the end, all three data collection instruments had contributed three themes that were the basis for the triangulation of data.

From the five categories, 17 categories, 34 preliminary categories, and 89 data references, the three themes of digital consumption, life experiences, and school experiences emerged. Each theme will be described and connected back to the initial data. Like with the interviews and focus groups, the drawing activity themes were also aligned with the three research questions that will be discussed with the how they are aligned in the separate section on the research questions.

***Digital consumption.*** The theme of digital consumption centered on the participants' experiences with the amount and kind of digital usage. The theme was developed from initial

drawing activity responses from the introductory questions from the interview and focus group that were asked to the participants as a response to viewing the drawings. The interview introductory question focused only on participants' responses to their own drawing. The introductory question for the interview that related to the drawings asked the participants to view all the pictures and make comments related to what they were observing. The questions related to digital consumption. Similarly to the interview and focus group themes, the themes developed from the drawing activity were used to describe the phenomenon of digital native experiences as well as to triangulate the data with the interview themes and drawing themes. The drawing activity questions for the theme of digital consumption related to technology. It contributed to a category related to technology impact.

*Life experiences.* The theme of life experiences was developed from initial topic questions that were asked to the participants. The questions related to the digital natives' experiences with life experiences. As in all the themes from the data collection areas, the themes were used to discuss the participants' digital native experiences from a thematic lens as part of a single collection data as well as a triangulation of the data with the focus group and drawing themes as triangulated themes. The classroom relationships theme was developed initially from data that came from the drawing activity questions related to negative experiences and positive experiences. All the data had preliminary codes assigned to them, condensed into codes, and finally categories prior to being having the phenomenon discussed within the theme of life experiences. The categories that preceded the theme of life experiences were negative experiences and positive experiences.

*School experiences.* The theme was developed from initial topic questions that were asked to the participants. The questions related to the digital native experience with school

experiences. As like all the themes from the data collection areas, the themes were used to discuss the participants' digital native experiences from a thematic lens as part of a single collection data as well as a triangulation of the data with the focus group and drawing themes as triangulated themes. The school experience theme was developed initially from data that came from the focus question related to school experiences. All the data had preliminary codes assigned to them, condensed into codes, and finally categories prior to being having the phenomenon discussed within the theme of classroom relationships. The category that preceded the theme of school experience was school experience.

### **Theme Development and Composite Descriptions from Triangulated Data**

This section served as the composite descriptions for the three triangulated themes. The themes were developed from the themes created from the data analysis of the three data collection instruments. The triangulated themes were identified as digital themes, other themes, and school themes. Each instrument identified three themes. The interviews themes from the study were revealed as digital communication, defining generation, and emerging classroom dynamics. The focus group themes were revealed as digital consumption, online interactions, and classroom relationships. The drawing activity themes from the study were developed as digital consumption, life experiences, and school experiences. I will discuss how the three triangulated themes were developed from the three-data collection and triangulate the data analysis with the trends and patterns that emerged.

**Digital experiences theme.** This triangulated theme was developed from codes related to the participants' communication and consumption of digital devices, the Internet, and social media. The interview theme associated with the triangulated theme of digital theme was digital communication. The focus group theme associated with digital theme was digital consumption.

The third theme associated with the triangulated theme of digital themes was also referred to as digital consumption.

The interview theme that contributed to digital experiences was digital communication. It was developed from the collapsed categories of identity formation and digital communication. Identity formation, which discussed the formation of the digital native identity, was associated with two categories, five codes, and 20 preliminary codes pulled from 97 references points inputted into Nvivo. Digital communication, which developed from the digital natives' social media experiences, was associated with two categories, eight codes, 23 preliminary codes, and 61 data references organized with Nvivo. The focus group theme that contributed to the triangulated theme digital experience was digital consumption. It was developed from three categories: (a) devices, (b) phones, and (c) technology uses. Devices clustered three codes, three preliminary codes, and 18 data references associated with the different devices participants reported using. Phones clustered three codes, 16 preliminary codes, and 32 data references associated with the different kind of cell phones participants reported using. The last category associated with digital themes and technology use clustered around three codes, 12 preliminary codes, and 33 references. All data were inputted and organized using Nvivo. The last theme development associated with digital experience was from the drawing activity data collection referred to as theme of digital consumption. Digital consumption was developed from the category of technology impact. Technology impact was associated with the influences technology had of the digital natives' social and academic experiences. It was developed from 14 codes, 24 preliminary codes, and 65 data references that were inputted and organized into Nvivo for data analysis.

**Life experiences theme.** This triangulated theme was developed from codes related to defining the generation, online interactions, and life experiences of the participants. The interview theme associated with the triangulated theme of life experiences triangulated themes was defining generation. The focus group theme associated with Life Experiences triangulated theme was online interactions. The third theme associated with the triangulated theme of Life Experience representing the data from the drawing activity was referred to as digital consumption.

The interview theme contributing to the Life Experience theme, defining generation, was developed from the collapsed categories of identity formation, struggle, digital interactivity, and collaboration. Identity formation, which discussed the formation of the digital native identity, was associated with two categories, five codes, and 20 preliminary codes pulled from 97 references points inputted into Nvivo. Struggle, which developed from the digital natives' struggles with technology influences in the classroom, was associated with two categories, six codes, 17 preliminary codes, and 86 data references organized with Nvivo. The collapsed category of digital interactivity related to the participants' interactions with digital devices was associated with four categories, 25 codes, 82 preliminary categories, and 233 data references that were inputted and organized in Nvivo. The final collapsed category that contributed to developing the interview theme for the triangulated theme of others theme was Collaboration. Collaboration addressed participants' general desire to collaborate in classroom with technology, classmates, and teachers. Collaboration was developed into a theme from five categories, 27 codes, 70 preliminary codes, and 251 reference data that were inputted and organized into Nvivo.

The focus group theme contributing to Life Theme was online interactions. It was developed from three categories: (a) devices (b) phones, (c) social media, and (d) technology

uses. Devices clustered three codes, three preliminary codes, and 18 data references associated with the different devices participants reported using. Phones clustered three codes, 16 preliminary codes, and 32 data references associated with the different kind of cell phones participants reported using. Social media clustered four codes, 11 preliminary codes, and 23 data references. The last category associated with Life Experiences, technology use, clustered around three codes, 12 preliminary codes, and 33 references. All data were inputted and organized using Nvivo.

The last theme development associated with Life Experiences theme was from the drawing activity data collection referred to as theme of Life Experience. Digital consumption was developed from the two categories, negative and positive experiences. Positive and negative categories addressed the different aspects of digital native experiences that were positive in their lives and negative in their lives. The negative experience category was developed from eight codes, 13 preliminary codes, and 50 data references that were inputted and organized into Nvivo for data analysis. The positive experience category was developed from 11 codes, 10 preliminary codes, and 26 data references that were inputted and organized into Nvivo for data analysis.

**School experiences theme.** This triangulated theme was developed from codes related to defining participants' digital native experiences at school. The interview theme associated with the triangulated theme of School Experience was emerging classroom dynamics. The focus group theme associated with the School Experience theme was classroom relationships. The third theme associated with the triangulated theme of the School Experience triangulated theme representing the data from the drawing activity was referred to as school experiences.

The interview theme contributing to the triangulated School Themes, emerging classroom dynamics, was developed from the collapsed categories of productivity, relationships, struggle, and collaboration. The collapsed category of productivity discussed the work load completed in the classes was developed from three categories, eight codes, 46 preliminary codes, and 124 data references inputted and organized in Nvivo. The collapsed category, relationships related to the data connected to the student and teacher relationships, was developed from eight categories, 32 codes, 73 preliminary codes, and 228 reference data inputted and organized in Nvivo. Struggle, which was developed from the digital natives, captured codes related to participants' data about struggles with technology influences in the classroom, was associated with two categories, six codes, 17 preliminary codes, and 86 data references inputted and organized in Nvivo. The final collapsed category that contributed developing the interview theme for the triangulated theme of Schools Experience was collaboration. Collaboration codes addressed participants' general desire to interact together in classroom with technology, classmates, and teachers. Collaboration was developed into a theme from five categories, 27 codes, 70 preliminary codes, and 251 reference data that were inputted and organized into Nvivo.

The focus group theme contributing to School Experiences was classroom relationships. The theme of School Themes was developed from the participants data related to feeling understood. The theme relationships developed from the category relationship that came from cluster of six codes, 24 preliminary codes, and 28 reference data related to the participants stories of feeling understood by their teachers as the data was inputted and organized in Nvivo.

The last theme development associated with School Experiences was from the drawing activity data collection referred to also as the theme of School Experiences. School Experiences was developed from the two categories, negative and positive experiences. The School

Experiences category addressed the different aspects of digital native experiences that were present in their school experience. The School Experience category was developed from six codes, nine preliminary codes, and 30 data references that were inputted and organized into Nvivo for data analysis.

### **Research Question Responses**

In this section, the three triangulated themes were used to address the research questions. The three triangulated themes from the study were digital experiences, life experiences, and school experiences developed through Moustakas' (1994) phenomenological reduction process and linked to the nine supporting themes developed from the three data collection instruments. The data analysis section also showed the anatomy of each supporting theme as it was developed through the receiving of data into the Nvivo program that assisted in organizing the preliminary code, codes, categories, collapsed categories into the supporting themes.

To further prepare for writing this section, I also identified significant passages from the participants' data that were aligned with the triangulated themes and research questions. As I completed the preparations for writing this section, a thoughtful and systematic approach was used to lead me to a direct link from the data analysis to the theme development to the research questions. During the address, the research questions may also be referred to as RQ1, RQ2, or RQ3. In this section, I addressed the research questions through analysis using participants' quotes and the study's triangulated themes (Moustakas, 1994). The first question addressed the participants overall lived experiences as digital natives. Research questions two and three revealed experiences related to feeling understood and how technology has influenced digital native learning. Participants provided a combination of stories and expectations as they shared their academic and social experiences as digital natives.

**Research question one.** The first research question of the study was: What are the academic and social experiences of digital natives? The triangulated themes of Digital Experiences and Life Experiences supported the findings revealed in this section (see Table 4).

Table 4 showing coding structure (triangulated theme, data themes, categories, and codes) that informed Research Question One. The table is used to illustrate theme development related to RQ1. The themes were developed from Moustakas' (1994) phenomenological reduction strategies.

Table 4

*Research Question One: Triangulated Themes*

Triangulated Themes	Data Collection Themes	Categories / Collapsed Categories*	Common codes / preliminary codes
Digital Experiences	Defining generation (Interviews)	identity formation* digital divide	technology digital immigrant digital native defined
		Digital communication* connections and perceptions	communication social media easier to communicate
Life Experiences	Defining generation (Interviews)	digital interactivity* emerging media	social media Facebook Snapchat Instagram
	Life experiences (Drawings)	positive experiences	creativity emoji's Netflix gaming researching
	Life experiences (Drawings)	negative experiences	distractions

The findings that emerged from three triangulated themes of digital, life, and school experiences supported the digital native experiences that revealed significant stories that informed the study about their digital nativity as a way of life, defined by online communication in a struggle with digital immigrants that has produced created a digital divide in their digital, life, and school experiences.

*Digital usage as a way of life.* One of the most significant academic and social experiences cited by the participants was how their digital age existence was viewed as a way of life. Victoria shared:

It's like, everywhere we look is a piece of technology...It is so normal to us that we don't even think about it. And it's the same way as eating, breathing, sleeping. It's just, we know how to work this stuff. We know what we need it for...it is a way of life.

Victoria's quote captured the essence of what the participants shared as a common experience related to the digital theme as participants shared of their ubiquitous daily Internet, digital devices, and technology usage. Codes such as *technology*, *social media*, and *distractions* were built up to categories such as *emerging media*, *identity formation*, *positive experience*, and *digital communication*. Participants described a digital world that was luring, distracting, and at times unstoppable. They drew pictures illustrating academic and social experiences that mostly focused mostly on classroom settings. The drawing showed illustrations of students in classrooms plugging into their phones on some social media outlet or watching videos on YouTube or Netflix. Codes such as *Netflix*, *Instagram*, and *Snapchat* built up to categories *digital interactivity*, *positive experiences*, and *distractions*.

Participants' experiences were described as a way of life that have been partly challenged by a digital immigrant base of teachers and parents viewing the technology world much differently than digital natives and the choices they make regarding the consumption and usage of digital devices, the Internet, and social media. Nearly all the participants shared their digital lives, expressing how they wait for the next version of their smartphone to be released as they use social media to communicate with limited words, abbreviations, video, photos, and emojis to

connect and have fun with their friends online. Ashley referred to digital natives as the “look it up or just “Google it” generation because of the quick access to information on the Internet.

Michael described the digital native experience as, “It’s like you can feel what is around you. You are safe around the technology” Elijah suggested that he and the rest of the digital native generation have known no other way but the digital way. As, Hailey put it, we have “grown up with it (technology). We have had it forever, and so we are accustomed to having it with us.” Michael summed up that a digital native way of life means “teens need it, they are not the same without their phone.”

Participants shared how they experiences the digital way of life by the kind of digital device, the social media, and the amount of time online. Participants reported experiencing on average 43% of their day on the Internet looking up information or communicating via social media (see Table 5). Participants shared preferring iPhone for smartphones and Instagram and Snapchat for social media (see Table 5). Britney saw the emergence of the iPhone as a significant transition to a rapidly-increasing smart technology that increased communication efficiency and digital information gathering as it helped shape and define the digital native generation. All but one of the 11 participants identified the iPhone and the Wi-Fi symbol as the two most significant symbols of the digital native generation. The participants also described experiencing the iPhone and Galaxy phone (iPhone’s only major competitor) as multifaceted devices that operate as phone, a camera, and a computer that have access to the Internet (see Table 5). Through the code of *communication* built to the category of *digital communication*, the participants described experiencing a life that exploded with the invention of the smartphones.

Not only did the participants report smartphones, specifically the iPhone, as their preferred digital device, the amount of time online and the social media preferences contributed to their digital native lifestyles (see Table 5). Collectively, the participants reported that not only did the smartphone expand their digital native lifestyles by having a device that operated as a portable computer, they also acknowledged how the digital native generation has become excessive with their technology use, especially with their social media communications.

Table 5

*Participants' Technology Usage*

Participant	Digital Device	Social Media Site	Online Usage (per 24 hours)
Alyssa	iPhone 5	Twitter	8%-21%
Ashley	iPhone 6	Instagram	70%
Brittney	iPhone	No preference	Connected most of the time.
Elijah	iPhone 5	Did Not State	50%
Hailey	iPhone 6	Instagram and Snapchat	Connected most of the time.
Josh	iPhone	Game sites	33%
Maggie	Galaxy	Instagram and Snapchat	25%-33%
Michael	Galaxy 5	Snapchat	17%-21%
Natalie	iPhone 6	Facebook	Connected most the time
Niko	Galaxy 5	Instagram	13%-17%
Victoria	iPhone	No preference	50%

Notably, Table 5 represented visually the participants' preferences for social media online time for a 24-hour period. The iPhone was the most used phone, followed the Galaxy smartphone. Participants considered the iPhone as the item that represented the symbol of the

digital native generation. Participants shared openly their smartphone preferences and the desire to upgrade to the newest versions of the smartphones, so they could enjoy using the new features the phone has to offer.

Brittney noted that, “The iPhone changed so much our generation and brought so many new outlooks from things that we didn’t have before.” With the iPhone’s ability to connect to the Internet, Maggie predicted that in a hundred years, people will look back and consider the Wi-Fi symbol as what reminds people of this era and generation of digital natives. Hailey summed up using it for everything, “You can call, you can text, you can use social media, you can play games.” All but one participant cited the iPhone and Wi-Fi as symbols that represented the digital native generation. Codes such as *digital devices* and the *Internet* built up to categories consumption and communication.

Niko viewed the iPhone as a device that keeps on improving and adding features to the excitement and anticipation of the digital native generation. He discussed how small and portable the iPhone is with capabilities that now include using fingerprint password to unlock the face of the phone. Niko said the unlocking features, like many other features, makes the iPhone the most preferred smartphone by digital natives for the technological advancements. Niko suggested that the advancements lead to the *perfect phone*. He felt that technology companies like Apple want to develop the next efficient and dynamic phone because it makes the digital natives and the rest of the world’s lives easier. With that said, Ashley acknowledged how she and the rest of the digital native world overuse technology, and that they have lived all their lives with their “phones... and would not know what to do without it.”

Ashley added:

I think it's becoming a problem. It makes sense to use technology as a tool to help people, and help mankind, but younger people, we start to get obsessed and addicted, and we can't live without his little phone. I think if someone took away all our phones, we wouldn't be able to function.

Josh described the digital native technology-driven life as "a form of freedom for the digital native." Josh shared how his digital native world starts with his alarm set on his cell phone. His morning continues as he routinely checks messages on his iPhone or looks for updates coming in from his friends. Josh also reported that he also enjoys playing games or watching videos on his phone as a way of relaxing. The phone is an integral part of his life. Josh said, "even when I am with friends or family, I'll still use my phone: take pictures or record videos just to remember the moment in a way."

Josh emphasized the importance of his iPhone and the Internet for him and his digital native generation. Josh aligned his definition of the characteristics to the views of his parents. He said,

I don't like to admit it because my parents give me that stuff about this, they say You, get off this (his phone). Go outside, go play, go meet people. Teachers will say this, Get off your phones. Talk to each other. I don't like to admit it, but it's true, to be social, technology is required nowadays.

Josh elaborated on how technology is necessary to be social in the 21<sup>st</sup>-century. He said he sees this digital communication phenomenon as a strength to the world and the digital native generation:

As a strength, yes because video games, social media, business wise you can contact people across the world. You can communicate with people sometimes you'll never meet

in your life. But meeting each other will give you this new thing, I don't know how to describe it, but it's like a friendship that's kind of – I think it's amazing that you can make friendships with people across the world. And you can communicate with them back and forth instantly even though they could be completely different than you.

Ethnicity, race, sex gender. But you're getting along because of these two devices that allow you to communicate. And I think that's better than the older generation. Maybe you were also limited in a way to the people that were around you. It's like let me get your number. If you're brave enough to talk to them, face-to-face communicate and then you say, let me get your number or social media so we can communicate. And then they're there. They're a part of your life that before might have been just forgotten as that one guy from that one place.

Maggie's experience was like Josh's with using the smartphone. She shared how she likes to use the phone to talk to people all around the world who have common interests with her. She saw the digital native way of life emerge as she was younger, experiencing much more outdoor life until the iPhone and touch screen brought her and her friends indoors, and they have been there since. The remaining nine participants also reported experiencing great usage with technology, the Internet, and social media have greatly influenced their lives. Codes such as *social media* and *digital native defined* built up to categories such as *identity formation* and *digital communication*. Natalie described it as “just having the technology that connects you to everyone all over the world.”

Natalie also mentioned how social media creates a bolder venue for digital natives to “say in real life so you feel protected by this technological armor of they can't harm you, because you're over a computer screen.”

Maggie acknowledged how Facebook changed how the world communicated with each other by being the first significant social media outlet but was critical about how it makes too much of someone's life available to the world.

Participants recently experienced a shift from using the popular Facebook to Instagram, Snapchat, and Twitter. Only one participant reported preferring Facebook while five of the participants shared how they liked Instagram or Snapchat. Codes such as *social media*, *Facebook*, *Instagram*, and *Snapchat* built up to categories such as *digital interactivity* and *emerging media*. Maggie and the four other participants that use Snapchat and Instagram said they shifted over from Facebook because the Snapchat and Instagram provided them the ability to send shorter messages, images, and videos without having to share much more about their lives as it was suggested that Facebook was known for doing.

Maggie offered a story of a common experience among her digital native friends about sitting around in circle with each other while texting on social media with others without much speaking to those in the circle. Maggie said an accepted shorter version of communicating with each other has been with non-verbal, visually-understood emojis. She explained emojis as digitally-animated facial expressions sent to others usually with smartphones that are sent to individuals as a quick and visual response rather than typing out an answer. Codes such as *emojis* and *communication* built up to categories such as *digital interactivity* and *digital communication* that tie into the triangulated themes of Digital Experiences and Life Experiences to RQ1.

Victoria was critical about how her generation does escape to the social media to hide through social media but also enjoys the interactions and jokes that she reads. Alyssa shared

from showing emotions in face to face interactions. She was critical of teens creating drama how she likes to go online to check her academic information. Alyssa noted that:

I go online to clarify information like for math. I go to Khan Academy. If I need more help I go to my parents. I trust the Internet. My mom has helped me with math that has not turned out that great.

However, Victoria shared that when the information coming from her parents or teachers is questionable, she turns to the Internet to seek to confirm or clarify what she was being told. This additional source is what this generation of students have differently than any other generation previously had.

The drawing exercise provided opportunity for the participants to discuss their experiences. Participants discussed the other participants' views on digital native experiences during the opening question of their focus group. Natalie noticed the consistency that many of the participants had images of students with devices plug into an ear bud (earphones that are placed into the ear canal) and discussed how provided a deeper look at view of the participants' drawings. She said:

The artistic connections electronics have brought us are a revolution on its own, and any of the drawings and their descriptions tell how these sites and applications furthered them creatively. The use of music is cited in at least four times that I can see, which holds hands with isolation but also encourages-from my experiences, at least spiritual growth, and discovery of the self.

Natalie presented the description of her drawing in a very intellectual and introspective manner. In her drawing activity, Natalie drew a picture of a girl sitting crisscross on the ground in a yoga position while listening to a digital device and headphones. In the background of the

picture was a spectrum of three colors. The three colors included purple (for the inner part of the spectrum), green (for the mid-spectrum), and blue (for the outer part of the spectrum). Her explanation of the drawing drew attention to her opinion of her digital nativity. In the focus group, Natalie explained further her overall view of the participants' drawings:

It tends to draw attention to the discontent we have for ourselves. We understand our addiction, we know the cons, but also accept that the benefits outweigh the pitfalls. The artistic connections electronics have brought us are a revolution on its own, and many of the drawings and their descriptions tell how these sites and applications furthered them creatively. The use of music is cited in at least four times that I can see, which holds hands with isolation but also encourages-from my experiences, at least spiritual growth, and discovery of the self.

Natalie described her academic and social experience through the lens of an introvert. She described the development of technology in her life as a "self-discovery and from an academic sense of learning on your own. I saw it creatively was using music and you're sort of having it centered on yourself and projecting your creativity out of yourself into the world."

She added that she wanted to project the positive side to technology that thought can be portrayed at times as a hindrance. Natalie was making a case that the digital native generation and Internet use leads to lonely people seeking to make connections with each other. In the classroom, it is no different, she explained.

As Niko added, "with technology advancement, it's just like people are going to want the next thing because they just like the features that they are getting with the iPhone, and they just want more." Niko shared how he would be bored and lost without his phone and the Internet. Victoria took a slightly different view on technology. She valued technology and viewed it as a

way of life that has assisted her to communicate quickly with others; however, she shared a darker side to technology. She said she values technology and acknowledged a lonelier side to the digital native. She said,

[We are] connected and although you see what's going, you still can't help but feel alone. Because it is just a box. At points, you realize in the middle of what you're doing you become self-aware. And it happens to all of us.

However, she concluded her message by saying "It's just social media, music, like the same old, same old, we do it every day. It's our little getaway."

Maggie shared:

The truth is that most of the time when we're online. It's not because we need to be, it's because we want to. And we're bored. It's nothing else that we need to do. If I had priorities, if I had things that I needed to do, I wouldn't be on Instagram all day. I would be doing those things, and in my free time I'd be online.

Maggie believed, "teenagers really are interested in the Internet because you can just communicate to whomever you want, wherever you want, and you have all the knowledge you want. You can just Google anything and it'll come up."

The drawing category of positive experiences consisted of the participants' descriptions that related to positive experiences of their digital native experience. The participants drew images that included emojis and Netflix. The codes associated with this experience were communication, emojis, and Netflix that built to categories such as *digital communication*, *digital interactivity*, and *positive experiences*.

Participants experience the digital world as a way of life with a digital divide to the previous generation as they use digital devices, the Internet, and social media to communicate

with their family and friends. Codes such as technology, digital immigrant, and digital native defined built up to the category, digital divide. Victoria shared how she balances the information from the Internet with her parents to understand and make decision. For the most part, participants shared their digital lives, expressing how they wait for the next version of their smartphone as they use social media to communicate with limited words, abbreviations, video, photos, and emojis to connect and have fun with their friends online.

As Niko added, “with technology advancement, it’s just like people are going to want the next thing because they just like the features that they are getting with the iPhone, and they just want more.” Like other participants, Niko shared how he would be bored and lost without his phone and the Internet. Codes such as digital native defined built up to the category identity formation to support findings. Victoria took a slightly different view on technology. She valued technology and saw it as a way of life that helps her communicate quickly with others; however, she shared a darker side. She said she values technology and she also acknowledged a lonelier side to the digital native. She said:

[We are] connected and although you see what’s going, you still can’t help but feel alone. Because it is just a box. At points, you realize in the middle of what you’re doing you become self-aware. And it happens to all of us.

However, she concluded her message by saying “It’s just social media, music, like the same old, same old, we do it every day. It’s our little getaway.”

***Interactions defined by online communication.*** Digital natives communicate via digital devices. The two primary devices reported by the participants were the iPhone and the Galaxy smartphones. The iPhone by far was reported as the most used and desired device with eight of the 11 participants who used the smartphone. Participants described it as the symbol of their

generation. The other aspect to their way of life is how digital natives use the Internet and social media as their primary communication with each other. The participants shared how Instagram and Snapchat became the preferred social media outlets over Facebook because they provided a much simpler form of sending photos and messages to their friends. They reported how Facebook became cluttered and too busy for them to enjoy the quick, instant comment to their friends. The other feature with Snapchat and Instagram was the ability to send photos, images, and emojis as a shorter and less written language-based communication. Codes such as *social media* built up to the categories *digital interactivity* and *emerging media* to support the RQ1 findings.

Ashley discussed social media:

Because when we go on social media...we see all these new ideas that we didn't see before, all these different opinions. And then that influences us. And then with the digital natives, if you see someone in person, like two teenagers, or whatever, they have their own thoughts and opinions and ideas, too. And you guys can share what you think. And then the computer is important you can look up anything. Have any fact in the world.

Niko reported starting his mornings checking messages to see what he might have missed or needed to know. The common phrase used among participants was they had information at the *tip of your fingers* with the devices that connect them to the Internet and social media. Over half the participants talked about having information at the tip of their fingertips, as a characteristic of the digital generation. Without the device, seven out of the 11 participants reported feeling out of the loop about what is going on with their group of friends. Niko said

without being able to check daily on his messages, he was concerned he would miss “important messages and where all his friends were hanging out.”

One important aspect that participants reported about online communication was how social media has provided an outlet for those not as confident to talk face-to-face with people. Four of the participants, Niko, Maggie, Michael, and Victoria, talked directly about how it was easier to share online than a face-to-face conversation. Niko, noticed, even with himself, how he was less shy and intimidated about what he shares with his friends. He also commented on how online communication expanded the field of friends from their neighborhood and schools to knowing individuals around the world instantly. Niko shared how he even plays online games with his brother who attends college six hours from his house. Niko also reported even when he is circled up with friends, they will be on devices when the conversation in person becomes boring.

Maggie also discussed how it is easier to talk to someone online. She talked about how some of her peers find it harder to communicate face-to-face. They’ll text their friends, and say, “oh what do I do? I’m nervous.” She did comment on how it is challenging to detect emotions at time. Even with emojis, there is potential for miscommunication as the message is read online, Maggie added.

Participants overwhelmingly shared how they prefer Snapchat and Instagram over Facebook and other social media. The consensus was that they experienced Snapchat and Instagram as the preferred social media outlets because they provide quick access and communication to their friends with photos, video, and images without the clutter of Facebook. Maggie shared that when she was on Facebook, she felt it was too many adults complaining and gossiping about each other. While with Snapchat and Instagram, the participants shared how

they like that they can share minimal images and text to individuals without the clutter of all the other information Facebook has created for its members. Maggie shared, “It’s really quick to the point, it’s just pictures. You have captions, and you can comment and everything, but it’s not just big long texts.”

With the introduction of social media, participants shared how Facebook, Snapchat, and Instagram made communication much easier. Michael offered other reasons why his generation is using social media. He said some of his generation are better communicating online because they might be shy to talk to others, and the online format allows them to feel more secure than face-to-face. He said the online component does provide them a social outlet that they may not access in person. Niko and Victoria also shared how there was a concern about how it was difficult to detect how the person one is talking to was feeling through messages. However, digital natives started to use emojis as part of their conversations to help determine how someone was feeling. Niko described emojis as “just symbols that you send to your friends to express your feelings and how to show how you were feeling at the time.”

Victoria commented that emojis are used to detect the emotion that may not be picked up by the text or message sent. She mentioned that she has noticed with the use of emojis that she types too fast using them and that can also cause grammatical and punctuation errors that lead to miscommunication.

In a similar way, quick pictures referred to as *selfies* also defined the way digital natives communicated ideas. The transformation to shorter forms of communication also became a way of life for the digital natives. Niko said such things as *g2g* (got to go), and *ttyl* (talk to you later) became frequent abbreviated ways of communicating with his friends and family. As the shorter

communication became more common, abbreviated communications expanded into life and school experiences.

Another conversation about their digital native life was how digital natives gathered and viewed information. Prior to the digital age of the Internet, students typically would acquire knowledge from parents, family, and teachers. With the introduction of the Internet, participants reported having choices where to go to get answers. Niko reported, as did many of the participants, that while digital natives are heavily dependent on being able to *look up* something on Google, most still turn to parents and teachers to verify information.

Victoria offered another perspective of the experiences of using social media. She explained that social media represented a:

Closer connection to one human being to another. It's like being informed. It's like watching the news, except about the people you most care and love. And with that little button, it mainstreams all the way back to your dashboard and it tells you everything that they're doing.

Victoria further suggested that:

I guess that is why we feel so much in contact with it, we just really like it. It's because we have choices every day. We have a choice on what to see or not. It's like asking for a pizza on your screen and it's like, 'There it is. You're welcome.'

Josh said it is possible to build relationships with individuals you meet online. He said that the online relationships build to feeling comfortable to meet in person. He said, "The truth is we are online and use technology a lot." Codes such as technology, communication, and social media built up to categories as such as identity formation, digital communication, and digital interactivity. From a social experience, Hailey commented on how using smartphones provide

greater access to what the *cooler people* are wearing as others soon begin to dress like others based on what they have seen on social media. At concerts, she said that she has seen teens pull out their phones and take pictures and recordings, and “and they are not really into the music, whatever’s playing, or the artist that is on stage. They’re more concerned about taking a picture or recording it, stuff like that.”

Josh indicated that:

Instagram and then right now I guess the main social media would be Snapchat because on Facebook, everyone was posting silly pictures or silly comments and stuff of random stuff. And then everyone started learning, once its online you can’t take it off. I think that’s the fall back, but also good for backgrounds.

***Digital divide impacts on generational relationships.*** Digital natives experience life growing up much different than any previous generation. There is so much of a difference that participants shared how a digital divide (Palfrey & Gasser, 2008) between digital natives and digital immigrants were often reasons why they felt misunderstood and scrutinized for their digital usage and technology-driven lifestyles. Codes such as digital immigrant and digital native defined built up to the category of digital divide to inform the RQ1 findings.

Ashley commented on the digital divide by sharing:

I think we’re different, we’re growing as people 40 years ago, I don’t think kids had as much emotion as we do now. I don’t think kids had as many problems. I don’t think kids had as much stress and anxiety, and everything, that happens now. But I think that we’re stronger now because of technology, because we can unite with teenagers all over the world basically.

Ashley shared a story that demonstrated the digital divide:

I had a few teachers last year who really were not interested in technology. One of my teacher, no headphones, no listening to music, even when you're just doing your work, and no texting. If she sees a phone, she takes it away. Even when we would watch a video, she would wheel out this giant VCR and pop in one of the VHS tapes. It was ridiculous. You could just do it much quicker if you had a computer.

Ashley offered a solution to the teacher who provided her archaic technology. She recommended that her teacher, "should have swapped out the VCR for a least a Blu-ray player, or something, even a computer, like a laptop would be fine popping a DVD, boom." Alyssa said, "I think they need to know that our generation learns different than their generation. They should not badmouth, we communicate differently. This doesn't make us lazy. They should accept us more."

Alyssa further commented that "parents didn't have quick access to video to do certain stuff. Our generation has its quick access. They didn't have. This makes us different than them." Michael shared how he thought that "some of the teachers think they are super smart with technology, but most of the kids are smarter than them."

One of the common experiences digital natives experience with the digital divide are hearing parents complain about the phone usage of the digital natives. Victoria shared that:

We are defined by our cell phones or the hand-held devices that we carry everywhere because even our parents nag about it. I have a headache. It's because of the damn cell phone. Put it down- we hear it every day.

Victoria acknowledged how much it also irritates her to be on the phone so much. She said:

We ourselves realize it and we tend to get really irritated at ourselves because of it. Because we know that it consumes us at times. We're on it when we go to the grocery store, we look at it, we take notes on it, the calendar, the time, and even...in school.

Maggie added:

We have lived our whole lives, digital natives have, with our phones. And so, we don't really know what life was like before that. So, we don't know how to do the regular things that the digital immigrants have done. So, if we don't have our phones, we basically wouldn't be able to do anything.

Another common experience with the digital divide is the quick access to information as learners. Codes such as technology, researching, and digital natives defined built up to categories such as identity formation, positive experiences, and digital communication. Ashley summed it as, "I think that makes us feel more superior. We feel that, Oh, well just because someone's old doesn't necessarily mean that they have more power than us. Because we can just look up anything we want."

Part of the divide is the addicted use that has been associated with the digital natives. Seven of the 11 participants acknowledged over consumption and an excessive amount of technology and Internet in their lives. Victoria shared:

Some of us are absolutely addicted. I remember having a friend, she was consumed with her telephone, her laptop, her X-box, everything that she has that was technology. Her parents were fighting and because of that we tend to block out everything that we don't of the solutions that we can keep up with. And with that, we drown ourselves with music, with social media, with art.

Victoria also commented on the addictive side of technology:

We find ways to leave reality. But leaving reality always has its consequences, like coming back, and look, you're failing school. People are telling you, "you're addicted" at times, when people say you're addicted, you get angry, irritated, because you know it's true, and but you don't want to face it, so you're just pushing it away. You get angry, and you're saying, "No, It's not true". But most of us, our generation, we see that before it happens. Some of us, there's the two-thirds that know how to stop ourselves, that know there's chores, there's college, there's a lot of other things that we need to finish. And then there's one-third that's telling themselves that they don't need to finish it. And they might as well just join other social groups that are consuming their lives as well, that are doing the exact same thing.

Natalie shared that, "We understand our addiction, we know the cons, but also accept that the benefits (of technology) outweigh the pitfalls."

Victoria bluntly blamed her generation's excessive consumption on parents. In a very defiant manner, Victoria exclaimed:

You think it's our fault for being like this. In fact, you're the one who pushes it on us...But with parental people, grandparents and everyone that judging us for our dreams, we just tend to go back to our cellphones, because it's like you want us to be quiet. There it is.

Natalie, in her lively and vivid account about her digital native life, sent a scolding message to the previous generations about their view toward the digital native lifestyle. She boldly stated that:

The older generation says we are addicted to social media. I agree. I am too. It has a bad connotation. In that they think that it hinders the way that we communicate. But before

this we had books and people have sort of been sitting inside ignoring each other for as long as there have been buildings I just think it is a different poison.

Other participants were less frustrated over how parents viewed their experience growing up with technology. Ashley reported a trust between her parents and herself with technology use from her early days being on Barbie.com. She now reported being on the Internet about 70% of her day. However, eight of the participants shared that for the most part, they experience their digital life away from parents and teachers knowing what they are doing.

Michael did not agree with the adults that believe technology is not good for teens. He believed, "Technology is helping us and advancing us by showing we can do better things for us through technology."

He even suggested that parents should be more open to the technology use for the students, allowing the digital native to show parents the best strategies for doing things like texting or Snapchatting. On the flipside, Michael paused during the interview to acknowledge that the Internet limits him "from communication from other people (face-to-face) ... but at least I get to know things when I want to."

Digital natives experience making choices to where to receive their information that differ from their parents and teachers. The 21<sup>st</sup> century provides the Internet as an alternative to what would have been traditionally learned from parents or teachers. This added experience contributes to the digital divide. Victoria noticed that generally humans have drifted away from deeper conversations about life. She was alluding to how much parents placed digital natives into situations where they drift to an online or digital world because parents are doing their own thing. Victoria was somber in her sharing that while the Internet provided a source of information, there was a darker and lonelier side that adults might not realize is going on with

their teens. Victoria shared the struggle digital natives experience when they are faced with deciding what to believe from the Internet versus information coming from parents and teachers. She did acknowledge how she tended to still turn to her parents to receive wisdom on life decisions. She emphasized greatly a desire to have authentic conversation about the meaning of life with her parents and teachers. Her loud message was *talk to me*. She explained that when teachers act more like friends and show they are vulnerable, students can trust them more.

Victoria shared her view on the digital divide and her generation's use of technology. She suggested parents are too quick to blame her generation for use of technology that was first given to them by the parents. She said:

You shouldn't be off and then hire a baby sitter all the time or how to quiet with your child. You quiet your child by being a parent not handing them a tablet. You think it our fault for being like this. In fact, you're the one who pushes it on us.

She was sharing her frustrations as she sees young children at the supermarkets on cellphones. She concluded this section of the interview by scolding parents and grandparents for being critical about the digital native choices. She said in the end, they "just tend to go back to their cell phone" feeling that the adults just want them to be quiet.

In addressing RQ1, the three data collection instruments offered different access to the emerging digital native story. Depending on their artistic and creative ability, the participants stories ranged from very deep and vivid illustrations to simple drawings that provided glimpses of their experiences in their academic and social experiences as digital natives. The online focus group responses did provide interactions between the participants, though not as interactive as I anticipated; however, there were still rich descriptions of how they saw not necessarily

themselves but their view on their digital native community. The interviews introduced the conversations that were most personal and insightful toward the emerging digital native story.

Victoria considered the computer chip as an object or symbol that represented the digital native generation. She described an image of a little girl picking up a computer chip. Victoria said, “A little girl...picking up the computer chip and looking at it.”

Victoria continued by sharing that:

Because we're still learning about morals and what we want in the world, we're still looking for that fantasy in the world, like a little child. But the only thing that's going to give us this fantasy, so far, is that computer chip, is the phone, is that laptop, that computer, anything that we can get our hands on.

**Research question two:** The second research question of the study was: How does feeling understood by teachers shape digital natives' learning experiences? Participants experienced feeling understood as learners by their teacher. The triangulated theme School Experiences dominated informing RQ2. Much of the conversations related to RQ2 focused on examples of teachers who the participants viewed as understanding them or messages to educators and parents about what it means to understand a digital native as a person and a learner.

The participants experienced feeling understood in a variety of ways. The triangulated theme of School Experiences was developed from four categories, relationship, building relationships, accepting environment, and feeling understood. The significant codes included feeling accepted feeling understood, and teacher friend-like. Interestingly, as much as the digital natives described themselves as addicts and consumers of technology, they reached a very personal side that seemed universal as humans to what they were looking for in a teacher that

called for emotional bonds and relationship building within the physical experiences of their digital age world. Over half of the participants had stories filled with not just what feeling understood meant, but examples that were both positive and negative from their learning experiences. Codes such as feeling understood, relationships, and teacher friend-like built up to categories relationships, and accepting environment, and feeling understood to inform RQ2 findings.

Table 6 showing coding structure (triangulated theme, data themes, categories, and codes) that informed Research Question Two. The table is used to illustrate theme development related to RQ2. The themes were developed from Moustakas' (1994) phenomenological reduction strategies (see Table 6).

Table 6

*Research Question Two: Triangulated Themes*

Triangulated Themes	Data Collection Themes	Categories / Collapsed Categories*	Common codes / preliminary codes
School Experiences	Emerging classroom dynamics (Interviews)	relationships* building relationships	accepted feeling understood relationships engaged likes the teacher teacher friend-like
		accepting environment feeling understood	accepted student student-teacher

Table 6 showed the clusters of meaning developed from the triangulated themes aligned with Research Question Two. The clusters of meaning developed into the triangulated theme school experiences. School experiences related to codes associated from experiences, specifically from school related to the developing digital native and teacher classroom relationships and ties into the theory of feeling understood.

***Feeling understood supports learning.*** Participants experience learning through feeling understood. Participants sent four significant messages to teachers and parents about their academic and social experiences as digital natives related to feeling understood as learners: *Listen to us, we are not lazy, we are just not you, and you gave us the digital devices.* Addressing RQ2, the stories and words revealed by the participants clarified that while technology is their heart and soul of their digital native lifestyle, they are still humans that desire to bond with their teachers and classmates to create dynamic and positive learning experiences where teachers treat students like friends. For example, Brittney shared from her own experiences that while feeling understood should include “technology, communication, and fun,” she equally emphasized the importance of the role of the teacher to connect with their students to establish a learning environment conducive to learning. Brittney described:

A very closely connected teacher is way better because you can go to them about-- like not even things about like what they're teaching like about life and you can talk with them. And I feel like if you know them and you can talk with them and they know you, they know how you're taught and they know into your brain a little bit they know like the ways you're taught, and what they can do to make you better.

Brittany exclaimed that feeling understood by her teacher created an emotional bond that means:

That they know where you're coming from and they can relate to you in a personal way and not just be like, Oh, I understand...They know what you're going through, and they can relate to you, and they've been through the same things you have.

Brittney used the example of her high school English teacher who used technology, stories, and making connections with students. Brittney said during this experience the students were engaged in teaching a unit about the Holocaust. She said,

I felt sad, because what we were learning about, but then again happy because I got to learn so much about it, and it was interesting to learn. the time went by so fast, she was like, 'Okay guys, we only have five more minutes.' We were like, 'Really? No, we don't want to leave, keep teaching.' She was like, 'No, I'm going home, get out of here guys.'

Brittney shared what made this experience impacting was the teacher was engaged with her students and felt the same emotional impact from the lesson. Brittney said by the end of the lesson the teacher was even crying. Brittney praised her teacher in this example as one that connected well with her students and journeyed through the lesson in partnership to learn.

In similar feelings, Josh spoke openly about how feeling understood will support learning but emphasized the importance of teachers getting to know their students. In what he has experienced as a student, Josh suggested that teachers see the classroom experience as one that is teaching academics and building bonds with their students. He emphasized the importance of getting to know students. He recommended teachers ask not just academic questions but questions about life such that are "non-school related" and related to what students do like "what social media they use."

He suggested that if teachers can try to "incorporate their social aspect and our social aspect into the learning environment," they can relate and understand each other. He raised an

issue to being taught by teachers who attempt to grade students without getting to know them. He was troubled by teachers who give work and grade them when, “they don’t know anything about each other.” Codes such as personal connections and student-teacher relating to each other built up to the categories of feeling understood and accepting environment to inform RQ2 from the triangulated theme of School Experiences.

Josh showed further frustration and concern about how:

Some teachers just want to do their job, kind of like some students just want to do their work that they’re assigned. And with those teacher, if they don’t want to be close I understand. Maybe they want to stick their personal life and their professional life, keep it apart. But, I think students’ personal life is, I guess, their work life, being a student. Because most of the friends you meet are at school. You know when you’re little you meet your friends at school and you get to know them. You see them, Oh, I’m going to go to see my friends at the playground today. And teachers, you want to meet them too, because you don’t just want to be there, doing work for this stranger. It’s like, ‘Oh why did you give me this grade? I deserve a better grade.’ But maybe they did that because they don’t understand you. Maybe you don’t understand them or what they were trying to ask of you. And I think a better connection with the teacher would definitely help kids do better work.

Josh expressed empathy as to why a teacher might refrain from teaching on a personal level with students. He said,

I think teachers I know nowadays, if you ask about a kid’s religion, oh my God. You can’t talk about their, gender, or sex preference. You can’t talk about their ethnicity. If a teacher says black instead of African-American, they’re instantly

racist but their best friend could be black. And just because they say it that way, they're racist, or they're homophobic, or they're something. We look at a teacher sometimes, and we try to make them like a bad person, and I think this is bad because I feel teachers are like, this they feel like is why they won't be as close to us. Because they feel like if they say something incorrectly, they do something incorrectly, they're only one person, and they have 30-40 kids in a class at one time, we're like, they'll be look at having that many people look at you like someone who's bad, that can get to you. So, they'll just try to keep their personal life away from their professional life.

Josh shared a story that illustrated the value he placed on teachers and students getting to know each other. He said there was a teacher that built a good relationship with him in one of his first-year high school classes. Josh said he got lazy and almost failed the course. The teacher reached out to him and first got on him for not coming to him for help earlier in the course. Josh said because the teacher took time to know him, he went the extra distance for him at the end of the semester by creating learning opportunities for Josh to succeed. Josh said because the teacher took time to understand him over the year, by the end of the year, the relationship built beyond teacher and student to a friend-like condition; that Josh was now "someone asking for help and he was someone willing to give it." Josh ended the interview in a very positive place by saying "I think overall allow students to be free to communicate with them because when they communicate with them, they'll understand them better. That way they can learn what they're trying to learn in a better way."

Niko mentioned that, "I would like more of a friend relationship with the teacher. That way it's just easier to talk to, and you're not nervous when you're around him." Niko indicated

how he preferred teachers connecting on a personal level with students. He cited experiencing a time when his teachers got to know students with disabilities and how the students were receptive based on what Niko perceived as a personal connection. Niko said that when there are personal connections made between teachers and students, students “feel more comfortable going up to their teachers and asking (when they know them) instead of trying to find it out through other people.”

Niko did have bias about who he wanted to be taught by. He did say that in classes he experienced he has learned best with a “teacher with technological knowledge and very young teacher that gets our generation.”

Victoria’s message about feeling understood by teachers echoed those of the other participants except she spoke deeper into what it meant to make that personal connection with them. Victoria said she looked for teachers and parents to provide “actual wisdom...what the meaning of life is because a lot of us are lost.”

Victoria was referring to how the Internet has consumed her generation with information as they sought truth and answers. She shared how she has experienced limited closeness with teachers who have made connections with students that formed into friend-like conditions. She described the friend-like conditions as ones that allow the students to see their teachers as real people. Victoria’s best example of feeling connected with a teacher came from a high school science class. Victoria shared that the teacher “treated them like a friend, he poured two chemicals in the sink and then it splattered up and it hit the ceiling and it busted open.” She used words such as *authentic* and *vulnerable* to discuss how she wants the classroom relationships to be with teachers and students. Codes such as authentic teacher and vulnerability built up to such

categories as feeling understood to inform RQ2 from the developed triangulated theme of School Experiences.

Victoria said:

Showing more vulnerability to other people that are vulnerable themselves makes them want to share about themselves more. It makes them show that you are human. Because them trusts me, when people say that, when think of their teachers, they don't think that they have a life after school.

Victoria shared how much teachers need to show their human side and connect with students. Victoria passionately shared that:

Teachers need to be more relaxed with their jobs. They don't need to take things so seriously, because we understand that they have lives. Like, I see it, teachers-one of my teachers had a break up, and she like broke down. You don't have to keep that inside. We don't keep that inside. We cry in the middle of class if we want to, because that's – 'you don't care, you're just going to keep on teaching. You don't stop.'

Victoria shared what it might look like to have the friend-like conditions present in the classrooms:

When you are more personal with students, when you even acting like a friend, not even acting like being their friend, being there for them, treating them like adults. Not in hard way, either, like you're an adult, you have to pay bills and all this other stuff and you're going to learn it in econ and stuff. No, it's like a friend like one-on-one, even though it's a whole class. And being like that to a student, it gains their trust more. You catch their attention. And it resonates with them and they carry it on through with them.

Victoria summed it by saying:

We're here every day. We have to wake up, we have to drive or walk here, we have to ride our bike here, we have to put effort into coming here, even though we hate it here.

And making that personal connection with the person that's teaching you, it's really nice.

In fact, all participants expressed that making personal connections supported their learning.

Ashley's stories about feeling understood related to having real conversations with teachers about life. She suggested that her experiences led her to feel as the teacher acted as a surrogate parent on campus. Ashley proclaimed:

I want teachers to talk to the students more. I had a band teacher a few years ago, he was great. I didn't really talk teachers, or adults much, but he would actually have conversations with me. I would stay after school and just hang out, and we would talk about music, books, TV. It was great because we didn't always necessarily have to talk about school. We could just talk about whatever we want.

Ashley went further than describing how feeling understood meant experiencing teachers as surrogate parents who they could talk to. She discussed how she sees the digital native generation *breaking the age barrier*. She was referring to past generations where there was an expectation of a hierarchy and emotional distance between adults and teens. In her opinion, Ashley shared that teens,

Don't really necessarily view adults anymore as scary big people that we don't want to talk to. We're not calling them sir or ma'am anymore. It's more equal now, definitely I think, because we just want to get to know them on a personal level and see- we may think that they're mean in the classroom, but they could be a great person.

She said the leveling of the playing field was more due to how her generation has access to technology and digital communication rather than greater wisdom. As a matter-of-fact, two-

thirds of the participants explained that they still seek wisdom and guidance from parents and even teachers when needed.

However, from a 21<sup>st</sup>-century learner's perspective, Ashley recommended teachers get to know the digital world the same way digital native do. She said:

I definitely like it more when the teachers participate because it's just like, Oh, you guys go do this work. It's like they're trying to get to our level, and be equal with us because do it too, they do the work too.

Ashley offered her feelings on getting to know her teachers. She said:

Being understood makes me feel, I guess, included. Knowing what everyone else is talking about, pretty much. It makes me feel like the teacher is trying. They're making an effort to get to know us better. It makes me think that they actually care.

Ashley also suggested teacher's show they care about the technology world of their students by using social media:

I guess they can look up the things that we're interested in. They can try to make an Instagram account and see what all the big fuss is all about, and everything. So, if they just try to join in on what we're doing, they should get a pretty good idea what we like to do. I think that would overall would make us relate more.

Michael also indicated the classroom relationships are changing. He shared it is most important for the teacher to discuss what is important with the information the students are finding online. Michael said it is the responsibility of the teacher to make the students think harder so to further the knowledge about the subject.

Maggie's input focused on the importance of feeling understood as a student:

As a 21<sup>st</sup>-century student, I want to feel understood, understood in the classroom.

Because it's just, you like the teacher more, and you like the class more. When you're understood by the teacher, you want to learn more, and you don't want to slack off.

Maggie contributed to the story about feeling understood:

Most teachers will be like, 'you have to do this, or oh sorry.' They don't care what excuse you have if you couldn't make it or do something with them. If they're understanding they're like, 'It's okay.' They're helpful more and they seem like they care more if you could do the project or not or could do whatever.

Maggie also shared about feeling understood, "Normally I'm scared to talk to my teachers if I couldn't do something or and if, like, Oh, I'm going to get in trouble, but like understanding teachers, I feel better after talking to them."

Natalie described experiencing feeling understood by the teacher as a process that "Overtime, they know how you learn. So, whether it be if you're a visual learner. They don't necessarily tailor the curriculum to you, but they know what a challenge for you is and what's easier." Natalie's message to teachers and parents encouraged them to know feeling understood as a learner means that teacher acknowledge that:

Digital natives see it (technology) as a way life...we have grown up with the technology... we have not seen it any other way...digital immigrants, had a different way of life...the parents and teachers lived their life without it, it was foreign for them.

Natalie provided a story of a history teacher to illustrate an example of a teacher trying to connect and understand his students. She explained how the teacher would teach so everyone would understand. He did this in one example by citing video games that related to his lesson on the Renaissance. Michael and other participants spoke to building relationships and being

connected to students as the necessary ingredients that make feeling understood a significant experience to a positive and effective learning environment.

Elijah said the key to understanding the digital native generation is to think like they do. When it comes to learning and solving problems, Elijah indicated how his generation incorporates technology. He generalized that students “go on using our phone’s calculator. How we think is, if we have a problem that needs to be answered or done, we think that the internet or our devices can solve it.” According to Josh, the digital way is not always understood by teachers as a learning preference. He said that students need to communicate their needs to their teachers. He suggested that feeling understood impacts learning best when students communicate their needs to their teachers. Josh shared that he believes that the great teachers will take time to “teach everyone in the way” all individual student needs are met. He also said that teachers “need to understand that we like to communicate.”

Part of the residual message from RQ1 about how the participants reported experiencing life as digital native was they sense they feel judged and misunderstood by parents and teachers, which expands the conversation into RQ2. Michael believed that there are several key pathways teachers can take for students to have a positive and productive learning environment. He felt it is the responsibility of the teacher to make the students think harder to further the knowledge about the subject. Michael made strong recommendations for teachers to consider. He said, “It is not a necessity to get all the way to our level. They should evolve to a point that they know what we are talking about and help us with our daily lives.”

Victoria shared that feeling understood is through experience. She found one of her teacher showed much understanding about a situation that Victoria thought was so thoughtful for a teacher to make the time to make a student feel good about herself. Victoria described a time

when she made a troubling comment in class as joke. When asked about where she wanted to be in six years, she responded:

Six feet underground, and everyone was laughing but my teacher stopped, and he was like, 'Did you just realize what you said right now?' And I'm like, 'Yeah.' And I just kept smiling and he stopped, and he put me in a corner and he was like, 'Are you okay? And I was like, No.' I broke down.

She shared how nobody remembered her birthday, and the next day the teacher brought her a card and balloon, saying "Sorry, for missing your birthday. I don't know, I think that was the nicest thing a teacher has ever done to me."

***Feeling accepted supports learning.*** Feeling accepted is one of the four essential parts Gordon (1988) cited in the theory of feeling understood. Most of the participants described feeling accepted as an important part of an effective learning experience. One of the most significant experiences that supports digital natives' learning is when they feel accepted by teachers. Codes such as accepted students built to the category of accepting environment to inform RQ1 from the developed triangulated theme of School Experiences. Feeling accepted was one of the four essential parts cited by in Gordon's theory of feeling understood. All the participants described feeling accepted as an important part of an effective learning experience.

Josh shared his experiences of the importance of feeling accepted as a student:

The accepted student is the kid that tries a little bit harder but is sometimes just does it, but sometimes will go above and beyond, but not that often, just once in a while. This is the average student, they want to be accepted of the way they do things with whether it be technology or just the old school way.

Alyssa talked about accepting digital natives for who they are. She commented on how frustrated she gets by how adults perceive the digital native teen. Alyssa attributed the frustration to adults being less accepting to the digital native lifestyle. Alyssa said, “I think they need to know that our generation learns different than their generation. They should not badmouth, we communicate differently. This doesn’t make us lazy. They should accept us more.”

Alyssa commented that “Parents didn’t have quick access to video to do certain stuff. Our generation has its quick access. They didn’t have. This makes us different than them.” Alyssa also experienced acceptance when the class seems like a community, much like family.

Alyssa further noted that, “And a lot of people are really accepting up in her class, and want people understood each other. It was just like a big community. It was really welcoming. It's like a family.” Niko shared how in his AP classes, he feels accepted because the teacher knows their ability and equates feeling accepted as the action of teachers helping students pass their classes. Victoria commented on experiencing feeling accepted as “You don't feel like you're going to be harmed in any way, like bullied, I guess I'm saying. It's a safe environment.” Natalie shared her experience as feeling accepted as:

For example, we're doing a group project, we're doing let's say history, and we want to re-enact World War Two, and maybe World War One. We're doing the trench warfare, and everybody's been given an assigned role, and the teacher's walking around saying, “Okay, you're going to do this. You're going to do that, and they talk about, Well, listen, Sally you could be really-- during my experience with you, you've been really outgoing. I want to put you in charge. You're going to be the commander of this unit.” And part of

the acceptance is them validating your value of that classroom experience. So, they accept and say, ‘Hey, we value you being part of this classroom experience.’

***Feeling connected supports learning.*** One of the most significant experiences that supports digital natives’ learning is when they feel connected to their teachers. Michael explained it as:

When (you) have a connection with someone, they know how ...It is not a necessity to get all the way to our level. They (teachers) should evolve to a point that they know what we are talking about and help us with our daily lives.

Brittney noted that her favorite teacher, Ms. Sherwood (pseudonym), did not hesitate to use technology and show emotional alongside her students:

Ms. Sherwood—she’s a really great teacher. She's one of my favorites, and she knows we hate looking through textbooks where you-- because we were learning about the Holocaust-- and so we were learning about that. She went out of her way to put together a PowerPoint and brought in stuff from her views. We were all sitting there dead silent, crying because she was teaching so well. If we were just reading out of a textbook, or what we were supposed to do, it wouldn't have that impact on us. Since she was teaching it so well, and talking, she was also crying too. That was cool.

In his own personal experience, Michael said when a teacher understands him they are personally talking to him, even if they are with others, and conversely, he felt most misunderstood when teachers “make you think you are listening, but reality they just want to get on with their lives.” Josh plainly asked teachers to make the connection with their students because it may be all they have. Josh shared that students come to school where it is:

a place where all the kids are the same they're all tired, they're bored, they're hungry.

But having that one person that is teaching all of us and having that personal connection, it doesn't make us feel as alone because we see them every day.

Participants experience feeling understood as a learner in connected learning environments. All participants shared that feeling connected to their environment was important to feeling understood. Codes such as accepted students and student-teacher relating to each other built up to the category of accepting environment to inform RQ2 from the developed triangulated theme of School Experiences.

Participants shared that teachers interact more with the students if they are struggling. He shared that he wanted teachers to get to know students, so they can recognize learning styles. He wanted teachers to get to know students better, so they feel comfortable coming up to with them with their problems. Niko described a time his math teacher took the time to work with one-on-one to assist him with his math. He said he would rather have a friend relationship with his teachers, so they can get to know him better. He commented that teachers are more successful when they are doing something that keep students intrigued in the subject. He has experienced teachers that do not care about the students, while other teachers are interactive with the students and are aware of what the needs of the students are. Another example of a positive learning example came from his description of another math teacher who would use Smartboards to keep students engaged. Conversely, there was a teacher who used an overhead that would just read off the paper. His experience came from a first period math class where he found himself just dosing off. He said teachers need to know how to talk to you and be their students' friends by interacting with the students.

**Research question three.** The third research question of the study was: How does the use of social media, the Internet, and digital devices contribute to 21<sup>st</sup>-century education as perceived by digital natives? In addressing RQ3, the triangulated themes of Digital Experiences, Life Experiences, and School Experiences informed the final research question (see Appendix J). Participants experienced social media, the Internet, and digital devices as part of their academic and social experiences. The themes, categories, and codes were developed from Moustakas' (1994) phenomenological reduction process.

Participants experienced learning through the digital world. Categories of technology use, technology impacted, struggle, emerging technology culture, positive experiences, productivity, and learning built up to the three triangulated themes to inform RQ3. Participants shared growing up on technology where abbreviations, emojis, and online communication was the way of life. Participants reported walking into their school experiences conditioned to want to learn the same way as they do at home and in life. As a result, participants experience desiring social media, the Internet, and digital devices as both learning tools and communication devices embedded in their 21<sup>st</sup>-century learning experiences.

Digital natives experience the use of social media, the Internet, and digital devices as learning tools as previous generations used books and non-digital media to learn. Codes such as social media, presence of technology, and digital devices built up to categories such as school experiences, emerging technology culture, and positive experiences developed into the triangulated themes of Life Experiences and School Experiences to inform RQ3. Natalie acknowledged the digital native attraction toward the digital lifestyle as learners; however, she did this in a strong message to parents and teachers. Natalie shared,

The older generation says we are addicted to social media. I agree. I am too. It has a bad connotation. In that they think that it hinders the way that we communicate. But before this we had books and people have sort of been sitting inside ignoring each other for as long as there have been buildings I just think it is a different poison.

As the participants shared they experienced life through the digital world, RQ3 addressed further how they experienced social media, the Internet, and digital devices from an academic perspective from four significant experiences: (a) learning efficiency, (b) distractions, (c) socializing with friends, and (d) digital communication. Each section provided how RQ3 was addressed through participants stories and narratives.

*Learning efficiency.* Learning efficiency addressed how technology is used as a tool to increase learning efficiency. As the participants shared, they were providing feedback on the learning efficiency spectrum, including the good and bad of technology usage as a learning tool for digital natives. Most of the participants shared stories related to their use of technology in class. The codes such as learning is “easier” with technology built up to the category of motivation to inform RQ3. As the participants discussed technology, most of their conversations were directed by how social media, the Internet, and digital devices contributed to their learning. The answers also surrounded other technology they would use to support their learning that was tied to digital devices and the Internet. Nearly all participants indicated the best learning environments would include Smartboards, laptops, smartphones, and collaborative group learning. Codes such as classroom technology, Smartboards, and Chromebooks built up to the category of technology use to develop into the triangulated theme of Digital Experiences to inform RQ3. The terms quick, easier, and faster were associated with participants when discussing technology from a positive perspective. Participants offered diverse stories of how

their learning environments were filled with technology for both the good and bad. They were critical for the most part that teachers either were acting as digital allies, supporting the use of technology fully in their classrooms or resistant digital immigrants who punished students for using devices without permission or did not incorporate technology at all.

Brittney shared, “It (technology) influences my learning by making learning easier and more fun, rather than doing it the old-fashioned way.” Ashley agreed with Brittney and shared both sides of how she has experienced technology as a learning tool.

Ashley shared:

I think there’s good and bad things to it (technology). I think that it can definitely help us, technology like Smartboards, they’re genius. They really help get across the point.

You can see exactly what you need to see, and you know how to do it. But the bad thing is, some technology just doesn’t help you learn at all. There is this math site I went on, and it was terrible, and it just didn’t explain everything right. So, there’s good and bad.

Michael shared:

I think that the schools should know that, yeah, we do use technology a lot, but it's not all harmful to us. It's still benefit us in a large way in how it shapes our lives and everything. And then it still helps us and makes us the people that we are going to become. But the parents and the teachers and all the staff, they still help us in that technology too because it's like a balance because we can't use everything with technology. We still need that guidance from other people who have wisdom and everything.

Nearly 90% of participants reported using the Internet to search for information. The code researching built to the category of school experiences to inform RQ3 from the triangulated theme of School Experiences. Alyssa acknowledged how digital natives have the options to find

information online or go to their parents and teachers. She said she leans to the Internet because it is quick and mostly reliable. She did not hesitate to check with her parents and teachers to seek advice or clarify what she has learned online. She said, “I go online to clarify information like for math. I go to Khan Academy. If I need more help I go to my parents. I trust the internet. My mom has helped me with math that has not turned out that great.”

Elijah used simple but meaningful drawings of laptops, cellphones, and two individuals to illustrate how society has gone from handwriting documents to digital communication communities. He shared through the interview and focus group dialogue that technology has been both a positive and negative experience for him as a student. Elijah reported using technology half the day, with about four to five hours spent on the Internet. He reported using an iPhone 5. He said accessing the Internet as student has allowed him to use the Internet to complete homework and research assignments. Conversely, he admitted that the downside to his Internet use is the distractions causing him to be unfocused and not finishing all his work.

Elijah did admit he differed from much of his friends who spent much time on social media, that he was less interested in social media interactions compared to using the Internet to search for information. His drawings were consisted with the other participants who focused their drawings on showing students plugged into headphones, listening to music, searching for information, or texting someone on social media. There were codes, such as *distractions* and *social media* that identified what participants described as classrooms filled with 21<sup>st</sup>-century learners not necessarily engaged in their lessons rather focused on the social aspects associated with being online and chatting with their friends. Words and phrases such as *bored* or rather *having fun* were also used by participants as they discussed or drew about their academic and social experiences as digital natives in the classroom.

Elijah further shared that in school, he is a firm believer in using technology in the classroom and desired teachers to spend time understanding their students. Elijah said the key to understanding the digital native generation is to think like they do. When it came to learning and solving problems, he generalized that students “go on using our phone’s calculator. How we think is, if we have a problem that needs to be answered or done, we think that the internet or our devices can solve it.”

Hailey described that she liked to use technology in the class because it made it easier and fun. “It is pretty much limitless in order to understand the topic better or interact with people.” Since Hailey loved technology, she loved telling the story of how her English teacher uses technology in the classroom on a regular basis with Smartboards and Chromebooks. In fact, all participants reported using technology in the classroom. Codes such as Smartboard and Chromebooks built up to the category of technology use to develop into part of the triangulated theme of Digital Experiences to inform RQ3.

Hailey noted during the interview how her drawing represented the digital native experience from both a social and academic way. Hailey described the drawing as a girl going up three stepping blocks. The first block contained no words. The second block had the word dictionary placed on its side. The third block contained the words English and math. The girl had one foot on the second block and the other foot on the top block. The girl in the drawing was holding a cell phone that was touching a tree branch that was part of tree that had nine other branches. Some of the branches and in the tree itself contained speakers, a laptop, a computer monitor, speakers, and a gaming console. Hailey further explained the drawing represented how people wanted to interact with technology, so they put other things aside to get in touch with it. She said this applied to herself as well as the rest of the digital native generation.

Hailey described that the technology she enjoys most in the classrooms are the Smartboards, Chromebooks, and phones (when the teacher allows them to use it). She said that she knows that they understand us means to

Let us use our technology and our phones, and to be okay with us knowing that. They just have to show trust that we will use it responsibly. And not be goofing around playing a game or using it to further our knowledge in the class.

Hailey said, like many of the participants, she would design a 21<sup>st</sup>-century classroom with Smartboards, Chromebooks, teacher would have a computer. She would also put students in small groups. She would put the whiteboard and Smartboards on opposite walls for students and teachers to use during lessons. In fact, 90 percent of the participants expressed that they would fill the classrooms with interactive devices like Smartboards and Chromebooks.

Maggie expressed how much of her life has been consumed by technology and when used by her teachers appropriately, it can be a great tool for making learning fun. She shared that since 90 percent of her life has involved technology, she and technology have made her learning experiences fun. She illustrated her point with a story of how her previous history teacher would use a Smartboard to get onto the Internet to site that made history lessons into cartoons with funny noises.

In school, Michael believed that technology helps students with learning experiences by having other points of view in the classroom. Without the Internet, Michael explained that the students are left generally with just the teachers' point of view. With the Internet, there is the opportunity to expand on to other points of view and have discussions about the different opinions. Michael also shared that technology makes life easier as students can choose to google information from the Internet faster than asking their teachers for the answers or information.

Michael paused and acknowledged during the interview that the Internet limits him “from communication from other people... but at least I get to know things when I want to.” Michael and the rest of the participants shared about how the Internet was a valuable source for seeking information. Codes such as researching and social media built up to the category of motivation to school experiences to inform RQ3 from the triangulated theme of School Experiences.

Michael said he would design a classroom with computers on the desk and a Smartboard as a primary digital device. He described the digital native experience with technology as an emotional connection where the students feel the energy of the technology. He said, “It’s like you can feel what is around you. You are safe around the technology.” He felt teachers could understand the digital native experience by using technology themselves, such as by using applications like Haiku and Internet-related things. Michael chuckled as he said, “I know that I know more technology than they do [referring to teachers]. Some of the teachers think they are super smart with technology, but most of the kids are smarter than them.” Michael shared that it makes life easier that he has the Internet to look up information because he felt he does not have to go to someone with a lot of knowledge. Michael said, “It does limit me from communication from other people because I wouldn’t have a relationship and connect with other people but at least I get to know things when I want to.”

Michael discussed the role of the teacher in the situation where digital natives can look up information. Michael shared that he believes:

Most of the kids skim through the internet so the teacher can assist in getting students to go further in their understanding. The teacher can show the student what is important. When they expand they are making the students think harder and further the knowledge of the subject.

Part of the digital native academic experience, Michael favored collaborative teaching and learning models that integrate technology. He said it helps get work done by sharing the responsibility of the assignment. He recognized though that there are students who slide by and fail to participate or get the work done, requiring other group members to pick up the slack. Overall though, he thought groups produce accountability toward each other that leads to better communication to get the work completed. He also saw collaboration as a catalyst of getting work done when the teacher is not present. Codes such as fun to learn with, more efficient, learning is more exciting, and communicates better built up to the categories of struggle and emerging technology culture to inform RQ3 from the developed triangulated theme of Life experiences.

Natalie described her academic and social experience through the lens of an introvert. She described the development of technology in her life as a “self-discovery and from an academic sense of learning on your own. I saw it creatively was using music and you’re sort of having it centered in yourself and projecting your creativity out of yourself into the world.” She added that she wanted to project the positive side to technology, which she thought could be portrayed at times as a hindrance, something she disagreed with about technology.

In school experiences, Natalie described how technology influences her learning experiences. She said that she uses online communication with friends and peers to check on homework. She paused and almost in a boasting, but digital native way stated, “I can’t remember the last time I wrote an essay on a paper.” In the early part of the interview, Natalie shared about an experience with a math teacher and her desire to have students use technology to understand the math concept. Natalie said in her opinion, the lesson bombed because instead of showing us how to use the Blackboard platform, she assumed the students would be able to

figure it out by themselves. Natalie used the phrase *idiot proof* to describe how she felt the teacher thought the students would have been able to master the instructions on their own. Natalie said the result included that it was more of a hassle to try to learn the technology, and she never mastered the math concepts that day. Natalie really wanted to emphasize how she could have pulled out paper and a pencil and probably would have been more successful.

In contrast, Natalie provided a solid positive experience to demonstrate an example of how technology was used in an effective way by a teacher. She was in a class with all military kids. The teacher asked the class to write an essay using Google Docs. Natalie commented on how enjoyable it was to be able to interact and share ideas with her classmates. She said the students felt connected and collaborative because they had the opportunity to share their ideas with their classmates. As the interview progressed, Natalie continued to portray technology as a tool and not necessarily as her way of life as other participants had indicated. She used an example of a teacher who used basic technology in the classroom that was secondary to how he got students to think. She said his main point was that he was treating them as adults, expecting them to think out and reason their answers. She though concedes, however, as she has moved along with her grade levels, using computers for such things like writing essays has helped her make the task easier to complete. She likes teachers to text her reminders, and she said that Gmail is a useful tool to share and communicate with students and teachers. She also noticed that when students begin to text in class, it is time for teachers to shift and bring focus back to a lesson. Generally, Natalie observed the phone being more of a distraction than a potentially strong learning tool. Natalie generalized that she noticed a small minority of teachers that have been open to technology, and that is usually reserved for the younger teachers. Codes such as

presence of technology and distractions built up to category motivation to inform the findings from RQ3.

In his drawing, Niko represented his digital native academic and social experiences by drawing students in a classroom with the teacher using a Smartboard, and students on laptops and phones. He included drawing students using a Smartboard and their digital devices to answer questions. One student was depicted in the drawing as on Instagram while the teacher was teaching. In the drawing, it also represented a monitor that was guiding students to e-books. He said he used that because it is common for students now to be online reading books.

In school, Niko shared how he likes the opportunity to research and complete essays online. He did not oppose or dislike going to the library to research or write essays, but saw the Internet and computer as an easier way to get his work done. He praised his math teacher for allowing the class to use cell phones to answer questions. It was exciting for him because it engaged the class in a competition to find the answer. He said teachers still require library time for students to expand students' research. Additionally, Niko shared that technology helps access his learning faster. He has seen though that there is a negative aspect to technology at schools when the "teacher thinks you are slacker if they think you are not paying attention and doing their work."

Codes such as more efficient and fun to learn built up to the categories of emerging technology culture to inform RQ3 from the developed triangulated theme of Life Experiences.

Niko had a chance to hypothetically design a 21<sup>st</sup>-century class. He said it would have desks connected to each other, so students could collaborate. He explained that the work would be divided up and use the computer to send information to each other to understand their assignment. In concluding the interview, Niko shared the symbol of the digital native generation

is the iPhone. Niko viewed the iPhone as small and having portable capabilities that now includes using fingerprint password capability, so it unlocks the phone. It was the preferred device by many digital natives because they like technology advancements. He said that the advancement leads to the perfect phone. He said that technology companies like Apple wants to develop the next efficient and dynamic phone because it makes the digital natives and the rest of the world's lives easier. He shared that teacher can also benefit from technological advancements.

In the interview, Victoria was asked about her best classroom moment. Victoria then started sharing about her academic experience by talking about how her former history teacher taught an assignment that used minimal technology and deep conversations to teach the lesson. She surmised how getting students into deeper conversations and introspection about their own lives made the lesson more understandable. Her only suggestion to make a greater impact to her learning was if the teacher would have added video to support the concepts. This was a good example of her digital native ways and preferences toward the visual learner and the use of technology to support the learning process for the 21<sup>st</sup>-century learner.

Victoria had an interesting perspective about the Internet. She agreed how much the Internet was the part of her generation's life and concluded that for herself, she still weighs the credibility of information from what she receives from other sources like her parents and teachers. She acknowledged that her parents (immigrants from Mexico) had gone through a lot in their lives, and they had experiences that were valuable for her to listen to. However, Victoria was quick to say when the information coming from her parents or teachers was questionable, she turned to the Internet to seek to confirm or clarify what she was being told. This additional source is what this generation of students has differently than any other previous generation.

Victoria was somber in her sharing that while the Internet provided a source of information, there was a darker and lonelier side that adults may not realize is going on with their teens. Victoria made a case that the digital native generation and the Internet use led to lonely people seeking to make connections with each other.

Josh contributed to his experiences in the classroom with technology. He shared how much he enjoyed using his phone in class. Josh shared, “I use my phone a lot [in class] to help me out in math because I’m not the best math student so [sic] when I needed to remember equations, or how to solve something I would go online and see step-by-step.”

*Distractions.* The participants were generally transparent about the distractions associated with the Internet. Nearly every participant spent time sharing stories of how much their smartphones, the Internet, and social media distracted them from their stories. Ashely noted throughout the interview and focus group responses a theme of excessiveness as a characteristic of the digital native generation. Codes such as negative influences and distraction with technology built up the category of school experiences to inform RQ3. Josh, who shared how he was a supporter of technology for the classroom, also acknowledged the potential for it to be a distraction. He said, “I know when technology is involved, like sometimes us students will slack off, like we won’t do our work or wait to the last minute because we have technology we know we can do it faster.”

Josh provided a description via his discussion related to his drawing that described a bleak picture of what he saw going on in the classroom related to technology and learning. He believed that teachers “incorporate it (technology) so students don’t get bored. But the majority of kids don’t use it (technology) to their advantage.”

He shared how they “play games or text on the phone, during class.” In the other side of the paper, he drew an illustration of a student on a desk at home. Josh shared how:

Kids try to do their work, but they try to use technology to get things done faster and more efficiently. But sometimes they’ll get sidetracked and go back and forth and this will make work not as good in a sense.

Josh was critical about academic experiences and technology. He shared that one hand, “technology is a form of freedom for the digital native,” while also discussing how he saw the harmful effects technology has on digital natives. He contended that technology can “distract them from what they originally wanted to accomplish through it.” In fact, participants shared openly about the distractions and addictions to devices. What Josh was sharing was consistent to the messages shared by the other participants.

Josh shared how this distraction built up over time:

I think, at first, before most kids have technology, five or so years of age, you’re not really—you’re just playing around. And then early on, well for me in elementary school, technology didn’t really play a big part - learning wise. Like when you saw a video it was like, oh, “it was really cool”. The teacher's showing a video, we’re watching a movie in class today, or something. Then middle school came along, and there was a bigger part. Oh, you have to go online, you have to check your grades online, it wasn’t just sending a report card, they’re online. You have to go to the school website, go onto my teacher website, and then print out the file you need to. You got to be constantly on there, to stay with your work. And this is good, you can have access to things more easily. But at some point, then you realize, why am I doing this right now when I can do it five minutes before class, or right after class, when I can be watching Netflix, YouTube. I could be on

Instagram, or just playing video games. Why am I taking my own time when I can do it during the teacher's time? Kids will go in class, 'Oh, I forgot to print it, my printer didn't work.' Let's be honest, that didn't happen. You just didn't do it, and you're just asking the teacher to do it on their own time. And I think at that point, we forget to use technology as a tool and it becomes more of a distraction.

Alyssa, like Josh, drew technology as a learning tool and a distraction. She discussed how the lure of the Smartphone with its ability to be used as a phone, camera, and computer connected to the Internet can be attractive and distractive in class when students are trying to complete their work.

In Hailey's experiences, she mentioned the common thing with teachers who do not really like the cell phones in the classrooms was that they tell students to put their phones away or the phones would be confiscated. Hailey did get into talking about teachers and mentioned that they might be over-trusting with students using technology in the classroom. She said that teachers seem to have a lot of trust that the students are doing something productive with the phone. For the most part, she said she has experienced the teachers trusting students using phones in classes but there were a few that did not trust students and did not let them use the phones in class. Hailey did report that she has seen her classmates playing games using their devices that have made teachers be less trusting with the technology use in the classroom.

Hailey also discussed how she felt that teachers who let students use their phones in the classroom show a lot of trust. She cited her latest English teacher as an example who trusted her students not to abuse the use of devices and the Internet in class, while with other teachers, like with her health teacher, there was not a strong relationship, and the teacher did not trust the students to use the phone in class.

Michael shared that the drawing submitted for the study represented Michael's school experience. Michael explained that his drawing exemplified his typical classroom experiences. He explained that his drawing depicted the teacher in front of the class talking away while students were distracted with their digital devices. He said the drawing was intended to show students doing a different online social activity. Michael drew pictures representing students on Facebook, Instagram, and Snapchat, while others were texting or taking selfies. He did share that generally he sees at least one student who would be paying attention to the teacher. Michael explained that there would be some teachers who would give detention for using their phones in classroom. He did admit some of his teachers would post things on a website such as new assignments to help students now what is coming up so the students understand.

*Socialize with friends.* While Alyssa shared that she has used most of the major social media sites, Twitter was her favorite with features that allow her to send individual and group messages quickly to her friends. She also shared how she enjoys using Face Time, a feature on the iPhone, because it allows her to call a friend and see each other on their smart phone screen. Another popular communication tool she discussed was emojis, little characters that represent emotions. She said she used them to laugh at comments that someone made without having to write a response. Codes such as social media and distractions built up to the categories of school experiences and distractions to inform RQ3 from the triangulated theme of School Experiences.

As an art student, Alyssa showed advanced drawing skills compared to other participants. She represented her academic and social experiences as a digital native with visual symbols that included not just examples of laptops and Smartboards but also a head that was filled with the distractions of social media sites such as Facebook, Twitter, Instagram, and Snapchat. In the

focus group response to the ideas formed out of the drawings, Alyssa commented on how her generation is aware of the distractions and bullying that occurs on social media, but said her generation is “reluctant to change [their] ways because [they]... believe that technology is no threat to [them] and barely impacts them.”

Brittney highlighted her digital native experience as one that allowed her to communicate with her friends and family with her social media and Internet use. Brittney reported looking for three things from a classroom experience: technology, communication, and fun.

At school, Hailey reported using technology on a regular basis. Socially, she stayed connected with friends at other schools predominately with Snapchat. She described having minimal issues with teachers at school with using her digital devices.

Josh said,

Most kids nowadays have phones instead of bringing like the Chromebook or going to the computer lab or the library to research. I will use my phone, when I am allowed to, and I will do my work, but I think, it's prioritized more to, like, I can use my phone, I'm going to use it for phone.

***Digitally communicate ideas.*** Alyssa acknowledged how digital natives have the options to find information online or go to their parents and teachers. She said she leaned to the Internet because it is quick and mostly reliable. She did not hesitate to check with her parents and teachers to seek advice or clarify what she has learned online. “I go online to clarify information like for math. I go to Khan Academy. If I need more help I go to my parents. I trust the Internet. My mom has helped me with math that has not turned out that great.” Alyssa clearly saw herself as a digital native with a digital divide that hopes to be understood, accepted, and lessened.

Codes such as technology built up to the category of positive experience with technology to inform RQ3 from triangulated theme Life Experiences.

### **Summary**

In addressing the three research questions that were informed by the three triangulated themes of digital experiences, life experiences, and school experiences, the following participants' experiences were revealed from RQ1: (a) digital nativity lived as a way of life, (b) interactions defined by online communications, and (c) digital divide impacted generational relationships. From RQ2, experiences of digital natives included (a) feeling understood supports learning, (b) feeling accepted supports learning, and (c) feeling connected supports learning. From RQ3, digital native experiences included, (a) learning efficiency with technology, (b) distractions from technology use, (c) students socialize with friends via technology, and (d) students digitally communicate ideas via the Internet. I addressed the research questions with significant quotes from the participants that aligned with the data analysis and the triangulated themes. All data was stored securely either on Nvivo software, Transcribeme.com, and Haiku.com websites.

## **CHAPTER FIVE: CONCLUSIONS**

### **Overview**

In the concluding chapter, I will discuss the findings relating them to the theoretical framework and existing literature on the academic and social experiences of digital natives. Additionally, I will present the significant implications, the study's delimitations and limitations, and recommendations for future research. I will conclude Chapter Five by sharing final thoughts and considerations about the study and the digital native experience.

### **Summary of Findings**

This section summarized the findings found in Chapter Four. The summaries are divided into three subsections associated with the three research questions. Each subsection provided brief overviews to what was revealed by the participants as their reported experiences.

#### **Research Question One**

In addressing RQ1, the Patrick Harrison High participants experienced many social and academic activities via their digital, life, and school environments. They also experienced lifestyles consumed with digital devices, the Internet, and social media. They further experienced a digital divide related to building 21<sup>st</sup>-century learning relationships with teachers. Digital natives described experiences with communications associated with their online behavior that included using abbreviated words, emojis, images, and videos to share ideas, feelings, and information. They experienced life different than their parents and grandparents with the capability of accessing information instantly without filters from teachers, parents, or adults. With access to digital information so rapidly they experienced daily interactions of learning, entertainment, and communication from a hand-held device more powerful than any other medium has ever seen.

In addressing RQ1, the digital native participants described hours consumed by their online interactions via social media with family and friends. They described life both as highly-connected individuals to the Internet to a loneliness of feeling isolated from the physical world that included building relationships with individuals they have never ever seen or met in person but connect to daily online. They described preference to video and image sharing over words and talking. They described desiring classroom experiences filled with technology opportunity such as laptops, Smartboards, and researching online. They reported enjoying working in collaborative groups that use technology, discussions, and getting to know their teachers that show interest in their lives.

The participants experienced digital communication and digital consumption as part of their daily lives. They experienced life as an emerging generation with emerging 21<sup>st</sup>-century classroom dynamics surrounded by technology and access to information faster than any generation has ever known. They experienced building relationships with teachers who are working on understanding their digital existence. They experienced building new language that is not based on conventional spelling and grammar but composed of emojis, abbreviations, and shorter forms of communications through their texting, social media interactions, and digital images and video.

The participants' experiences included learning experiences different from their digital immigrant parents and grandparents. These experiences included many hours of Internet use using computers and smartphones as well as an excessive amount of time online communicating with their friends and family. As teens, they have experienced using technology integrated into their learning and instructional lessons. They experienced their communication and learning using technology attached to the Internet and social media. The social media and Internet

presented an experience to digital natives with benefits and concerns. On one hand, the experience created online opportunities to learn in efficient and creative ways via digital mechanisms such as the Internet and social media. On the other hand, they experienced learning with technology as an academic distraction when they diverted their efforts to social and entertaining ways via social media, texting, YouTube, and Netflix. The participants reported experiencing excessive use with online interactions and their digital device. The participants experience shortened communication with friends, family, and others by shortening social media and texting communication with abbreviations and emojis. The participants' digital experiences were ever changing as they utilized smartphones such as iPhones and Galaxies with anticipation of the newest versions to impact their lives.

### **Research Question Two**

In addressing RQ2, participants shared personal stories and experiences related to feeling understood. The participants enjoyed talking, drawing, and interacting with the focus group and interviews to share what their experiences had been with their teachers, and what learning experiences they hoped for with their teachers. The participants experienced feeling understood in different ways; however, the discussions on their experiences led to the same place about how they desire to build relationships with teachers, so their teacher knows who they are as people.

Participants experienced emotions of feeling understood to being disconnected from teachers not taking the time to know their students but unwilling to ask what it is to be a digital native in a 21<sup>st</sup>-century learning environment. Several participants described experiencing teachers who understood their students from a digital existence as they experienced classrooms immersed in not just technology but conversation that demonstrated a desire by teachers to emotionally connect with students. The participants shared how they desired a close and

friendship-like relationship with their teachers. They described the best experiences with their teachers who did approach teaching with 20<sup>th</sup>-century hierarchical expectations rather more efforts at building relationships that demonstrate a partnership with their students. Another example the participants reported was appreciating teachers who support, care, and guide them through learning but not dictate, control, or manage their learning.

In answering RQ2, the participants responded with mixed responses to how feeling understood by their teacher shaped their learning experiences. Participants described the impact of feeling understood as a catalyst to learning. Predominately for digital natives, the impact on their learning when they felt understood by their teachers is that they reported a connection to teachers who extended themselves to get to know their students. Many saw teacher interactions with them as a valued experience that connected teachers and students together. Participants' experiences involved teachers and students treating each other like friends. The participants reported they felt understood when teachers provided outward signs that show connecting and empathy with their students through friendly conversations.

### **Research Question Three**

In addressing RQ3, participants described desiring to have classrooms and learning experiences filled with technological integration and collaboration with their classmates. Digital natives experienced mixed feelings about how social media, the Internet, and digital devices contributed to their 21<sup>st</sup>-century education. Digital natives experienced their digital existence as a lifestyle that included daily interactions with technology, especially with their online interactions with social media. They extended their experiences with the digital world to learning experiences. Schools experienced the digital divide that complicated the relationships with technology and the digital natives. Digital natives shared experiences about technology and

learning with different descriptions as participants shared that teachers either embraced technology, resisted technology, or remained neutral as students reported there was no great consistency with technology support. They all reported experiencing the use of the Internet and social media regardless of the support or non-support teachers might be providing to engage in the students' preferences toward 21<sup>st</sup>-century digital instructional strategies.

The participants also experienced valuing and using technology. Participants reported that their digital devices were not just a device but something that was defined within a relationship. They experienced how the digital devices provided everything they needed to access information, communicate, and visually represent their thoughts and ideas. The participants shared how the digital device was not just a tool they used but a communicator of information about school, assignments, grades, and group work. Digital natives experienced social media as a vehicle for collaborating thoughts and ideas as well as social outlet. They admitted they experience technology as a distraction but that the good outweighed the bad. The participants experienced valuing wi-fi, the iPhone, and the Apple Logo and saw them as symbols of their generation. The participants experienced valuing all three in the classroom and preferred the digital world as a vehicle for their learning if the teacher was actively involved. They experienced identifying communication that is expressed through abbreviated words, emojis, and instant communication with social media as their online medium. Their learning experiences were integrated into old and new technology that provided both motivation and vehicles toward their learning.

### **Discussion**

This section discussed how the theoretical framework and the related literature compared to the findings from the study. Prensky (2001) and Gordon (1988) framed the theoretical

discussion while the related literature was dominated with discussions on digital nativity and building healthy relationship between digital natives and digital immigrant teachers. The discussion started with the theoretical discussion followed by the empirical discussion.

### Theoretical Discussion

The theoretical discussion compared the theoretical framework to the study’s findings. The theoretical framework married three theories (see Figure 7) to inform the discussion on the digital native’s academic and social experiences.

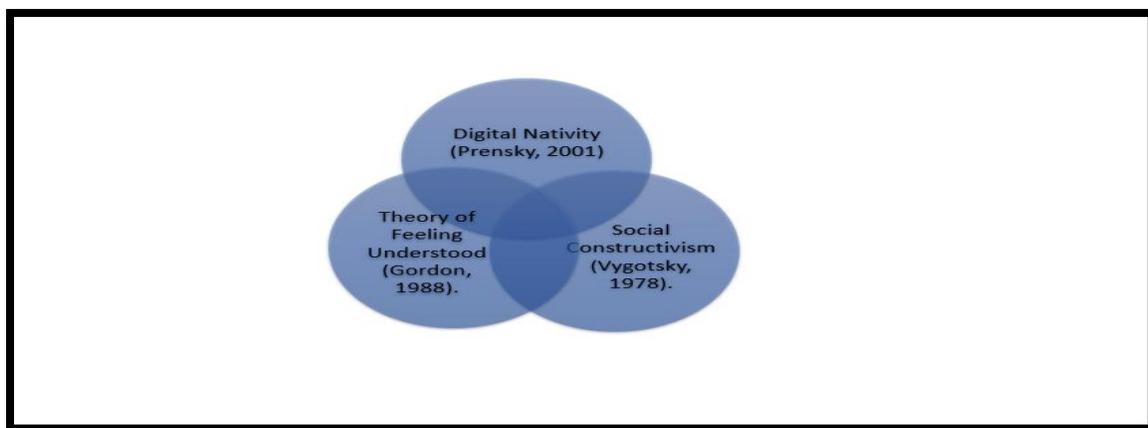


Figure 7. Theoretical framework of digital natives.

Initially, Prensky (2006) wrote from a passionate argument that unless educators “stop and listen to the kids we serve, value their opinions, and make major changes on the basis of the valid suggestions they offer, we will be left in the 21<sup>st</sup> century with school buildings to administer—but with students who are physically or mentally somewhere else” (p. 13). The participants told their digital native stories as the three theoretical models guided the study through the essence of the participants’ *being*, *feeling*, and *learning* aspects of their digital native existence. As their stories unveiled the 21<sup>st</sup>-century learners’ experiences from the interviews, focus group, and drawings, it became more apparent how the three theories of digital nativity,

feeling understood, and constructivism lived in their digital native stories. As the participants shared their stories, their responses and drawings echoed the sentiments of each researcher with a fine tuned and a greater intimacy from their digital native perspectives. Three sub-sections guided the theoretical discussion: (a) digital nativity, (b) feeling understood, and (c) learning theories. Each section analyzed participants' experiences and claims that discussed the academic and social experiences of digital natives.

**Theory of digital nativity.** Digital nativity was described as behaviors associated with digital native digital interactions such as possessing digital devices, communicating via social media, and searching the Internet for information (Prensky, 2001; Teo, 2013). Participants shared that they knew they were obsessed and excessive with their online worlds and communication with their friends. They acknowledged their school experiences included not just completing lessons but also navigating back to their social media and texting of friends. They also revealed a desire to connect with their teachers and have developing relationships like anyone else in their lives. Part of Prensky's (2001) digital nativity framework connected directly to the message of not just what the essence of what digital nativity looked and felt like by the participants but also a bridge into Gordon's theory of feeling understood. Prensky suggested that "Today's teachers have to learn to communicate in the language and style of their students" (p. 4). Prensky (2001) pressed the need to listen to the perspective of digital natives and that learning to communicate with digital natives

doesn't mean changing the meaning of what is important, or of good thinking skills. But it does mean going faster, less step-by-step, more in parallel, with more rand access, and among other things. Understand that future content is digital and technological. (p. 4)

Prensky (2006) said it by commenting that digital natives are not looking to be mini versions of their parents or grandparents.

Prensky's (2001) digital native theory was present in the drawings, focus groups, and interviews the participants contributed to the study. The participants willingly shared stories about their academic and social experiences that echoed Prensky's contention that students are reading less and spending much of their time on the Internet in social media or gaming online environments. Prensky's theory on digital nativity was present in the conversations with the participants as they explained their lives and attraction to the digital life they have known no different. Prensky's cheerleading approach to support technology in the classroom and in the digital native learners' lives was also heard loudly by the voices of the participants that shared how much they wanted teachers to pause and get to know their students as individuals who have this digital native spirit to be ready to learn and be understood.

Prensky's (2001) digital nativity theory was consistent in all 11 participants. While all the participants shared how they were immersed in the digital lifestyle at different amounts, they all had different stories on how their digital natives' lives have played out. Prensky wrote:

Today's students have not changed incrementally from those of the past, nor simply changed their slang, clothes, body adornments, or styles, as has happened between generations previously. A big discontinuity has taken place. One might even call it a "singularity" – an event which changes things so fundamentally that there is no going back. This so-called "singularity" is the arrival and rapid dissemination of digital technology in the last decades of the 20<sup>th</sup> century. (p. 1)

Bennett et al. (2008), Palfrey and Gasser (2008), Prensky (2006), Franco (2013), and Wang et al. (2012) all associated digital nativity with young individuals who possess or use using

digital devices, are high consumers of Internet use, and are active with digital social media.

Technology usage is present in both the personal and academic lives of the digital natives (Prensky, 2001). Prensky (2006) wrote from a passionate argument for the digital nativity voice, that unless we:

stop and listen to the kids we serve, value their opinions, and make major changes on the basis of the valid suggestions they offer, we will be left in the 21st century with school buildings to administer—but with students who are physically or mentally somewhere else. (p. 13)

Most of the participants shared the sentiments of Prensky's (2001) commentary on how educators need to approach 21<sup>st</sup>-century students. The participants shared in their drawings pictures related to their digital consumption, life experiences, and school experiences. They were asked to draw about their academic and social experiences. Without exception, all the pictures had a digital device in their hands. These included positive images of students connected with each other in both classroom and non-classroom settings. In critical images of classroom experiences, there was limited technology and students in rows. Michael drew a teacher at the top of the class with students in rows being depicted as disconnected from the teacher as they took selfies of themselves or were texting someone. Hailey's picture showed a student standing on their academic books holding a smartphone in a hand that was connected to a tree branch was a sound representation of the bridge between digital nativity and feeling understood.

In other drawings, participants drew images representing their digital devices and digital social media preferences illustrated inside a head. The participants shared how the drawing represented how consumed the digital native mind is with technology, especially from the Internet. Alyssa drew a picture that showed a computer connected to the student's brain and the

teacher's lesson with their mind filled with symbols that represented the social media available to them. These images and pictures were consistent with what was revealed in the literature and research that described the physical and online worlds of digital natives. Even more than the time spent as digital consumers, the study revealed that the participants desired to connect with their teachers and parents with a proverbial shout out that if educators want to "reach Digital Natives- all their students- they will have to change" (Prensky, 2001, p. 6). One participant of the study echoed Prensky's sentiments by claiming teachers need to evolve and understand their 21<sup>st</sup>-century students as individuals not just as detached students.

The highlights from these samples of participants' drawings revealed consistencies with how the literature described their lives. Prensky's (2001) descriptions and advocacy how the digital natives' lives were consumed by the digital devices, the social media, and their preferences for learning while connected to the digital world were present in the participants' visual representations of their academic and social experiences. The other significant conversation from the theoretical framework and related literature that was addressed visually by the participants were the images that depicted them connected to their digital device in the classroom at the same time the teacher was shown talking away as if the teacher was oblivious to what the students were doing. This image also was consistent with what Palfrey and Gasser (2008) discussed about the digital divide. The participants images and their self-reported daily technology usage aligned to Franco's (2013) and Prensky's (2001) claims that much of the young digital consumers days are spent online or with some form of technology. Though in Teo's (2013) study, there were not many images that demonstrated how the participants felt about whether they acknowledged an aspect of themselves needing self-gratification.

From the focus group and the interviews, Prensky's (2001) theory on digital nativity was present in the conversations with the participants as they explained their lives and attraction to the digital life they have known no different. Prensky's cheerleading approach to support technology in the classroom and in the learner's lives of the digital native learning experience was also heard loudly by the voices of the participants that shared how much they want teachers to pause and get to know their students as individuals who have this digital native spirit of being ready to learn and understood. Mostly, the interviews validated what the research said about digital natives were doing with their time. Overall, participants shared through the interviews how their academic and social experiences had positive and negative aspects. The participants shared how their academic experiences were filled with technology use to support their learning but admitted they can become distracted and off task. These descriptions are supported by the descriptions of Prensky and Teo (2013) and Franco (2013) as digital nativity.

**The theory of feeling understood.** The next theoretical discussion is based on Gordon's (1988) theory on feeling understood, and how it was present in the revelations shared by the participants. The theory of feeling understood provided a soundboard to the area of research that was limited in the student voice and the participants' perspectives of how they feel about their experiences as digital natives. Gordon's theory was present in the conversations with participants as they described their experiences with their teachers and ideal learning environments of feeling understood. Students come to school as digital natives connected well with their peers through texting and social media. Much of the participants shared that they spent no less than 50 percent of their time online per day to some that never really disconnected as their digital device, a smart phone, as set up to have their messages "pop up" on the screen as new messages were sent to them. As a result, when they came to school, they described desiring

wanting nothing less from their teachers in terms of building relationships and connecting with each other.

The most significant message from Gordon's (1988) work with feeling understood was the emotional description of what it felt like to feel understood. Honestly, it was hard to duplicate in the study; however, there were few participants who spoke eloquently about how it felt to feel understood by their teachers. I liked how the introduction of Gordon's theory married perfectly with revealing the physical descriptions of what Gordon was saying about what it meant to feel understood. I do not believe the participants necessarily saw the parallel examination of feeling understood and their lives as possibly two different things. Gordon's reflection on feeling understood started with the emotional setting of a "clear feeling that [individual] are truly sincerely listening to [each other]" (p. 59). The participants approached the research questions about feeling understood by their teacher by not necessarily addressing each element of what it meant to be understood but rather spoke from their experiences with their teachers. Their stories embodied many of Gordon's thoughts that feeling understood means that:

yes, I know exactly what you mean;" and [they] are getting through to one another.

There is a mutual grasping of feelings, of thoughts of experiences, of points of view.

[They] walk away from such an interaction sensing that [they had] really communicated with the other person. (p. 59)

Specifically, the participants shared how it was important as Gordon suggested for students to be able to communicate with their teachers. Josh reported how important it was to be free to communicate with their teachers as a catalyst to being understood by their teachers. Maggie contributed by indicating that when someone is understood, that person is going to want to learn more. Michael spoke to the heart of Gordon's (1988) theory by identifying how an

understood student has a connection with their teacher. Michael said that that connection was represented by how teacher knows how a student feels. He said it is very useful for teachers to empathize with their students especially the struggle ones. In his own personal experience, when a teacher understood him they are personally talking to him, even if they are with others, and conversely, he felt most misunderstood when teachers “make you think you are listening, but reality they just want to get on with their lives.”

Natalie addressed the concept of feeling empowered by teachers in her learning experiences. She indicated that to feel empowered by teachers to learn is a process over time that requires getting to get to know students on a personal level. Natalie suggested that the more time spent getting to know students, the teacher will recognize how each student learns the best. Natalie defined empowerment as the action of others that encourages you in a way that is personal. Her example demonstrated an expectation for a teacher to be a critical lens for the students. Natalie was grateful to an AP art teacher who assisted in analyzing her pieces of work that she would submit for her portfolio. She said the empowerment came when the teacher provided the input to allow Natalie to make adjustment in her work.

Niko also addressed Gordon’s (1988) theory in his discussion about his academic and social experiences. He stated that teachers interact more with the students if they are struggling. He shared that he wanted teachers to get to know students so they can recognize learning styles. He wanted teachers to get to know students better so they feel comfortable coming up to with them with their problems. Niko described a time his math teacher took the time to work with one-on-one to assist him with his math. He said he would rather have a friend relationship with his teachers, so they can get to know him better. He commented that teachers are more successful when they are doing something that keep students intrigued in the subject. He

experienced teachers that do not care about the students, while other teachers were interactive with the students and aware of what the needs of the students are. Another example of a positive learning example came from his description of another math teacher who would use Smartboards to keep students engaged. Conversely, there was a teacher who used an overhead that would just read off the paper. His experience came from a first period math class where he found himself just dosing off. He said teachers need to know how to talk to you and be their friends by interacting with the students.

Finally, participant Victoria addressed Gordon's (1988) theory of feeling understood. She spoke about her relationships with both her parents and teachers. Her message was simple and piercing with a request for adults to "talk to me." This captured the transition from the general understanding of her digital native world into the academic experiences.

This is so important to understand with Gordon's (1988) theoretical framework of feeling understood. There were strong examples where the participants shared how the teacher allowed technology in the classroom, and some even went further to complement teachers on how well they let students use technology in the classroom. The teachers were good at the technology use, too. However, not too many participants indicated that the digital ally status they may place on the user-friendly teachers equated directly to grasping the experience they have as digital natives. This is what makes Gordon's work important. Gordon acknowledged the importance of feeling understood, and even in a generic non-digital world way, showed examples.

If Gordon's (1988) theory of feeling understood was an overlay to Prensky's (2001) digital native theory; it provided a global conversation about how humans want to be generally treated. The symbiotic relationship between digital nativity and feeling understood worked well under this context since Gordon's theory was produced earlier than Prensky's digital nativity

theory, serving as reminder how to attract students to their learning environments, while Prensky identified specifically the subjects Gordon's theory could be applied to. Simply put, the study would not have been effective without a theoretical framework that left out one or the other. Gordon relied heavily on the notion that by feeling understood, a student's capacity to learn will strengthen while Prensky's theory could be applied to digital nativity in the context of feeling understood to explain what a digital native is and how and what it feels like to be understood by their teachers in the context of Gordon's theory.

Gordon (1988) raised the awareness that there is a strong connection between feeling understood and equated that to wanting to physically and emotionally be around someone who makes you feel that way. The study raised the same conversation when participants shared stories of what it felt like to be known their teacher understood them as a person. It appeared though the participants wanted the message to for teachers to get to know their students on a personal level and to truly make the effort to understand what it means to be a digital native, so the teacher can make a greater difference in their lives. So, when individuals feel an emotional and physical closeness toward each other as Gordon's theory suggested, the communication that is conveyed and the positive interactions between two people represents the feeling of being understood.

**Learning theories.** However, the theoretical framework of the study would be limiting without connecting digital nativity and feeling understood to the learning theories of constructivism and social constructivism. Underpinning the constructivist view is the philosophical idea of epistemological fallibilism. This philosophy suggested, "All knowledge is fallible by virtue of lacking exactitude and comprehensiveness" (Cobern, 1993, p. 109). Constructivism by nature and in the context of digital native experience is a necessary

component to capturing the essence of their social and academic experiences. It is also virtually impossible to disconnect their academic and social experiences from their classrooms since they spend a huge amount of time with their schoolmates and teachers. Therefore, it was necessary to include within the framework both the digital nativity theory with the theory of feeling understood.

Equally important was the inclusion of the constructivist and social constructivist views to the study as digital natives were described as social beings that thrived on technological opportunities while desiring a connection with their teachers that had never been defined as clearly without the integrated conversations of the three theories. Thus, this study relied on the integration of constructivism into the conversation with digital nativity and social constructivism as digital nativity. Prensky (2001) described that this paved their own pathways as learners.

Transcendental phenomenology fit well with this study because of how well the three theories fit with the study. The strength of the study did rely on being able to reveal the experiences within this methods design; however, it would have not had much teeth for conversation without tying the experiences and theoretical framework to the study as successfully as it did. It is clear to me now how much all three were essential components to the design method as well how necessary it was for the design method to rely on the use of the framework to produce the voices of the students and vice versa. What was produced from the theories and method was the revealing of the story of what digital natives' positive learning environment looks like.

The three theoretical areas of the framework complemented the literature review discussions on the experiences of the digital natives. In a theoretical sense, digital natives are a collaborative learning, technologically-driven student, creating their learning and understanding

by interacting with their peers, teachers, and community in ways they feel understood. This description of a student was put to the test by the study to see how 21<sup>st</sup>-century students describe themselves.

The synthesis of all three theories interacting simultaneously in the physical and emotional environments of our digital natives suggests who they are. The previous literature suggested and offered glimpses of the digital native. Many of the descriptions of them being immersed, consumed, and excessively driven to their online communities and Internet dependency were consistent with what had been reported and revealed in previous research. The next steps the participants took with this study was to contribute their voice, feelings, and understanding of who they are as digital natives and really who they are as individuals, regardless of a label or a generational status. As I move into the empirical discussion, the theoretical discussion possibly suggested the discussion did not go far enough, and it will take the digital native voice to continue the conversation about who they are. By nature of the phenomenological transcendental approach, the only way to seek the truth of someone is to get a perspective that has been cleansed by epoche and bracketed out through horizontalization.

### **Empirical Discussion**

Regarding related literature, the participants' statements showed a balanced dialogue between previously reported research and their academic and social experiences as digital natives. Four sub-sections organized the empirical section: (a) digital natives, (b) digital native relationships with technology, (c) digital native online social communities, and (d) teacher and student relationships. Each section analyzed experiences and claims that discussed the academic and social experiences of digital natives.

**Digital natives.** This section analyzed how the related literature and the study's findings defined digital natives. Significant findings and research addressed how the digital native generation emerged. The discussion included participants' experiences of digital consumption and digital communication as major identifiers to their digital lifestyles.

Prensky's (2001) coined phrase *digital natives* led to further studies that advanced the understanding of 21<sup>st</sup>-century learners. As Prensky stated, digital natives learned the language of technology: "These students, like all natives, adapt quickly to changes in their environment and look for new ways to incorporate the latest technology into their fast-paced lives" (Cunningham, 2007, para. 2). For the most part, participants agreed with Prensky's views about them but offered greater details to suggest their obsession and addiction to technology was a way of life that Victoria described as being "so normal to us that we don't even think about it. And it's the same way as eating, breathing, sleeping."

Recent literature contributed to defining digital natives as youthful consumers of technology, born after 1980 into a digital age built around digital devices, the Internet, and social media (Cunningham, 2007; Palfrey & Gasser, 2008; Prensky, 2001; Sánchez et al., 2011; Teo, 2013; Thompson, 2015; Veen and van Staalduien, 2010; Zimmerman, 2012). The results from the study reinforced the previous research's claims that digital natives rely heavily on a digital world existence. Hutton et al. (2012) presented a concern that "Given the dynamic nature and fast-paced change of today's teaching and learning environments, any attempt to define the 21st century learner is subject to potential obsolescence before it is posted (p. 149). However, participants readily drew pictures depicting life consumed with digital devices; addressed interview questions by telling stories of their academic and social lives connected to a digital

online presence; and interacted in a focus group that revealed daily digital consumption, constant online interactions, and emerging 21<sup>st</sup>-century classroom relationships.

Related literature by Zimmerman (2012) and Teo (2013) reported digital natives as abundant consumers of technology. Teo's (2013) study of digital natives' technology use showed that the young consumers reported that 12 percent of their day was spent on their cell phones and the Internet. However, in this recent study, participants reported that 43 percent of their day was consumed with digital devices and online activity such as searching the Internet or engaging in social media. Explanations to the increased reported usage could be attributed to how participants reported shifting to Snapchat and Instagram over Facebook because they said Facebook was cluttered with too much adult gossip, and advanced features with Snapchat and Instagram provided them the ability to send emojis, selfies, video, photos, and texts to individuals via their mobile smartphones quickly and constantly.

Within the study's data analysis, the themes of digital, life, and school experiences showed paralleled results from the related literature by identifying digital consumption and online communication as strong indicators of how the participants identified themselves. Related literature identified digital natives as individuals who developed online communication by adding to texting with emojis, selfies, video, and photos (Veen & Van Stallduinen, 2010). Participants' testimonies confirmed the multi-image and video sharing capabilities of smartphones have glued them to their devices.

Previous research approached the question of the emergence of the digital native with more focus on *what* they were. Even Prensky (2001) focused on the conversation from the point of the emergence of digital natives' existence. Though Friedman (2005) hinted that globalization and Internet contributed more than anything else to changing society to a digital age and online-

consuming world culture. Since the section is focused on defining and explaining digital natives, the related literature also indicated how much the Internet, social media, and digital devices were attached to the lifestyles of digital natives more than anything else. However, digital natives' origins or addictions are acknowledged by participants who have placed blame on parents for giving them the devices at an early age, suggesting parents did so to keep the children quiet so parents could complete their work. Participants even claimed teachers would just use technology to keep students from being bored.

Zimmerman's (2012) descriptions of the devices digital natives use, and Veen and Van Staalduijn's (2010) different labeling of 21<sup>st</sup>-century learners focused on what the digital natives were doing rather than extending the conversation to *why* and *how* the digital natives were experiencing their digital online worlds that became what participants referred to as a way of life. Participants reported growing into smartphones as teens that provided the capabilities to text, take, and share photos and videos, and they became the digital natives' mini computers, portable and easy to operate. Participants continued to share how much their addictions to digital devices and the Internet, especially the iPhones and social media, have become a yearly waiting game as upgrades and features offered the digital natives something better than what they had before. The participants' descriptions of their daily digital lives appeared more personal as they were not hesitant to describe themselves as excessive and obsessed with technology, especially with iPhones. The study also revealed consistencies with Palfrey and Gasser's (2008) claims that defining digital natives should not just consider an age or date range of an individual but also the levels of technology and abilities each person has in the digital native communities.

Participants discussed how as the Internet provided easy access to information for young adults, their knowledge acquisition became less dependent on teachers, and what emerged was

young adults, the digital natives, surpassing their teachers with factual competencies. The ability for students to access information from the Internet was part of the larger globalization efforts seen as financial and political hierarchies began eroding during the start of the digital age (Friedman, 2005).

Friedman discussed how smaller countries and smaller nations had greater access to staying economically competitive as they viewed their access and relationship to the traditional superpowers as more equal after globalization due to the Internet and the lowered cost of doing business and communicating. In a similar way, students viewed their relationship with teachers differently compared to the 20<sup>th</sup>-century experiences. Victoria illustrated the difference in how she viewed students approaching teachers in the 21<sup>st</sup> century. Victoria shared that teens,

Don't really necessarily view adults anymore as scary big people that we don't want to talk to. We're not calling them sir or ma'am anymore. It's more equal now, definitely I think, because we just want to get to know them on a personal level and see- we may think that they're mean in the classroom, but they could be a great person.

Palfrey and Gasser (2008) acknowledged learning style differences have contributed greatly to the struggling relationship between digital natives and digital immigrants. This way of life might be why the digital divide exists in the classroom today. However, the focus of this discussion still is on the defining of the digital natives, which in a broader sense extends to the defining of the digital native generation. One area that keeps coming back to the digital native emergence is the why and how they emerged. What seemed sensible was the connection mentioned by Friedman (2005) as the emergence of globalization. I bring this to the discussion because participants kept on referring to their teachers differently than how the previous generation, the digital immigrants, experienced learning in their learning environments as students

themselves. Participants used words like the preferred teachers as “friend-like” and desiring for reciprocation when it came to be knowing their teachers as people not as authority figures. Natalie said that the generation of digital natives does not see teachers as someone above them. She said this generation just does not call their teacher sir or ma’am like previous generation of students were expected to do. Her analysis suggested a flattening of hierarchy between teacher and student, like how the hierarchy between superpower nations and smaller countries were flattened during the emergence of globalization.

In Friedman’s (2005) discussion about globalization, he wrote about how the Internet brought the world closer together. Friedman discussed how the world was flattened economically, politically, and financially when smaller countries could enter markets that were traditionally dominated by superpowers, while Prensky (2001) described the digital native generation embracing the digital age as a way of life. The hierarchy of nations seemed to trickle to the development of the digital native generation. Just like the Internet assisted the world to connect to each other by bringing information to them faster than ever before, this access was also afforded to the digital natives. Participants shared how easy and accessible information is to them.

Participants never mentioned globalization by name; however, the digital impact of the Internet and social media that created new 21<sup>st</sup>-century communities sounded loudly with the messages provided by the participants. The parallel dissolving of hierarchies appeared to trickle to how students viewed their relationships to teachers. Victoria used the phrase *it’s like we are more equal now* (referring to relationship to teachers). Participants suggested their technology knowledge was superior to that of their teachers. Participants related classroom experiences to how the more effective teacher provided friend-like conditions. Prior to globalization and the

Internet, educational systems operated under a hierarchy where teachers were authoritarian by status and duty.

**Digital natives' relationship to technology.** This sub-section analyzed how the related literature and the study's findings discussed the digital natives' relationship to technology. A discussion about the relationship between digital natives' relationship to technology was necessary since research had indicated, like the study's findings, an inseparable relationship between digital nativity and technology. While the digital native section addressed defining digital native and their emergences as a digital generation of learners, this section examined why technology and digital natives have such an intimate relationship.

In previous research, Helsper & Eynon (2010), Thompson (2013), and Sánchez et al. (2011) contributed to identifying the importance of technology in digital native learning experiences. Gu et al. (2013) believed the technology teachers used in the classroom was due to conforming to the growing reliance of technology in education, especially with their students. Participants confirmed the preference and connection to technology when they shared in their drawings, interviews, and focus groups that technology was not just a way of life for them but preferred tools for learning. Participants reported as did the related literature how Smartboards and laptops were useful tools for them in the classroom, and and they used the Internet as a primary research tool. Digital natives have also learned the language of technology as they communicate instantly with their peers. "These students, like all natives, adapt quickly to changes in their environment and look for new ways to incorporate the latest technology into their fast-paced lives" (Cunningham, 2007, para. 2). Overall, the participants shared minimal stories of inspirational teachers who had grasped the level of technology use in the classroom

that made a difference to their learning, but they appreciated teachers who attempted using technology rather than those who restricted use or did not use technology at all.

Participants reported using their iPhones daily to check for messages to see what they might have missed. The common phrase used among participants was they had information at the “tip of your fingers” with the devices that connected them to the Internet and social media. Over half the participants talked about having information at the tip of their fingertips as a characteristic of the digital generation. Without the device, seven out of the 11 participants reported feeling out of the loop about what was going on with their group of friends.

**Digital online social communities.** This section analyzed how the related literature and the study’s findings examined how digital natives experienced digital online social communities. Significant findings and research addressed how social media contributes to the digital native way of life. The discussion included participants’ experiences with Facebook, Snapchat, Instagram, and Twitter as the vehicles to the 21<sup>st</sup>-century digital communication phenomenon, which are well developed by the digital native consumers of new *language* and online interactions.

Previous research showed how the phenomenon of digital, online social communities became popular with digital natives (Khuder, 2010; Palfrey & Gasser, 2008, Prensky, 2001; Salgur, 2013; Veen & van Stallduinen, 2010; Zimmerman, 2012). Popular social media sites like Facebook, Twitter, and Instagram, began to dominate time and space for digital natives over the past decade (Lunch Box School, 2013; Palfrey & Gasser, 2008; Prensky, 2001; Salgur, 2013, Zimmerman, 2012). Hundley and Shyles (2010) conducted a qualitative study with 80 southern California teenagers to understand their perspective on time spent with digital devices and Internet use. They reported the vast amount of time students spend online is with friends. As

past research developed the understanding of the phenomenon of digital nativity, it included identifying digital natives as using social media via smartphones as the preferred method to communicate daily (Prensky, 2001; Teo, 2013). In the study, participants indicated that they not only used smartphones, they also disclosed using multiple social media sites such Facebook, Instagram, Snapchat, and Twitter.

The study's findings also indicated that the participants reported searching the Internet for information or communicating with their friends, family, or online acquaintances. Participants indicated 43 percent of their day was spent connected to the Internet and social media. The participants admitted to excessive and abundant Internet and social media usage defined their generation. Compared to Teo's 2013 study, Internet and social media use by digital natives was much higher than the 12 percent usage reported in Teo's findings. Since Teo's report and study, yearly updates of iPhones and other smartphones have advanced the cell phone technology, making smartphones mobile, attractive, and desired by digital natives. The smartphone technologies that include texting, the Internet, video and photo sharing, and connection to social media sites, allows digital natives to be mobile consumers with mini computers in their hands (Khuder, 2010; Palfrey & Gasser, 2008, Prensky, 2001; Salgur, 2013; Veen & van Staalduien, 2010; Zimmerman, 2012).

Zimmerman (2012) indicated that the teenage social networking experience is something digital natives are constantly connected to. Zimmerman added that, "if their local networking is not enough to accomplish their ends, they think nothing of going onto a community forum to reach their objectives" (p. 176). Ashley shared the digital natives' attraction to the luring effect of social media. She said,

Because when we go on social media...we see all these new ideas that we didn't see before, all these different opinions. And then that influences us. And then with the digital natives, if you see someone in person, like two teenagers, or whatever, they have their own thoughts and opinions and ideas, too. And you guys can share what you think. And then the computer is important you can look up anything. Have any fact in the world.

Previous research identified that digital natives communicate and interact via social, digital communities, and this has revolutionized how individuals communicate (Khuder, 2010; Palfrey & Gasser, 2008, Prensky, 2001; Salgur, 2013; Veen & van Stallduinen, 2010; Zimmerman, 2012). Salgur (2013) reported that the Internet has “become a common part of the daily activities of teenagers in their home and school environments” (Salgur, 2013, p. 38). With the old forms of communication such as letter writing via postal service delivery, phone contact, and face-to-face contact still present in society, the previous research discussed how digital natives had created a digital existence away from adults via social media and online communication without much resistance or understanding from parents and teachers who previously had much more oversight with teen communication and interactions (Lunch Box School, 2013; Palfrey & Gasser, 2008; Prensky, 2001; Salgur, 2013).

As technology advanced, smartphones provided easy access for digital natives to interact and share information with their peers and family (Salgur, 2013). As a result, the “mobile interaction and connection with social network sites has become an indispensable part of teenagers' life style” (Salgur, 2013, p. 38). While the previous research appeared more geared to identifying and defining the introduction of online communities and social media into society, especially for digital natives, the study's findings revealed more of the *why* and *how* digital

natives were experiencing online social communities. With that said, participants overwhelmingly shared how they preferred Snapchat and Instagram over Facebook and other social media. The participants' consensus with social media was that Snapchat and Instagram were the preferred social media outlets because they could quickly send photos, video, images, and emojis directly to individuals compared to what they referred to as the *cluttered* Facebook. Maggie also shared that when she was on Facebook, she felt it was too many adults complaining and gossiping about each other. While with Snapchat and Instagram, Maggie shared, "It's really quick to the point (Snapchat), it's just pictures. You have captions, and you can comment and everything, but it's not just big long texts."

The development of new digital communication was reported widely with the past research and from the study's participants. Participants reported creating emojis, abbreviated words, and selfies when they interacted on social media. The transformation to shorter forms of communication also was reported by participants as a way of life for the digital natives. Niko said such things as "g2g" (got to go), and "ttyl" (talk to you later) are frequent, abbreviated ways of communicating to friends and family. As the shorter communication became more common, their abbreviated communications expanded into their life and school experiences. Van and Veen Staalduien (2010) identified the new 21<sup>st</sup>-century online communication as "tween speak" (p. 122) as it was reported digital natives used emoticons symbols, abbreviated texts, and graphic expressions to communicate online with each other. Veen and van Staalduien (2010) described the digital native social network experience an ongoing connectivity with friends and online acquaintances. Personal information has become less private for digital natives. Through social networks, digital natives have created streams of information that openly share with friends and individuals they only associate with on the social media site. Digital immigrants or non-digital

participants make distinctions between what the online world is versus what the offline or the present physical world is.

Research indicated digital natives consider the online and offline experiences as a continuum and do not make the same distinction as digital immigrants do. Participants also reported that the online social media access created a greater emotional ease by communicating to others online. Participants reported feeling more confident in their interactions with peers online compared to in person. Participants shared how some are shy in person but feel more comfortable online. Participants reported that online relationships can and do progress to meeting individuals they meet online in person. Another reported aspect to online communication that participants shared was their ability to interact to others around the world. This defined their generation and the benefit of participating in online social communities. Participants acknowledged the negative aspects to social media such as bullying but acknowledged their obsession and addiction to the digital world, where they have known no different. They found it very attractive and tended to overshadow any concern or worry about eliminating abusive online behavior as they focused on social media relationships.

Salgur (2013) suggested the online phenomena needed greater research attention to determine how much impact the social media and Internet has on instructional value for students. Salgur reported social networks have helped develop a culture less interested in talking and more capable of sharing thoughts, ideas, and reactions through quick efficient methods (Salgur, 2013). Victoria offered another perspective of the experiences of using social media. She explained that social media represented a:

Closer connection to one human being to another. It's like being informed. It's like watching the news, except about the people you most care and love. And with that little

button, it mainstreams all the way back to your dashboard and it tells you everything that they're doing.

Victoria further suggested that:

I guess that is why we feel so much in contact with it, we just really like it. It's because we have choices every day. We have a choice on what to see or not. It's like asking for a pizza on your screen and it's like, 'there it is. You're welcome.'

As participants shared how technology became more of a way of life, the use of their iPhones or other digital devices became the vehicle to access the Internet and social media. The advancement of technology alone changed basic cell phones into smartphones that served as mini computers. This transition into smartphones as reported by previous research was the catalyst the participants experienced to change how society communicated with each other. So, when the smartphones became available to digital natives, the attractiveness turned to excessiveness and obsessiveness for a device that connected them to their friend whenever they desired. The introduction of the smartphones and earbuds (earphones that placed the speakers directly into the ears) allowed digital natives to unplug from their physical world and plug into social media to interact with friends, family, and online acquaintances.

**Teacher and student relationships.** This section analyzed how the related literature and the study's findings digital natives addressed relationships between teachers and students. Significant findings and research addressed how the digital divide and the digital natives' views on feeling understood by their teacher shapes their learning experiences. The discussion also included participants' experiencing acceptance, connectiveness, and feeling understanding related to the 21<sup>st</sup>-century teacher and student experiences in the classroom.

Recent research indicated how building strong teacher and student relationships are essential for the meeting the needs of the 21<sup>st</sup>-century student (Di Fabio & Kenny, 2012; Gehlbach et al., 2012; Gordon, 1988; Greenburg, 2014; Held, 2007; Ionita & Asan, 2013; Moye, 2010; Moyle et al., 2012; Nichols & Zang, 2011; Packard, 2004; Palfrey & Gasser, 2008; Prensky, 2001; Sinek, 2014). In fact, educators, “ought to listen to their students, encourage decision making among students, involve students in design instruction, and get input from students about they would like to be taught” (Moyle et al., 2012, p. 15). Each participant described how important it was for the teachers and students to know each other for a better learning experience. Participants indicated that strong relationships with their teachers contribute to learning because the bond is formed in authentic, accepting, and connective environment where the student feels understood by the teacher. Participants used words like *vulnerability*, *authenticity*, and *openness* to describe how they want their teachers to be toward them. While participants did share stories that showed how teachers desired to teach from personal levels, most of the participants spoke to what they desired rather what had been experienced.

Classroom relationships have changed during the digital age to create tensions, digital divides, and different expectations about how teachers and students interact (Gehlbach et al., 2012; Palfrey & Gasser, 2008; Prensky, 2001; Repique, 2013; Selwyn, 2009). Held (2007), like, Ionita and Asan (2013), shared that the role of teachers has been shifting from the “sage on stage” to the “guide on the side” (p. 1) during the digital age. As a result, 21<sup>st</sup>-century learning environments shifted teachers to “mediators of knowledge” (p. 453). Prensky (2001) reported that 21<sup>st</sup>-century students prefer to work in collaborative and technologically-driven learning environments. The problem as indicated by research is that natives and digital immigrants think differently about technology, creating tensions between the students and teachers (Prensky,

2001; Palfrey & Gasser, 2008; Selwyn, 2009). Ashley shared a story that demonstrated the digital divide. Ashley said:

I had a few teachers last year who really were not interested in technology. One of my teacher, no headphones, no listening to music, even when you're just doing your work, and no texting. If she sees a phone, she takes it away. Even when we would watch a video, she would wheel out this giant VCR and pop in one of the VHS tapes. It was ridiculous. You could just do it much quicker if you had a computer.

Alyssa also said, "I think they need to know that our generation learns different than their generation. They should not badmouth, we communicate differently. This doesn't make us lazy. They should accept us more." Alyssa further commented that "Parents didn't have quick access to video to do certain stuff. Our generation has its quick access. They didn't have. This makes us different than them." Michael shared how he thought that "Some of the teachers think they are super smart with technology, but most of the kids are smarter than them." Palfrey and Gasser (2008) discussed how the generational differences because the older generation did not grow up with technology and learned with different approaches contributed to the digital divide with the digital natives. Participants shared that they preferred teachers to be authentic, personable, and friend-like. Participants shared that how they view teachers today is different from the past generation.

Victoria shared that teens generally,

Don't really necessarily view adults anymore as scary big people that we don't want to talk to. We're not calling them sir or ma'am anymore. It's more equal now, definitely I think, because we just want to get to know them on a personal level and see- we may think that they're mean in the classroom, but they could be a great person.

A powerful piece that emerged from the student was the myth that digital natives were all about technology. The study's findings did indicate high consumption of technology by digital natives and a preference for learning with technology; however, when the participants had the opportunity to share about what they were looking for in the classroom, it went well beyond what the related literature suggested about digital natives. Beneath their self-reported obsessions and addictions with technology came conversations about wanting teachers who were accepting, understanding, and capable of connecting with students at a personal and friend-like place emotionally with their students. Students used words and *phrases like, listen to us, get to know us, be vulnerable around, and we want to get to know you* as strong language to reflect how they wanted their relationship with their teachers.

Gordon's (1988) theory of feeling understood was consistent with the students feeling of a supportive learning environment. One of Gordon's four components of feeling understood, accepting, was the most desired quality participants asked for from their teachers in the study, next to the overall experience of feeling understood. Other research indicated that establishing effective teacher and student relationships in the classroom matters when it comes to student learning (Gehlbach et al., 2012; Gordon, 1988). Gehlbach et al. (2012) suggested that, "What is especially striking about teacher and student relationships is not just that they matter, but that they appear consequential for such an extraordinary number and variety of academic and motivational outcomes for students" (p. 691). Previous research by Ionita and Asan (2013) encouraged "establishing a constructive dialog [between teacher and students], starting from such divergent premises, [that] requires a lot of tolerance, on both sides" (p. 451).

## Implications

The results of this study produced findings that have theoretical, empirical, and practical implications for individuals involved in education. The purpose of this section was to address the implications of this study and provide recommendations to educational stakeholders such as students, teachers, administrators, and parents.

### Theoretical

The theoretical discussion informed the study on how the findings and the theoretical framework compared. I first discussed the implications and concluded with recommendations for recommendations for remedies or resolve. Each discussion tied back to the findings to discuss implications and recommendations directly related to the study.

**Implications.** The theoretical framework informed and supported the study's understanding of the academic and social experiences of digital natives (Gordon, 1988; Prensky, 2001; Vygotsky, 1978). From the theoretical perspective, digital natives live a different lifestyle than previous generations (Prensky, 2001). The study provided the opportunity to listen to digital natives' voices about their digital lifestyles from their academic and social experiences. The theoretical models of digital nativity and feeling understood contributed to the awareness of trends and behaviors associated with 21<sup>st</sup>-century learner experiences. The findings blended clarification and validation about digital native experiences by providing the foundations from the framework to compare to the experiences reported by the participants.

The implications from the study included the importance of building strong and authentic relationships between teachers and students. Prior to the study, the theoretical framework, Gordon's (1988) theory of feeling understood, emphasized the value placed on learning in environments that are accepting, emotionally connective, and allow students to feel understood

by their teachers. The findings strongly supported Gordon's theory of feeling understood and included participants' testimonies on experiences where teachers foster positive classroom environments with personable, friend-like approaches to creating learning communities that are risk taking, vulnerable, and relationship building.

Digital natives emerged 30 years ago. The theory of digital nativity is arguably still forming as the framework focused on the physical attributes rather than the emotional state of a digital native. The implication is that the phenomenon may be best revealed when combined with the theory of understanding that has had a greater capacity to discuss emotional constructs. What appeared in the findings closely resembled behaviors associated with all three theories.

Another implication was that the true essence of digital native might be best revealed when digital nativity, feeling understood, and constructivism are operating fully in the experiences of the digital native, so the phenomenon of digital native academic and social experience can be best revealed. This led to expecting another implication from the findings to be a greater expansion or inclusion of what digital nativity is based on Prensky's (2001) definition. The implication to the study might be an expanded definition that combines the emotional and physical experiences of the digital natives to gain an even closer understanding to what the *essence* of a digital native is. This also aligns to the transcendental phenomenological aspect of capturing the *essence of being* better by examining from integrated theories like Prensky's and Gordon's (1988) theory of feeling understood rather than expecting a definition to be one dimensional.

From the practical side of theoretical implications, the findings did suggest participants were excessive and addicted to their digital native online lifestyles. These digital lifestyles were shown to creep into their preferences for learning and distracted students from completing

academic tasks. The implication is that too much time in the social aspect of their digital native lifestyle might not be good for their academic successes. The expanded implication is the sense is the digital age is here to stay; the behaviors set by digital natives are hard to control since the oversight by parents and teacher appear to be limited. Thus, the digital nativity continues to grow as students are exposed to constant access to the Internet and the ability to upgrade to a faster and notably better featured smartphone.

From the teachers' perspective, they have choices on how to approach all three theories while they are teaching children. The difficulties for the teachers are how to embrace the theories and decide what changes are necessary to meet the collaborative and technological learning preferences of digital natives. The implication is to decide what instructional choices will be best for their students. The findings indicated digital natives are looking for teachers to make better connections to their students emotionally as people and physically with technology. The study's implications pointed to asking teachers to revisit many non-digital, 20<sup>th</sup>-century teaching styles. The findings included implications about what to do with students who come to schools wired from birth to learn from technology. The findings asked from students for their teachers to build relationships that create friend-like conditions and see 21<sup>st</sup>-century learners as people who come to schools with digital natives' lifestyles connected to the Internet and social media as way to be informed and communicate.

Further implications from the study suggested changes in instructional strategies. Descriptions from Prensky (2001), Palfrey and Gasser (2008), and the participants found that digital natives would benefit by teachers examining their teaching practices to support greater learning opportunities for 21<sup>st</sup>-century students. I recommend that teachers would benefit by increasing time spent getting to know their students. The previous literature and the study

discussed collaborative learning environments that include building self-directed learning environments. Building self-directed learning groups provide opportunities for digital natives to learn from their world. It requires teachers to let go of control and guide and facilitate students through small group student teams that interact and synthesize information within collaborative and technologically driven learning experiences. These experiences require teachers to interact to know their students, so they can assist teams into develop dynamic learning experiences.

The study contributed to the expanding research on digital natives. Digital nativity and feeling understood partnered with constructivism in the theoretical framework to assist in explaining constructs associated with the essence of the academic and social experiences of the 21<sup>st</sup>-century learner. The theoretical framework married three theories from the constructs of being (digital nativity), emotional (feeling understood), and learning (constructivism). Any one of those theories could be used to explain life individually. With so many unanswered questions about digital natives, the framing of the theoretical framework was essential to addressing the newest members living a digital lifestyle unseen by anyone in history (that was very a difficult claim and distinction).

The study focused on digital natives with a growing concern that their voices and their emerging community had limited input in shaping education, society, and the world's future. Both the research and the findings indicated a digital divide has been looming over the relationships between digital natives and their teachers. Prensky's (2001), Gordon's (1988), and Vygotsky's (1978) theories were introduced together in the framework to understand how the three phenomena might make sense of the world of the young, digitally-mined learners. While any one of those theories could make claim to an argument of explaining digital natives' experiences, the dynamics together aligned to the findings showed not just the physical attributes

Prensky associated with digital nativity such as constant consumers of the digital devices, the Internet, and social media, but a sound voice from the participants that shared how they are people like anyone else. Their digital native conversations aligned to how feeling understood by their teacher makes a difference in their learning experience, and it may make the biggest differences. Much of the findings related to Gordon's theory, which suggested feeling understood and acceptance by adults in authentic, vulnerable, and connective ways impacts digital natives more than anything else. While participants shared about collaborative and technologically-driven classrooms, these were to be overshadowed slightly by the more humanistic theory of feeling understood. The findings served to inform stakeholders (teachers, parents, administrators, and students) about 21<sup>st</sup>-century students' voice and their concerns.

The implications of the findings included greater attention to best practices for building healthy and supportive relationships between teachers and students with an emphasis as partners in developing 21<sup>st</sup>-century learning environments. The other implications included a need to foster mutual respect and understanding between the digital native and digital immigrant communities. Like any things addressing people, start with the relationships, and build from there.

**Recommendations.** Recommendations included learning development that includes dialogue between digital natives, teachers, and administrators to discuss, design, and create practices best suited for the 21<sup>st</sup>-century learner. Further recommendations include providing opportunities in classroom and non-classroom time for teachers and students to discuss the digital divide and work toward greater implementation of effective collaborative and technology-driven learning experiences.

## **Empirical**

The empirical implications discussed the implications related to the findings and the related literature from the study. I first discussed the implication and concluded with recommendations for remedies or resolve. Each discussion ties back to the findings to discuss implications and recommendations directly related to the study.

**Implications.** This study provided research to support digital natives' success in their academic and social experiences. Digital natives started to emerge when schools were not equipped to address the growing needs associated with globalization, the Internet, and digitally-minded students. The related literature raised awareness to defining digital natives and acknowledging their digital lifestyle presence. Included in that presence was the continuing discussion from the theoretical framework on how 21<sup>st</sup>-century learners are developing into adulthood with daily exposure to online interactions while creating digital communication filled with emojis, selfies, and abbreviated words.

The findings supported the digital native experiences reported especially with the research focused on digital consumption. The findings expanded Gordon's (1988) descriptions by candid and open dialogue from the participants sharing about how they look for authentic relationships with their teachers to support their learning. The findings suggested digital consumption, especially online social media, has only increased overtime. Participants openly shared that the digital usage is excessive and distracting at times. The digital divide creeps into the conversation as the elephant in the room by the mere fact that nothing was reported that significantly addressed the divide as a cultural shift in learning to the point of bringing the stakeholders to the table, especially the digital natives and having significant dialogue about the

next steps. However, the findings did suggest a balance between technology and relationship building would support greater opportunity for learning in the classroom.

Specifically, the findings revealed the voice of the participants as sample members of the 21<sup>st</sup>-century generation of learning. The implications from what the participants shared about excessive social media and the Internet reverted to not necessarily the technology usage, but how they feel their lifestyle is accepted and applied by their teachers to student learning. The mention of the digital divide also contributes to the implication conversation. Participants reported not wanting to be judged and criticized about their digital worlds but embraced by teachers as a tool for their learning. Many of the participants pointed to the Internet as providing them a sense of freedom. This freedom has come with limited monitoring by parents and schools. Ultimately, what it seems to come down to is the relationship strength within the classroom. Students are asking to be trusted in their digital, life, and school experiences related to their lifestyle.

On the other hand, the digital natives have access to information that would have come via parents and teachers in the past. Students need to understand how to be the most responsible and responsive to accessing all kinds of information. Their social media interactions, googling, and constant connection to the Internet come with excessive and uncontrollable Internet usage. For teens this means going out to the playground with limited supervision.

The implications of the findings included greater acknowledgement to the needs of the 21<sup>st</sup>-century student. The implications included rethinking how learning occurs in the classroom with emphasis on relationship building and increased collaboration. The findings indicated students do not see the teacher and student relationship the same as pre-digital generations do. The implications of the findings also included addressing the distractions caused by technology.

The implications of the findings are also increasing student voice in areas of instructional technology to identify best practices.

**Recommendations.** Three specific recommendations would support the implications. The first is to develop training and dialogue centered on listening to student needs. The next recommendation is to connect needs assessments to address the classroom environments. The third recommendation is to establish greater norms over building a classroom culture that is collaborative and technologically driven.

### **Practical**

The practical implications section discussed the impacts the implications would directly have on the schools. This is followed by the recommendations for remedies. Each discussion ties back to the findings to discuss implications and recommendations directly related to the study.

**Implications.** The findings indicated schools struggle to meet the needs of 21<sup>st</sup>-century students. Participants reported relationships with teachers are a priority. The participants reported needing teachers to understand their technological and intrapersonal needs to connect more effectively in the classroom. The implication is administrators and teachers need to spend more time with students to understand how to support digitally-minded students. The integration of technology into mainstream lives requires balance. Students are not going to stop using technology. They just desire for schools to work with them. Participants shared they only shut down when they get bored. They are not saying to make it easier, they are saying listen to them and be open to sharing ideas how to make learning more attractive and meaningful for students who are able to connect to the Internet to support their learning.

The implications from the study included being open to changes for how the classroom operates. Another implication is that since technology is not going away, and usage is increasing, have the shared dialogue with the teachers and students together about what that means for learning. The implications for administrators are to offer leadership opened to inclusive student voice and continuous opportunity to collaborate with teachers, students, and parents to understand the experience of the digital natives as active participants in their education.

The study suggests leaders should honor and promote 21<sup>st</sup>-century student-teacher relationships filled with collaborative, technologically-designed classroom environments. The implications is also for parents to pause and be loving and caring parents who are also involved their child's development and seek to understand and set reasonable but not overly rigid approaches to their digital native child's experience. This includes patience, understanding, and healthy boundaries that seek to understand. Both the theoretical and empirical discussions revolve around students wanting to be understood and connect with adults.

The study provided the conversation about the experiences of digital natives. The so what is that they can use this study as a sound board for the necessary changes. The other so what in this situation is that risks must happen to build a greater capacity to see student growth from their world and from their student voices. This seems counter intuitive since the nature of the teacher, at least from the 20<sup>th</sup>-century perspective is to mold and guide based on their own lens. The challenge is for teachers, parents, and administrators to resist owning the change but allow the students to remain in productive struggles that provide the catalyst for student growth that is driven from student design.

**Recommendations.** The recommendation is to establish meetings to discuss the state of the technology for the school, district, and home. In addition, teachers should seek to understand

where students continue to stand with technology. All stakeholders should be involved all with an emphasis on the student voice. Lastly, students described their world in which they desired to build relationships with adults to collaborate the best educational practices. The digital divide is noticed both in the theoretical and empirical models. In the practical sense, it is recommended to build greater skills with understanding each other (teacher, students, and parents) and recognize the digital age students view their worlds as a lifestyle associated with social media, Internet, and instant access to information. The collaborative approach focused on the ideals of Prensky (2001) and Gordon (1988) who combined the shift in thinking that has occurred with the 21<sup>st</sup>-century learner we call digital natives.

### **Delimitations and Limitations**

Delimitations are the boundaries I set to manage the scope of the study. One of the most necessary delimitations focused on the research gap that indicated attention on research related to student voice and the digital native experience (Gunter & Thomson, 2007; Moyle et al., 2012). I delimited the study to the transcendental phenomenology design as it provided the recommended strategies to capture lived experiences of individuals and groups (Creswell, 2013; Husserl, 1932; Moustakas, 1994). Delimitations also included using 10<sup>th</sup> and 11<sup>th</sup> grade high school students as they were identified as ideal participants based on Prensky's (2001) criterion of being born after 1980, and they self-reported as consumers of social media, the Internet, and digital devices. Delimiting the study to the high school digital native phenomenon focused on addressing the research questions. Delimiting to only 10<sup>th</sup> and 11<sup>th</sup> grade digital natives assisted in limiting potential distractions and issues created by ninth and 12<sup>th</sup> grade first-year issues graduation priorities. The 10<sup>th</sup> and 11<sup>th</sup> digital natives provided ample experiences using technology and the Internet (Hundley & Shyles, 2010; Moyle et al., 2012). Delimiting the site to southern California

and Patrick Harrison High School was necessary as it matched the study's needs, and it was conveniently located near my home and where I worked.

Philosophical assumptions also impacted the delimitations of the study (Stating the Obvious, n.d). The philosophical assumptions for the study naturally created even further boundaries for what and how the study was conducted. The philosophical assumptions contributed to my worldview. Epoche and horizontalization assisted in the process of ensuring the study remained within the ideals of the transcendental phenomenological design. For this reason, areas of the assumptions such as the ontological assumption was checked to ensure the data collection activities assisted the digital natives' experiences and not my experiences. The other philosophical assumptions were delimited so the student voice and the participants' perspectives were the priority. Specifically, the methodological assumption was delimited so it was focused on the process of the research as the transcendental phenomenological design favored capturing lived experiences of participants of a study.

The limitations of the study addressed concerns related to transferability and generalizability of the study findings to the general population. A limitation included the sample size of 11 participants, which could limit transferability (Creswell, 2013). However, Craft (2010) indicated a sample size of 10 would be acceptable for this study. The limitation of the sample size was addressed through the credibility and reliability of the process and procedures to gather data from participants to gain robust and expanded data from the participants (Lincoln & Guba's Evaluative Criteria, 2008). Another limitation was that even though the participants did have experience and knowledge about technology, it was impossible to know how they would respond to the questions in the different data collection sessions (Hundley & Shyles, 2010; Watson & Pecchioni, 2011). The generalizability of the study also was limited based on

participants coming from just southern California as students from other regions of the United States or the world might have responded differently based on geographic life experiences. However, as Prensky (2001) and Friedman (2005) suggested, the world is connected, and this connectivity might reduce the possibility of limitations due to geographical difference. With that said, Wehlage (1981) argued that readers could create comparisons through analogies, and if the researcher frames the data well, the reader can generalize to their local context. This was addressed with the participants' descriptions and the complete data analysis section.

### **Recommendations for Future Research**

Any future study based on this study must start with acknowledging the existence of digital natives. The study was designed to have the digital natives tell their stories. Future recommended studies should be based on also acknowledging the limited digital native voice in research and the recent literature including the study's call for digital native involvement in decision making and development of 21<sup>st</sup>-century education. For future studies, digital native voice research should continue to address what practices best meet the needs of the 21<sup>st</sup>-century learner. In the future, research should also include the kinds of feedback from students necessary to support their desired collaborative, technologically-driven, community-building classroom experiences.

The transcendental phenomenological design was necessary for the study since it had the capacity to capture the digital native voice and share experiences about their digital native existence. As technology advances rapidly, the necessity to understand further the influences and impact it has on student learning is a priority. Repeating this study allows for the growth of technology to be considered as the expansion of digital nativity on 21<sup>st</sup>-century learners' experiences that coincide with the technological advancements. Re-examining this study to

include the elementary and middle school student voice would contribute to understanding the greater journey and needs of the digital native as they experience change not just with technological advancements but also human development. Furthermore, continuous focus on revealing the experiences of the high school digital natives supports the generalizability of the 21<sup>st</sup>-century learners' social and academic journey.

While completing my study, I also identified other areas where future research is needed. Future qualitative and quantitative studies would benefit the advancement of this topic related to digital native experiences. Future studies should advocate for the inclusion of the digital native voice. Future studies with teacher and student collective voices would support this study's findings on understanding best instructional practices and relationship building practices between students and teachers. Researchers could take the work of this study and have discussions with teachers on how they feel about what students are saying.

Value, respecting, and trusting student voice equates to listening, responding, and actively providing partnership with conversation, decision making, and leading with digital natives. Opportunities such as restorative circles provide the catalyst for understanding as Gordon (1988) suggested. Taking a risk and allowing for self-guided environments demonstrates trust and cooperation and collaboration with students. The 21<sup>st</sup> -century student is not completely made from the mold of their parents. They are influenced, and many times dominated by the messages produced through the Internet and social media. Specific studies on how scheduled listening time of student needs contribute to overall understanding and student performance are needed. Creating student-led committees to work directly with administration, teachers, staff, and parents to understand the experiences of students to build to greater practices

would be beneficial. The following are the five recommendations for future studies that would advance the story from the study on digital natives:

Initially, researchers should start with transcendental phenomenological studies with the same research questions as the study; however, future studies should include digital native participants from elementary school, middle schools, and undergraduate colleges. The different digital native age experiences would offer comparisons and conversations for schools building vertical conversations about how to support digital natives.

Another transcendental phenomenology study replicating this one would be beneficial. Researchers should focus on the same research questions to acknowledge the newest advancements in technologies, the developments of classroom experiences with teacher and students, and further evolving characteristics of digital nativity.

Secondly, conducting experimental studies on the effectiveness of the collaborative learning environment with digital natives would be beneficial. This study's theoretical framework and related literature married well with the study's findings. However, quantitative research will support fine tuning collaborative learning strategies with the best practices from research-based approaches.

Thirdly, conducting more qualitative and quantitative studies surrounding the understanding of the theory of feeling understood would be beneficial. The study offered the digital native voice suggesting learning environments where students are feeling understood will produce better results and life satisfaction.

Fourthly, future studies from either the transcendental phenomenological design, case study, or ethnographical methods would provide collaborative voices from the experiences of digital native and parents, digital natives and teachers, digital natives and administrators, and

digital natives and digital natives. These are the stakeholders that experience life with digital natives. These studies can produce conversations about relationships, learning experiences, and social development crucial to the 21<sup>st</sup>-century educational concerns.

Fifthly, I recommend conducting a qualitative study that measures the growth of student progress where teachers provide listening time and collaboration time to understand best practices for digital natives. A similar study would identify the performance growth of students who have acknowledged a relationship where students feel they are understood by their teachers. A final recommendation would be to explore greater opportunity for technology-driven instruction that is also heavily founded on self-directed learning environments that are monitored and navigated toward greater thinking opportunities by teachers.

Sixthly, research on how collaborative learning contributes to the 21<sup>st</sup>-century learning experience. The study suggested that the classroom environment is designed to promote self-directed learning communities via collaboration and technologically-driven environments. This study suggested teachers need to re-examine instructional practices to give students greater constructive and independent environments. Further studies could identify classrooms developing in these areas and compare them to traditionally-structured classrooms to understand if the difference in structure makes a difference in the experiences of digital natives.

Seventhly, conducting a study on the amount of student input in decision making for schools and how much quality input is involved would be beneficial. The best recommendations were to allow students to participate in their education. Teachers and students need to collaborate more than they ever have as they continue into the 21<sup>st</sup>-century educational practices. The digital native generation needs educational partnerships from teachers that allow for the use of technology, collaboration, and self-engaging activities. Teachers need to listen and

reconfigure, so students are engaging more with smaller groups and less with class lectures. Students need to respect the technology gap and be patient with the tolerance and acceptance of their way of life.

Finally, differences in generational thinking are important to understand. Studies comparing digital native age teachers versus the approach of digital immigrant teachers would provide insight toward the digital divide discussed heavily in the study. This would also provide dialogue within the teaching profession on best practices for teachers.

This is a work in progress. Currently, this is the third decade since the introduction of the Internet into the daily lives of the digital natives and the world. It is time to further assess how much digital natives were shaped and developed from their devoted social media and Internet lives. It is necessary to produce further qualitative and quantitative studies to promote the understanding of digital natives.

### **Summary**

During this chapter, I summarized and discussed the findings as it related to the theoretical and empirical evidence that was available. I also provided a discussion on the implications and limitations of this study. The journey to the dissertation defense was life changing with many struggles and successes along the way. The process of capturing the voices of digital native experience was both a personal and eye-opening development for me. Not only did I need to listen well to the stories of the 11 participants, I had my two digital native daughters always in my center and peripheral vision as I trudged forward to completion. The willingness of the participants deeply moved me to share from their mind and heart their experiences with technology, their relationship with their teachers, and how connected and glued they were to their devices.

Participants asked one major request, for teachers and parents to show them love and support as they get to know their students in non-judgmental but support ways. Furthermore, the participants encourage adults to acknowledge that digital natives can develop into leaders of their communities by having adults trust that digital native ways are legitimate and should be respected, guarded, and understood. I leave the writing with words from Michael that depict a digital native view of the digital existence, “It’s like you can feel what is around you. We are safe around the technology.”

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APPENDIX A: Invitation to Attend an Informational Meeting

# Research Participation Needed

## Digital Natives: 21<sup>st</sup> Century Learners Study

***YOU ARE INVITED TO A LUNCH MEETING  
TO ENJOY PIZZA AND RECEIVE INFO***

- Are you currently in the 10<sup>th</sup> or 11<sup>th</sup> grade?
- Do you use smart phones or other digital devices?
- Are you on social media like Facebook, Twitter, Instagram, or Snapchat?
- Do you use technology to help you learn or research information?

If you answered yes to any of these questions, you may be eligible to participate in a digital native research study.

The purpose of this research study is to better understand the 21<sup>st</sup> century learners from their perspective in order to contribute to informing schools on the best ways to teach students. Participants will receive a \$10 iTunes card, and will receive snacks.

Students who are in the 10<sup>th</sup> and 11<sup>th</sup> grade are eligible to participate unless you have had Mr. Dennis Perez previously as a teacher or were issued discipline by him.

The study is being conducted at Chaparral High School  
27215 Nicolas Rd.  
Temecula, CA 92123

## JOIN US AT LUNCH

**When:** April 14<sup>th</sup>, 2016

**Why:** To enjoy pizza and hear more about the study.  
**Contact:** Dennis Perez, [dperez21@liberty.edu](mailto:dperez21@liberty.edu) or 951-973-9561.

**THANK YOU! SEE YOU SOON**

## **APPENDIX B: An Invitation to Join a Study**

Welcome 21<sup>st</sup> century students!

My name is Dennis Perez. I am a doctoral candidate for Liberty University. This means I am doing a lot of reading, writing and research about a subject in order to publish a 200-page paper before I can earn being called Dr. Perez.

**PURPOSE OF STUDY:** *The purpose of the study is to reveal the academic and social experiences of digital natives from their perspectives. The study will be used to contribute to understanding the best practices to teach 21<sup>st</sup> century learners.*

The following will be discussed today while we eat pizza:

- The overview of the study
- Review a definition of digital natives.
- The three activities conducted during the study: drawings, focus groups, and interviews.
- Compensation for the study (\$10 itune cards).
- Reviewing the required assent and consent forms.

### **A DEFINITION OF DIGITAL NATIVE**

**Digital Natives-** Mark Prensky defined digital natives as individuals who were born after 1980 consumed with technology that has included using smartphones, computers, and social media networks like Facebook, Twitter, or Snapchat.

#### **Overview of study**

*By returning the minor assent and parent consent form you agree to:*

Participate in three activities: Drawings, online focus group, and interviews. The activities will involve you sharing pictures and stories about your academic and social experiences as digital natives. The activities will take place during the prep periods of Mr. Taylor and Ms. Charney during the months of April and May, 2016. Each activity will take about 1 hour each. All information will be kept confidential. You will be contacted by phone and a letter if you are selected to participate.

**THIS IS A VOLUNTARY ACTIVITY.** If you are interested in joining the study, please return the the minor assent and parent consent form by April 8, 2016.

Thank you for helping,

Sincerely,  
Dennis Perez

## APPENDIX C: High School Assent Parent/Guardian Consent Form

Digital Natives' Perceptions on Feeling Understood by Teachers:  
 A Transcendental Phenomenological Study  
 Informing 21<sup>st</sup> Century Education  
 Researcher: Dennis Perez  
 Liberty University, Department of Education

Name of student \_\_\_\_\_

Your teenager is invited to be in a research study of 21st century learners that I refer to as digital natives. Your teenager was selected as a possible participant because the study focuses on high school student who use digital devices and social media. I ask that you read this form and ask any questions you may have before agreeing to allow him or her to be in the study.

RESEARCHER: Dennis Perez, a student/doctoral candidate

### **Background Information:**

The purpose of this study is to have 21st century learners share their academic and social stories so to inform educational systems and research on best practices to teach digital natives.

### **Procedures:**

If you agree to allow your child/student to be in this study, I would your teenager to do the following things:

Participate in a drawing activity, focus groups, and interviews. All three activities will share stories about interactions with teachers and classmates in their 21<sup>st</sup> century learning experiences. The drawing will be a visual representation of their academic and social experiences as digital natives. The focus group will be an online chat room discussion, moderated by me, to share stories about their digital native experiences, specifically with their interactions with teachers and peers. The interviews will be one-on-one and provide greater details about their digital native experiences.

All activities will be confidential. I will have coded names by numbers and pseudonyms to protect the privacy of the participants. All three activities will take about an hour to complete. I conduct the activities during prep periods of two selected teachers.

### **Risks and Benefits of being in the Study:**

The risks involved in this study: The risks are no more than the participants would encounter in everyday life. Possible risk would be revealing personal information that participants might feel judged or embarrassed after they share. I will monitor the activities to provide support as necessary or navigate or re-state questions to minimize feelings that would result in negative experiences with participating.

The benefits to participation are they can self-reflect on their own experience that could contribute to future successes. Another benefit is the satisfaction of contributing to improving school practices. An additional benefit is student may feel that this is the first time someone has listened to his or her experiences.

**Compensation:**

Your teenager will receive snacks and water during the activities. At the end of the study, students will receive \$10 I-tune cards as an appreciation for taking part in this study.

**Confidentiality:**

The records of this study will be kept private. In any sort of report that might published, I will not include any information that will make it possible to identify a subject. Research records will be stored securely and only the researcher will have access to the records.

The drawing activities will be numbered, and student identity will not be revealed to anyone other than to the researcher. All drawings will be stored in a secure location with the researcher. Drawings will be scanned and placed on computer with a password protected access. After study, original drawings will be destroyed. All digital copies will be stored in password protected files with the Cloud.

During the online focus group session, participants will be assigned pseudonyms. I will moderate online focus groups to ensure no breach of confidentiality occurs during the sessions. The online focus groups will be conducted via a secured site called Haiku. All students will receive access codes only during the focus group session. The data will be stored in my password secured administrator account. The Haiku account will be closed at the completion of the study. The information will be copied and saved to a secured. Cloud account and used for educational purposes in the future. At the beginning of the focus groups sessions, all participants will text to the chat room that they agree to participate with integrity and appropriateness so not to reveal or talk about the information. However, if a breach of information does occur, parents will be notified.

The interviews are conducted individually. They will be recorded using I-phone recording application. The participants will be assigned pseudonyms and those names will be used during the recording. The recordings will be transferred to a computer and cloud and password access used. The recordings will also be sent to a transcription company with the pseudonyms as the identifying feature of the participants. The list of real students and pseudonyms will be kept in a digital file with password protected access added. The issue of confidentiality is minimal with the password protection added to any files contain the data.

**Voluntary Nature of the Study:**

Participation in this study is voluntary. Your decision whether to allow your teenager to participate will not affect his or her current or future relations with Liberty University. If you decide to allow your teenager to participate, he or she is free to not answer any question or withdraw at any time without affecting those relationships.

**How to Withdraw from the Study:**

If your teenager chooses to withdraw from the study, you or he or she should contact the researcher at the email address/phone number included in the next paragraph. Should your teenager choose to withdraw, data collected from him or her, apart from focus group data, will be destroyed immediately and will not be included in this study. Focus group data will not be destroyed, but his or her contributions to the focus group will not be included in the study if he or she chooses to withdraw.

**Contacts and Questions:**

The researcher conducting this study is **Dennis Perez**. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact *him* at 951-973-956/[dperez21@liberty.edu](mailto:dperez21@liberty.edu). You may also contact the research's faculty advisor, *Dr. James Swezey*, at [jaswezey@liberty.edu](mailto:jaswezey@liberty.edu)

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd, Carter 134, Lynchburg, VA 24515 or email at [irb@liberty.edu](mailto:irb@liberty.edu).

*Please notify the researcher if you would like a copy of this information to keep for your records.*

**Statement of Consent:**

I have read and understood the above information. I have asked questions and have received answers. I consent to allow my child/student to participate in the study.

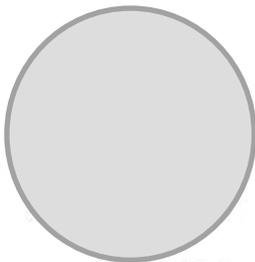
(NOTE: DO NOT AGREE TO ALLOW YOUR TEENAGER TO PARTICIPATE UNLESS IRB APPROVAL INFORMATION WITH CURRENT DATES HAS BEEN ADDED TO THIS DOCUMENT.)

The researcher has my permission to audio-record my teenager as part of his or her participation in this study.

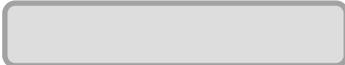
Signature of minor: \_\_\_\_\_ Date:

Signature of parent or guardian: \_\_\_\_\_ Date:

Signature of Researcher: \_\_\_\_\_

**APPENDIX D: Site Permission Letter**

April 14, 2016

 **HIGH SCHOOL**

Re: Approval of  High School Students for Dennis Perez Study

Dear Liberty University IRB Committee:

I have reviewed Mr. Dennis Perez's proposed study: Digital Natives' Perceptions on Feeling Understood by Teachers: A Transcendental Phenomenological Study Informing 21st Century Education. I have previewed the study timeline, the needs, and the request made to use  High School students as the participants for the study.

I approve the participation of  High School students for Mr. Perez's study conditional on Liberty University IRB committee approval, and the signed high school assent and parental consent forms for all students participating in his study.

Mr. Perez has agreed to keep me informed of the process, and seek request where necessary, to minimize the impact the study has on the daily operations of the school and the students' learning environment.

Please do not hesitate to contact me if you have any questions.



### APPENDIX E: Focus Group Questions

Focus group questions	Rationale for this question –All questions are addressed through Palfrey and Gasser (2008) and Prensky (2001). Palfrey and Gasser (2008) suggested there are levels of digital nativity based on competency and usage of each consumer. Prensky (2001) described the digital natives as individuals born after 1980 consumed daily with technology use and online interactions with information and people. Gordon (1988) addressed feeling accepted as a characteristic of feeling understood.
1. Share the best and worst digital device you have ever used. What were they? Describe the features of the device. Why were they the best and worst digital device? This discussion will address research question 1 and 3.	Being a digital native is experienced through digital devices.
2. Share your first experience using technology as a child. What device did you use? How did that device consume your time? This discussion will address research question 1 and 3.	Being a digital native is experienced through technology use.
3. Share an experience where you used online social networks to communicate to resolve or discuss academic or social situation. Describe your positive and negative experiences with social media. This discussion will address research question 1 and 3.	Being a digital native is experienced through online social networks.
4. Describe experiences you had using technology in the classroom that assisted you feeling successful and not successful. This discussion will address research question 1-3.	Being a digital native is experiencing success through technology.

<p>5. Describe experiences you had in classroom where a teacher made the class feel accepted and understood by the teacher and one that made the class feel not accepted or not understood by the teacher. This discussion will address research question 1-3.</p>	<p>Being understood as a digital native is experienced through feeling accepted by the teacher.</p>
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### APPENDIX F: Interview Questions

Interview questions #1-6.	Rationale for question #1-6. Questions #1-6 will be supported by Gordon's (1988) theory on feeling understood. The theory is referenced throughout theoretical framework and related literature. Lun et al. (2008) explained feeling understood leads to individuals to seek out social environments. Gehlbach et al. (2012) suggest that the teacher-student relationship is a fundamental ingredient to student success. The questions are designed to reveal the stories students have that are related to feeling understood (Weiss, 1994).
Interview questions #7-11.	Rationale for this question –All questions are addressed through Palfrey and Gasser (2008) and Prensky (2001). Palfrey and Gasser (2008) suggested there are levels of digital nativity based on competency and usage of each consumer. Prensky (2001) described the digital natives as individuals born after 1980 consumed daily with technology use and online interactions with information and people.
1. Tell me a story about a best and worst learning experience you have ever had in class. This question will address research question 1-3.	Being understood is experienced through a best learning time in class.
2. Tell me about a time when you experienced a positive and negative interaction with a high school teacher? This question will address research question 1-3.	Being understood is experienced through positive interactions.
3. Tell me about a time a high school teacher made you feel awakened or alive about something you were learning or experiencing as a student? This question will address research question 2.	Being understood is experienced through feeling awakened.

<p>4. Tell me about a time that a high school teacher made you feel empowered about something you were learning or experiencing as a student? This question will address research question 1-3.</p>	<p>Being understood is experienced through feeling empowered.</p>
<p>5. Tell me about a time that a high school teacher comforted you over a learning or social experience? Share at time a high school teacher missed an opportunity to make you feel comforted about a learning or experiencing as a student. This question will address research question 2.</p>	<p>Being understood is experienced through being comforted.</p>
<p>6. Tell me about a time that a high school teacher made you feel accepted? This question will address research question #2.</p>	<p>Being understood is experienced through feeling accepted.</p>
<p>7. Marc Prensky describes people your teachers', parents', and grandparents' age as digital immigrants and people your age as digital natives? What do you think he means by these definitions? (After clarifying his meaning . . .) Do you think he is accurate? This question will address research question #2.</p>	<p>Being a digital native is experienced through individuals born after 1980.</p>
<p>8. Describe how technology influences your learning experiences? This question will address research question #3</p>	<p>Being a learner is experienced through technology.</p>
<p>9. Share how digital devices usage consumes your daily life. This question will address research question #1.</p>	<p>Being a digital native is experienced through digital device use.</p>
<p>10. Share how your relationship with technology influences your relationship with teachers. This question will address research question #3</p>	<p>Being a student is experienced through interactions with technology and teachers.</p>

11. Share how social media influences your daily life. This question will address research question #1.	Being a student is experienced through social media use.
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## APPENDIX G: Steps in Coding

### *Steps in Coding*

DATA COLLECTION INSTRUMENTS AND RAW DATA PROCESS	ACTION TAKEN
<p>Sent interview recorded data to TranscribeMe! Received transcribed interviews back from Transcribe.me.</p>	<p>Printed sample transcripts and practiced memoing and writing codes manually.</p> <p>Listened to data, read transcripts, wrote participant descriptions.</p> <p>Practiced using Nvivo with their sample study.</p> <p>Continued to reflect and document biases and pre-judgements as part of the Epoche process.</p> <p>Conducted pre-horizonalization process by committing to reading the transcripts without eliminating any initial data.</p> <p>Placed research questions and interview questions front and center and placed data from interview questions into Nvivo files labeled internal sources. The internal sources were aligned with the interview questions approved with the IRB.</p> <p>The data were assigned to a code and assigned to the node section in the Nvivo file. When this was all completed, the file showed how many nodes (codes) were written, and how many data references each node contained.</p> <p>The codes were then assigned to categories. In the Nvivo file, the categories were created within the collection tab. Each interview question established the categories. The letter represented them “C” and the interview number, followed by the name of the category. An example looked like “C1 Learning and Diversity”. As the tab is opened for each category, the corresponding codes were listed. At the end of each code included an abbreviation for the category. When there was more than one category the code was assigned to, multiple abbreviation representing categories were placed at the end of the code.</p> <p>While in the collection area of the Nvivo file, the categories were listed, and the process began to develop</p>

	<p>themes. This process included opening the codes to see the data behind it to establish the patterns for naming the categories. This similar task will be done with establishing the themes. Participants will have a look at the process (a chart) and get to respond to and provide input as I begin the textual, structural, and composite descriptions.</p> <p>I am going to call the first categories sub categories, and then categories. Sub categories were listed by interview question, and categories were aligned with the three research questions.</p> <p>When I develop the themes, they will be aligned with the research questions. It should look like, codes to sub categories to categories to themes. Saldaña (2013) stated that the themes are not coded by analyzed and discussed.</p> <p>I need to make a chart that indicates the process I just described. There will also be triangulation completed between the three data collection instruments.</p> <p>in the collection section of the Nvivo file for interview data.</p> <p>Codes were placed under multiple categories when appropriate. DATA&gt;CODES&gt;PRE-CATEGORIES&gt;CATEGORIES&gt;THEMES</p> <p>Later in the process, I re-read through Saldaña's (2013) discussion on coding and I made adjustments that followed a similar pattern of data analysis that was revised to:</p> <p>Data&gt;Preliminary codes&gt;Codes&gt;Categories&gt; Themes for the focus groups and drawings.</p> <p>Because of the immense amount of data collected from the interviews, Saldaña's (2013) research suggested the following which I used:</p> <p>Data&gt;Preliminary codes&gt;Codes&gt;Categories&gt; Collapsed Categories&gt;Themes</p>
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<p>Exported Haiku.com pdf data of the focus group transcription to my computer.</p>	<p>Completed process like interviews. Placed pdf files into Nvivo file for focus group. The coding, categorizing, and theme development conducted in same steps as interviews.</p>
<p>I had in my possession the hard copy drawings from the first data collection. Drawings were scanned and imported into Haiku for researcher and participants to view.</p>	<p>Participants provided reflection of drawing. The reflection question was presented to participants as the first question when they interviewed. Data was transferred to the Nvivo file for the drawings to be coded.</p> <p>Participants reviewed all the drawings during the online focus group and were asked to describe what they saw in the drawings. The data from Haiku was transferred as a PDF file to the Nvivo file for the drawings.</p> <p>The coding, categorizing, and theme development were completed using the same process as for the interviews. The slight difference included when the codes were assigned to the data, the codes were listed with either an “Int” or “FG” to indicate where the information originated.</p>

## APPENDIX H: Life Experiences

Table 2

*Triangulated Theme: Life Experiences*

Data Collection Themes	Collapsed Categories	Categories	Number of Codes
Defining generation (Interviews)	identity formation	digital divide self-defined digital native	5 codes and 20 preliminary codes
	struggle	emerging technology culture, struggling technology culture	6 codes, and 17 preliminary codes
	digital interactivity	21st century communication and connection emerging media learning embraces technology relationship shifting	25 codes and 82 preliminary codes
	collaboration	collaborating creating choices influences of technology modern interactions research	27 codes, and 70 preliminary codes
Online interactions (Focus groups)	No collapsed categories	devices phones technology use social media	19 codes, and 66 preliminary codes
Life experiences (Drawings)	No collapsed categories	negative experiences positive experiences	19 codes, 23 preliminary codes

### APPENDIX I: School Experiences

Table 3

*Triangulated Theme: School Experiences*

Data Collection Themes	Collapsed Categories	Categories	Number of Codes
Defining generation (Interviews)	productivity	learning creating classroom culture motivation	9 codes, and 46 preliminary codes
	relationships	accepting environment bad practices feeling awakened feeling empowered feeling understood technology influences building relationships feeling comforted	32 codes, and 73 preliminary codes
	struggle	emerging technology culture struggling technology culture	6 codes, and 17 preliminary codes
Online interactions (Focus groups)	No collapsed categories	classroom relationships	6 codes, and 24 preliminary codes
Life experiences (Drawings)	No collapsed categories	school experiences	6 codes and 9 preliminary codes

## APPENDIX J: Research Question 3 and Triangulated Theme

Table 7

### . Research Question Three: Triangulated Themes

Triangulated Themes	Data Collection Themes	Categories / Collapsed Categories*	Common codes / preliminary codes
Digital Experiences	Digital consumption (Focus groups)	technology use	classroom technology positive use Smartboards Chromebook taught in different ways websites
	Digital consumption (Drawings)	Technology impacted	consumed positive influence social media negative influence distraction with technology
Life Experiences	Defining generation (Interviews)	struggle* emerging technology culture	presence of technology fun to learn with more efficient learning is more exciting communicates better
	Life experiences (Drawings)	positive experiences	digital devices positive aspects dichotomy of distraction and helpful technology
School Experiences	Emerging classroom dynamics (Interviews)	productivity* learning	improving performance collaborating

		<p>presence of technology learning motivation believe in students classroom pace learning diversity</p>
	motivation	<p>learning easier presence of technology makes learning fun use of internet as a tool using phones to learn use of internet distraction</p>
	struggle* struggling technology culture	<p>disadvantage of tech technology as a distractor technology not always the best tool to learn</p>
School experiences (Drawings)	school experiences	<p>school researching texting in classroom student social media distractions social media negative influence distraction with technology classroom management home technology</p>

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