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LITERATE IDENTITIES IN THE 21ST CENTURY: EXAMINING THE NEW LITERACY SKILLS AND NEW LITERACY PRACTICES OF 6TH GRADERS

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LISA DELGADO BROWN
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LITERATE IDENTITIES IN THE 21ST CENTURY: EXAMINING THE NEW LITERACY SKILLS AND NEW LITERACY PRACTICES OF 6TH GRADERS

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BY

_____
Dr. Sara Ann Beach, Chair

_____
Dr. James E. Gardner

_____
Dr. Priscilla L. Griffith

_____
Dr. Jiening Ruan

_____
Dr. Rhonda Goolsby Smith

Dedication

I would like to dedicate this dissertation to my beloved family: Nathan, Emily, Anneliese, David, and Cathy. Your support has kept me sane (for the most part) during the writing process. Without your daily love and support I would not have gotten past page one. I love you all more than words can express, to the moon and back.

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Abstract

This qualitative research study was done in an effort to increase our knowledge within the literacy field regarding new literacies and literate identities. This research study explored the new literacy practices and new literacy skills that sixth graders demonstrated in digital contexts in an effort to better understand how their literate identities were impacted by said practices and skills. Specifically, this study examined the new literacy practices in which sixth graders participated and which new literacy skills they demonstrated in said practices. Finally, the literate identities of these sixth graders was explored as they participated in said new literacy practices.

A phenomenological qualitative research design was utilized as the study sought to explore the lived experience of young adolescents as they participated in this study. The study took place at three different parochial schools in a suburban area in the southwest region of the United States. The participants in the study were 18 sixth grade students. Of these 18 participants, 56% reported that they were white, non-Hispanic, Asian 11%, Native American 11%, Black 6%, Hispanic 6%, and other 10%. The adolescents in this study were recruited at their schools. All adolescents were given a Student Technology Survey where they gave basic background and demographic information and also answered questions regarding which online and offline literacy practices they participated in. Participants also partook in a one-on-one discussion session with the researcher where they discussed and demonstrated their favored new literacy practices as well as literacy practices in which they did not feel as competent.

Findings indicated that adolescents participated in a variety of new literacy practices and that the practices in which they participated were often interconnected.

The adolescents in the study indicated that the skills that they possessed were at times site specific and did not seamlessly transfer from one practice to another. Finally, the findings of this study served to augment and bolster several previous findings regarding the presence of a continuum of competence, literate identities varied within multiple contexts, and support previous assertions that perceptions regarding membership were directly related to their literate identities. Further, this study found that the adolescents participated in both communities of practices and affinity spaces.

Chapter 1: Introduction

Literacy, as defined by Merriam-Webster's Dictionary (2013), centers on the ability to read and write. This definition offers a simplistic view of the construct of literacy, especially in the 21st century, where understandings of literacy and what it means to be literate have changed. Lankshear and Knobel (2013) point out that at the end of the twentieth century new literacies was a term used to describe primarily reading and writing texts, which were mediated by the use of digital technologies. Our understandings of what it means to be a literate individual have advanced much since then. Researchers often have coined these changes as new literacies (Coiro, Knobel, Lankshear, & Leu, 2008). However, it appears that although the ways in which literacies are used have changed, it is not so much that there are new types of literacy practices, but rather it seems that this time period has served as a hallmark for the evolution of literacy practices. The ways in which people use literacy today have transformed based on the practice(s) they are utilizing, for example, when "chatting" with a friend on a social media platform such as Instagram discussions can take place across different spaces and times with different levels of "friends" participating. Literacy, as a construct, has shifted towards a more socio-cultural notion of literacy where various literacy networks "dynamically interact" with each other in daily practice (Gee, 2000). However, networks can be a disputed term, as understandings can vary. Gee (2004) holds that "networks harness the power of unfamiliarity", which during time periods of rapid growth and development is not only important and useful, but rather

crucial to linking and connecting people and organizations (p. 99). Conversely, Wenger (1998) is opposed to the idea of networks, because merely participating in an event would not constitute membership and membership is critical to the idea of the community of practice. I propose the idea of a literacy web instead as a blanket term used to describe the overarching system that interconnects various literacy events and practices. This view of literacy shifts emphasis onto meaning-making in literacy contexts, rather than just demonstrating basic reading and writing of language text. Viewing literacy as a social practice has become a central tenet in evolving visions of literacy (Barton, 2007; Jewitt & Kress 2003; Kress, 2003; Mills, 2010; Street, 2005a). Literacy can no longer be thought of simply in terms of the "skills" one possesses, but rather as context-specific social practices that fluctuate in different environments (Street, 2009). Barton (2007) offers that understanding the means in which literacy is situated in the social contexts of reading and writing is vital to understanding new insights regarding literacy. Kucer (2005) states that "the desire of the language user to explore, discover, construct, and share meaning" has become paramount to the act of literacy (p.5). In this way, literacy facilitates meaning making.

Society understands that there has been a change; in fact, many of us have embraced the use of literacy in novel ways today. For example, we text each other often using abbreviated word forms or acronyms that, in many cases, did not exist a decade ago. Many people carry smartphones which are able to access a plethora of online resources at any given moment, allowing us to "read the screen" when researching or exploring a given topic (Kress, 2003).

However, students in today's classrooms struggle just as they have in previous decades; learning to read still stands as a roadblock for many of our students. Thus, this technological revolution and subsequent evolution of literacy we have undergone as a society has not brought about a marked difference in our students learning to read, at least as measured by current assessments. The test results are still worrisome. According to results from the 2013 National Assessment of Educational Progress (NAEP), 32% of fourth grade students and 22% of 8th grade students scored in the below basic reading category. Scores do represent a slight improvement since 1992, the earliest reported test date: 2013 saw scores 5 points higher amongst 4th graders and 8 points higher amongst 8th graders; however, there was a modest 1 point improvement amongst 4th grade scores in 2013 from 2011, and a small 3 point improvement during that same period amongst 8th grade scores. The educational community is well aware that young children who have limited early literacy skills represent a great challenge today (Snow, Burns & Griffin, 1998). In fact, countless reading initiatives, programs, and legislation (i.e.: early intervention programs such as Head Start, programs such as Reading First, and legislative acts such as No Child Left Behind and the Common Core State Standards) have been created in order to facilitate and measure the effectiveness of teaching reading. Likewise, there has been an increased focus on adolescent literacy development, yet, studies into engagement and motivation have nonetheless failed to yield a concrete answer that can serve to bridge the gap between where our students are functioning and where we would like them to be.

The National Council of Teachers of English (NCTE) hold that issues related to and stemming from adolescent literacy difficulties actually affect both the elementary and college level (NCTE position statement, 2007). Similarly, the International Reading Association (IRA) asserts that fostering children's literacy skills is equally imperative amongst adolescents as it is with beginning readers (IRA position statement, 2012). Adolescent literacy is a process that starts early, far before students reach the actual age of adolescence. In fact, early literacy practices have been found to reinforce further literacy development, regardless of language, with respect to English reading acquisition throughout students' early years and at least through middle school (Reese, Garnier, Gallimore, & Goldenberg, 2000). Elementary school students are mastering the skills that will continue to serve them as they advance educationally. Middle and high school teachers still have students who are lagging in several fundamental areas based on national test data (NAEP, 1971-2013). Again, even with the great emphasis placed upon improving and remediating literacy skills in recent years, it seems that scores are not improving as much as we would expect. This fact indicates there may be a discrepancy between the types of literacy practices emphasized in our school practices and those which serve to increase students' ability to read and write well in the 21st century. It becomes necessary to examine student literacy practices so teachers can become aware of the different types of literacy practices in which students are participating (Jewett, 2011). Torgenson et al. (2007) defined the period of adolescent literacy development as beginning as early as 4th grade and extending

through 12th grade. Thus, investigation into the new literacy practices of young adolescents in digital contexts may serve to highlight areas that could be of benefit to both younger elementary students and older adolescents.

Statement of the Problem

It remains unclear what new literacy skills and new literacy practices young adolescents employ and can demonstrate within the digital contexts in which they traverse. Research has shown that individuals hold different literate identities, which is how they see themselves as a reader and writer, when participating in various literacy practices (Beach & Ward, 2013). In order to fully understand our students as literate individuals we must examine their proficiency with literacy in multiple settings.

The literacy practices in which young adolescents are participating are shaping their literate identities. Adolescence is a time when children undergo huge metamorphoses in their psychological development (Marcia, 1980). From a psychological standpoint, adolescence has been described as unique in that it is "the first time that physical development, cognitive skills, and social expectations coincide to enable young persons to sort through and synthesize their childhood identifications in order to construct a viable pathway toward their adulthood" (Marcia, 1980, p. 160). This 'viable pathway' is the identity that they hold, and in today's global world it is affected not only by social expectations, but also by the social experiences in which they participate. It remains unclear from the current research what implications their literary interests and activities have upon their literate identity formation, but one can

speculate there may be a connection between the activities in which they participate and their literate identities. Gallagher and Ntelioglou (2011) speculate that when student identity and culture are acknowledged and brought into instruction that students become more eager to participate in their learning. The question then becomes what practices students feel are shaping their literacy learning, and thus their literate identities.

Thus, it stands to reason the new literacy practices in which young adolescents are participating are shaping their literate identities in digital contexts, yet the impact of new literacy practices and the new literacy skills that adolescents utilize and demonstrate remain unclear. This information needs to be clarified before we, as an educational community, can begin to realize how to increase students' literacy proficiency and further strengthen their literate identities within various contexts. If we know what new literacy skills and new literacy practices our young adolescent students possess then we can better design instruction to build upon and enhance those skills and conversely remediate and construct knowledge in areas in which they lack ability.

Theoretical Framework

As literacy understandings and usage have evolved, so have the methods regarding how one demonstrates being literate. To be truly literate in the 21st century young adolescents have the need to not only be able to read and write, but also to communicate and derive meaning effectively from a wide variety of texts and modes which are situated in an extensive array of different contexts. Kress (2003) has emphasized that regarding print-based literacy as the chief

representative force in terms of conveying meaning is too restrictive and does not take into account other equally important modes of representation such as "gestures, speech, image, writing, 3D objects, color, music, and no doubt others" (p. 36). Further, Barton (2007) suggested that the context where literacy is situated is paramount in understanding new views of literacy. In fact, many researchers regard literacy as a socio-cultural act that is both rooted in and built upon the socio-cultural practices of a community (Barton, 2007; Gee, 2012; Jewitt & Kress, 2003; Leu, Kinzer, Coiro, & Cammack, 2004; New London Group, 1996; Street, 2001, 2003, 2005a). Heath (1983) posited that literacy activities were communal literacy events where often community members used their own background knowledge and interpretations to create a new synthesis of information to be shared with other members. Seemingly, new, or evolved understandings of literacy must emphasize the importance of social and cultural practices in defining what exactly literacy is. Barton (2007) posits that as our understandings regarding literacy have shifted from a "psychological paradigm to a social paradigm" the ways in which we research and study literacy should also shift, emphasizing literacy practices rather than just focusing on literacy solely as a set of skills to be mastered (p. 25). Additionally, Gee (2008) holds that these socio-cultural understandings imply that the practices of a particular community are by no means just literacy practices, but rather exemplify a shared understanding that exists between its various members. Further, Leu, Kinzer, Coiro, Castek and Henry (2013) posit that the nature of literacy is deictic, meaning that the very nature of literacy is ever-evolving. In this way, literacy

understandings must be broader if they are to include the various literacy events, literacy practices, and literacy webs that all affect meaning making. Based on these understandings, I am defining literacy as a deictic, multimodal socio-cultural act that is situated in a particular context, which is used to convey and share meaning with other community members as users traverse between and amongst various literacy events, literacy practices, and literacy webs. Thus, as the literacy events, literacy practices, and literacy webs change, so too will our conceptions of literacy change and evolve.

Further, as our understandings of literacy have evolved, so too must our definition of what it means to be a proficient reader and writer in the 21st century. As I have discussed, literacy theorists have described four key notions regarding literacy in the twenty-first century which I hold are also directly related to literacy proficiency: contextual social practices (Barton, 2007; Jewitt & Kress 2003; Kress, 2003; Mills, 2010; Street, 2005a), discourses (Gee, 2012), use of digital literacies (Leu, Kinzer, Coiro, Castek and Henry, 2004), and multimodality (Jewitt & Kress, 2003; Kress, 2003). I am defining literacy proficiency as the ability of a reader to understand and communicate ideas in a variety of multimodal contexts in and among various platforms in adaptive ways, which allow them to effectively connect and collaborate with others across space and time. Further, I hold that levels of literacy proficiency are dynamic and continue to develop and progress over time based on the contexts in which users are interacting with various types of texts. In the 21st century, skills such as the ones outlined above need to be used together in order for

students to demonstrate literacy proficiency, and, moreover, to utilize literacy effectively within their given environments.

There are two types of literacy contexts in which individuals participate: affinity spaces and communities of practice. An affinity space is described as a place where groups of people come together because of a joint interest in a common activity; however, ones does not have to be a "member" to participate (Gee, 2004). Conversely, some spaces have an overt membership feature which becomes a defining characteristic for those who have membership within that space, resulting in it being classified as a community of practice (Wenger, 1998). Individuals can participate in a variety of affinity spaces and communities of practices. A literacy web would be the central system in which an individual engages that interconnects various new literacy events and new literacy practices. Understandings of literacy such as this have become central constructs in a theoretical perspective often referred to as New Literacy theory, which is based on the evolving and comprehensive understandings of new literacies. New Literacy Theory has emerged as understandings of literacy and what it means to be literate have become more complex. This newer, constantly developing vision of literacy seeks to include and incorporate the continual changes in technology and digital media, which are central to the globalization reform our world continues to undergo (Lankshear & Knobel, 2003). New Literacy theory puts greater focus on *how* literacy practices are used and in which contexts. As such, this study aligns itself with the socio-cultural model of literacy where meanings lie not only in a given text, but within the different

social contexts in which they are embedded (Gee, 2012). Further, literacy skills and practices can be thought of as situated within these social contexts, affinity spaces, or communities of practice.

New Literacies theory regards the social practices of literacy as far more important than the "set of technical skills" frequently assessed by national measures such as No Child Left Behind (Street, 2009, p. 21). These views of literacy are apparent in society today as certain literacy practices differ in regard to their use in various contexts (Schrum & Levin, 2009). Socially, the Internet and other information and communication technologies (ICTs) have emerged as an increasingly interactive tool in youths' literacy practices (Mills, 2010). In fact, the Internet has brought unparalleled transformation in both the speed and the magnitude at which the technologies utilized for literacy develop and emerge (Coiro, Knobel, Lankshear, & Leu, 2008; Leu, Kinzer, Coiro, Castek, & Henry, 2013). These new ways of communicating and collaborating using digital literacies, when combined with new insights, seek to transform the ways in which we conceive of education in general (Gee, 2004; Davies & Merchant, 2009). However, our understandings about which literacy skills and practices in which young adolescents engage remain unclear, as is our knowledge regarding how to effectively measure these types of new literacy skills. Therefore, the new literacy skills and new literacy practices that young adolescents employ need to be investigated in order to fully understand exactly how literacy is used today in *new* ways.

Studies have demonstrated that students discuss literacy practices that

they do on their own in positive ways; however, they still may not view themselves as readers and writers based on traditional understandings (Beach & Ward, 2013). A recent study found that as children encountered and were exposed to "schooled" approaches to print literacy, that their overall confidence in their literacy skills diminished, and moreover were "threatened" (Levy, 2009, p. 89). Therefore, the question may lie not only in the skills that students acquire, but further in their perception of said skills and, moreover, how they come to internalize these understandings. These perceptions and understandings form the basis of their literate identities, which is crucial not only in how they see themselves as a reader and writer, but may also impact their overall literacy performance.

Purpose and Research Questions

The purpose of this study is to better understand how young adolescents' literate identities can be shaped by the types of reading and writing that they do within digital contexts. Specifically, this study will explore how participants use technology and the technology practices and tools with which they were familiar. All of this information will help us understand what types of literacy practices can help students become better readers and writers, specifically with regard to the types of skills and practices that may engage students and further increase their literacy proficiency. While there are many studies of various platforms, there is not any comprehensive research that ties all of the new literacy studies together in a particular location. Further, many of these studies examine these practices singularly, not allowing students to discuss their literacy

experiences across multiple sites and platforms. Research has shown that young adolescents' literate identities are varied and can change dependent upon the context (Beach & Ward, 2013). Thus, we must examine many of their experiences and encourage young adolescents to discuss them, so that we, as a literacy community, can better understand the connections they are making and, further, how these experiences and their perceptions impact the development of their literate identities in multiple contexts. As such, this study seeks to explore the following research questions:

- How are the literate identities of sixth grade adolescents shaped by the new literacy skills and new literacy practices in which they participate?
    - In which new literacy practices do sixth graders participate?
    - What new literacy skills do sixth graders demonstrate?
    - What are their literate identities as they participate in these new practices?

In the following chapters I will discuss and present the information that has been gathered as a result of this study. In Chapter 2, I present current literature regarding what we as a literate community know in regards to the types of new literacy practices and new literacy skills that young adolescents possess as well as what we know about how those practices and skills impact their literate identity. In Chapter 3, I will present the methodology and study design for my study. Chapter 4 will detail my findings related to what new

literacy practices and new literacy skills the young adolescents in my study demonstrated as well as what impact these skills and practices had upon their literate identities. Chapter 5 is the discussion chapter where I will explain what my findings mean in connection with the literature as well as discuss the implications of my study and provide suggestions for future research.

Definition of Terms

For the purpose of this study, the following terms can be understood to mean

Literacy: a deictic, multimodal socio-cultural act that is situated in a particular context, which is used to convey and share meaning with other community members as users traverse between and amongst various literacy events, literacy practices, and literacy webs.

Literacy Proficiency: The ability of a reader to understand and communicate ideas in a variety of multimodal contexts in and among various platforms in adaptive ways, which allow them to effectively connect and collaborate with others across space and time. Levels of literacy proficiency are dynamic and continue to develop and progress over time based on the contexts in which users are interacting with various types of texts.

New Literacy skills: New literacy skills go beyond rudimentary literacy skills such as reading, writing, listening, and speaking. Further, it is the application of these rudimentary skills in combination with a new set of literacy skills, which have become necessary in order to effectively communicate and participate in new literacy practices. Barton (2007) proposes that viewing

literacy as a set of skills which can be possessed is overly simplistic and that our views should be broader, perhaps to include viewing "skills as situated in practice" (p. 163). Thus, literacy skills need to be flexible and the users need to be able to adapt them to novel environments they may encounter online or in digital environments. Additionally, the skills will vary based upon the application of literacy in a given environment and range from technical skills necessary to effectively participate to more cognitive skills necessary to evaluate and understand hidden implications possibly present in a given text. For example, technical skills such as posting a picture on a given social networking site requires that a user knows how to effectively *upload* an image onto that particular platform, they have to *post* it correctly, and they may also choose to *tag* the image, which will help signal to others that this is an image that is recommended or of interest to them. Further, cognitive skills could be evidenced by writing a brief *descriptor* about the image that would convey a particular message that encapsulated the given image. In this example, the new literacy skills would be uploading, tagging, and describing a given picture, exemplifying both technical and cognitive abilities displayed by the participant.

New Literacy Practices: The new literacy-based activities in which people will need to apply their literacy skills are often are embedded within a socio-cultural act. Barton and Hamilton (2000) define literacy practices as social acts that embody how people use literacy. Thus, new literacy practices could be extended and described as the practices that embody what people do with *new literacies*. For example, in the previous example, *engaging in social*

communication would be the practice via a site or application, such as Facebook or Instagram.

New Literacy Event: Barton (2007) defines literacy events as "occasions in everyday life where the written word has a role" (p. 35). New literacy practices and events are often multimodal, implying the use of various modes of representation beyond the written word. Jewitt and Kress (2003) offer that images, gestures, music, speech, and sound effects are among some of the modes we use in order to make meaning. Thus, new literacy events could be extended to include a variety of modes beyond the written word from which we draw upon in order to derive and make meaning. In the previous example, social networking via the platform of Facebook or Instagram would be the event.

New Literacy Web: A web is defined as "a complex system of interconnected elements." Thus, a literacy web is a term that can be used to describe the overarching system that interconnects various new literacy events and new literacy practices in which an individual engages, some in which they hold membership (community of practice) and some in which they merely have an interest, but do not have membership within (affinity space). Consequently, as new literacy studies acknowledge the inherent socio-cultural nature of meaning making, the overarching new literacy web directly impacts the understanding(s) possible. For example, there are different gaming webs that exist, such as groups of affinity spaces where users stop in to play a game, and communities of practice that use Xbox live to play games. There are a variety of

different events (various games such as Minecraft) and practices (communicating with each other players) that occur within a given web.

Literate Identities: How an individual views himself as a reader and a writer defines his literate identity. Essentially, it is dynamic and varies based upon the individual's interaction within a particular context and/or community (Beach & Ward, 2013; Collins & Beach, 2012). Individuals can have multiple literate identities within the various literacy practices in which they participate (Beach & Ward, 2013). For example, an individual could have a positive view of him/herself as a reader when using the Internet to research, but not when reading an assigned fiction book in a classroom setting.

Chapter 2: Literature Review

This review of literature examined both Literate Identity and New Literacy Theory in an effort to more fully understand how literate identity formation is impacted by the new literacy skills and new literacy practices that young adolescents employ. First, this review explored current understandings of literate identity, specifically in relation to new literacy studies. Next, New Literacy Theory, both upper case (NL) and lowercase (nl) understandings were investigated in order to provide both an overarching understanding of the theory and specific situational examples. It was important to investigate the effects of these understandings in regards to what we know about the new literacy skills and the types of new literacy practices in which young adolescents engage in order to fully understand the impact that they have upon adolescents' literate identities in digital contexts. The databases utilized in this literature review included ERIC, PsycINFO, and JSTOR. Some of the keyword combinations that were used included: *new literacies, new literac*, literate identit*, new literac* & asynchronous practices, new literac* & synchronous practices, synchronous communication, asynchronous communication, digital literac*, technological literac*, adolescent literacy & new literac*, new literacies & web 2.0, new literac* & student skills, new literac* & literacy practices, multiple literacies*, and *media literacies*.

Literate Identity

In its simplest understanding, the term literate identity describes how a person sees him/herself as a literate individual in a particular context (Young &

Beach, 1997; Beach et al., 2013). However, literate identity is more multifaceted than that. Beach and Ward (2013) posit that literate identities are multiple and varied. How an individual comes to understand his or her personal literate identity will evolve stemming from various educational, cultural, and social experiences. In fact, Beach and Ward (2013) hold that individuals have more than one literate identity; each facet of literate identity is dependent on context (Beach & Ward, 2013; Young, 1996; Young & Beach, 1997) and group membership (Beach & Ward, 2013). Additionally, literate identities have been found to be malleable, because they transform across time (Collins & Beach, 2012). Young and Beach (1997) theorized it is the combination of our individual beliefs of literacy and our own literate identity that interconnects and creates a personal sense of being literate. Heath (1991) describes this 'sense of being literate' as not simply the ability to read, write, listen, and speak, but, also as being reflective and metacognitive as well. Young (1996) expanded on Heath's explanation of a sense of being literate and further described it as an implicit understanding regarding how one becomes experienced with literacy and interprets those experiences in a given context. Young (1996) also posited that this sense of being literate acted as a psychological tool which impacted behavior and involvement in literate activities. Thus, an individual's literate identity transforms based on how one perceives his or her role in a given situation. Understandings such as these led Beach and Ward (2013) to define literate identity as

> a personal view of one's own set of literate attributes including a sense

> of one's own competence in a particular context, a sense of one's role as a literate individual in those various contexts, and one's relationships with others as part of a community of literacy practice (p. 240).

In the present study, I will use this as my working definition of literate identity, with particular focus being directed towards new literacy webs and the ways those literate spaces and communities of practice affect the literate identity of young adolescents.

Literate identity is one facet of identity formation. As this study focuses upon examining what an individual's literate identity is in particular digital contexts it is important to briefly situate literate identity in relation to one's identity in general, and specifically, how identity is manifested within literate identity. Wenger (1998) holds that it is through interacting within the various communities of practice to which we belong that we develop our own unique identities. Similarly, Barton, Ivanic, Appelby, Hidge and Tusting (2007) posit that social practices not only shape people's identities, but are integral in determining how we progress. Thus, identities are established in particular socio-cultural settings and literacy contexts. In essence, all of the communities in which we interact and participate serve to affect our identities.

The connection between literacy and identity, and socio-cultural contexts has been explored somewhat by researchers. When discussing the findings of a 1998 study where a highly literate university student had lost her ability to write due to carpal tunnel syndrome, Kucer stated that "the link among literacy and achievement, intelligence, and success was so strong that when her

literacy was challenged, so too were her social meaning and self-identity" (p. 224). This statement illustrates the socio-cultural dynamics that impact literacy learning, self-identity, and literate identity formation are intertwined. Jewett (2011) offers that "Literacy learning does not happen separately from other aspects of our lives" (p. 342). Similarly, Street (2005a) posits that "The ways in which people address reading and writing are themselves rooted in conceptions of knowledge, identity, being" (p. 418). As individuals interact and renegotiate their identities within a given space or community, they are interacting and participating actively with each other. Gee (2000, 2004) holds that the nature of identities and moreover, their connection to literacies and knowledge, is in a state of flux. Wenger (1998) acknowledges that there is "a profound connection between identity and practice" (p. 149). The relationship then between identity, literacy, and literacy practices is evident; the literate identities of young adolescents are shaped by the practices in which they engage. These practices occur in many varied contexts and all serve to affect the multiple literate identities of young adolescents. Gee (2001) offers that meaning and understanding in language are directly linked to the experiences that are situated in various contexts, both social and linguistic. Thus, these social environments where literacy occurs shape both the participant's identity and how he or she perceives literacy. Empirical research is needed in order to more fully understand these complex phenomena regarding literate identity formation.

Literate identity studies. It is important to explore empirical studies that have been conducted on literate identity formation in various contexts.

There are relatively few studies which apply Beach and Ward's (2013) view of literate identity, yet there were several studies that surfaced that were seemingly related and which will be discussed further in this section.

Young (1996) examined how 12 first graders in three different classrooms came to understand how they viewed themselves as readers and writers. Findings revealed there were three themes that mediated the children's understandings regarding literacy: literacy was socially mediated, strategically facilitated, and required active participation (Young, 1996). Further, Young and Beach (1997) theorized that literacies themselves are more than a vehicle for sharing knowledge; they are related to identity. In their investigation of first graders' literate identity formation they found their participants viewed literacy as a social behavior and seemed to understand there were social purposes for literacy (Young and Beach, 1997). The Young and Beach (1997) study demonstrated the individual children were bound to the literacy contexts and other literate learners with whom they interacted within their early elementary classrooms. While this study gave important insight into how children understand literacy, it remained unclear whether this study would yield similar results amongst different age groups or contexts.

Davies and Merchant (2006) conducted an auto-ethnographic study that led them to conclude the boundary that exists between online and offline literacy events and practices is often blurry and the nature of the texts that are constructed and consumed while in the blogging context are directly related to how individuals situate themselves in relation to imagined or authentic

audiences. Additionally, they noted that blogging allows an individual the ability to create different versions of their persona to share with others within a given affinity space (Davies & Merchant, 2006). While these findings were noted by the authors to be related to general identity, they have direct implications upon literate identity formation. Ultimately, Davies and Merchant (2006) concluded that "identities always are forged through our connection with others" (p. 192). Thus, these findings illustrate that the context involved within the practice of blogging was directly related to the various identities individuals hold within those practices. In their gaming study, Sanford and Madill (2007) noted during the process of creating video games the adolescent participants' subconscious worldviews seemed to be expressed, likely having direct implications on either the identities of the creators or players of these games. For example, they offered that some of the games created encouraged what they described as masculine traits, including competition, strength, speed, and aggression via characters and concepts imbedded within the game, however, the inclusion of those as a direct commentary was the intention of neither the student nor the instructor. The seemingly subconscious inclusion of these world views caused researchers to conclude that the social contexts within the affinity spaces in which they participated had direct implications on the types of games they created (Sanford & Madill, 2007). Both of these studies highlight the importance of the context upon the literate identity formed. It is important to note that although neither of these studies framed literate identity the way that Beach and Ward (2013) have, the discussion of their findings revealed several

similarities.

Beach and Ward (2013) conducted a qualitative study which explored the ways in which four children, two from Canada and two from the United States construct their literate identities in different contexts. Findings suggested students' literate identities were based in large part on the types of literate behaviors they felt were important in a school environment, at times almost negating literate activities when they participated in other contexts (Beach & Ward, 2013). Further, the literate identities of these adolescents were seemingly interwoven with the purpose of the literacy event as well as within the practice itself. This finding has important ramifications in developing our understanding of how literate identities develop within various contexts. While the study took place within a school setting, students discussed their out-of-school literacy practices, and thus, it remained unclear exactly how identities would be manifested in recreational contexts. Both the Davies and Merchant (2006) and Sanford and Madill (2007) studies explored literacy practices within recreational literacy contexts, yet they both have underlying themes that are related to the Beach and Ward (2013) findings regarding the importance of context upon literate identity formation and the multiplicity of literate identities within the various practices that individuals traverse. More research is needed to fully substantiate this connection, yet the implication is strongly represented within the Davies and Merchant (2006) and Sanford and Madill (2007) studies.

Another finding discussed in the Beach and Ward (2013) study was related to the feelings of belongingness individuals have with the literacy events

and practices in which they participate. These feelings of belongingness, or membership were demonstrated to be tied to adolescent literate identities and influenced how they felt about the various literacy contexts in which they navigated (Beach & Ward, 2013). Membership was also discussed by Guzzetti and Gamboa (2005) who described in their study of online journaling that journals had become representative of the identities of the adolescents they studied, and further that membership within that broad virtual community helped the participants identify within a particular group. Guzzetti and Gamboa (2005) further theorized that the way in which the adolescents had come to use language to communicate in those digital platforms acted as "an 'identity kit' signifying membership in a particular group" (p. 413). (It is important to note that in the Guzzetti and Gamboa (2005) study, they described the practices of their participants as occurring within an affinity space and being tied to a community of practice within the Live Journal site. The section I am referencing here is clearly related to membership.) The Guzzetti and Gamboa (2005) study highlights Beach & Ward's (2013) assertion that perceptions of membership directly impact literate identities in that the journals had come to represent their literate identities. Similarly, a qualitative study conducted by Alvermann et al. (2012), which sought to explore the online identity construction of five high school students over the course of two school years, found in three of the five cases, the adolescents did portray different identities in different communities in which they held membership, however, these online identities were not completely separated from their real-life identities, instead

representing different facets of themselves. This is important, because it illustrates the changes in one context to another may be slight, yet there were changes evident. In both studies, researchers were not exploring literate identity, yet elements from the studies were found to be congruent with Beach and Ward's (2013) findings regarding membership. In both Guzzetti and Gamboa (2005) and Alvermann et al. (2012) membership and belongingness were directly related to the literate identities participants crafted for themselves within these digital environments. The findings also gave further evidence of the presence of multiple literate identities within various contexts.

Membership has also been found to be related to feelings of competence and proficiency. The study conducted by Kendrick, Chemjor, and Early (2012) in a rural Kenyan secondary school found that using information and communication technologies (ICTs) within a school-sponsored journalism club not only increased the participants' overall competence in various literacy activities, but had implications upon their identities as well. Researchers found as the adolescent participants became more proficient at using ICTs (such as laptops with internet capability) they were able to convey knowledge and connect with others more effectively (Kendrick, Chemjor, & Early, 2012). Findings indicated as the adolescents' competence and proficiency beliefs increased in regards to their ability to not only use the ICTs, but also to more clearly communicate and reach their audience, the participants were able to negotiate new identities (Kendrick, Chemjor, & Early, 2012). The ICTs also were described to act as tools that signified membership, similar to Guzzetti and

Gamboa's (2005) application of Gee's identity kits. These literacy tools reportedly provided the adolescents with reporting opportunities, such as actual access to journalistic events (Kendrick, Chemjor, & Early, 2012). Thus, the ICTs participants used became symbols of membership that not only impacted their perceived identities, but also impacted their social hierarchy within their society. Young and Beach (1997) posited that an individuals' literate identity was directly affected by self-assessments of their perceived literacy competence within a particular context. Perception in regards to competence in a particular context and overall student interest in the practice has an impact upon an individual's literate identity and was also evidenced in Kendrick, Chemjor, and Early (2012). As the study was conducted over the course of one school year we also saw evidence that their competence grew as their proficiency did in regards to using the ICTs effectively to communicate and collaborate with other journal club members. However, as this was not a study directly researching literate identity, we do not have a clear sense of what their literate identities were previous to the study.

Collins and Beach (2012) examined how young adolescents viewed themselves as literate individuals within the context of their classroom and sought to explore whether there were diverse profiles of literate identity amongst students within said classrooms. There were sixty-six students from the United States in four different fourth and sixth grade classrooms that participated in this research. Four different profiles emerged related to both student proficiency scores and their own self-perceptions regarding their literate abilities, which

served to empirically validate the fact that literate identities are malleable and transform over time (Collins & Beach, 2012). Collins and Beach (2012) suggest the different profiles that emerged would also lead to different views regarding the values they placed upon the various literacy activities in which they participated. Understanding how students are shaped by the literacy activities in which they participate is necessary in understanding how their literate identities are not only shaped, but also mediated by the literacy practices to which they are exposed and in which they participate. Skerett (2012) conducted a case study which examined the development of a more positive literate identity in a 15 year-old female adolescent enrolled in a specialized reading class designed to help struggling readers. Skerett (2012) found that the adolescent had a strong literate identity in out-of-school contexts, but often not within the observed school settings. The researcher noted the classroom teacher was aware of this and successfully helped the adolescent students in her classroom to explore ways to improve their reading abilities in difficult contexts (Skerett, 2012). This finding led Skerett (2012) to theorize the students within this classroom could maintain strong literate identities as readers within certain contexts, even "while critically exploring the factors that supported or threatened this identity" (p. 71). Consequently, the adolescent in the study did feel she had improved her reading skills over the course of the study. These findings support previous research by Collins and Beach (2012) that literate identities are dynamic and change over time. Similarly, Akey (2007) studied the ways in which 11 adolescent ELL students in a secondary setting perceived their literate identities as they

transitioned to a mainstream English class after previous placement in a reading support class. Results indicated the students' literate identities positively changed over the course of the study, likely due in part to the relationships they had with their teachers. Further, Akey's (2007) results showed the importance of positive relationships within a school context in regards to reshaping students' literate identities and inducing positive changes in students' sense of being literate. Both Skerett (2012) and Akey (2007) noted the positive relationship between a struggling adolescent reader and positive changes in the adolescent perception of their literate identity over a given time period. However, as both the Skerett (2012) and the Akey (2007) studies took place in a secondary setting, it remains unclear whether these results would be similar amongst different schooling contexts.

In an ethnographic study that took place in a fifth grade classroom, Vasudevan, Schultz, and Bateman (2010) explored literate identity development of two adolescents, one male and one female as they used various digital media tools such as cameras, videos, and audio, and editing software to create and compose digital stories. Results indicated literate identity was affected by the types of literacy practices in which the students participated (Vasudevan, Schultz, & Bateman, 2010). Further, they found the "circulation of literacy practices and increased modes of participation and engagement" in classroom contexts directly impacted the progression of those adolescents' literate identity (p. 462). This study provided a clear link between the practices in which students participate and changes in their literate identities. Beach et al. (2013)

conducted a mixed methods study of how 1,021 young adolescents from various countries in fourth, fifth, and sixth grades have a sense of being literate. A sense of being literate is the implicit understanding an individual has in regard to how they understand literacy in terms of value and competence in a given context (Heath, 1991; Young & Beach, 1997). Findings indicated these young adolescents related their understandings of what it meant to be literate with the ways literacy was viewed by peers and their respective teachers (Beach et al., 2013). These findings further indicated literacy understandings were both contextually bound and socially situated. These studies directly connect the socio-cultural context of the classroom setting, and specifically, the relationships one has with others within that context, with literate identity formation. Further, Beach et al. (2013) found literate identity was directly impacted by the adolescents' perceptions regarding competence in various literacy acts.

Summary. Research has shown that children understand literacy to be social, strategic, and active (Young, 1996), and contextually bound (Young & Beach, 1997). Further, literate identities are dynamic and multiple (Akey, 2007; Beach & Ward, 2013; Collins & Beach, 2012; Skerett, 2012), and evolve as individuals participate in various literacy events and practices (Collins & Beach, 2012). Studies have shown that the literacy webs in which we interact and have membership are related to identity (Alvermann et al., 2012; Beach et al., 2013; Guzzetti & Gamboa, 2005; Kendrick, Chemjor, & Early, 2012). One's literate identity is an integral piece not only in understanding how young adolescents view themselves as literate individuals, but it also has an impact upon their

literacy proficiency (Chemjor, & Early, & Kendrick, 2012; Collins & Beach, 2012). Finally, the practices in which individuals engage serve to impact their literate identities as well (Beach et al., 2013; Vasudevan, Schultz, & Bateman, 2010). Understanding how literate identities evolve and are strengthened in various literacy webs may help bridge our understandings of individual student literacy perceptions, specifically in regards to the new literacy practices and new literacy skills adolescent students possess.

New Literacy Theory

New Literacy theory acknowledges that understandings of literacy have evolved and transformed based on the deictic nature of literacy (Leu, 2011; Leu et al., 2013). In response to these changes, Leu et al. (2013) assert that a dual-level model is needed to offer both a compilation of findings that appear from and across several perspectives (referred to as uppercase New Literacies for the remainder of this dissertation) coupled with the freedom to explore new and yet unimagined literacies (referred to as lowercase new literacies for the remainder of this dissertation). For example, communication in virtual environments would fall under the broader scope of uppercase New Literacy theories, while specific exploration of how users communicate while on specific social networking platforms would fall under the lowercase new literacy theories. This recent dual level theory allows New Literacies theory to encompass newer, more detailed understandings of literacy into a broader and widening definition and understanding of uppercase New Literacies. The lowercase new literacies add to the more comprehensive understandings by exploring different genres,

perspectives, or understandings of new literacies (Coiro, Knobel, Lankshear, & Leu, 2008; Leu, 2011; Leu et al., 2013). New Literacies theory acknowledges that the social forces, and resulting technological advances and platforms they yield serve to define the evolving nature of literacy today (Leu et.al, 2013). The theory itself offers a few core suppositions which will be explored in this review: literacy is deictic, meaning making is multimodal, and there is an implied transactional relationship between the given context and literacy. Additionally, literacy has a transformative, metacognitive, communicative, and participatory nature, which is inherently socio-cultural. Further, literacy in online platforms often occurs in synchronous or asynchronous environments, allowing for greater flexibility in said platforms.

Multiple Perspectives and Multimodality

The New Literacies theory is by design broad and includes multiple perspectives (Coiro et al., 2008; Leu et al., 2013). Coiro et al. (2008) hold that the deictic understandings of literacy further enable lowercase new literacies to evolve based on the changing needs of their users. Further, the lowercase new literacies that offer insights into the broader uppercase New Literacies theory need to be investigated as they emerge, because what is happening *now* differs from the *now* that will be present a short time later (Leu et al., 2004; Wilber, 2010). Time then becomes a central construct in exploring New Literacies theory, because lowercase new literacies change and transform our understandings of literacy constantly. These transformative abilities of lowercase new literacies are a key feature in that they act as a change agent for

their users. As the lowercase new literacies change and adapt to meet the needs of their multiple users, so will the skills necessary to navigate these changing practices (Leu, O'Byrne, Kiili, Zawilinski, & Everett-Cacopardo, 2009). Transformation becomes both essential and integral, occurring as a natural by-product of the deictic nature of the uppercase New Literacies. New Literacy theory will continue to evolve as the lowercase new literacy practices do, necessitating continual study as the field attempts to stay abreast of changes in the changing ways in which literacy is used to convey meaning.

Within the uppercase New Literacy theory, meaning making is understood to be multimodal (Jewitt & Kress, 2003; Kress, 2003) in that the meaning a literate person derives is highly situated within both the various modes (for example, graphics, images, speech, gestures, etc.) and the given environment. Further, Jewitt and Kress (2003) offer that semiotic understandings related to "signs, meaning making, representation and communication, and interpretation" are tied directly to the ways in which multimodal learning takes place (p. 1). These understandings highlight the importance of both the context in which literacy occurs as well as acknowledging that literacy is represented through forms other than just language. This symbiotic interaction between the individual and the context then becomes a distinctive feature that exemplifies how our understandings of literacy have evolved and changed. Extending this idea, Roswell, Kress, Pahl, and Street (2013) posit that semiotic factors and how they influence

understanding also need to be explored, specifically in regard to the material (for example, a given text) and how its platform influences understanding.

Participatory and Communicative Nature of New Literacies

The participatory nature or active relationship that exists amongst different users at any given point in time presents itself as another key feature of New Literacy. Users can be described as being *transliterate* in that they are literate across the various platforms in which they participate (Thomas et al., 2007). Andretta (2009) holds that transliteracy requires active participation within and between said platforms. For example, transliterate users adept in social networking platforms may move between sites such as Facebook, Instagram, and Twitter understanding that each particular platform has its own procedures for participation, such as with Twitter posts, or tweets, can be no longer than 140 characters. Similarly, Lippincott (2007) theorizes that today, within our global society a "convergence of literacies" has occurred, where the margins that previously existed between different types of literacy have become obsolete. Jenkins (2006a) offers that new tools and technologies available to individuals have encouraged a more active mode of participation, which has altered the ways in which individuals relate to each other in given platforms and contexts. Essentially, these changes reflect "a public desire to participate within, rather than simply consume, media" (Jenkins, 2006b, p. 150). Jenkins (2006b) goes on to discuss the idea of this participation combined with using new digital platforms gives the consumer greater power than ever before, which implies there is a certain set of rules necessary to effectively participate as an insider

versus a consumer. However, Jenkins (2006a) maintains that these rules may not be fully understood, but seemingly occur through the social interactions in which individuals engage. Additionally, he asserts there has been a development of a collective intelligence in which meaning making occurs as a shared experience between participants as they both participate and converge within and in between a variety of digital platforms (Jenkins, 2006a). Levy (1997) was one of the first to describe the notion of collective intelligence:

> It is a form of universally distributed intelligence, constantly enhanced, coordinated in real time, and resulting in the effective mobilization of skills… My initial premise is based on the notion of a universally distributed intelligence. No one knows everything, everyone knows something, all knowledge resides in humanity… (pp. 13-14).

Thus, according to Levy (1997), intelligence is increased and enhanced via group participation, thereby exemplifying the inherently socio-cultural nature of intelligence. Similarly, Wenger (1998) held that communities of practice learn from each other as they "share significant learning" (p. 86). In essence, as individuals interact amongst and between various digital communities of practice, the collective intelligence of the community of practice grows as they participate and communicate with each other. As individuals converge in these various digital platforms and interact with each other, shared understandings change and evolve based upon the participants and the knowledge they bring with them.

Further, Andretta (2009) posits that transliteracy should be viewed as both inclusive and participatory, which requires a certain degree of flexibility and an inclination to embrace innovative and novel practices and views. The concept of multimodality is related to transliteracy in that our understandings of the ways in which people make meaning have become multidimensional. Jewitt and Kress (2003) theorized the meanings a reader or writer derives are highly situated within a given environment across a variety of different modes (e.g.: visual, auditory, print, etc.). Thus, meaning making becomes affected, altered, and molded by the environment in which it takes places (Jewitt & Kress, 2003). Consequently, as meaning making is affected, so too is the collective intelligence that has amassed within various contexts. Additionally, Jenkins (2006b) points out that community members often traverse from one community to another as their attention and needs change, often held together by the "mutual production and reciprocal exchange of knowledge" (p. 137). As such, it is necessary to examine how these modes, or platforms, change over time and the ways in which these changes affect our understandings of how literacy is used to convey meaning today. Based on these descriptions, transliteracy is similar to multimodality in that transliteracy is not only concerned with literacy occurring from and across different modes, but takes this understanding a step further and seemingly adds a metacognitive element in that there is an ongoing mindfulness and monitoring of one's own comprehension that exists as one navigates with and across the various literary modes.

Metacognition is defined as "thinking about thinking" (Flavell, 1979, p.

906). Further, "metacognition consists of knowledge and regulatory skills that are used to control one's cognition" (Schraw, 2001, p. 6). These definitions illustrate that metacognition becomes an important construct in online contexts because of the awareness that technology users seemingly display. Jaeger (2011) discusses the concept of transliteracy as the ability to "to read, listen to, view, understand, synthesize, and apply what we gather across differing platforms" (p. 44). Transliteracy then implies a metacognitive component, because as individuals synthesize and apply knowledge from different contexts they are consciously manipulating and directing their own cognitive thinking, which becomes necessary in understanding the complex ways in which various literate persons derive meaning from what they read. The ability to monitor one's comprehension is demonstrated in online contexts where students need to exhibit an amount of metacognitive awareness when reading online to best comprehend, connect, and further extend what they are reading (Coiro, 2011a). Metacognition then emerges as another key feature of the uppercase New Literacy theories, because it again implies an active connection between the literate person and the text, exemplifying not only an active participation with text, but a continual need for the learner to be assessing how to respond to the text. In today's rapidly changing online environments it becomes crucial that students are aware of the reliability of a source and the meanings they are deriving from what they are reading in order to fully understand and explore a given concept. Metacognition is useful here in that as learners actively monitor their own learning and comprehension, they are able to make adjustments to

better derive meaning from what they are reading. Based on these understandings, transliteracy emerges as an overarching concept shaped by both multimodality and metacognitive awareness. In order for young adolescents to successfully navigate and utilize the information they are reading digitally it becomes necessary that they achieve metacognitive awareness as they navigate transliterately across various modes and platforms.

Jenkins (2006b) offers that one of the inherent features of today's online environments is the participatory nature of many of the popular culture practices, such as fan-fiction, gaming, and online web communities. This participatory culture often includes involvement within communities "which may include contributing original texts, organizing online and face-to-face meetings, and editing and publishing work" (Wilber, 2010, p. 3). Further, Leu et al. (2011) posit that online reading is not individualistic, but rather inherently collaborative and a social practice in and of itself, where multiple users can share, collaborate, and create new information together, across space and time. This interactive collaboration adds a whole new dimension to literacy. No longer is meaning making a linear act between one reader and one static text, but rather a multi-dimensional experience between multiple users and malleable texts. Examples would include blogs, wikis, social networking sites such as Facebook and Instagram, Google docs, or any types of lowercase new literacy practices where young adolescents are actively involved in a *collaborative* creation of content (Wilber, 2010). This notion that a literate person can fully participate in and add to the content creation of various texts has led to a

multifaceted view of literacy, implying and necessitating an active relationship with given literacies. This dimension of uppercase New Literacy theory goes beyond just reading a text, to a full participatory relationship with the various texts encountered in both synchronous and asynchronous environments. Interactive collaboration allows more flexibility amongst users to participate in multiple contexts.

Summary. Lowercase new literacies have a socio-cultural nature in that literacy is both rooted in and built upon the socio-cultural practices of a community (Gee, 2008; Leu et al, 2004; New London Group, 1996; Street, 2001, 2003, 2005a). Further Gee (2008) holds that this socio-cultural understanding implies that the practices of a particular community are by no means just literacy practices, but rather exemplify a shared understanding that exists between its various members. As the internet and other ICTs (information and communication technologies) have developed in our society, they have become essential and instrumental literacy tools in today's global world (Leu et al., 2009). Readers use these new literacy tools (internet and ICTs) to recognize, find, synthesize, and communicate information and answers to each other (Leu et al., 2004). In this way, the New Literacy theory has become part of the shared understanding that exists within a community of young adolescents and must be examined further in order to develop a more complete understanding of the new literacy practices and perceptions young adolescents have. Gee (2012) holds that it is crucial that students need to be acutely connected to the practices of reading in multiple environments in order to inspire these children to become

lifelong readers and meaning makers.

Lowercase New Literacy Practices and New Literacy Skills

The studies examined in this review provide an overview of the different types of lowercase new literacy practices and lowercase new literacy skills that have been studied in the last 15 years in order to elucidate what we know and what gaps yet remain. Research included within this review holds literacy as a deictic and multimodal socio-cultural act that is contextually situated and done with the express purpose of conveying meaning. While this was an in-depth search, the field of lowercase new literacies is still relatively new and some areas have yet to be explored substantially by researchers within the field. In order to fully understand and examine the lowercase new literacy skills adolescent users hold, we must first look to the lowercase new literacy practices of young adolescents and subsequent skills needed within those practices.

Foundational New Literacy Skills

As the internet and other ICTs (information and communication technologies) have developed in our society, they have become essential and instrumental new literacy tools in today's global world (Leu et al., 2009; Livingstone, 2012). The ways in which our students will learn to navigate in this global society lies directly in using ICTs effectively. McPherson, Wang, Hsu, and Tsuei (2007) offer that web-based ICTs include blogs, wikis, synchronous and asynchronous chats, video conferencing, search engines, websites, bookmarks, and social media sites. Readers use lowercase new literacy tools such as the internet and web-based ICTs to recognize, find, synthesize, and

communicate information and answers to each other (Leu et al., 2004). Further, Leu et al. (2004) hold that competency in using ICTs is imperative to full participation in our global and networked society. Kendrick, Chemjor, and Early (2012) explored how ICTs were used in Kenya among female adolescents aged 14-18 in an after-school journalism club. Researchers found that the use of ICTs when used in collaborative contexts aided the adolescents in communicating more effectively with larger audiences. Turner (2011) examined the use of ICTs amongst 30 sixth, seventh, and eighth grade middle school students in a multimedia class and found that the use of ICTs aided students in collecting data from multiple internet sources and synthesizing results into digital stories which were then communicated with others in the class. Use of the digital ICTs was also reported to have positively impacted class discussions as the adolescents were more reflective and better able to make intertextual connections between the course content (Turner, 2011). However, while the researchers discussed the positive effect of the uses of ICTs on communication, they did not elaborate on exactly how the adolescents used the tools. Van Deursen and Van Dijk (2010) explored the internet skills possessed by 109 Dutch adult participants. Four types of internet skills (operational, formal, information, and strategic) were examined in order to determine how said skills were distributed across the representative population. Van Deursen and Van Dijk (2010) found that gender did not make a marked difference on performance in any of the skill areas, higher educational level did correlate with a higher level of internet skills, and only operational skills were found to increase with

increased internet use (no rise amongst the other three skill areas). Van Deursen and Van Dijk (2010) postulated that their findings further indicated there was a digital divide not just in terms of access to computers and internet, but also in regards to differences in skills used to navigate on the internet. A shortcoming of this study is that these findings may not translate to a study of internet skills amongst various populations, or internet skills amongst adolescent populations.

Communicative New Literacy Practices and Skills

Two types of communicative new literacy practices emerged from the review of literature, those in which participation was an intended component of the practice, and those where it was not. Further, amongst those in which participation was intended, three types of participatory practices occurred: asynchronous practices, synchronous practices, and a mixture of both asynchronous practices and synchronous practices.

Participatory asynchronous practices and skills. Asynchronous communication is described as communication that happens outside the constraints of time and space, such as email or text messaging. Asynchronous communication offers a context that is more fluid and adaptable to the needs of various learners by removing time constraints. In a theoretical article examining asynchronous and synchronous communication, Hrastinski (2008) theorized asynchronous communication is a crucial component of adaptable online learning due to the flexibility it affords learners. Contexts that utilize asynchronous communication offer adolescents extended time to communicate with each other (Herff Jones report, 2010). In this section, empirical studies

focusing on participatory new literacy practices, such as discussion boards, blogging, wikis, and texting, which utilize asynchronous communication, will be reviewed.

Discussion boards. In a study examining the ways in which the use of discussion boards could be used to aid in communication within courses at the university level, Ajayi (2010) concluded that use of said boards extended classroom communication and student interest in the course. Participation in the asynchronous discussion boards increased students' ability to make intertextual connections and encouraged them to consider alternate perspectives, which resulted in an increase in overall classroom communication (Ajayi, 2010). While this study examined the communication benefits amongst adults, their findings are consistent with research that occurred amongst adolescent populations. Grisham and Wolsey (2008) also explored the use of asynchronous discussion boards in a study that took place in an eighth grade classroom over the course of a school year. Students within the class were required to respond to several novels they read utilizing discussion boards. Grisham and Wolsey (2008) postulated activities that utilized asynchronous communication aided students in producing more thoughtful responses, because they allowed students more time to ponder and analyze what they are going to write about without 'an audience.' Further, they found that participation in these required discussion boards led to developing a community atmosphere within the class, because the students worked together to co-construct knowledge as they responded to each other. Conceivable lowercase new literacy skills that can be concluded from

these studies would include the ability to make intertextual connections, consider multiple viewpoints, and more deeply explore and convey their own thoughts when participating in online asynchronous discussions. Conveying a clear and unambiguous message along with providing constructive and relevant responses would also be strengthened. The use of discussion boards as a requirement in these studies has been documented; yet, it is unclear if adolescents would choose to explore discussion boards in order to communicate on topics of their own interest in recreational settings.

Online reading and writing practices and skills. Several new literacy practices have been explored where reading and writing are the primary purpose, but the context occurred asynchronously, outside "real time." A recent US survey conducted by McKenna, Conradi, Lawrence, Jang, and Meyer (2012) found there were gender differences noted in regards to adolescent views of reading both recreationally and for academic purposes in online contexts. The survey found females were positive about reading online for academic purposes, whereas males were more positive reading in digital settings for recreational purposes. The use of surveys will provide an overarching glimpse into U.S. adolescents' reading practices, however, what accounts for interest in online and digital settings needs to be explored further.

Guzzetti and Gamboa (2005) used a case study approach to explore the online journaling activities of two adolescent females and ways in which asynchronous electronic journaling was used by the two participants. Researchers found both girls used the same electronic journaling site, Live

Journal, in different ways, which indicated the use of online features was often self-directed and mediated by the user within that affinity space (Guzzetti and Gamboa, 2005). Larson (2009) examined the use of electronic journaling amongst a fifth grade class and found use of the electronic journals allowed for higher student engagement, and thus, more thoughtful responses and the ability to consider multiple perspectives. In contrast with the previous studies' findings, students in the class took ownership of the entries and the class established their own set of expectations for appropriate responses and conduct while participating, however, individual students tended to follow along with the established classroom communities' expectations (Larson, 2009). A few students were noted to have participated differently online than in the classroom, which led the researcher to conclude some students may not be as comfortable using the online platform (Larson, 2009). Possible lowercase new literacy skills that can be inferred from the types of online asynchronous journaling practices described would be the ability to design their own representative texts and posting them for others to see, analysis and critical evaluation of various entries made by other users, ability to give constructive and appreciated feedback, along with the ability to attract followers. The Guzetti and Gamboa (2005) study only explored the perspective of two females and did not include samples of adolescent males' online writing practices, thus it remains to be seen how a variety of students would use an online journal.

In a case study of two primary schools in England, Burnett, Dickinson, Myers, and Merchant (2006) explored the benefits of using asynchronous forms

of communication, such as email, in developing both the communication and writing skills of primary school children and posited that asynchronous platforms offer valuable communication contexts. This asynchronous communication context not only allowed increased response time, but also provided an authentic purpose and responsive audience (Burnett et al., 2006). The researchers also found that use of this type of asynchronous communication encouraged the emergence of peer-based relationships and extended communication into broader contexts (Burnett et al., 2006). Hratinski, (2008) maintains while there are many benefits to utilizing asynchronous communication in online contexts, contributors may feel isolated and not part of an active learning community. However, in a study amongst over 200 undergraduate university students, Gausch, Espasa, Alvarez, & Kirschner (2013) found that providing students with suggestive feedback on collaborative online projects significantly impacted their collaborative writing performance and led to higher quality work as a result of increased communication between the instructor and student. New literacy skills, such as communicating and collaborating with each other in written formats, are demonstrated in these studies. While the benefit of using suggestive feedback amongst adults has been noted, it remains unclear if such feedback amongst adolescent populations when writing in online settings would be perceived positively and would lead to improved writing performance or increasing feelings of membership within a given context.

Wikis. Wikis are defined as a web-based service that permits consumers to generate, alter, and link information asynchronously (Crook & Harrison, 2008). Tarasiuk (2010) studied the learning processes of his adolescent students as they used and increasingly integrated asynchronous ICTs such as wikis into their literature classes. Tarasiuk (2010) reported that students were more sincere and focused when working within these digital spaces and that their communication and collaboration efforts with each other in the classroom were increased. In this study, it seemed that the more invested students became in the projects they were working on, the more effectively and deeply they communicated with each other. This depth of communication was reflective in increased desire to find additional tools with which to communicate. For example, one group added a chat box to communicate with others in a different section of the class who were working on a wiki of the same novel. This study took place within one classroom, thus, it remains to be seen what adolescent reactions are to digital projects when they are not in a school setting.

Blogging. Luehman and Borsai (2011) authored a book on blogging in which they described blogging as "a personally authored work that serves purposes of knowledge building, identity formation, community building and advocacy work" (p. 3). The book served to synthesize the authors' findings over five years of research in various content areas at the secondary level. Researchers found the use of blogging in the classroom yielded many positive outcomes for deepening student communication and collaboration skills (Luehman & Borsai, 2011). Specifically, with regards to communication

enhancement, blogging was shown to encourage new ideas by exposing students to multiple perspectives. Further, Luehman and Borsai (2011) posit blogging involved simultaneous conversation with one's self and with others in such a way that encourages and enhances the development of metacognition (Luehman & Borsai, 2011). The presence of reflective metacognition likely led to more responsive feedback and comments amongst student participants. Similarly, Lacina and Griffith (2012) explored blogging in an elementary setting and found the use of blogging encouraged students to partake in authentic and engaging discussions and helped foster a community of writers within the classroom. Further, researchers reported the results of their study indicated their teachers felt that students were producing superior products due to the fact that the students felt they were writing for authentic purposes (Lacina & Griffith, 2012). This indicated blogging was a highly effective tool for providing authentic writing practice amongst elementary aged students. In all of these studies, memberships within the blogs were a mandate of the course and set up by the instructor. Consequently, the role of membership, when membership occurred not as a mandated requirement, but rather an autonomous selection remains to be seen. Also, how adolescents may use blogging to communicate with others during recreational times is not yet fully understood.

Texting. An Ofcom (2011) survey found that 90 percent of British adults between the ages of 16 to 24, text daily in order to communicate with friends and family, in comparison with 63 percent who talk to others face to face, and 67 percent that state they make daily calls. American teens aged 12-17

responded similarly in a 2012 Pew survey (where 63 percent reported they text on a daily basis, while only 58% use a landline or cellular phone to communicate on a daily basis). Tarasiuk (2010) noted when surveying 252 sixth, seventh, and eighth grade students, 53% of the students surveyed texted on their cell phones on a daily basis. While these survey results indicate texting is a popular practice among young adolescents and into adulthood, there are relatively few studies that explore the practice of texting empirically; most research studies seem to lump texting together with a variety of other new literacy practices, rarely exploring it independently as a new literacy practice in its own right.

Plester, Wood, and Bell (2008) explored whether the use of abbreviations while texting had a negative impact on the written language skills development of young adolescents, aged 10-12. Researchers found there was no conclusive evidence to suggest the practice of texting damages literacy skill development, and in fact, noted texters who used more abbreviations in their text messages generally had a greater command of the English language as evidenced in higher achievement on school-based measures (Plester, Wood, & Bell, 2008). However, these measures were not clearly explored or relayed within the article. In a study of 135 university students' texting practices, students last five texts were analyzed and found to be not only comprehensible, but the orthography varied considerably amongst participants leading the researcher to conclude that individual spelling patterns used by the texter varied dependent upon their phonetic command of the language (Thurlow, 2003).

Thurlow (2003) deduced that the ultimate goal of texting was to quickly produce comprehensible messages using semiotic text features, such as punctuation marks to indicate meaning (e.g.: no way??!!), emoticons (e.g.: **:-)**) and abbreviated spellings. Ling and Baron (2007) also researched university students' texts and noted that text messages contained more abbreviations and contractions than other forms of instant messaging. The results of these studies indicate that rather than demonstrating a more decreased form of written communication, texters almost seem to have a more in-depth hold and command of written language. Plester, Wood, and Bell (2008) also posit that the ability to condense words likely relates to their phonological knowledge. New literacy skills such as being able to condense language in such a way that another recipient can understand the message are evidenced within these articles. It remains unclear how the texting practices of young adolescents impact their overall communication.

YouTube. Lange and Ito (2010) describes the YouTube practices employed by a mother and daughter duo who created and posted a series of shows on YouTube where they review and comment on popular television shows such as Survivor, Big Brother, Top Chef, among others. The duo worked together to create, edit, and post new videos on YouTube on at least a weekly basis (Lange & Ito, 2010). Once the videos had been posted they tried to solicit views by posting announcements on YouTube and other social networking sites, along with sending alerts via instant messaging (Lange & Ito, 2010). Lange and Ito (2010) also relayed that the duo would routinely visit other YouTube sites to

watch and comment on other videos in order to increase their followers. In another work detailing a two year ethnographic study of 110 adults and 40 youths who used YouTube, Lange (2014) states that in making and designing videos individuals are developing skills which would "help them communicate and participate more fully in an increasingly networked world" (p. 9). Lange (2014) detailed the practice of creating tutorial videos and posting them on YouTube which she referred to as "videos of affiliation" (p. 71), which she explained evidenced the connection that her participants had to each other as specific cultural groups, connected by the larger digital platform of YouTube. The participants explained that they learned to make the videos by playing around with cameras and by watching other tutorials. New literacy skills such as posting videos, crafting an identity to display oneself to a particular audience, and maintaining interest amongst viewers were noted. However, it remains to be seen how popular these practices are amongst adolescents on a large scale. Moreover, the skills Lange reported were lumped together, so it is unclear if said skills pertain to adults, adolescents, or a mixture of the two groups.

Summary. These findings demonstrate that asynchronous communication can be utilized as a powerful new literacy tool to aid in a variety of digital environments. As students collaborate and communicate with each other asynchronously, some of the new literacy skills that would likely emerge from participation in these asynchronous practices would be thoughtful contemplation of topics presented and responses, which researchers have indicated help in strengthening the membership within a given community.

Further, several studies have found that asynchronous contexts, such as discussion boards, electronic journaling, and blogging allow students to respond more thoughtfully based on the ability to respond outside the constraints of "real time." Conversely, the practice of communicating asynchronously through text messages encourages users to create more condensed messages, but the use of abbreviated forms of language have been linked to more developed written language skills in some studies.

Participatory synchronous practices and skills. Synchronous communication is communication that occurs in real-time where participants can communicate and collaborate with each other within virtual platforms, such as chatting via Instant Messenger. Hratinski, (2008) suggests that the benefits of communicating synchronously aids adolescents in feeling like real participants rather than outside observers, offering that practices such as videoconferencing can help foster the development of learning communities. The empirical research findings in this area are somewhat limited in comparison to asynchronous communication contexts. In this section, participatory new literacy practices, such as instant messaging which utilizes synchronous communication, will be discussed.

In a qualitative study, Lewis and Fabos (2005) observed the instant messaging (IM) practices of seven adolescents between the ages of 14 and 17 and found that participants felt sustaining interesting and consistent conversations with each other was essential; in fact, they would often type out several partial sentences to each other in order to keep the conversation flowing

and maintain the current topic. Researchers also found that the adolescents changed the overall tone, syntax, and manipulated their word choices in order to mimic speech-like conversation in those affinity spaces (Lewis & Fabos, 2005). The use of abbreviations and invented spelling were common as well. Jacobs (2004) conducted a two year ethnographic case study where the instant messaging practices of six adolescents were examined, with the practices of one female student being the focus in that particular study. The researcher noted the participant's instant messages evidenced the ability to collect, assemble, and distribute data amongst her larger peer group. In another article referencing the same study, Jacobs (2004) noted that the adolescents often engaged in multiple conversations at once, which resulted in short text entries which the researcher noted enabled the conversations to flow more naturally. Lee (2007) examined the IM practices of 19 adults between the ages of 20 to 28 years and found that thoughtful consideration in the way a message was written was considered by the participants. All of these studies document the thoughtful and purposeful ways in which individuals use instant messaging to communicate synchronously, yet, it remains unclear how the participants learned to participate in and craft IM. Further, the impact the practice of IM has on participants' overall communication development was not fully examined.

Participatory mixed communication: Asynchronous and synchronous practices and skills. Some practices encourage a mixture of both asynchronous and synchronous communication, at times simultaneously. Hratinski (2008) points out that some forms of asynchronous communication,

such as email, can take on new, hybrid uses, for example, when users respond immediately to a series of emails, thus, the distinction between asynchronous and synchronous e-learning is often merely "a matter of degree" (p. 52).

Crook and Harrison (2008) conducted a survey of 2,600 British adolescents and found that females participate in mixed communication practices such as social networking more than males, whereas as males were more likely than females to engage in mixed communication practices such as online gaming. McKenna et al. (2012) found similar results as well amongst US adolescents. In this section, empirical studies focusing on participatory mixed communication amongst lowercase new literacy practices such as social media, online gaming, and fan-fiction will be reviewed.

Social media. In a qualitative study examining the use of social media amongst five graduate and four undergraduate university students at three different universities, researchers studied the use of a variety of digital platforms such as video conferencing, (i.e. Skype), discussion boards, text messaging, email, and social media outlets (i.e. QuickPolls and Twitter)(Gikas & Grant, 2013). These digital platforms were used both in class sessions to augment class discussions and after class to discuss and explore participant reactions. Students described how they would use a variety of synchronous and asynchronous communication as they participated in their university courses for the given semester (Gikas & Grant, 2013). For example, they described using their cell phones to text message responses to each other synchronously in class, along with posting comments on discussion boards asynchronously throughout the

week. The students reported they had increased effective and efficient communication with the instructor and other students by utilizing a variety of these communication contexts (Gikas & Grant, 2013). Some of the new literacy skills that can be inferred are communicating synchronously and asynchronously with instructors and peers, effectively accessing information quickly and reporting back to peers, multi-tasking while participating in class, and posting content pertinent to the class discussions. While this study took place amongst university aged students, it remains uncertain whether these results could generalize to younger adolescent populations.

Online gaming. Online gaming necessitates a context that utilizes both asynchronous and synchronous communication depending upon the environment in which the game is played. Over 10 months, Chen (2013) studied an expert player group which included approximately 60 virtual players who synchronously communicated, many of whom never met outside the confines of the virtually shared world. These players played Worlds of Warcraft (WOW), a type of massively multiplayer online game (MMOGs). Chen (2013) observed that learning occurred through repeated verbal interactions where the players tried to perform in-game tasks together synchronously. However, failure to perform specific in-game tasks was not necessarily viewed as negative, because it seemed to help them formulate and develop new strategies, especially when combined with reflection (Chen, 2013). This ability to develop new strategies upon reflection indicated that metacognition was an integral component necessary in their learning process. Ultimately, the friendships that developed

amongst players and the ability to unite together to try and achieve a joint goal emerged as more important than focusing on the goal of succeeding in the game (Chen, 2013). These findings suggest that the synchronous communication and collaboration skills that players hone while playing were very important for this particular group, ultimately more important than a game-related task. Additionally, skills related to continued practice and reflection were discussed as important skills, because players often reflected and then strategized with each other after a defeat. It remained unclear whether these findings would be similar amongst other MMOG groups or with players from different games. In another gaming study, Schrader and McCreery (2008) gave a Likert-type survey to 2,140 participants who regularly play MMOGs, specifically approaching players in WOW forums. Their findings suggested that MMOGs provided a structured synchronous context that helped to advance skills necessary for players to achieve multifaceted, goal-based tasks within that gaming environment. They also found evidence of intertextual communication skills and collaboration skills as the participants united together to try and achieve game-related tasks. Also, in-game perceptions of status were clustered together which led them to conclude "whom they communicate with is principal rather than the mode of sending/receiving the information" (p. 568). While these results are certainly of interest, the modes in which users sent/received the information were not explained clearly, thus it would be difficult to ascertain whether these skills would transfer to other gaming forums.

Sanford and Madill (2007) conducted a study where they examined the types of new literacy skills demonstrated amongst Canadian adolescent males when they played and created video games. The study was implemented within the confines of a series of structured video game camps where adolescent males, aged 11-16, were hired as instructors to teach predominately male students, aged 8-12, how to better play and design their own video games. Findings indicated that several new literacy skills were demonstrated, such as the demonstration of skills related to general operation of the game, being able to understand visual and textual game instructions, using and adapting signs and symbols within the game to aid in game play, and knowing how to construct avatars (Sanford & Madill, 2007). This study provided insight into the new literacy practices amongst predominately male populations, yet, it remains to be seen whether these findings would be similar amongst more balanced populations. Hung (2013) explored collaborative gaming practices among 14-18 year old Asian adolescents. Hung (2013) found that communication within the gaming environment was critical as game learning occurred when a learner interacted with in-game tutorials and prompts along with the guided help of an expert. In this particular study, there was an expert guiding the novice learner, and there was not a discussion of what would happen if the learner had only in-game tutorials to aid in their learning and mastery of the game. Both of these studies explored different contexts for new literacy gaming, but were specific to particular predominately male populations and within specific cultural groups,

thus it is difficult to make generalizations from this study to other adolescent groups.

Fan-fiction. While conducting a three-year longitudinal case study, Black (2009) explored the online writing practices of six adolescent English language learners (ELL) while engaged in an online fan-fiction community and noted that the sites themselves were locations for "communication, socialization, and self-representation" (p. 423). Black (2009) found the adolescent participants in her study demonstrated how they communicated and collaborated while participating in and creating online fan-fiction as they engaged in activities such as peer-reviewing and collaborative writing on the site. In an earlier study of fan-fiction practices amongst adolescents on the same fan-fiction site, Black (2005) discussed the ways in which the synchronous nature of fan-fiction sites served to give immediate feedback to writers and reviewers in order to aid them in their ability to not only communicate using the English language, but to also more accurately express themselves to others. Black (2005) noted participants in her study were able to incorporate images and sounds into their entries, which aided the ELL students in supplementing other modes of expression to replace unknown words. Guzzetti and Gamboa (2005) also found that one of their participants, described as a "prolific writer," participated in fanzines (another term to describe the writing of fan-fiction) and noted that participation within that context gave her the ability to participate both as a writer receiving feedback and a reviewer delivering constructive suggestions (p. 175). These findings indicated as students engaged in collaborative writing they

worked towards a mutual goal. Further, exposure to the peer-reviewing and collaborative writing found on fan-fiction sites served to help both students with limited exposure to English and those with strong English writing skills gain additional writing practice in authentic contexts.

Chandler-Olcott and Mahar (2003) conducted a study where they explored the digital literacy practices of 12 seventh and eighth grade girls of European American descent over 18 months in out-of-school digital contexts, specifically amongst fan-fiction forums. Findings indicated the girls were able to use technology tools in a variety of ways and for various purposes, modifying them for their own personal interests within these forums (Chandler-Olcott & Mahar, 2013). The researchers noted the participants had seemingly developed richer memberships in these online communities of practice than they had in real life. Additionally, participants received online support and assistance from more experienced members within the various fan-fiction communities in which they traversed (Chandler-Olcott & Mahar, 2013). Researchers noted the support they received from these community members helped them participate more fully within these social communities (Chandler-Olcott & Mahar, 2013). While this study provided in-depth glimpses of the literacy practices of these adolescents within communities of practice centered on animae, , we do not know the types of various skills participants may possess that would help them in other digital platforms or within other communities of practice. Further, the results are isolated to one gender group among one particular racial and ethnic subgroup. New literacy skills such as understanding how to coherently write and

collaborate with others when co-creating and reviewing fan-fiction were paramount, as were skills related to exploring multiple perspectives in regards to adopting different writing personas when acting as a reviewer and as a participant. It remains unclear if adolescents are able to transfer the skills they hone in fan-fiction sites to other literacy contexts.

Summary. The results found in these studies suggest that a variety of new literacy skills were evidenced when participants engaged in practices utilizing both asynchronous communication and synchronous communication. Lowercase new literacy skills such as being able to effectively operate within a given new literacy platform, working towards a shared goal with either peers or more-expert-others, and offering and accepting feedback from others were evidenced in these studies. These lowercase new literacy skills are invaluable assets as participants navigate through multiple new literacy practices.

Non-participatory practices and skills. Non-participatory practices are practices where the goal to participate and interact with others is not overt. Practices such as online reading comprehension, writing, and researching will be discussed.

Online reading and writing. The understandings that we possess in regards to reading and writing, specifically, in online contexts continue to evolve and expand. Recent research has shown that online reading comprehension is not identical to offline reading comprehension, in fact, results have shown that additional practices and skills are necessary in order to read efficiently in online environments (Coiro & Dobler, 2007; Zhang & Duke,

2008). Coiro and Dobler (2007) investigated the internet reading practices of 11 sixth grade proficient adolescent readers and found that online reading involved more multifaceted applications of prior knowledge information, inferential reasoning strategies, and self-regulation. Coiro (2011b) examined a stratified random sample of 118 seventh grade adolescents' reading comprehension proficiency when reading online for informational purposes and found positive and significant intercorrelations between reading comprehension in both online and offline contexts. Similarly, Cho (2013) found in a study of seven accomplished adolescent high school students, participants used multifaceted reading strategies in order to understand and locate various texts, comprehend what they were reading, evaluate sources, and monitor their reading. However, the strategies that said adolescents used were a combination of print-based strategies that were applied to online environments and strategies specific to just online environments (Cho, 2013). Zhang and Duke (2008) also found good readers used over 50 different reading strategies when approaching different types of texts online, which indicated there was not one typical set of strategic rules that readers apply to the contexts they are reading. Also of note, participants reading for entertainment purposes were found to demonstrate less strategic reading than those who were reading for academic purposes (Zhang & Duke, 2008). These findings indicated there was a connection between offline reading ability and online reading ability in regards to their ability to locate, evaluate, synthesize, and communicate findings. There is much yet to uncover about how readers apply strategic knowledge when reading in online contexts,

specifically in regards to how they negotiate meaning with a variety of texts on the internet. What we do know is that some proficient readers have learned how to effectively apply print-based reading strategies to online texts. Further, Afflerbach and Cho (2009) posit that online reading also involves making thoughtful choices about what to read and in identifying relevant texts, perhaps more so than when reading in other platforms. These findings illustrate that in online contexts, adolescents need to be cognizant that different approaches to text are necessary. In order to be successful in reading online, readers need to be flexible and thoughtful in the strategies they apply, understanding they may need to develop different strategies to use in different environments. Some, but not all, of the strategies they use with print-based texts may work in online environments.

In an effort to more clearly establish the skills and strategies young children bring to the texts that they read, Levy (2009) sought to examine the ways in which 12 young children (aged 3-6) interact with screen-based texts, specifically in regards to their perceptions of reading. The children in the study demonstrated they had several literacy skills they were able to transfer from one digital context to another, including novel contexts and platforms, how to operate computers, work a mouse/text pad, and use various multimodal text features to aid in understanding. Participants also demonstrated they used various literacy modes (images, sound, color, etc.) when they accessed different texts and they saw these multimodal features as integrated into the text and used them simultaneously in strategic ways to help support their understandings of

the texts they were viewing. Participants demonstrated they were successfully reading an assortment of multidimensional texts within a variety of diverse environments and surroundings, both in home and school environments independently. Finally, as these young children progressed through the study, Levy (2009) found when they encountered print-based texts they began to lose confidence in their reading abilities; instead of relying on multimodal strategy use when approaching novel print based texts, they felt the need to decode print instead. This implied there was, even from a young age, differing ways in which children approach texts. However, the ways in which they were introduced and taught to approach print-based texts was not fully explored. This study also provided an example of the types of multimodal skills children need to be successful reading online today.

Colwell, Hunt-Barron, and Reinking (2013) conducted a study which explored the digital literacy development amongst 48 middle school science students of average to above average academic abilities. The students in the study were primarily Caucasian females, with only one African American student amongst the sample. Findings suggest there are three obstacles that challenge developing digital literacy and independent strategy use: the teacher's role, the structure of the projects, and the students' previous strategy use. Engaging students did not automatically lead to increased strategy use, nor did the ability to identify and apply the strategy mean that they would continue to apply the strategies while reading. Researchers posit student disposition may have a direct bearing on their use of strategic and critical stances they may take

when researching online. This study provided valuable insights into both the types and nature of strategies adolescents use. However, the study population was comprised of students who perform well academically; thus, the sample in the study was not representative of many typical US classrooms, which include students of mixed abilities and gender.

Asselin and Moayeri (2010) conducted a study where they explored the internet literacy practices and skills of one adolescent male and one adolescent female. Asselin and Moayeri (2010) focused their analysis on four particular categories: focusing and identifying purpose, searching for information, analyzing information, and learning from information. In regards to identifying a purpose, results were mixed; the male participant was able to articulate his ability to refine his search based upon his findings, but the female participant was never able to articulate that she knew or understood how the topic she was researching was related to a particular homework task. Both participants selected Google as their preferred search engine and seemed to want succinct results, often relying on Wikipedia as a favored source for information. While both participants consistently evaluated the relevance of search results to their original topic, neither participant gave any indication of concern for credibility or the accuracy of a given source (Asselin & Moayeri, 2010). Both students were able to articulate they had learned some from their findings, however, the students were described to have ended the sessions in frustration because they felt the search returns they found were too complex (Asselin & Moayeri, 2010). This study provided valuable insights into the literacy practices and skills

utilized by two adolescents. However, as there were only two participants, and one was not as articulate as the other, there remain questions as to the practices and rationales utilized by the participants. Also, in this particular study, participants were displaying the use of using digital platforms for homework-related tasks, thus, findings may have been different if it was a self-selected task done for enjoyment.

Summary of lowercase new literacies skills and practices. Three types of new literacy participatory practices were evident in this review: asynchronous practices, synchronous practices, and a mixture of both asynchronous practices and synchronous practices. Asynchronous practices occurred outside the constraints of time and space and included various forms of digital new literacy practices such as discussion boards, online reading and writing such as email, blogs, wikis, electronic journaling, and texting. Asynchronous communication skills such as concise and clear writing (both in extended and abbreviated formats) (Burnett et al., 2006; Gausch, Espasa, Alvarez, & Kirschner, 2013; Guzetti & Gamboa, 2005; Lacina & Griffith, 2012; Larson, 2009; Ling & Baron, 2007; Tarasiuk, 2010; Thurlow, 2003), considering multiple perspectives (Ajayi, 2010; Grisham & Wolsey, 2008; Guzetti & Gamboa, 2005; Lacina & Griffith, 2012; Lange & Ito, 2010; Larson, 2009; Luehman & Borsai, 2011), making intertextual connections (Ajayi, 2010) providing constructive feedback (Lange & Ito, 2010; Luehman & Borsai, 2011), and critical evaluation (Grisham & Wolsey, 2008; Larson, 2009; Lange & Ito, 2010; Luehman & Borsai, 2011) were highlighted.

Synchronous practices occurred in real-time and included practices such as instant messaging. Synchronous new literacy skills included multi-tasking while participating in multiple conversations while instant messaging (Jacobs, 2004; Lewis & Fabos, 2005), purposeful communication (Jacobs, 2006; Lee, 2007), and writing in abbreviated formats (Jacobs, 2004; Lewis & Fabos, 2005). Participatory mixed communication practices that utilized a combination of both asynchronous and synchronous skills included writing fan-fiction, online game playing and design, and participating in video-sharing sites. Asynchronous and synchronous communication and collaboration skills were critical in creating shared writing drafts (Black, 2005, 2009), providing and accepting suggestive and constructive feedback (Black, 2005, 2009; Chandler-Olcott & Mahar, 2013; Chen, 2013; Gikas & Grant, 2013; Guzzetti & Gamboa, 2005; Hung, 2013; Sanford & Madill, 2007), providing critical and constructive analysis and evaluation of others' work (Black, 2005, 2009; Chen, 2013; Gikas & Grant, 2013; Guzzetti & Gamboa, 2005; Sanford & Madill, 2007). Further, the ability to effectively collaborate and communicate with others was also evidenced in the ability to work together to create shared texts (Gikas & Grant, 2013; Guzzetti & Gamboa, 2005; Schrader & McCreery, 2008) or working towards shared goals (Sanford & Madill, 2007; Schrader & McCreery, 2008). Additionally, non-participatory practices such as online research and internet skills were investigated and skills such as flexibility and adaptability (Afflerbach & Cho, 2009; Coiro, 2011b; Colwell, Hunt-Barron, & Reinking, 2013; Levy, 2009; Zhang & Duke, 2008), strategic reading skills

(Afflerbach & Cho, 2009; Cho, 2013; Coiro & Dobler, 2007; Levy, 2009; Zhang & Duke, 2008), and the ability to both self-regulate and self-monitor (Afflerbach & Cho, 2009; Coiro & Dobler, 2007; Levy, 2009). Amongst several of the studies student disposition and engagement were often mentioned as influential factors, or inferred underlying factors, especially in those studies where authors concluded that writing for authentic purposes was noted and received positively amongst the participants (Cho, 2013; Colwell, Hunt-Barron, & Reinking, 2013; Levy, 2009; Zhang & Duke, 2008).

Based upon the studies reviewed, it remains uncertain whether adolescents are able to transfer the new literacy skills demonstrated in one context to different contexts. Additionally, several of the studies are qualitative, resulting in smaller numbers of participants, however, the limited groupings, for example focusing on one ethnicity or gender detracted from their generalizability. The deictic nature of lowercase new literacy practices imply that literacy practices are constantly developing, thus, the types of new literacy practices that adolescents are currently engaging in is also constantly evolving.

Chapter 3: Methodology

This study sought to investigate how the new literacy skills and practices in which sixth graders participated shaped their literate identities. Specifically, this study explored the new literacy practices sixth graders employed as well as the new literacy skills that they demonstrated. Additionally, this study observed the various literate identities that were displayed as the participants went through the discussion and demonstration portion of the study. Previous research has demonstrated students display multiple literate identities as they participate in different literacy practices (Beach & Ward, 2013), although the effect of the participation in various new literacy practices upon various identities has not been previously explored. The methodological perspective underlying this study was based upon phenomenology. because the study sought to explore the lived experience among young adolescents as they participated in various new literacy practices. Individuals are a product of their interactions within the world around them. Wenger (1998) posited the interactions one has within the various communities of practice they engage in leads to not only learning, but moreover to the development of their own unique personas and identities. At the core of phenomenology is the idea that individuals attempt to make sense of the phenomena they encounter daily, defining who they are and who they become. Thus, the study aligned itself with the phenomenological perspective, because the focus was upon understanding the individual and shared experiences students have within the new literacy practices they employ. Using a phenomenological perspective allowed a deeper analysis of not only

young adolescents' new literacy practices, but also explored how their perceptions of the literate activities and the skills necessary to successfully participate in said activities influenced their overall literate identity formation. Participant responses were analyzed for significant statements and emerging themes that described the essence of their shared experience (Crewswell, 2007). Understanding these shared experiences will help the field gain a deeper understanding of the ways in which new literacy practices influence student learning and add to the current theory.

Research Design

The present study and research questions lent themselves to a qualitative study design because of the dynamic nature of exploring the shared phenomenon young adolescents experience as they participate in various new literacy practices. As the nature of qualitative research is inductive in that conclusions are based upon observation, this inquiry is decidedly flexible and seeks to explore the shared experiences of the participants in order to gain a deeper, richer understanding (Ezzy, 2002). A qualitative design complimented this study as I sought to understand and explore the shared experiences of these young adolescents. Additionally, using a phenomenological approach aided in highlighting the participants' unique and subjective experiences (Bogdan & Biklen, 2003). One of the key purposes of the current study was to further investigate and explore the ways in which these young adolescent participants interpreted their new literacy experiences. Thus, employing a qualitative phenomenological research design was quite beneficial to this type of emic

perspective analysis, indicating that the descriptions and terminology used came directly from participants and the observed cultural groups.

Participants

The participants in this qualitative study were sixth grade students from the three participating elementary schools. Sixth graders were targeted in this study because previous studies have demonstrated that young adolescents in middle school often begin to experience decreases in motivation in regards to their literacy learning (Ryan & Patrick, 2001; Wigfield, Eccles, & Rodriguez, 1998). Beach and Ward (2013) posit that "a child's sense of being literate can impact what they learn and how they learn it" (p. 241). Thus, exploring the understandings these young adolescent sixth graders had in regards to the new literacy practices they participated in and the ways in which these practices influenced their literate identities offered valuable insights into this age level. All of the participants in the study were students who reported an interest in technology in some regard. While interest in technology was not a requirement of the study, it turned out those participants that volunteered naturally tended to be interested in participating due to this type of interest. The degree to which they had used technology tools and the types of technology they had access to varied greatly among the users and will be discussed further later in this chapter. The majority of the participants had used or currently used technology on a regular basis, and more specifically new literacy tools and practices to some degree. The types of new literacy practices and technological tools utilized also varied widely.

Participating students were recruited from all available sixth grade students at the three participating parochial schools. There were 26 students who volunteered to participate from an initial pool of 87 sixth grade students. The research study and participation requirements were explained to all students enrolled in the sixth grade at each site. At that time, students were given an envelope with a letter addressed to their parents explaining the study and also a parental permission form to be signed and returned if they were interested in allowing their child to participate further. All of the interested participants who returned parental permission forms granting permission were asked to also give their assent to participate in the study. After giving their assent, participants also filled out the Student Technology Survey (see Appendix B). From that initial pool of interested participants, all 26 students were contacted and 18 were still interested or able to participate further. A total of 18 of the students were interviewed in random order and participated in the Student Discussion and Activity Demonstrations. Of these 18 participants, 56% reported that they were white, non-Hispanic, Asian 11%, Native American 11%, Black 6%, Hispanic 6%, and other 10%.

Setting

This study took place at three different parochial schools in the southwest region of the United States in the spring of 2013. All of the schools were co-ed and served students from pre-kindergarten through eighth grade. In all of the schools, the sixth grade was considered to be part of the middle school, but was not located at a different campus. In the state where the research took

place there was a wide variance as to whether the sixth grade fell in a middle school/junior high environment or still within the confines of the elementary school. I was interested in working in an environment where the sixth grade could be investigated without being directly tied to either an elementary or middle/junior high school. In all of the schools, the sixth grade classes were departmentalized and the students rotated between different teachers for their major subjects of study (language arts, math, science and social studies, electives, etc.). An additional factor that is important to note is that the socioeconomic status of the students in these parochial schools may differ from students that attend public schools in nearby neighborhoods. However, as this was a study where new literacy skills were being explored, it was important to have students who had access to technology and developed skills in these areas in order to effectively investigate the new literacy practices and new literacy skills they may have had and were able to demonstrate.

The three schools were located in different suburban communities within the same large metropolitan area. While all three schools were part of one large parochial district serving several smaller cities and counties and whose general populations could be described as predominately white, non-Hispanic, they differed some in socio-cultural make-up and diversity. The first school, Saint Palladius, was a suburban school located near the heart of the city. Saint Palladius had a population of approximately 376 students with various backgrounds: white, non-Hispanic 58%, Hispanic 21%, Asian 15%, and black 6%. The second school, Saint Hyacinth, was located in a smaller affluent

suburban community. The school had a population of approximately 481 students with various backgrounds: white, non-Hispanic 85%, Hispanic 6%, Asian 5%, American Indian/Alaskan native 5%, and black 1%. The third school, Saint Cyprian, was located in the smallest suburban community of the three sites. The school had a population of approximately 193 students with various backgrounds: white, non-Hispanic 87%, Hispanic 3%, Asian 3%, American Indian/Alaskan native 5%, and black 1%. Additionally, all names of people and places referenced within this study are pseudonyms.

Participating Schools and Children

Saint Palladius. The students at this site were very engaged and animated when discussing their new literacy practices. Interestingly, several of the parents wanted to meet me and discuss my study when they were dropping off and picking up their children, which did not occur with several parents at other sites. In general, the participants reported mostly using technology tools for entertainment purposes. Several discussed being confident with certain technological applications and programs such as Microsoft Word, PowerPoint, and Prezi because of instruction they had received in school. Some reported using these types of programs on their own for fun. The majority of them had personal or family technological tools or they had regular access to, such as iPods, iPad, and home computers. They also reported being familiar with a variety of offline and online practices. Additionally, several of the participants indicated they not only had similar technological interests as their classmates,

but their responses also indicated these students shared this information and discussed literacy and technology practices with each other to some extent.

Cristal. Cristal was a quiet and soft-spoken 12-year-old. She was a self-described computer genius who has been using technology independently on a regular basis since she was in the second grade. Cristal reported liking to explore Internet based websites because she could "discover things on the Internet I never thought I could" (Interview, lines 181-182). She stated that her friends, teachers and parents all acknowledge that she is good with technology and using the Internet. Cristal recounted using technology daily for 1-2 hours for homework, and about 30 minutes for self-selected entertainment purposes. She said that she did not have pre-set limits by her parents and could use websites as long as she liked, and did so until she became bored. Some of the practices she reported being most familiar and confident with were ones that she had received instruction on at her school, such as Microsoft Word and Excel. Many of the websites Cristal liked to explore were ones that she had seen advertised on cable TV channels such as the Disney Channel and Animal Planet and were ones that correspond with particular TV shows, such as Dog with a Blog and River Monsters, respectively. In general, Cristal reported feeling that using technology "was easy" and that it was a more desirable way to find out important information than "the hard way, by actually talking" (Interview, lines 913; 293).

Juliette. Juliette was an animated 12-year-old girl who seemed quite excited to be participating in the study. In fact, her mother reported she insisted

she wanted to participate. She loves to write and read, and has a collection of "little stories" she has been working on in her free time. Juliette had access to a few different technology tools, but most often used a home PC and occasionally her dad's iPhone and/or laptop. She liked to explore different applications herself and felt "just going in and playing the game is how I really learned to do it" (Interview, lines 118-119). She reported liking to try activities or programs such as Microsoft Word and PowerPoint that she learned about in school on her own, too. Juliette did Word for fun almost daily because she felt it was easy and felt that composing her stories using Word helped her catch grammatical mistakes she would not have otherwise caught. She also liked to play games, both online games and CD-ROM games, but felt she was an average game player and user, because she did not practice them as much as other friends and her siblings. She reported she felt that she was a better reader and writer than other friends and classmates because she practiced those activities more.

Kevin. Kevin was a 12-year-old boy who reported he played many action and sports games on a daily basis on his personal iPad. He stated he liked games such as Trigger Fist, Bike Race, NBA 2K-12 and Urban Basketball because they were "action and role-playing games…and [he] like[s] always working towards [his]goal" (Interview, lines 22-23). In discussing the games he played it was clear that Kevin had set very specific goals for various games, such as "I'm trying to see if I can beat [my previous score] by getting 0 deaths" (Interview, lines 78-79). He reported that while he does not have parental set limits as to how much he can play, he doesn't play often on weekdays because

of other time commitments such as homework and sports. Kevin said that in order to learn to play some of the games he did he had to read the instruction manual (or online directions) and then he was competent enough. Once he did that he got the hang of it. He reported perceiving himself as a good player and technology user, but felt that one of his best friends was as good as, or better than him on many applications. While he said he would not classify himself as a reader or writer he did feel comfortable describing himself as a technology user.

Lila. Lila was an 11-year-old girl who liked to play games daily such as Minecraft, Animal Jam, Temple Run and Where's the Word on her iPod simply because she liked games. Lila also liked to use programs such as Microsoft Word because she felt it was easier than writing manually and went on to describe herself as an average writer. She reported that she had a Nook she used regularly and felt very self-confident with her reading skills and enjoyed reading for fun. She stated that most kids probably are not as good at reading as she is because "they don't practice it enough" (Interview, line 110). She preferred to read most books on her Nook and downloaded them from Barnes and Nobles or other websites, because it's "too much trouble to find it at a bookstore and buy it" (Interview, lines 162-163). She liked to communicate with friends using iMessage and FaceTime and feels quite confident in her abilities. She reported that many of her friends also had iPods and that was how they regularly communicated. She wanted her own phone, but said that her parents and many other parents of kids her age felt that they were too young, although her parents

felt that she could use programs such as Instagram responsibly and appropriately.

Jason. Jason was an energetic 12-year-old boy and avid technology user who reported that "computers hate me" so instead he often opted to use his PlayStation Vita as his preferred tool to access games and the Internet (Interview, line 146). He said he often played games on his Vita or with his brother on the family Wii. While he relayed that he did not enjoy doing assigned homework, he did seem to see a benefit in typing on the computer ,"because my handwriting is bad so typing stuff out is obviously a way around when I have to do a huge report" (Interview, lines 192-194). He recounted that he enjoyed doing group technology-based projects, but preferred to do them alone as opposed to working with others, because he felt he had more freedom individually as he would not have an assigned role and that his inability to type fast would not get in the way. However, when working with his peers he felt he was more productive and liked to take the role suggesting ideas and visual images because " it feels pretty good to find the perfect picture that the entire group will agree on" (Interview, lines 108-109). He watched Netflix regularly and said that he "almost never watches real TV now" (Interview, line 317). Jason was a big fan of YouTube and felt that "using YouTube is a universal good thing" (Interview, line 637). He enjoyed viewing a variety of YouTube videos, some just for fun and others he did with a particular purpose, such as watching a walk-through demonstration to help him with parts of a game he was having difficulty completing. Although he felt he was confident at using

YouTube and even relayed how he and his brother plan to create and post a few custom style motion videos, he said he had some friends who were so adept that in comparison with them he was "maybe not really, really good since I don't search up new videos every single day" (Interview, lines 528-529). He also stated that his parents felt that he was responsible and knew that he would not look at inappropriate content online. He also reported that he preferred to read "real" books as opposed to e-books "just for the sake of not staring at a screen for as much time" (Interview, lines 884; 901-902). He also recounted that he felt his "grades speak for themselves" as an overall indication of how good he was at using technology (Interview, lines 858-859).

Saint Hyacinth. The participants at Saint Hyacinth had the most accessibility to a variety of technological tools at their homes than did participants from the other sites. In general, the majority of the participants stated that they had access to phones, tablets, TVs with Internet connectivity, and personal devices such as iPods while at home. Several students seemed pretty confident in their technological abilities, but overall discussed not enjoying the technological activities they participated in at school in their computer classes. They often text messaged friends to communicate with each other and enjoyed various on and offline practices.

Sarah. Sarah was an 11-year-old girl who used her personal iPod and iPad almost daily for a variety purposes such as playing games, doing homework, researching, and text messaging. She said she often played games such as Temple Run "when I'm bored and I'm in the car…it's just kind of like

addicting, so it gives you something to do" (Interview, lines 29-30). She used programs such as TextFree and Kick to text message her friends. Sarah liked the convenience of those applications, especially Text Free because it was available on all of her devices. Text messaging was her preferred way to communicate with her friends "cause [sic] it's faster and it's kind of just the same as talking, but you just type and send it" (Interview, lines 426-427). However, she wished that more of her friends would FaceTime so they could have face-to-face interaction, but at that time many of her friends did not have access to that technology or shared a bedroom with a sibling which would inhibit their ability to communicate privately. She often used Kick when communicating with people she didn't know that well because it wouldn't reveal her phone number and she felt "it's kind of like safer for me" (Interview, lines 469-470). Sarah also said that some of her friends had started using programs like Instagram to leave messages for each other in lieu of texting, especially if they had not answered a previous text message. She relayed the program would then send an alert out so that various users would know they had received a message. For Sarah it was important that she felt she had a lot of followers, because some of her peers liked to make comparisons about the number of followers people had. Sarah also did a lot of research online, both for school assignments and to explore personal interests. She felt confident in conducting searches and discussed how she had learned to "search and be patient and eventually you'll find the answer" (Interview, lines 195-196). She regularly used Google for searching and also Ask.com, which she preferred at times

because she felt "it's basically like Google except sometimes it has a little bit more straight answers" (Interview, lines 611-612). Sarah often used her iPod when cooking and looking for recipes. She felt that at school technology use was "minimized like so much less, because like on the iPad at school you can only use them for educational purposes and on my iPad I can use it for so, so many different things" (Interview, lines 1118-1120).

Max. Max was a 12-year-old boy who loved to play strategy and turn-based games like Total War and Final Fantasy and use programs such as Instagram on his iPod. He has access to other family-owned technological devices such as a home computer, Kindle, iPad and a TV. He described himself as a good reader and while he read both eBooks and real books, he preferred the convenience of the Kindle "just because of accessibility" (Interview, line 111). He used sites such as YouTube to not only look up information about how to play a game but also to preview new games to see if they were worth purchasing. He felt that not only did the video commentaries help him learn to play better, but that "watching these really shows some of the actual strategy" (Interview, line 339). Max relayed how Wikipedia was one of the websites he used most for homework because "I don't have to look through site after site, it's just right there. And I'm familiar with it…it's just pretty straight forward" (Interview, lines 552-555). He also reported using sites such as Pandora and YouTube to listen to music regularly. With Instagram he preferred to follow people he knew well and liked so he could "just see what everybody's doing" (Interview, line 730). However, he stated that he kept his "followers at a

minimum. Just if I really don't know people and I don't really want to, I don't really care what they are doing. I just don't follow them" (Interview, lines 767-769). Max felt the technology application he was not as good at was email, because he just didn't have anyone to email, but he felt "I'm sure I can get it, but it will just take a little bit of practice. And I'm sure it's not terribly complicated, but just never really found a need to use it" (Interview, lines 936-939).

Anson. Anson was a 12-year-old boy who reported he primarily used computers to play games and complete homework. He felt he was the most adept at using Minecraft and Skype, non-school related applications, and felt that Edutyping, a school-based typing software program was the technology practice he was least competent in. Anson relayed he had access to a family iMac, PlayStation, and Xbox 360, and owned several technological tools such as a personal MacBook Pro, iPod, iPhone 4S. He discussed getting bored quickly with single-player games which rarely offered "add-to campaigns" (Interview, line 92), but felt that multi-player games were not only fun but worth investing in add-ons to continue to advance the gaming options available. He reported that when many of his classmates had moved on to other games or devices for a while that he went online and found new "clan members" to play with in a game called Battlefield 3 (Interview, line 137). Some of these clan members were people he knew in real life, however, he relayed that many were people he met on Xbox live and in fact, several of said clan members live in the UK.

Anson said he has learned how to play various games both from peers and by watching online video tutorials on YouTube. He felt he has been

addicted to games and played them frequently when he had the time. With Minecraft, he played it for about one to one and a half hours weekly until he began practicing for a school play. He also preferred the multi-player options that Minecraft offered as opposed to playing it as a single-player game. He explained that with "multi-player you get to play with friends, have a good time, and if they get something you can always help out and maybe share things" (Interview, lines 287-289). He said that he usually only used text messaging to alert a friend or cousin that he was going to play a game or wanted to Skype with them and often felt "awkward" using texting more than that (Interview, line 922). Additionally, he did most of his reading on his iPhone. He said he doesn't see many of his peers, bedsides his siblings, using eBooks. However, he felt that eBooks were "more convenient" and even though he would prefer to read a physical copy of a book, the convenience factor often won out because they "take up little space" (Interview, lines 446-447; 453).

Chris. Chris was a 12-year-old boy who reported that he primarily used his family's computer and TV (with Internet connectivity) to play online games like Pinch Hitter and Pinch Hitter 2 and to explore websites such as www.POG.com. He said that games like Pinch Hitter were "very addicting" and he enjoyed playing them, even if he wasn't very good at them (Interview, line 740). He felt he would improve with "a lot of practice" (Interview, line 758). Chris enjoyed his school computer classes and felt the typing he was learning would be a skill he would use later on. He reported he did text message from his phone and communicate via game texting features with friends while playing

games like Minecraft. In fact, he stated "I'd rather text them if I can, but I don't like calling them, but I'd rather FaceTime them and stuff like that" (Interview, lines 168-169). Chris felt he was "not one of the best text messagers in the world, but I'm getting there. I'm getting better each and every day, every time I practice, cause practice makes perfect" (Interview, lines 226-229). He had an online blog where he and his brother wrote about their favorite interests, such as baseball and Minecraft. However, he described that he had somewhat lost interest in writing there and relayed that he was "just kind of taking a break cause no one really used it anymore…We just kind of lost hope cause nobody would follow them, or no one looked at them" (Interview, lines 444-446; 452-453). Chris felt that blogging "can be more fun if people like to follow it" (Interview, line 635).

Danny. Danny was a 12-year-old boy who reported he primarily used Apple products and had access to a MacBook Pro, an iMac, several family iPads and iPhones, and a personally-owned iPod. He felt that while he did not enjoy the computer classes they offered at his school, they were teaching him skills he would use in the real world such as typing. Danny reported he liked to play games such as Angry Birds and Temple Run because they were games you could play "and never beat it, so you can keep using it" (Interview, line 129). He felt it was impossible to beat those games and did not feel that he was as good a player as other kids his own age. He had played games like Minecraft but usually only when at a friend's house. He did not feel he was as good at playing as those friends because he rarely played those games. He reported he

liked the ease of using a Kindle for reading primarily because of the bookmarking feature. Danny preferred text messaging friends because "you don't actually have to talk to them" (Interview, line 370). However, he reported that he emailed extended family members because "they probably don't text and it's better than calling" (Interview, line 631).

Raye. Raye was a 12-year old girl who enjoyed playing a variety of games both online and offline. Her favorite apps were Temple Run 1 and Pou. Raye also enjoyed playing Minecraft. She engaged in a variety of communications with friends such as video conferencing using Skype and FaceTime and also communicated with several family members using Facebook. She said that while many of her family members are on Facebook, most kids her age did not communicate through that medium. She said that she personally preferred playing games on her Facebook rather than using it to communicate. In fact, it was the desire to play a game she saw her aunt playing on Facebook that made her want to sign-up for an account in the first place. Raye had access to a family computer and a tablet, but it was her personal iTouch that she used most often to access her games and the Internet. She felt that her mother would rate her as a good player on several games, but when she tried to demonstrate or discuss games with her mother, her mother would feign interest and would continue to watch her own shows because that is what she does "when I'm telling her stuff and she doesn't really care about it" (Interview, lines 85-87). She also felt that several of the games she enjoyed, such as Pou, were childish

and not well revered by her peers, but that she enjoyed playing them so she continued despite their opinions.

Saint Cyprian. The participants at Saint Cyprian had the least access to technological tools at their homes and at school compared to participants from other sites. While all of the students reported having technology access at home, they did not seem to own as many devices individually as participants from other sites. Many of them reported having access to shared or family devices at their homes. Several of the students relayed being frustrated with technology more often and several expressed they did not have the knowledge of what to do to help themselves when they got stuck while using a particular tool or practice. All but one of the participants was male and all the males discussed playing Minecraft. All of the participants discussed enjoying playing games both on and offline.

Nick. Nick was an 11-year-old boy, self-described as "pretty obsessed with Minecraft" (Interview, line 216). He not only played the game Minecraft, but also read blogs, watched YouTube tutorials and created video animations of Minecraft characters and sent them to friends. He liked that when playing Minecraft "you can basically spill your whole imagination into the game so it's just kinda [sic] something where you build whatever you want and it doesn't matter what you build" (Interview, lines 356-358). He reported he plays the game "a lot" (Interview, line 577) and that he "dominates [his] friends when it comes to player versus player" interactions (Interview, line 641). He felt he was not as good at other technology practices such as a school-required EduTyping

program and Skyping with friends. Nick did discuss that he felt he was confident in using Microsoft Word because he "knows most everything about Microsoft Word right now …because in class whenever we do projects we basically do stuff we've already learned" (Interview, lines 122-128).

Miranda. Miranda was an 11-year-old girl who liked to use the computer to play games and explore Microsoft Word. She said she enjoyed her computer classes and often explored programs such as Excel, Word and PowerPoint on her own after learning about them in her class. In fact, she felt that she was better at Word than anything else, even the Internet. One of her favorite websites was www.coolmath.com and she relayed that one aspect she enjoyed was that "it is basically math, but it's not really based on math, it's just games" (Interview, line 77). Miranda believed that playing the games helped her improve her math performance at school. She said she enjoyed this site because there were videos you could watch to learn to play the games. Miranda said she often got frustrated when doing Internet searches or going on websites because she did not know how to navigate the site, or specifically what she was looking for. Additionally, she reported using email to communicate with her cousin. She said that she often emails and talks to her cousin simultaneously.

Chuck. Chuck was a 12 year-old boy who owned an iPod which was his preferred method for playing games and accessing the Internet. He also had access to a TV and computer at home. He enjoyed playing Minecraft on his iPod, but relayed that the Pocket Edition version he had was somewhat limited and he was looking forward to getting the full version for his computer that

coming summer or for Christmas. He discussed how he would look on YouTube or conduct an Internet search when he got stuck in a game he was playing and was looking for hints on how to get past a difficult spot. While he discussed in detail how to conduct said searches, he indicated that was only marginally confident in his abilities "cause I'm not sure if I'll find it or not" (Interview, line 773). Additionally, Chuck stated he doesn't always like to play with other people because sometimes they have more skills in a particular game than he does.

Brandon. Brandon was an 11 year-old boy who reportedly plays a game "until I get so frustrated I want to throw my computer down" (Interview, line 384). He said he doesn't know anyone else who played the games he did and that he often preferred to play them alone, or occasionally with an older brother. He recounted when he needs help with a game he doesn't look anywhere for help, " I just get frustrated" *(*Interview, line 238) and has learned to play by "just clicking buttons and stuff" and simply "focus on the game" (Interview, line 221-222; 296). There are several games he discussed that he wanted to play such as Minecraft but his father had said he could not. However, he did still look up videos on YouTube about Minecraft along with other "funny" videos such as the Miami Heat doing the Harlem Shuffle. Brandon reported that while he does not have any parental limitations as far as how much time he can play a game, he often played "when my mom and dad probably aren't home" (Interview, line 97). He also indicated that his parents do not think he is good at playing games and that "they really don't like me playing games cause I kinda [sic] get angry,

and it just makes me angry" (Interview, lines 548-549). He said he thought that using technology "is fun", but in school they did not use a lot of technology and that his computer teacher said that educational games found on sites like www.coolmath.com "are just a waste of computer battery" (Interview, lines 909; 864). He said he does not read "that much" but felt he was the "best reader in the class because I read the most" (Interview, lines 919; 942).

Liam. Liam was a 12-year-old boy who reported he used his computer daily for a variety of practices such as playing games, exploring websites, and doing homework. He felt that games were difficult initially for most kids and he used to think the best way to learn to play them was playing and practicing them. Now, he "reads the instructions" and finds them "extremely useful" in helping him learn the nuances of a given game (Interview, lines 522; 673). He also said that having played a real game, such as a real-life version of air hockey helped him play a video game version better. He feels that he is "upper level, like under pro, yet not a pro" compared to other kids his age (Interview, line 627) in regards to his game-playing abilities, likely because he has practiced a lot. He said they really only use technology in school for homework and a teacher-led group project they have been working on. He recently received an Xbox, but wishes he could activate the Xbox live feature. He feels that in time when he gets "older and more responsible, knowing that there are people out there who are going to ask you to do stupid things in your real life" and when " I know how to say no and when to say no" that his parents will let him activate that feature (Interview, lines 818-821). For now he just plays Xbox live at

friends' houses. While he is confident in his game playing, Liam felt he was "not the best speller or reader" and "probably not the best" writer (Interview, lines 890; 920). He relayed that his parents had been very supportive and encouraging of him and that "has given [him] the confidence to improve" (Interview, lines 944-946).

Sam. Sam was an 11-year-old boy who reported he used his iPod all the time until he ran it out of battery. He said his parents did not impose any restrictions on the amount of screen-time he had, unless it was time to eat and then he would have to get off. He said he rarely texted, because he didn't have his own phone and while he could use his mother's iPhone, she was "usually busy on it" (Interview, line 167). Instead, he preferred to Skype because he felt that it was similar to having a regular conversation, and was great, because "when I'm bored I can just talk to them [and] get my emotions out" (Interview, lines 741-742). He also said when he used Skype he could see his friends and they could see him, but he would have to type out what he was saying, similar to a text message, because they could not hear him. Sam relayed that many of his friends also played Minecraft and they engaged in playing together online often.

Aiden. Aiden was an 11-year-old boy who liked to play Minecraft and Chess on his personal laptop or iPod. He preferred to play Minecraft with friends, often while at their houses, but did play occasionally on his own. He said he would "like to play it with friends most likely, unless I'm building something and then I like to build it by myself. And then I'll enter them into my game and then we'll just play in my world that I've created on Minecraft. And

then we'll like just build stuff and pretty much just blow stuff up" (Interview, lines 54-57). Chess was reported as his favorite game and he often practiced on the computer so that he could play his grandfather more effectively in real-life games. He felt that playing "the computer is like the hardest person there is" and he enjoyed that challenge (Interview, lines 123-124). However, when playing Minecraft he preferred to play that game on his Xbox because he felt it was easier than playing on the computer. *Aiden* also liked playing against his friends on Minecraft using Xbox live.

Data Sources

The data sources that were used in this study were designed to provide more information about participating students, in general and also in regards to the types of technological tools they utilized. There were three main sources of information used in this study. The Student Demographic Information form supplied basic background information on each participant and the Student Technology Survey provided an outlook into the new literacy practices that students participated in. These two forms were given to the students simultaneously. Finally, the Student Activity and Demonstration asked students to discuss and demonstrate the new literacy practices they used in order to elicit in-depth information on the new literacy practices they employed (such as online and offline computer practices), both in terms of the adeptness at which they participated in those practices and in terms of how they viewed themselves as literate individuals when they participated in said practices.

Table 1

Study Sub-questions and Proposed Data Sources

In which literacy practices do 6th graders participate?	Student Technology Survey • Online and offline practices (including frequency) Student Discussion and Activity Demonstration • Students demonstrated new literacy practices • Highlighted two practices they were the most competent at using, and which practice(s) they did not feel as competent in.
What new literacy skills do they demonstrate?	Student Discussion and Activity Demonstration • Students demonstrated new literacy skills
What are their literate identities as they participate in these practices?	Student Discussion and Activity Demonstration • As students discussed the new literacy practices they participated in and demonstrated the specific new literacy skills they had, they were asked questions related to how they viewed themselves as a participant and what their level of confidence was while participating. • Sample questions varied depending upon the practices discussed, but may have included questions such as *how do you feel about yourself as a blogger?*, *How do you feel you are as a blogger compared with other friends?*, and *How would your teachers describe you as a blogger?*

Background Data

The purpose of collecting background data was to be better able to describe the participating students. The Student Demographic Information form (see Appendix A: Student Demographic Data**)** was filled out by the students and asked brief questions regarding their background, including basic personal information (such as name, birth date, ethnicity). Additionally, students answered a few questions designed to find out what kinds of computer-related instruction they had received in school.

Student Technology Survey

The purpose of the Student Technology Survey was to find out more about the ways in which students use technology. It was designed to find out what new literacy practices participants participated in (see Appendix B: Student Technology Survey). The Student Technology Survey included a checklist with various online (such as playing games, video conferencing, blogging, social media use, etc.) and offline (such as playing games, word processing, text messaging, etc.) literacy practices coupled with columns corresponding to how often they participated in that particular practice. On any of the practices that they checked participants also listed which specific programs or applications they used. Additionally, participants were asked to list the two practices they felt they were most competent at and the practice they did not feel as confident in. Student responses on the Student Technology Survey yielded information about the specific technology tools and practices they employed and acted as a spring board for conversations that would take place during the Student Activity and Demonstration portion of the study. Also of note is the fact that students were asked to provide their birthdate in order to ensure the practices they chose to participate in were age-appropriate. Any apps or programs which had a "recommended age of use" which did not match the actual age of the participants was only discussed conversationally, and participants were not asked to demonstrate that particular program/app. Rather, participants were asked to demonstrate another of the practices they listed on the Student Technology Survey in its stead.

Student discussion and activity demonstration. The purpose of the individual Student Discussion and Activity Demonstrations was twofold. The participants were able to discuss the technological tools and practices that they regularly used, and to demonstrate their skill at using the two favored and the least-preferred new literacy practices they listed on the Student Technology Survey. The questions asked during Student Discussion and Activity Demonstration were designed to explore the participants' new literacy skills as they discussed and demonstrated how they participated in a given practice. Practices that were explored varied from student to student, but were determined by their responses to the pre-approved technology practices they reported they use from the Student Technology Survey. Additionally, the interviews were by design intended to follow student leads, thus students were encouraged to demonstrate any of the practices they listed on the survey that stood out to them or that they wanted to demonstrate as we had our discussion.

The Student Discussion and Activity Demonstrations took place in a "natural setting", such as an empty classroom in the school building, computer lab, or library (Creswell, 2007, p. 37). The interviews began by verifying assent forms, reminding participants of the pseudonym they had chosen (indicated on the assent form), and conducting a few practice questions to help students get comfortable with the interview process. First, I asked all the participants to practice a Think-Aloud style narration, where they would verbalize what they were thinking out loud while they drew a picture of a tree. I also did a practice recording session where I asked students what their favorite type of pizza was. I

asked them to type it out as well as verbally answer me. Once they did that I replayed that brief recording for them so they could see how the iShowU Pro® software worked and so that I was certain the software was working correctly. I also reminded all participants they could quit at any time and that their participation was completely voluntary. After this practice session, I answered any remaining questions prior to beginning the interview session. Interview questions varied from student to student based on their particular interests, but followed similar paths, as discussed below. The questions I used employed a semi-structured interview style, designed to follow student leads throughout the conversation (see Appendix C: Student Discussion and Activity Demonstration Script**)**.

The Student Discussion and Activity Demonstration portion of the study had two parts. The first part was comprised of discussion questions centered on the favored technology tools that participants used. Participants were asked questions regarding the tools they reported using (e.g.: cellular phone, laptops, tablets, desktops, TVs, gaming systems, E-readers, etc.), in regards to the amount of use and the purpose of use. During this portion of the Student Discussion and Activity Demonstration, the researcher took notes summarizing the participant answers and it was also recorded. The second portion of the Student Discussion and Activity Demonstration was centered around the new literacy practices participants self-reported using on the Student Technology Survey. Participant answers were discussed and they were encouraged to demonstrate any practices they felt were of note. While they were

demonstrating the practices, they were reminded to use the Think Aloud style of narration, which encouraged participants to describe in detail each portion of their activity demonstration. Additionally, the two practices participants felt they were most and least competent in were demonstrated and discussed in greater depth. Students demonstrated how they participated in or with these technology practices. Discussion continued simultaneously throughout the student demonstrations between the researcher and participant and continued to follow student leads. Questions designed to better understand the activity students were demonstrating and further explore their skill level were utilized in order to enable a more accurate understanding of the ways in which they participate in certain practices. The discussion questions were also designed to explore how they view themselves as participants in those particular new literacy practices. These responses offered great insight into how they see themselves as readers and writers while participating in those new literacy practices, and thus gave a better understanding into how their literate identity(ies) was affected by the new literacy practices they participate in. Questions were tailored to fit the specific practices a student reported they participate in.

The Student Discussion and Activity Demonstration portion of the study was anticipated to last between 30 to 60 minutes, but the majority of students ran closer to 60 minutes. During the Student Discussion and Activity Demonstration, a program called iShowU Pro® was used in order to capture screen shots of the computer as the students demonstrated their new literacy

skills. The iShowU Pro® program utilized real time screen capture and yielded both a video recording and an audio recording of the session, which were both analyzed during the analysis portion of the study. The researcher kept field notes in order to further document any other nonverbal pertinent details that may not be captured by the iShowU Pro® program, such as facial gestures or body language. The iShowU Pro® software was instrumental in terms of capturing the student activity and very effective in providing a detailed recording that will be used to analyze student performance and verbal commentary. Further, the Think Aloud narration technique that was employed throughout the Student Discussion and Activity Demonstration portion of the study allowed the researcher to gain a more accurate understanding of the perceptions and skill level of the participants as they narrated in detail each portion of their activity demonstration. The narration was critical in analyzing the new literacy skill level and content knowledge that participants possessed.

Procedures

Recruitment Procedures. Three local schools in the southwestern region of the United States were selected as possible data collection spots and served as a place to recruit potential sixth grade participants, assent them, and also as a location where I completed the Student Discussion and Activity Demonstration. I wanted to study sixth grade students in an environment where they could be investigated without being directly tied to either an elementary or middle/junior high school. There are several private parochial schools that offered such a setting; thus, I contacted the local archdiocese to seek permission.

Once I received permission, I contacted 10 nearby schools. Three principals were interested in my study and allowed me to recruit at their schools.

The first school from which I recruited students was Saint Palladius. Once I established a contact person at the site, I scheduled an initial visit where I discussed and explained my study to potential sixth grade participants. At that time, I also handed out a letter addressed to parents explaining the study and parental permission forms. In order to encourage the students to return their parent permission forms I offered a pencil as an incentive for any student who returned a signed parental permission form, regardless of whether or not their parents agreed to allow them to participate. This initial visit lasted about 20-25 minutes and gave me a chance to answer any student questions. At that time, I also arranged a mutually convenient time to return to the school to collect the signed parental permission forms, assent the students who had parental permission, and have the students complete the Student Technology Survey (see Appendix B: Student Technology Survey). I returned to Saint Palladius within 10 days from the initial visit. At that time, I also had participants select a pseudonym to be used for the study. This second visit took about 40 minutes. After this visit, I asked my contact if I could have access to a computer lab, library, or classroom to meet with the students after school to complete the Student Activity and Demonstration. I then contacted each student's parent/guardian directly in order to arrange a mutually convenient time when I could meet with the participant.

Once I had my initial appointments scheduled at Saint Palladius I moved on to recruiting students from my second and third sites, Saint Cyprian and Saint Hyacinth, respectively. I started recruiting students in early February, 2013 and finished all my interviews during the first week of May, 2013.

Data collection procedures. It took between 3-4 weeks to collect the data at each site. I attempted to accommodate all interested participants at each site before moving on to the next site, although there were a few participants interviewed intermittently due to parental request and scheduling conflicts. Interviews took place in a natural setting, the school computer lab, library, or empty classroom, using the researcher's computer. My computer was used in order to accommodate the iShowU Pro® program, which taped an audio recording of the interview along with a video screen shot of the participants as they demonstrated the various technological practices.

All but one of the interviews and data collection occurred at the participants' particular school sites, per parental request (nearby public libraries were also offered as an option, which was selected by one participant). Interview times occurred after school, however, at one site they also occurred during the last period of the day, which also served as a "study hall" type of setting. Interview times were coordinated directly between the researcher and parents. Some participants who initially volunteered were unable to complete the study due to scheduling conflicts. Interview times were scheduled to run for thirty to sixty minutes to ensure that participants would have ample time to discuss and demonstrate their chosen practices.

Subjectivity Statement

As this was a qualitative study and I was the only researcher, and thus the main research instrument, it was important that I acknowledge who I am in relation to the study so that my individual biases did not cloud that which I am studying. As a researcher engaging in a study of new literacy practices amongst sixth grade participants, I have many life experiences that have shaped my understandings of literacy. I have worked as a special education teacher, reading specialist, and literacy coach within elementary, middle, and high school aged populations for over 13 years. I have worked with students on IEPs (Individual Education Plans), ELL (English language learners) students, students who received supplemental reading instruction, and regular education students. Additionally, I have taught students in the grade being studied. I am a middle-class female doctoral student who has lived in this southwestern state, where the research was conducted, for over 18 years. I myself am from a culturally diverse background; my father emigrated from Cuba to the United States as a child in 1961 and I am bilingual.

As a researcher, I need to acknowledge not only my previous experiences within schools, but also the lenses with which I used to interpret the information I collected and analyzed. The lenses with which any person views the world are related to the experiences they have had. I personally feel that literacy learning is a critical and crucial skill which students must master in order to achieve success in their future lives. I feel strongly that the field of new literacies, which examines ways in which literacy has changed in order to better

meet the demands of an increasingly global environment is a key tool that may be useful in increasing motivation and engagement amongst students. And I feel that those young adolescents could be most influenced by the inclusion of new literacy learning, as this is an age where research has noted that decreases in motivation and engagement begin to emerge. My dual position as both a researcher and educator likely both bolstered and possibly clouded my interpretations. This exercise enabled me to reflect on any assumptions that could potentially taint my analysis. Creswell (2007) acknowledges it may be difficult for researchers to truly bracket their personal experiences. Further, Fischer (2009) suggests that researchers use bracketing not only as a means of identifying our own perspectives and assumptions, but also as a method to continually examine our 'interpretive insights' and reassessing them against 'emerging insights'. Thus, by monitoring my own subjectivity both by acknowledging its existence and also using it to strengthen my analysis, I reduced the potential bias that exists within a qualitative study of this nature. As such, I wrote notes to myself in the form of memos in order to better monitor my own subjectivity. I wrote these memos usually after our initial interview session and then again when I was transcribing the interviews. The memos helped me bracket any attitudes, beliefs, or personal biases that I may have unknowingly brought into my research (Glesne, 1999). In this way, I used these memos to help bracket my own biases. Additionally, by taking two sets of memos I was able to compare my observations in order to further highlight and increase my

awareness of any possible breach of subjectivity. This exercise was instrumental in helping me step back from my own biases.

Analysis

As this is a phenomenological study, there are certain key issues that need to be embraced in the study analysis. Mertens (2010) holds that the fundamental characteristic of phenomenological research is the examination of the ways in which participants understand the world and life around themselves and within their particular community. Further, Creswell (2007) holds that phenomenology is not only an account of what is observed, but moreover an explanatory process whereby the researcher makes an interpretation, almost mediating between different versions of similar lived experiences that are researched. In order to do this well, Moustakas (1994) asserts that it is essential that the researcher bracket their own experiences in order to fully explore the phenomena in question. As such, an inductive analysis approach was used in order to gain a deeper understanding regarding the students' experiences and the effect of these experiences upon their literate identity formation. This analysis style was used in order to search for patterns, or themes, in the data set in an attempt to not only look for themes, but to reason towards and examine "probable conclusion[s]" (Shank, 2002, p. 130). All of the data was examined in its entirety in a holistic manner (Creswell, 2007) in order to generate a deeper understanding of the experiences that these sixth grade young adolescents shared in the new literacy practices in which they participated.

Analysis overview. One of the main goals within a phenomenological study is the ability to understand and accurately analyze the shared experience that is being described. One method I employed to meet this goal was to be continuously transcribing the audio and visual recordings. However, while this was my initial goal, data was collected faster than I was able to transcribe it. Continual transcription enabled me to be immersed in the data and to start to get a general idea of some of the codes and categories that seemed to be emerging, even if I was collecting more new data prior to completing the transcriptions at each site. The first thing I did when I began my broad analysis was to review my research questions and reread the data with those research questions in mind. LeCompte, Preissle, & Tesch (1993) refer to this as scanning the data. Scanning was important in that it encouraged me to focus upon the specific goal of my research. I initiated my analysis by scanning and examining six total transcriptions from two randomly selected participants at each site. I looked over the transcripts and highlighted significant statements related to each of the three sub-questions of my study: in which new literacy practices did they participate, what skills did they have, and what were their literate identities as they participated in said practices. These significant statements offered an understanding as to how the participants were experiencing the phenomena. Moustakas (1994) refers to this process as horizonalizing the data. Additionally, at this time I also jotted down new notes and observations on each interview and compared those with my initial memos. This helped me start to see patterns in the data and also aided me in identifying any new perceptions or insights I had,

especially after conducting all the interviews. Additionally, this comparison helped me to bracket my biases by ensuring that I was not unknowingly bringing biases into my analysis.

Significant statements and codebook. I noted these patterns and then converted them into categories, which became the crux of my data analysis and led the way towards my being able to establish relationships and linkages (LeCompte, Preissle, & Tesch, 1993). After I had highlighted significant statements from each of those six transcripts, I compared all that data in order to further glean what similarities existed, in terms of possible codes that were arising. I then compared and contrasted the individual responses with the other individual responses, looking for clusters of meaning in and between the participants (Creswell, 2007; Moustakas, 1994). After examination of the transcripts, any general categories or themes that seemed to be significant were explored further. These significant statements and themes were analyzed and used to generate a "textural description of the experience" (Moustakas, 1994, p. 118). At that point in my analysis, all of the above analytical procedures were synthesized in order to construct a more complete depiction as to the meanings and overall essence of the phenomena (Moustakas, 1994). I also used these significant statements and summaries when I was creating the narrative summaries of each participant in order to fully describe who they were, what their technology backgrounds were, and what possible connections were starting to stand-out amongst them.

At this point, I began to create my codebook and codes for the phenomena that were being observed and discussed. I returned to the significant statements I had highlighted and started to organize them by meaning units (centered around my three sub-questions), and I clustered them into non-repetitive themes in order to fully describe the textural and structural descriptions I had noted (Moustakas, 1994). It was through these textural and structural descriptions that the "meanings and essences of the phenomena [were] constructed" (Moustakas, 1994, p. 119). I then continued this process of taking small groups of transcripts, analyzing them, making detailed notes and comments on each participant's interview, and finally, organizing patterns and coding them. I preferred to look at groups of four to six transcripts at a time from various schools, until I had gotten through all of them initially. I then shuffled them, and repeated the process in order to double check that all patterns had been discovered. At this time, I also revisited my codebook to ensure my subcategories and codes were clear and non-overlapping or repetitive. Organizing my significant statements by my research questions gave me an initial set of a priori categories. Some of the subcategories and codes, such as entertainment and gaming (in the Application category) were very clear initially. However, some subcategories and codes emerged in different ways and arose out of needing further clarification. For example, in the subcategory of reading (in the Literacy Practices category), reading for entertainment as the purpose really was not distinct enough. I ended up adding two additional codes to clarify the specific intended purpose of that literacy practice into reading for

exploration or reading for informational purposes. Revisiting my codebook allowed me to ensure my codes were diverse and able to fully label the events that participants and I had discussed or witnessed. I did go back through and revisit all of the transcriptions once again after the final elaboration of subcategories and codes. Finally, I had a well-developed codebook and had coded all of the transcripts.

Table 2

Condensed Codebook

Category (Unit of Analysis)	**Subcategory (Theme)**	**Type of Code**
Applications	Informational	Browser (ib)
		Web search (iw)
	Entertainment	Games (eg)
		Reading for pleasure (er)
		Viewing (ev)
		Music (em)
	Communication	Messaging (cm)
		Video conferencing (cv)
		Email (ce)
		Social Media (cs)
		Online journaling (co)
	Work products	Word Processing (wpw)
		Multimedia pres. (wpm)
		Database creation (wpd)
		Artistic Enhancement (wpae)
	Miscellaneous	School Assigned (msa)
Tools	Devices	Portable device (dpd)
		Non-portable devices (dnon)
		Personal device (dper)
		Parent/family device(dpfd)
		Community device (dcd)
		Friend's device (dfd)
Literacy Practices	Writing	Composing-ent. (wce)
		Composing- assigned (wca)

		Collaborative Composing (wcc)
		Comm.- single (wcom)
		Comm.- shared (nlwcom)
	Reading	Entertainment (re)
		Assigned (ra)
		Electronic book (reb)
		Physical Book (rp)
		Exploration (rex)
		Informational (ri)
		Collaborative reading (rcr)
	Listening	Listening (ll)
		Collaborative Listening (lcl)
	Speaking	Speaking (ss)
		Collaborative Speaking (scs)
	Viewing	Assigned (va)
		Entertainment (ve)
		Informational (vi)
		Exploration (vex)
		Editing (ved)
	Miscellaneous	Entertainment (me)
Literate Identity	Current abilities	Teaching (cat)
		Coaching (cac)
		Still learning (casl)
		Technical ability (cata)
		More exposure (came)
		Occasional miscellaneous mistakes (caom)
	Desired Skills	Improvement of skills (dsis)
	Perception	Comp.self-perception (pcomSP)
		Competency perception made by others (pcomO)
		Confidence self- perception (pconSP)
		Confidence perception made by others (pconO)
	Affective response	Positive emotional connection (arpec)
		Negative emotional connection (arnec)

	Purpose	Challenge (pc)
		Comfortable (pcomf)
		Extrinsic reward (pe)
	Exploration	For Mastery (efm)
		For sake of learning (esl)
		For sake of discovery (esd)
	Practice	School directed (psd)
		Self-directed (pself)
	Responsibility	Appropriate use (pra)
Literacy Skills	Computer functionality	Accessing address bar
		Accessing web
		Accessing computer data
		Manipulation of program option
	Program demonstrations	Identify program icon
		Manipulating program-searching
		Manipulating program-producing
		Importing miscellaneous media
	Website demonstrations	Manipulating website
		Understanding Website
		Analyzes Website Information
		Importing miscellaneous media
	Searching	Search Engine
		Site Specific

***Auditing*.** Additionally, I asked that other researchers join me in coding and looking for themes in the data in order to increase trustworthiness. I met with a fellow researcher from my field to help me audit my coding. This process helped ensure my codes were clear and concise. I first explained my study and went over my research questions and codebook. I then walked her through a coded transcription and one that was partially coded. Finally, I asked

that she look at a blank transcript and see if she and I agreed on possible codes. Not only did this process increase the trustworthiness of my study, but I also found it was quite beneficial to discuss my codebook in such depth in that I was reassured the codes made sense and could be accurately labeled by another researcher.

Summarizing and comparison. Once I had all my transcripts coded, I made a summary chart of each participant's coded responses, organized as a group by individual sites. This chart had all the categories I had identified (based on meaning units from the research questions and data set), and a spot for each participant. I organized my summaries by looking at the applications used or mentioned, the tools they discussed, the types of literacy practices demonstrated or discussed, the skills demonstrated or discussed, and elements of literate identities that were displayed or discussed. I then went through each transcription again and looked at the statements that had been highlighted and coded from each participant and listed each code represented along with a brief descriptor. For example, Cristal displayed a positive emotional connection, coded as *arpec*, and this was evident because she described that she felt like she was free when playing games on the computer. In this way, I could easily see which codes were more often represented, while also retaining the elements that caused it to be coded in that way. Thus, my goal with these summary charts was to pare down the information in order to make these summaries more concise and useful to my analysis, while still accurately reflecting the described and demonstrated experience of the participants.

I found that creating this summary chart helped me with more fully horizonalizing the information I had collected and more fully examining all participants' responses. Horizonalizing the data helped me to see the patterns and themes which arose for each individual participant and also at each site. I looked at individual student responses, then compared their individual answers with the responses from all the participants both at their own site and then with the additional sites. I did this in order to see if there were any similarities or differences of note that stood out. I then compared and contrasted both the individual responses and group responses with the other individual and group responses. Once I identified key findings that had seemingly emerged from my data set, I went through and tallied which participants had similar responses and what they were specifically referencing. This helped me to ensure that it was indeed a key finding. Tallying the data in this way also helped me see any particular patterns that were significant. For example, several participants stated that practice was an important element to increasing ability, but I wanted to be able to accurately portray how this element of practice was depicted by each participant. I also noted how many students mentioned practice in this way, what practices they were referring to, what they hoped to get better at, if they mentioned practicing by themselves or with others, etc. This helped me see unique patterns, themes, and nuances that were present and significant within my data set.

Chapter 4: Findings

The purpose of this study was to investigate how the literate identities of sixth grade adolescents were shaped by the new literacy skills and new literacy practices in which they participated. To achieve this purpose, the study investigated the following research questions:

- In which new literacy practices do sixth graders participate?
- What new literacy skills do sixth graders demonstrate?
- What are their literate identities as they participate in these new practices?

New Literacy Practices in Which Students Participated

Sixth graders participated in many types of new literacy practices in digital contexts (the results of the initial Student Technology Survey are located in Appendix D). The practices in which they participated were often embedded within a socio-cultural act amongst various literacy events and literacy webs. Further, as with all literacy practices, the practices discussed were in some form or another communicative in nature in that these young adolescents used literacy practices while participating in these events and literacy webs in order to communicate with others across space and time. In this way, meaning making was always occurring in and amongst the various literacy webs in which they participated. As I began to analyze my results it seemed that these sixth grade students participated in two types of communicative new literacy practices; those in which participation was an essential element in the practice itself, and

those in which it was not. Additionally, I began to notice some distinct patterns emerge from the data: the interconnectedness of various literacy practices and the appearance of novel hybrid literacy practices. Figure 1 illustrates the types of communicative new literacy practices that emerged from the adolescent demonstrations. Communication was an explicit feature within all the new literacy practices that adolescents demonstrate, however some practices emerged to be inherently participatory in nature, while others were non-participatory in nature. Of those that were participatory, two additional subcategories were found: asynchronous practices and synchronous practices.

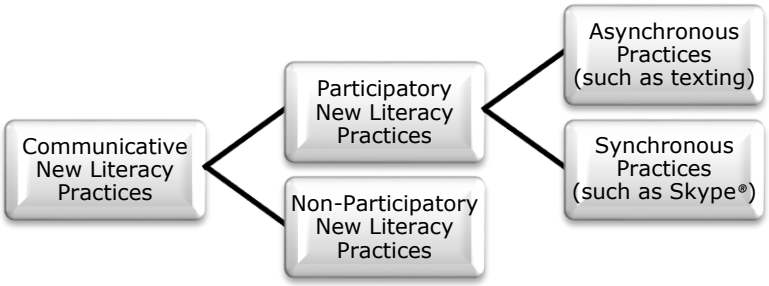

Figure 1 Communicative New Literacy Practices.

Participatory Literacy Practices

There were two participatory literacy practices that emerged in which overt participation with others was the primary purpose: asynchronous and synchronous.

Asynchronous practices. Asynchronous literacy practices are practices where information is communicated intermittently, allowing other adolescents to respond outside the constraints of time and space. With asynchronous practices there is an overt intention to communicate and collaborate, but the

communication does not need to occur at that point in real-time. Rather, the communication is started by one adolescent and continued at a later time by another, ultimately allowing the communication and collaboration to be flexible. The asynchronous practices that were most commonly discussed were texting, social networking via Instagram, and blogging. Asynchronous literacy practices were most popular at Saint Hyacinth and Saint Palladius.

Texting. Texting was a popular type of communication where adolescents described writing a message with the purpose of communicating with each other. The majority of students at the sites discussed texting to some degree, and it did seem that at Saint Palladius and Saint Hyacinth students had more access to personal technological devices (such as phones, tablets, etc.) that enabled them to communicate with others in this way. For example, Lila described that she appreciated the advantage of being able to communicate with several friends at once when texting, "so if I need a homework question I can text basically my whole class what the homework was and half of them will answer…so if I have a different opinion or something different then I can converse between them and figure out which is right" (Interview, lines 563-571). Several adolescents described that texting was their preferred method of communication, because it was fast and that they could respond at their leisure without having to physically speak to one another. For example, Chris discussed that he did not like to talk to people and explained that was why he preferred texting. Conversely, Anson relayed that he did not prefer texting, because he felt that he did not understand the rules. Further, he said he only

uses texting to alert his cousin to get on Skype because his cousin does not have a telephone. Also of note, Kevin said that at his school they were taught not to use abbreviations when texting, so he now avoided using them out of habit. Several of the other adolescents from Kevin's school, Saint Palladius reiterated similar concerns regarding using abbreviations. However, even without the use of abbreviations it remained a favored practice at Saint Palladius.

Social networking via Instagram. Instagram was the most commonly discussed type of social-networking practice by adolescents. With Instagram, adolescents described taking pictures that they took themselves or found somewhere else (such as online) and posting them and tagging them in order to communicate with their friends. Lila described that when using Instagram with friends, it was important to tag them in her posted picture in order to increase the effectiveness of their communication. For example, she elaborated that tagging a friend in a post was "a definitely quick way to communicate with them otherwise…they would have to see the picture first, but if I tag them then they will actually see it. Sometimes they don't actually see it and then it was basically wasted" (Interview, lines 770-772). Thus, by tagging her friends Lila was able to make sure they received the message she was trying to convey to them with the picture she had posted.

Adolescents also described they would tag each other so they would be alerted when they logged into Instagram that they had been mentioned in a post. In this way, they were able to communicate with particular friends directly, while still allowing other non-tagged friends to comment on given posts. Sarah

described how she and her friends also used Instagram to connect with each other, "sometimes we can communicate, like if you're not answering your phone they'll just leave a comment that says like, 'Are you coming to the game tonight with me?' " (Interview, lines 864-866). Sarah alluded to the fact that since the site alerts you when you get a message it can encourage faster communication amongst her friends. Instagram was very popular with adolescents at Saint Palladius and Saint Hyacinth, however, not one adolescent discussed this practice at Saint Cyprian. Also of note, while I discussed Instagram with many of the adolescents, I did not have them demonstrate this practice, because Instagram requires that users be 13 in order to join, and none of my adolescents were of age at the time of our discussion.

Blogging. Blogging was an asynchronous practice a few of the adolescents at Saint Palladius and Saint Hyacinth participated in. Chris described he previously had a blog where he wrote about "all the stuff I like. I do baseball and I talk about baseball. I talk about games I play, Minecraft and all that" (Interview, lines 459-460). He described he had lost interest in blogging, because so few kids he knew blogged or were interested in following him. Further, he relayed the only other bloggers he knew were his mother and brother, and a cousin in another state. Lila also discussed blogging and described that her mom had offered to help her get started with blogging by setting up an account for her. She planned on using her blog to discuss and review books for kids her age, but felt that many other kids her age "probably don't know a lot about [blogs] and they probably aren't that interested in it"

(Interview, lines 841-843). Lila further described she had learned about blogging because her mother blogs and had encouraged her in order to improve her writing. However, it seemed that while she had a plan in place for her blog, she was not motivated to develop this literacy practice further, perhaps in part due to the lack of interest she felt her peers would show towards blogging. Both Lila and Chris indicated they would not like to blog if they did not have an audience who were reading and following their blogs. This indicated their intended purpose was to communicate with others, and further, if they had no followers they would not be connecting with anyone.

Synchronous practices. Synchronous literacy practices are new literacy practices where information is communicated in real-time, allowing for an immediate and simultaneous response and collaboration from other adolescents. With synchronous communication, participation is instantaneous. Online video-conferencing, such as Skype and FaceTime were common examples discussed by adolescents in this study where they would interact and communicate simultaneously with each other in real-time. Additionally, synchronous literacy practices were the least common types of communicative practices amongst adolescents at the three sites. Of those synchronous practices that were discussed, video-conferencing and playing "live" virtual games against each other were most common.

Online video conferencing. Adolescents at all three sites discussed video-conferencing. Students at all three sites specifically discussed Skype, while FaceTime (an Apple supported platform) was a more commonly discussed

practice at Saint Hyacinth and Saint Palladius. However, none of the students at Saint Cyprian discussed FaceTime, indicating that those adolescents did not use or have access to Apple products. The majority of the adolescents that mentioned this practice used video-conferencing to communicate with local classmates about a variety of topics from homework to gaming and just talking.

Nick, a student at Saint Cyprian, stated he preferred to use Skype to communicate as opposed to using the telephone and also described he had friends that did not have webcams, so they used Skype to type messages back and forth in real-time without the video aspect. For students at Saint Hyacinth, video-conferencing was also discussed, however, the majority of these students used FaceTime to communicate in this capacity. Raye said she liked FaceTiming, because she could see who she was communicating with. She went on to discuss using FaceTime at parties, but indicated that it was not a practice she used daily, because only a few friends had access to FaceTime on a regular basis. Kevin, a student at Saint Palladius, also described that he preferred FaceTime to Skype because "most of my friends have it on their iPhones, iPad, iTouch, or whatever. I only use Skype for contacting my cousins in Nigeria because they don't really have, or don't really use FaceTime; they mostly use Skype" (Interview, lines 841-844). A few adolescents also discussed using video-conferencing to communicate with family and friends that lived further away. Max, a student at Saint Hyacinth, described using Skype to communicate with older relatives living in another state on an infrequent basis. He went on to describe that he felt "they're just so inaccessible with using technology…they're

just not technology savvy. They're, you know, older people stuck in their ways. So…we don't get to use it much" (Interview, lines 582-586). Anson also described utilizing Skype to communicate with cousins, but said that he preferred to FaceTime them.

While video-conferencing was discussed at all the sites, it was not used on a daily basis. Most of the adolescents could describe using that mode of communication well, indicating they have used it frequently, however, they all said they used it more on a monthly basis rather than a daily basis. Accessibility played a role in the way they described their usage of various platforms, especially demonstrated at Saint Cyprian where none of the adolescents discussed owning Apple products. Additionally, Kevin relayed of FaceTime that "sometimes I don't have time for it" (Interview, lines 320-321). Thus, if video-conferencing is viewed as a more time-consuming event, then that may also be a cause for it not being utilized as often.

Live gaming. The other prevalent synchronous literacy practice discussed by adolescents was the notion of "live" gaming. Xbox Live was the most commonly discussed video platform used to play in this way. Anson described how he played a variety of games with several online friends that he met while playing Xbox Live, most of whom live in Europe. He said he had a group of about 10 friends who played each other in either Xbox Live or also on PS3. Anson said he knew some of these people from his real-life, but said the majority of this group was comprised of members who lived abroad. Essentially, they logged into their Xbox games and played against each other in

a virtual environment. Adolescents relayed that each player saw a screen tied to their character, and their characters were interacting within the same environment or situation. Several adolescents described how they used Skype to communicate with each other while playing a real-time game. This was especially common at Saint Cyprian where many students did not have access to the subscription-based online features of Xbox Live, but had the ability to play an online multi-player version of Minecraft in real-time against each other. Sam, an adolescent from Saint Cyprian said he often used Skype to communicate with friends while gaming. In fact, he said all his classmates who play Minecraft also were on Skype, suggesting that for them they often used the two practices in tandem. As with video-conferencing, accessibility could be a factor in why some prefer to play in real time against other online players. Additionally, one of the adolescents from Saint Cyprian described how a relative ran a server and was able to help him get access to play a multiplayer version of Minecraft. This may be a level of access that adolescents from the other sites did not have, since they did not discuss playing Minecraft in this way. The adolescents at Saint Hyacinth and at Saint Palladius also played Minecraft, but used Xbox Live in order to play in a multi-player capacity.

Non-participatory Literacy Practices

Several literacy practices emerged as prevalent, which were done with the primary intention of understanding and transacting within and amongst literacy webs, but not necessarily overtly participating with others. In this way, the communication via the literacy practice remained constant and was an

inherent purpose within the practice. In these instances, the literacy practices occurred more individually as the adolescent engaged in the event. Adolescents interacted in some of these non-participatory literacy practices in order to learn, take in, and acquire new information and/or skills for the purpose of self-development. These non-participatory practices were by far the most commonly discussed type of literacy practice at all three sites.

Viewing online videos. One of the most prevalent non-participatory practices discussed by adolescents was viewing videos online via sites such as YouTube. Many of the young adolescents discussed watching video walk-throughs for a given game they were playing in order to advance in their own game-play. Jason described the practice of watching game tutorials on YouTube as helpful, because "sometimes if I'm stuck on one of my games I'll go on and try and see a walk through. You can see the play testers go through the part and then you can go back to the game and do the same thing that they do" (Interview, lines 413-415). Nick also described how he watched videos on Minecraft to improve his Minecraft gaming skills and went on to describe he had learned of specific "YouTubers" who had created and posted many tutorials in order to discuss and share information about the games they play. Further, Nick described he had learned of other gaming websites and practices from watching some of these videos. For example, he learned of a Minecraft animation site from one such YouTuber and not only watched these types of animation videos, but also created them. As such, watching and communicating with each other across space and time in this way not only increased their shared

knowledge, but added a level of depth to the ways in which adolescents were able to communicate and share information with real and virtual friends and "teachers."

Online researching. Another commonly discussed non-participatory practice that emerged was going online to research information on a specific topic in order to answer a particular question or to increase the adolescent's depth of knowledge on that particular topic. Researching is a complex literacy skill where multiple skills can be evidenced at once, including skills such as overall comprehension, evaluating the credibility of a source, combining several sources into one summary, etc. This practice was discussed in various ways by adolescents at all sites for both fun and required purposes.

Juliette provided one description of this practice and described how she went to a particular online radio's website to look for upcoming concerts and events in an effort to keep up with what her favorite bands were doing. Other adolescents commonly used the internet as a resource to find out how to do things. Sam discussed how he used the internet as a resource when having difficulty with programs like PowerPoint. In fact, he said the internet would be his first resource prior to asking another experienced user such as a parent or teacher for help. Sarah said she usually uses websites like ask.com and types in exactly what she is looking for, because it would yield a direct answer. Additionally, several adolescents described having to do research for school-related projects. Jason pointed out that he always avoided using Wikipedia

because it is user-generated, instead choosing familiar sites which he had previously visited.

Technology based software. Utilizing technology-based software with platforms such as Microsoft Word, Excel, and PowerPoint was a prevalent non-participatory practice discussed by adolescents. While personally using these platforms may have not been a new literacy practice, adolescents often discussed having to add in references and information from online sources. Additionally, while most adolescents discussed using these technological platforms for school-related assignments, several also discussed using them for fun outside of school. Kevin provided one description of how he used Microsoft Word to create posters of famous basketball players using pictures from online sources to decorate his room or to create a PowerPoint of famous musicians for his sister. Sarah described how she could create a PowerPoint to illustrate why she should get a particular pet to give to her parent.

Another widespread non-participatory practice revolved around reading online for exploration of a topic. Adolescents discussed "Googling" or searching on the internet to find out more information about various topics. For example, Cristal said she often looked online for information in order to "discover" more about various topics. The key with this practice (and what distinguishes it from going online to research information) was that it was done for the sole purpose of exploring a topic in general, not to answer a particular question. When adolescents described this practice, they made a distinction that they were just looking up general information and happened upon other topics,

or just went online and began searching for no particular purpose. For example, Anson described how he was searching for information on a specific game and accidentally found a hit and followed it. This hit led him to discover a new artist that he now reads about and watches. Chris said he often would search for new games this way and relayed that practice had led him to discover other games such as Minecraft.

Interconnectedness of literacy practices and emergence of affinity spaces and communities of practice. As I studied the literacy practices that were described and demonstrated by these young adolescents, it became apparent that often said practices were combined in new and interesting ways with other practices within the various events in which they participated. In reality, it seemed as though the literacy practices demonstrated were rarely used in isolation. Further, most adolescents chose to interact within an affinity space or community of practice comprised of members they knew in their real-life. This exemplified that the practices in which they participated seemed to have boundaries, determined by the spaces in which they convened (affinity spaces) and the literacy webs in which they held membership (communities of practice).

One exemplar centered on communities of practice comprised of known peers who participated in various interconnected literacy practices while using Instagram. Kevin described how he liked to use Instagram and thought of it as "kinda like Facebook except it's a lot more kid friendly" (Interview, lines 868). He described how he chose pictures to upload, tag, and share on Instagram within a connected literacy web of peers. He said that he liked Instagram

because “it’s good way to show what you’re doing. It’s a good way to get across to your friends as well” (Interview, lines 879-880). His descriptions of how he used Instagram illustrated a multifaceted literacy web where users communicated asynchronously with each other in multiple ways:

> I post my own pictures, but that’s rare. I mainly post my pictures on basketball players and that’s really it [that] I post on Instagram…Usually, sometimes, I get my images from friends. I have one friend that has a bunch of images and he just sends me them and I just post them ‘cause I really like them and I feel that everyone should see it. And sometimes if I don’t really have anything to post I might just go to Google images and find a picture… You put the picture and then you put the title of the picture. You can put hash tags, comment, you can like the pictures (Interview, lines 885-886, 890-894, 903-904).

For Kevin, and many of the other adolescents in this study, Instagram was their preferred social media outlet. Within this community of practice they had specific literacy practices which they used to communicate. For example, when trying to get someone to notice a picture they posted, users tagged each other. When they were tagged, they received a push-notification that they had been tagged in a particular post. Users could also write captions for their various pictures, which often included a hash-tag used to organize and sort pictures by topic. Users could also like each other’s pictures and a display is available which highlights other users who have liked a person’s picture. Additionally, users often used hash-tags to respond to each other in posts. They

could also share pictures between multiple platforms such as Twitter, Flickr, Facebook, etc. Instagram was very popular with the adolescents in this study and had become a favored method for asynchronous communication amongst their peers. Kevin's depictions illustrated the types of literacy participations which occurred among the adolescents within a community of practice comprised by peers from his school who were connected to each other in this larger literacy web which connected them not only to each other, but potentially to other members outside their known group. Kevin also discussed the control he had in being able to block unknown users "and keep them from following you" (Interview, lines 873-874), indicating that he had control of the members he chose to interact with. He purposefully used Instagram to communicate with known peers and excluded unknown ones.

Conversely, there was were a smaller number of students that described participations that occurred within a virtual literacy web. For these adolescents, their literacy webs had boundaries determined by the shared interests they had within virtual literacy webs, not by their known peer group. Also, membership was not required. Thus, their affinity spaces were open to interacting with groups of virtual friends with whom they shared a common interest, such as gaming or music. One such exemplar was given by Juliette as she described listening to music online via the website air-1.com, an online radio station. As she was discussing the events in which she listened to music, it became apparent that there were many literacy practices occurring in concert with each other during that event:

> There's a lot of stuff that you can do on a music website, like you can do news and like specific things that they usually do. You can donate. There's a club awesome tour, which is a bunch of bands coming together, and performing. You can look up that and concerts and events. That's what I like to click. And I can find different things. You can enter your ZIP Code, your state, your city, and things like that. A little thing comes up and there's like a music blog, recent songs and something called mixology where you can pick your own songs and put them on the air so that everyone can hear and then you can vote it….I usually go until it's really late like when I'm doing a book report and I have to stay up really late because I kinda put it off. But it usually starts around 9 o'clock and you can just vote it up and you can even type in your own song and put it on the list for the voting. And you can click it up and stuff. It's really useful (Interview, lines 624-631, 636-641).

For Juliette, listening to music was a multifaceted multimodal literacy practice. Besides listening to the music, she was reading about the musicians whom she listened to in multiple platforms, such as general information on the station's webpage and also on blogs. Additionally, she described an asynchronous practice where other listeners could interact with each other while they listed songs they wanted to hear and then could vote on songs. However, the music was playing online in real time, creating a synchronous listening environment. In this way the online radio station became a multifaceted communication literacy web where listeners could interact and seemingly

collaborate with each other in order to determine what music they wanted to hear. For Juliette, interacting with peers not from her school or within a peer community of practice was not her primary goal. Thus, Juliette was a member of an affinity space comprised of people that shared similar musical interests, outside of her normal peer group. While Juliette interacted within this affinity group, she described that at times she had less interaction than at other times, and implied that she was not looking for membership, but rather an outlet to visit when she had time.

There were a few other examples of such group memberships with virtual peers that were described by adolescents in this study. One common occurrence among those that participated within virtual groups was that they revolved, at least in part, around some sort of synchronous communication. For example, a few avid gamers described participating in communities of practice with other gamers in order to synchronously communicate and play games with each other. Anson detailed times when he participated within the Xbox Live community of practice comprised of both known peers and virtual peers that he referred to as clan members. As Anson described his participation with his clan members, it seemed that what he enjoyed was the ability to log on at a given time that was convenient for him and play with whoever was available. Also, Anson relayed that many of his real-life clan members had tired of a game they had been playing and moved on to play a different games on another gaming system. Continuing to communicate and participate with his clan members via his virtual community of practice afforded Anson the ability to continue to play

the games he was interested in, regardless of whether his classmates were still interested in that particular game. In such instances, it seemed the event was what drove the practice, and that; consequently, the practices depended on the overarching purpose for participation. This finding indicated the literacy webs changed based upon the event. For Anson, it seemed he traversed between affinity spaces and communities of practice based upon the practice/event which he was participating in. It also seemed that for Anson the desire to communicate within a given literacy web outweighed the need to only communicate with known peers or that virtual communication was more fulfilling in some regard than communicating with known peers.

Hybrid literacy practices. One additional outcome that emerged about the practices was that there were times in which the use of a given practice, or of the practices together created a type of novel literacy practice. There was an instance discussed by Anson where a hybrid literacy practice emerged from an altered way in which he used texting. Anson described text messaging his cousin in order to "alert" him that he wanted him to log into Skype so they could communicate. In that example, texting was not used as an asynchronous practice, but more as a synchronous command to log into Skype. Sarah also described how she would try to illicit a more immediate response from a friend to respond via Instagram. In that hybrid depiction, she said that if friends took too long to respond to a text message or were not answering their phones, she would leave a comment for them on Instagram, for example asking them what their plans were that evening. Since the program would send the user an "alert"

via a push notification once they had received a comment, it would encourage or remind them to answer her original query. For Sarah, using Instagram in this way was changing the ways in which most users use that program. Instagram usually involves commentary on a particular image, not as a method for general communication. Interestingly, both of these users referred to these specifically as attempts to "alert" the other person with whom they were communicating.

Cristal also detailed a hybrid literacy practice which also revolved around increasing the speed of general communication. She described going on Facebook in order to "check what's going on, and like what's news instead of trying to find out the hard way, by actually talking" (Interview, lines 292-293). She described how she and her father would use social networking sites like Facebook and Twitter in order to find out about current events. She also relayed that on occasion her dad would check on those sites to find out if school was closed. Cristal said she felt checking for news on school closings on social media was "faster than waiting for a text message to load" (Interview, lines 320-321). Cristal described using a social media outlet as an instant source for news and information. In this way the social media network became an immediate communication platform, because she was able to gather information instantaneously.

Section summary. The adolescents in this study demonstrated a variety of communicative new literacy practices. Within those communicative practices, two types of practices emerged: participatory new literacy practices and non-participatory new literacy practices. Participatory new literacy

practices were ones where overt participation was an intended goal of the practice. Additionally, there were two categories of participatory practices: asynchronous and synchronous. Asynchronous practices offered adolescents the flexibility to participate outside the constraints of time and space and included practices such as texting, social networking, and blogging. Synchronous practices allowed adolescents to communicate in real-time, and included practices such as video-conferencing and live gaming. Non-participatory new literacy practices were ones where participation was not an over-arching goal of the practice and included practices such as viewing online videos, researching, and exploring topics online. Within the demonstrations and discussions, it became clear that said practices often were interconnected and that most of the adolescents participated and interacted with known peers in the online environments in which they traversed. Further, a few hybrid practices emerged whereby using and combining the new literacy practices in unique ways the participants had created a novel approach to communicating, which was different than the intended use of the practice.

New Literacy Skills Demonstrated

Adolescents demonstrated a variety of hierarchical literacy skills (see figure 2), both those required for basic application as well as more complex cognitive skills necessary for peak performance in a given practice. Figure 2 demonstrates the hierarchical nature of the skills. Technical literacy skills serve as a foundational skill set which underlies all the other skills. Transitional literacy skills bridge some technical and comprehension skills and were found

when there was a skill set that necessitated both technical and comprehension skills. Hybrid communication and collaboration skills only occurred after the other skills were evidenced. Some of the skills described were directly related to literacy; for example, summarizing was a skill that was necessary and used often by several students as they navigated between multiple websites when conducting research. However, other skills such as choosing a particular browser over another may not immediately seem related to literacy, but, if one considers the multimodal nature of literacy and how visual modes, such as what Kress (2003) refers to as reading the screen, have been described to influence how we derive meaning, then factors such as the organizational systems used to convey meaning emerge as important technical considerations. Three categories of skills emerged: technical literacy skills, comprehension literacy skills, and hybrid communication and collaboration literacy skills. Additionally, in a few instances, technical and comprehension skills joined in such a way that they created an additional sub-category, transitional literacy skills, that acted as a bridge that connected the two skill sets together.

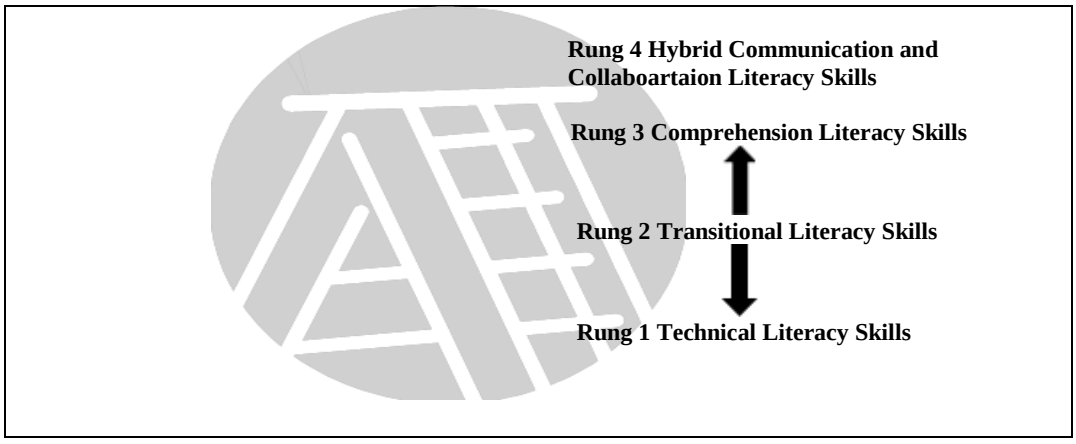

Figure 2. New Literacy Skills Hierarchical Ladder.

Technical literacy skills and transitional literacy skills. There were several skills demonstrated by the adolescents related to them being able to fundamentally work or manipulate a given program. The skills varied considerably between the various events and literacy webs demonstrated, but these were skills that were necessary in order to participate in a given literacy practice. Some of the technical skills were basic, but perhaps not literacy related, such as logging on to the computer and/or the internet. Most of the adolescents demonstrated these basic skills with little thought, or their descriptions seemed to indicate a more technical non-literacy related skill. Those particular skills will not be discussed here, as my focus is to discuss the types of technical literacy skills necessary to operate within social contexts where reading and writing was integral. However, some technical skills were described in such a way that they directly influenced the ways in which the meaning making occurred, and how adolescents learned to read, write, or use literacy in digital environments, thus indicating they were a technical *literacy* skill. For example, Chris discussed preferring Google Chrome as a browser: "I use Google Chrome instead of Firefox or internet stuff… I feel like it just runs better. It's more organized than the other things for me. And I know where everything is" (Interview, lines 46, 50-51). Organization for this adolescent was a crucial element and his preference indicated that using a particular browser was part of how he had learned to read and derive meaning in digital environments. Another technical skill that emerged related to organization was the use of hash-tags (#). For example, Kevin described using hash-tags when

posting comments and descriptors on Instagram because the hash tag "puts it in a big gallery of pictures that have the hash-tag" (Interview, line 930). In this example, Kevin demonstrated that he understood the nuances of Instagram that would help him be able to participate more fully, and ultimately derive meaning more effectively. On Instagram, users need to possess technical literacy skills such as how to tag and post pictures. These skills are often site-specific, but some skills traverse between multiple sites. For example, several platforms such as Twitter also use the hash-tag as an organizational tool.

Keyboarding surfaced as an important technical literacy skill that some adolescents discussed. Students at all the sites described they had some sort of formal training in school regarding keyboarding, and several described working to increase how fast they could type. A few adolescents described keyboarding was a skill that had surpassed their handwriting skills. Anson was one that said he preferred to type various assignments, because he felt it was easier than handwriting them for major projects and class assignments. Further, Anson relayed that being able to type made it easier for him to complete his assignments and made the process seem more fluid, where he would not have to handwrite in class and then rewrite or later transcribe into a Word document. Additionally, he relayed he liked features such as auto-correct that were available to him when he was able to use word processing software. Several adolescents also mentioned liking features such as spell check and grammar check in Microsoft Word. Juliette described how and why she liked to utilize this type of textual support:

> I'm writing a book right now and I type up each chapter as I go along. It's not really easy to catch your mistakes because when I'm writing it I don't proofread it because I'm really bad at proofreading. But on Microsoft Word, it just catches them and you can just fix it and it shows you exactly what to fix. You can just click it and fix it, and sometimes it automatically fixes it for you. Like it knows what word you were trying to say, but you just spelled it wrong and it'll just fix it automatically. And that is really helpful (Interview, lines 167-175).

The technical literacy skill here was knowing when and how to use supports like auto-correct so it would aid in delivering the appropriate type of message. In order to accurately relay a message to others, the message needs to be clear. If there are misspellings and grammatical errors, the overall meaning could be lost, thus stifling communication. Proofreading skills are a great example of important technical literacy skills necessary for others to effectively derive meaning from the written word.

Several adolescents described and demonstrated technical literacy skills when using Word and other Microsoft programs such as Excel and PowerPoint. Within each of those, there were a variety of skills that were necessary in order to effectively operate and use the program. Several adolescents discussed skills such as changing fonts and text size, but Kevin went a step further and discussed how he manipulated those visual elements to make a more visually appealing poster to hang in his room:

> I like how you can change the font size, and use what kind of writing you like, like Times New Roman, and that kind of stuff. And how you can change background colors, put pictures on it, like put borders around the page…[then] I would go to insert and then clip art….Here are some pictures. Then I can sometimes search for them and then sometimes I search for random pictures like basketball or soccer balls, that kind of stuff. And I can make it a lot wider. And whenever you click it you can see the width and the height as well (Interview, lines 200-203, 210, 219-221).

Kevin's descriptions here were a prime example of a visual cultural representation. In this exemplar, technical literacy skills such as manipulating images, changing backgrounds, and creating visually appealing fonts were inherent to the picture representation he was trying to create. For Kevin, the visual modes of literacy included images that were inherent to conveying meaning. Additionally, several adolescents discussed the technical literacy skill of selecting an image to represent and convey a particular meaning. Some used ClipArt galleries within the Microsoft programs, but several took their searches online in order to find a suitable picture. Jason detailed the importance of selecting and finding the "perfect picture that the entire group will agree on" (108-109). He went on to describe the merits of using the Internet for locating images as opposed to ClipArt because if "I really want to find something super specific then I go to the internet because ClipArt only has a variety of things.

They don't really have anything really specific" (Interview, lines 113-115). Jason felt the image was integral to the meaning that would be conveyed.

Additionally, it became clear there were also instances where technical literacy skills overlapped with skills more implicitly related to understanding and making meaning, which I refer to as comprehension literacy skills. These technical literacy skills and comprehension literacy skills sometimes partnered in such a way that without them working together, meaning making would have been directly affected. In essence, they created a category that bridged the two skills together, which I referred to as a transitional literacy skill. The above illustrated a transitional literacy skill that a few adolescents demonstrated. These transitional literacy skills conjoined technical literacy skills and comprehension related literacy skills in such a way that they facilitated or enhanced meaning making.

A couple of other transitional literacy skills emerged which centered on the practice of texting, namely the use of abbreviations and the use of auto-correct. Some adolescents really liked using auto-correct when texting because it provided additional support to them so that their message was clear. Lila offered:

> If you type a word wrong it's really handy and it corrects it for you sometimes, or if you're spelling out a really long word it will pop up and you can press space and it will type the word for you instead of you having to type the whole entire long word so that you don't have to type it wrong and then your friends won't know what you're talking about, or

> your dad or your parents… sometimes people do cuz for because and r for are, a-r-e. But I just usually use them grammatically correct because sometimes I find it hard to read messages if everything is misspelled (Interview, lines 511-515, 525-527).

Lila discussed the importance of maintaining proper grammar and spelling words properly in her text messages to friends so they were easier to read and to understand contextually. She did offer she may be apt to use abbreviations more if she was in a hurry. Kevin, a classmate of Lila's at Saint Palladius also said he did not like to use abbreviations in his texting, offering that "in 5th grade we were taught not to use those so it's just stuck in my head now" (Interview, lines 339-340). Students at other sites did not report receiving such instruction regarding the use of abbreviations when texting and seemed to enjoy using them. In fact, Sarah, a student at Saint Hyacinth, offered that she and her friends used several abbreviations when texting on a regular basis. Thus, it seemed that for these students, certain texting skills had developed that were more site-specific. At Saint Palladius the students seemed to have been influenced by the direct instruction they had received regarding how to text, indicating their views of literacy were situated within different social contexts and expectations than those at Saint Hyacinth. Consequently, students at these two sites then developed different types of technical literacy skills related to how they texted each other and practices arose that were unique to their specific communities of practice.

Navigating the web was another transitional literacy skill that emerged from adolescent discussions and demonstrations. In order to navigate the web one must possess basic technical literacy skills, such as being able to conduct a search or correctly enter a particular website address. Juliette offered:

> Well, usually there is a little tab at the bottom that says what kind of Internet you need to use and I just click that one at the bottom. It seems to be faster than going into the start button that I usually use. I don't know why, it just seems to be faster. Um, and then I go to the top bar and I usually type in Google, and I usually type in what website I want. Sometimes I know the website exactly by name so I just go to the top tool bar and type it in and I hit enter, but usually I just go to Google because usually I'm not sure what website I'm going into. And then sometimes when I'm just surfing I just type in random websites like fungames.com or gamesforkids.com and games for teens, stuff like that, so I can just find some games to play (Interview, lines 5-13).

Juliette's description exemplifies the use of both technical literacy skills combined with comprehension literacy skills. It appeared that she had developed certain habits related to how she navigated the web, at times she followed more routine practices and went to well-known sites (more technical literacy skills heavy). However, there were times when she deviated from the norm while looking for new games to play (more comprehension literacy skills heavy). This demonstrated the amount of technical literacy skills versus comprehension literacy skills could vary within the same type of practice on any

given day, indicating there was a continuum of sorts related to these transitional literacy skills. Anson described looking up "recipes" for Minecraft one day when he happened upon a YouTuber, Freddie Wong, who created videos not necessarily related to Minecraft, which he now likes to watch on a regular basis. There was a certain amount of meaning making that was involved with stumbling upon a search and being open to how it could be related to other interests he possessed. Kevin also relayed that he found one of his current favorite gaming websites, primarygames.com, after stumbling upon a link on a website he was exploring. This was a common occurrence described by several of the adolescents. These technical literacy skills and transitional literacy skills were some of the rudimentary types of skills adolescents demonstrated. Inherent in each of these examples was the overarching flexibility of the skill and the user as they adapted the skills in novel environments, sometimes traversing between various literacy webs and platforms. As with all literacy skills, they were situated within a particular social context and were directly influenced by the practice and literacy web where the skills were employed.

Comprehension literacy skills. Comprehension skills related to understanding and deriving meaning from a variety of different modes emerged as an important skill set demonstrated by adolescents. There were three types of comprehension literacy skills that emerged: literal level literacy skills, research and summary literacy skills, and the use of critical literacy skills.

Literal level comprehension literacy skills. Literal level comprehension literacy skills were demonstrated when adolescents demonstrated basic

understanding necessary to comprehend literacy within in a given new literacy practice. Essentially, the skills demonstrated and discussed indicated they understood what they were reading and writing on a literal level. For example, literal level comprehension literacy skills included skills such as knowing which program to use for a particular purpose, indicating the adolescent understood the platform being used and when to appropriately use it. Anson discussed that he recognized different presentation software would be more suitable for different types of projects. When discussing creating presentations, he relayed that he felt Prezi online presentation software was good for projects that necessitated artistic or decorative elements, whereas PowerPoint would be more suitable for presenting science fair results. Essentially, he understood the platforms used would affect the perception of his presentation and, additionally, he possessed a basic understanding of the capabilities of each platform along with their respective strengths and weaknesses.

Another literal level comprehension skill that emerged was the idea that several of the adolescents relayed they learned to play games while practicing the game. Juliette described how the on-screen guided tutorials helped her learn how to play one of her favorite games, Fate:

> Basically, it's just going in and playing the game is how I really learned to do it… [the game] has little hints, like they'll pop-up when it's loading. It'll pop-up "press r to toggle a run" when you just press it then they can just run instead of walk. And then you have to double click to run, if you just hit "r" then they can just run wherever you wanted them

to go, so it's, and then, like, told me how to feed my pet and then it tells me how to fish, how to sell things, and you can put gems in your armor and how to take them off and things like that. And you can say, "I want this to show up" or "I don't want this to show up again". So, it's very useful (Interview, lines 118-119; 124-130).

Juliette's description exemplified how these literal level literacy skills helped her to understand the game she was learning to play. Additionally, as she modified the appearance of the tutorials for future game play, she was able to adjust the amount of support she needed. Similarly, Raye also discussed how she learned to play games, stating "I just kind of figured it out once I got on" (Interview, line 57). Further, she described how she learned to play the game Temple Run, at times utilizing the app's pictorial tutorial along with just practicing. Raye offered:

Well, basically …you do have different characters, and there's like these monkeys that are chasing you. And you have to try and go for a distance, and there's going to be these obstacles, like you either have to slide or you've got to turn and there's -- and when you get like really deep into the game, there's going to be like…little cut corners, so you have to kind of jump over those. And it's just mind controlling...well, when I start playing the game I just kind of stare at the screen and I'm just like … it's like, kind of like math problems you could say. It's like once you know what to do or when the obstacle's coming, you know what to do basically, so… you had to basically memorize what you had

to do when the obstacle -- obstacles are coming" (Interview, lines 121-125, 128-130, 147-148).

For Raye, learning to play Temple Run went beyond using the app's pictorial tutorial; for her, memorizing the visual images within the game was necessary to play effectively. This exemplar related directly to Jewitt and Kress' (2003) depictions of modes as Raye used a variety modes within the application, such as the images displayed, character movements, and special effects, to learn how to play the game. Literal level literacy skills such as following directions and, further, the ability to memorize and store these visual and auditory elements aided her in successfully learning to play the game.

Research and summary comprehension literacy skills. Research and summary comprehension literacy skills were the skills demonstrated which related to being able to understand and summarize what had been read. It involved a level of cognition necessary to effectively be able to research a topic, modify the search when necessary, and then condense the content into a summary. There was a certain element of meaning making that was required when conducting a search and being able to modify both search parameters or the wording used. This was where meaning making became inherent to yielding an effective return. Jason demonstrated how he would search for a particular saint, something he had recently done for a school project:

> Catholic online. There it is… it was the first thing that came to mind. So, it'll show something here (pointing to text on site) but sometimes these can be a little confusing. Like they can be written in a little bit of

> confusing ways. But the information which I can understand, which is most of it, is actually pretty useful in reports because it gives a pretty broad variety…well, this one is pretty straight forward, but I actually know one that isn't that. (Types in new search). Yup. (Reads from site): Valentine was a holy priest in Rome and his family assisted the martyrs under the persecution under…to the prefect of Rome… I mean some of that I get, but "to the prefect of Rome?" I mean, I guess if I knew what that meant…Ok, here we go! (Reads new section) So, "hagiography and testimony". I can barely understand any of that. (Reads from site:) "The inconsistency in the identification of the saint is replicated in the various vita that are ascribed to him." I mean, I know what some of those words mean, but, ahh…First I'd click Catholic online usually because I've gone on it a few times and it, when I can actually understand the stuff it says there then it's actually pretty useful (Interview, lines 745-755, 760-764, 769-772, 809-811).

Jason's exemplar clearly describes the thought processes and cognitive levels of understanding that he went through when determining what sites to use as he was conducting his research. For Jason, when he went to sites with content that was difficult for him to understand, he was unable to make meaning of what he was reading. Thus, the skill of identifying readable sites was an essential feature that directly impacted his understandings. Further, as Jason relayed that he went back to a known and trusted site it exemplified that while he was willing to look for new sites, he knew when to return to a trusted source. Also, since he started

with the known site, it seemed that he was almost comparing other returns to that preferred site. Similarly, Sarah discussed looking for well-known sites first when researching and also relayed that if she could not find what she was looking for she did not get frustrated, rather she just would go back and look at another site. In other words, she had to be a patient researcher. In these examples, research comprehension literacy skills such as identifying readable sites, diligence in regards to selecting good sites, and exhibiting patience were crucial to the adolescents' ability to conduct effective research.

Knowing where to go for information regarding particular topics was another research comprehension literacy skill that emerged. Sam stated when he encountered difficulty using the computer, "my first resource would be the Internet, if not, I'd go to somebody, like my parents…Google, that's where I usually go" (Interview, lines 371-372, 377). However, if he needed help in a game, his response was different: "I ask one of my friends, Caleb, because he's a Minecraft expert. I usually call him for information." (Interview, lines 588-589). This exemplified Sam had learned there were times when certain resources provided better assistance, depending on the particular topic. On the other hand, Chris stated he preferred to conduct an online search or, most often, he said he would go to known websites when he needed help with Minecraft:

> There is a web-site…planetminecraft.com, and it pops up and you can find servers, and blogs about it. And another one that's good that's also my favorite one is Minecraft Wiki. And…if you need to know how to, once it loads up, like if you don't know how to make a stick or

> something, you can go to here and type stick, and it shows you what it is, how to make it, what it's used for, all the stuff you can make with it (Interview, lines 975-981).

For Chris, referencing a print resource was the most useful way to get through a particular problem he encountered when gaming. Conversely, Chuck described how he would search for information related to unlocking objects within a Minecraft game, "whenever I'm stuck on a game I go on and get a search on it…like YouTube. They show you a video" (Interview, lines 669,674). For Chuck, the ability to watch a video representation was more helpful than reading about it on a given website. Thus, the mode of representation preferred varied by adolescent, however, all three of these adolescents had developed effective research comprehension skills regarding how to accurately and effectively locate information, which is an integral skill necessary in order to create meaning and synthesize the results in a summary.

Several of the adolescents discussed the importance of summarizing the information they read. In the previous examples, there was a certain degree of summarizing the adolescents' exhibited as they read through and selected various websites. Also, when they were selecting which sources to use when trying to solve a problem there was a certain amount of summary going on as well, although, it was not discussed or viewed as summary types of skills by the adolescents. However, they did specifically describe the importance of summary skills when synthesizing research together to create class reports.

Anson described the importance of summarizing content when researching as to avoid plagiarism. Additionally, Kevin offered:

> I always change it first into my own words because if I didn't that would be plagiarism. Like, well if I couldn't find anything else, then what I might do is take this paragraph (points to paragraph on webpage) and then I would change every word into my own words, like I said it. Not like this author said it (Interview, lines 462-465).

Summary comprehension skills are imperative in this digital age as students navigate through multiple platforms trying to make sense and derive meaning of what they read. The ability to effectively summarize what they have read becomes essential as they continue to develop their comprehension literacy skills and take them to the next level educationally.

Critical reading skills. Critical reading skills were the skills necessary for complex comprehension and evaluation that aided in meaning making occurring on a deeper level. For example, critical reading skills may include skills such as inferencing, acknowledgement of audience, purpose, and point of view. Additionally, elements of judgment are often exhibited.

One of the most commonly discussed critical reading skills participants demonstrated was knowing which websites to trust and which were not to be trusted. Several of the adolescents described they knew to avoid user-generated sites such as Wikipedia when researching. Lila offered:

> I never use Wikipedia because my teachers say sometimes its user-generated, so people could put something on Wikipedia that's probably

> not true. But, I usually use pretty credible sites like National Geographic… because you just can't get on there any type anything you want" (Interview, lines 212-219).

Conversely, others liked the condensed information that Wikipedia offered and were apt to use it in their research. For example, Max offered a different take on using Wikipedia:

> That's my main formative if I want to look something up about maybe a continent or a history of a country … or something that I just want to learn about, I just type it in and just look it up and just start reading. I don't have to look through just site after site. It's just right there. And I'm familiar with it. Usually it doesn't take, you don't have to click, well, like history or something, it just goes down and it's just real easy and it's right there and it's not on some new website that you're not familiar with. It's just pretty straightforward… I use Wikipedia weekly, probably weekly, because, I mean I use it for several things (Interview, lines 545-555,559).

For Max, Wikipedia was a trusted site because he felt it was easy to read and had all the information he needed right there. Max went on to describe that "sometimes the teachers don't like Wikipedia because anybody can write on it, but usually it's very factual. But, and then we'll go have to go through different websites and it just takes a while" (Interview, lines 592-594). So, even though some of his teachers did not like Wikipedia and they had discussed this at his school, he still used the website. In each of these examples, there was evidence

of using personal judgment skills to determine the credibility of the site. Both Lila and Max offered different rationales for avoiding and using Wikipedia. Interestingly, Jason offered a view on Wikipedia that seemed to be right in between Lila and Max's views:

> I know one site that many teachers and my parents say, no, no, no and definitely no to, and that would be Wikipedia because it is user edited. So, sometimes my mom says she looks it up for random trivia that she just wants to know, usually just for conversation at the dinner table. But, when it comes to actually doing huge reports on stuff then teachers and parents say "No Wikipedia!" because someone could have randomly typed in false information just for the sake of they had nothing else better to do (Interview, lines 726-732).

Jason seemed to have reconciled the fact that because Wikipedia was user-generated it was not considered a reputable source for documenting a research paper, however, if the site was used for general information purposes only it would be acceptable. The critical reading skills exhibited by these students in the above exemplars directly related to evaluation and judgments that adolescents made when conducting a search. The Center for Media Literacy (2005) offers that all media has an agenda and both Lila and Jason seemed to be cognizant of this fact at least on some level, but Max did not acknowledge this, rather he denied that, focusing more on the importance of referencing concise information in one spot. Even after direct instruction regarding the credibility of

Wikipedia, Max did not hold the point of view of the author as an important consideration when conducting his research.

Kevin discussed the importance of accuracy and trust in the sources he would use when conducting research for a school assignment. Kevin relayed:

> First I would Google it, but never Wikipedia because it's user-generated, all the teachers tell us that. Then I would just make sure that it's a trusted website… And I'd make sure, I'd know that this was all good but I also went into some books to match up that this was all correct… once I look in a book it will give me all this information already. When I look back at this (points to text on webpage) then that will tell me if all this is true or not true (Interview, lines 403-404; 412-413, 427-429).

Kevin's exemplar introduced the concept of cross-checking as an important critical literacy skill. Cross-checking sources is essential when research is done on multiple platforms; however, he was the only student who specifically described how he would verify the credibility of a source. Cross-checking sources is directly related to the critical reading skills of evaluation and judgment, which are inherent for complex comprehension and evaluation.

Hybrid communicating and collaborating literacy skills.

Communicating and collaborating literacy skills were skills that went beyond literal understanding to extend comprehension into meaningful understandings, which were used in order to communicate and/or collaborate effectively within various digital platforms. In order to communicate successfully within various digital literacy webs, a skill set emerged related to understanding the "rules," or

mores, embedded within the various socio-cultural literary contexts. Understanding the rules often involved taking initial information in, then assimilating and accommodating it in order to convey and/or construct knowledge with others. Oftentimes, this then resulted in transferring the knowledge to others in a modified state. Emergence of this skill set necessitated that the adolescent be aware of how to exchange information and successfully communicate with others in synchronous and asynchronous ways within these contexts. Collaboration in these digital platforms included working with others in a mutually beneficial process in an attempt to achieve a common goal, which often included sharing of resources and the joint development of novel ideas and/or artifacts in a digital context. While communication and collaboration skills were not skills solely associated with new literacy practices, communicating and collaborating within digital environments can be operationally different than communicating and collaborating within non-digital environments. In digital environments communication and collaboration differ in the ways in which adolescents interact with text, write, and respond. Communication and collaboration then emerged as literacy skills where users often had to demonstrate proficiency in a variety of different new hybrid literacy skills in order to effectively communicate and collaborate with each other within these new and often continually changing digital environments.

Tagging skills. Sharing tagged pictures on Instagram was a popular example of a hybrid literacy skill that emerged and was demonstrated by many adolescents where they combined the technical literacy skill of "tagging"

pictures of each other in order to communicate and capture attention. Tagging was one way discussed by several adolescents that they used to communicate and collaborate asynchronously with their friends and share their conversations with each other. In order to tag a user on Instagram, one typed in the @ symbol and another user's name and a hyperlink appeared with that user's specific name. This tag was then attached to an image or comment made which was directed at that specific user. Once a user was tagged, they received notification that they had been tagged; either they received a comment notification which would come up in their News tab or, depending on how they had set up their account notifications, they received a push notification often sent as a pop-up message to their personal device(s). While others saw this tag, only the tagged user(s) received notification. Tagging, then, emerged as a hybrid communication literacy skill in that it served to alert another user that someone had communicated with them directly, with the image itself serving as a mode of representation for a message they were trying to get across. Additionally, they could communicate with other users by including an interesting description or commentary on their picture(s). Lila elaborated on this process:

> If you tag [friends] in your comment then it will share that comment with all the people you tag and it'll tell the person whose picture it is if you liked it or if other people liked it and I think that's really convenient…I just like commenting in general because you can tell them what you like about the picture or that they should post more pictures like this…If you

tag them it's kind of automatic and it shows them what you're wanting them to know (Interview, lines 700-702, 706-708, 727-728).

In that exemplar, Lila discussed not only that she tagged friends, but also wrote comments to them directly. The act of writing a comment demonstrated comprehension literacy skills because her commentary was used to help her convey meaning that she had understood and derived from a particular image. However, the overarching purpose was to communicate with others. In this way, Lila's exemplar offered an example of a hybrid skill necessary to communicate with other friends via tagging. In order to communicate with others she had to possess certain communications literacy skills, such as choosing an image that would "speak" to the person she was communicating with in such a way that they were able to understand the message she wanted to convey. However, this skill involved more than the technical literacy skill of tagging, or the comprehension literacy skill of understanding. This communication literacy skill necessitated the use of said skills in order for Lila to effectively exchange information and effectively communicate with others. Lila went on to describe that tagging people ensured they would see the message they were trying to communicate so that the picture sent was "not wasted" (Interview, line 772). In this exemplar, tagging friends and creating a descriptive comment emerged as essential literacy skills necessary to effectively communicate with each other in this platform.

Video-conferencing skills. Communicating and conferencing with others synchronously via Skype and FaceTime involved a hybrid combination of

both technical literacy skills and communication and collaboration literacy skills. Adolescents needed to understand the audience and socio-cultural context in which they were communicating and they needed to possess technical literacy skills associated with manning the controls. Lila offered:

> I like using FaceTime. Sometimes my friends need to call me for something but since I don't have a phone I usually just use FaceTime…It's really clear and you can also see yourself back, reflected back into you. So you can see it, which is really handy when you are looking back into something. And I like that you can reverse the camera and navigations, you can pause it, or go do something else while you're FaceTiming with whoever your FaceTiming…Um, I like FaceTime if it's with my friends, but calling somebody I just usually use the phone (Interview, lines 344-365).

Lila's exemplar offered a glimpse at the technical aspects associated with communicating via a platform such as FaceTime. Lila demonstrated technical literacy skills in that she knew how to operate features such as reversing the camera, pausing it, and displaying images to others. In this way operating these features was necessary to being able to transmit a visual image to communicate using the FaceTime platform. Additionally, Lila drew a distinction between the groups that she would communicate with in this way. For Lila, her peers had emerged as a group she felt understood how to use multimodal features of literacy such as gazes, gestures, movement, images, and speech to enhance meaning making. In this exemplar, some of the possible communication literacy

skills may have included being aware of the speaker's tone of voice, facial expression, and body language, skills that are absent from text communications.

Multitasking skills. Multitasking emerged as a final category of hybrid communication and collaboration skills where users were able to interact and traverse between multiple digital platforms at the same time. For example, several adolescents described using Skype when they were gaming in order to communicate and collaborate with other gamers where they could see each other, type messages to each other, and could also play the game at the same time. Some adolescents described that when they play Minecraft, they communicate and collaborate with others in a synchronous environment. Anson relayed that his cousins taught him to play Minecraft synchronously while using Skype. He further detailed they would build structures and often times work together in a multi-player mode to create and/or add onto the world they had co-created. Similarly, Nick described that at times he would multitask as he combined forces with peers synchronously while using Skype and playing the game to create weaponry when playing Minecraft (see figure 3). He also said that sometimes they would write down information they had learned and leave it for other players:

> You can write books and there's some mods where you can put them up in bookshelves. Like one I have is called bibliocraft something…in the Minecraft forums. This is where the makers of Minecraft make their stuff. See, (showing on screen) there's desks, you can put your books on. Oh, there's also potions and stuff, there's um, bookshelves, potion

shelves… Some of, well, you can write them, some are enchantments, which like, if you combine it with a tool, one of these tools or something, it will make it better, in some way (Interview, lines 681-686, 691-693).

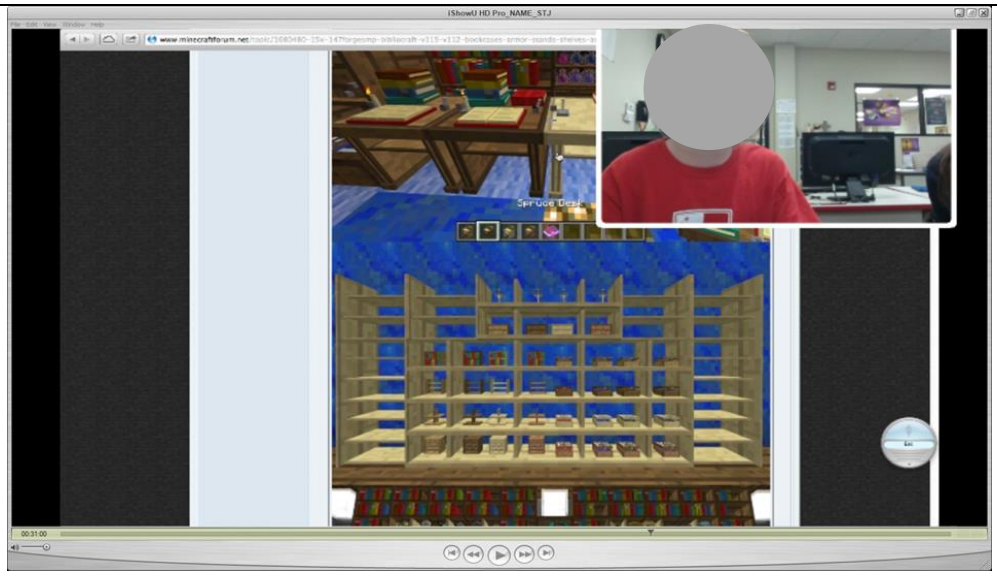

Figure 3 Screenshot Demonstration. Screenshot capture of Nick, one of the adolescent participants, which occurred as he was demonstrating the forums that different gamers use to make potions and reference different recipes in the bookshelves in the online game, Minecraft.

Nick's explanations and exemplar illustrate how he and his peers exhibited multitasking skills in order to collaborate and communicate both synchronously and asynchronously within digital environments using several digital platforms at once. In order to multitask in this way users had to demonstrate a certain level of adeptness regarding technical literacy skills as they set up their screens and games in such a way as to both enhance communication and still effectively play the game. Further, their conversations while playing aided their ability to effectively collaborate while playing the game. For example, Sam described that when he was playing Minecraft

synchronously with friends while communicating via Skype he preferred to play with a large group because of the strategic benefits, "they can give me advice while I'm doing it…they'll tell me to move or something and I can back away" (Interview, lines 603-604). Sam and Nick were both communicating with others while playing, but what made this game-play that they described different was how they multitasked effectively while they played. Essentially, in addition to playing Minecraft they were able to listen to multiple viewpoints and still manipulate the gaming controls. In this way, the hybrid skill of multitasking emerged as one where adolescents were not only able to share their ideas with others in synchronous environments, but also to take into account these multiple perspectives to enhance their game play.

Design skills. Several adolescents discussed the ways in which they designed new visual representations, such as creating artistic projects and developing animation videos and tutorials. A certain skill set emerged as they created said representations that were necessary to generate new ideas or represent them in completely novel forms, referred to here as design skills. Jewitt and Kress (2003) define *design* as how individuals create using the resources that are readily available to them within a given socio-cultural setting in which meaning making will occur. Kevin relayed that he liked to use Microsoft Word to create brochures and posters for his own enjoyment and sometimes he would share with others:

> Sometimes I like to make brochures just for fun …and Word documents. Whenever I get bored … I'll go with just a regular word document. And

> sometimes I just like to increase the font size to always 72. And I like to type my name multiple times...And I really like NBA players, so sometimes I like, I type their name and find a picture of them and put it on there and make the background colored. And then I put it up in my room and stuff (Interview, lines 137-139; 144-148).

Nick also discussed features of designing he utilized as he produced animation videos related to the game Minecraft:

> Well, actually, sometimes I animate stuff, but, that's what I do…So, I'm pretty obsessed with Minecraft, so I animate my craft characters doing things, at home...There's [a program] called Myanimator… It's like making a little movie… I just kind of make them do something. Like, I made a guy do a flip, and some karate stuff, and then he gets killed, so…He's not that cool. That's what I wanted to point out…Yeah, he acted great, but wasn't that great, so… There's bad guys in Minecraft and I animated them to kill him…And so, um, that animation had two different characters a good guy and a bad guy…Well, there are two bad guys and they're just watching him, and one had a bow and arrow, and it shot him, so… that's how he died (Interview, lines 212-224, 257-267, 295-296).

In these exemplars, Kevin and Nick described how they created their own novel designs and then shared them with their friends. Anson also described design features he utilized while playing Minecraft. Anson relayed that he went online and researched mocks, which he explained were add-ons for

the game that once configured helped him to create recipes to generate other features within the game. These recipes allow for more advanced game play and require creative combinations of in-game materials to create "new" items. The ability to design in this way, called "crafting" by Minecraft users, helps to ensure survival within the game. For Anson and other Minecraft users, crafting was an essential design skill and required that the user drew from various modes to create new items to use in game-play. Players then share these recipes with others, possibly through various online Minecraft wikis or within their shared world as they play with their friends. Anson designed mocks for his Minecraft world and shared them with his cousins and other friends he played with, enabling them to collaborate and share meaning with each other in these virtually designed worlds. In these exemplars, adolescents demonstrated design skills related to manipulating, creating, and crafting new visual cultural representations within virtual environments. This necessitated technical literacy skills such as finding images, manipulating them, and then conveying meaning; for example, using internet and in-game resources to aid in advancing their game play and then sharing these with others. Additionally, users needed to be adept at navigating in these virtual environments and be able to select various modes themselves to help shape these resources into various different modes of representation that will ultimately convey meaning to other users.

Section summary. The new literacy skills adolescents demonstrated in this study were hierarchical in nature, in that each was a progression from the previous step. Technical literacy skills were the foundational skills necessary in

order to effectively participate within a given practice, such as keyboarding. Transitional literacy skills served as skills that bridged technical and comprehension literacy skills, such as selecting and inserting an image that represents a certain intended meaning. Comprehension literacy skills are related to understanding and deriving meaning and included three subcategories of skills: literal level skills, research and summary skills, and critical literacy skills. Literal level skills are necessary to understand or convey meaning on a literal level and included skills such as knowing how to use in-app tutorials. Research and summary skills are necessary to research, condense text, and summarize findings, and included skills such as knowing which sites to use to conduct research on a given topic. Critical reading skills were necessary to effectively evaluate the accuracy of a source and included skills such as inferencing. The final category of new literacy skills was a hybrid category of communication and collaboration skills where users would use and apply their new literacy skills in unique ways that resulted in more direct and effective communication.

Literate Identity Perceptions

The ways in which adolescents described their encounters with the various new literacy practices during the discussion and demonstration portion of this study gave great insight into how they perceive themselves as literate individuals. These perceptions form their literate identities. Several factors influenced how adolescents viewed themselves as literate individuals, chiefly, how confident they were at a given practice, which was directly impacted by their overall beliefs in regards to their competence within various literacy

practices. This is consistent with research conducted by Young and Beach (1997) where they found that individuals' literate identities were directly impacted by self-assessments of their perceived literacy competence within a particular context. This issue of perceived competence in particular new literacy contexts seemed to be particularly pronounced in the current study. In fact, there were two facets of literate identity within different contexts which emerged in this study: competence perceptions and membership perceptions.

Competence perceptions are the perception of one's ability to do something well or efficiently, and exhibit proficiency at a given task. Two types of competence emerged: intrinsic competence and extrinsic competence. Membership perceptions are the feelings of belongingness individuals have about their status within a specific context, in this case a new literacy community of practice. It is important to note that intrinsic competence, extrinsic competence, and membership perceptions are interwoven aspects that continually influence each other, yet, I have separated them out here in order to describe them individually. Figure 4 illustrates that literate identities are comprised of two overlapping and interconnected perception components: competence perceptions and membership perceptions. Additionally, competence perceptions are based upon both intrinsic competence and extrinsic competence perceptions. Together the components interconnect to form one's literate identity.

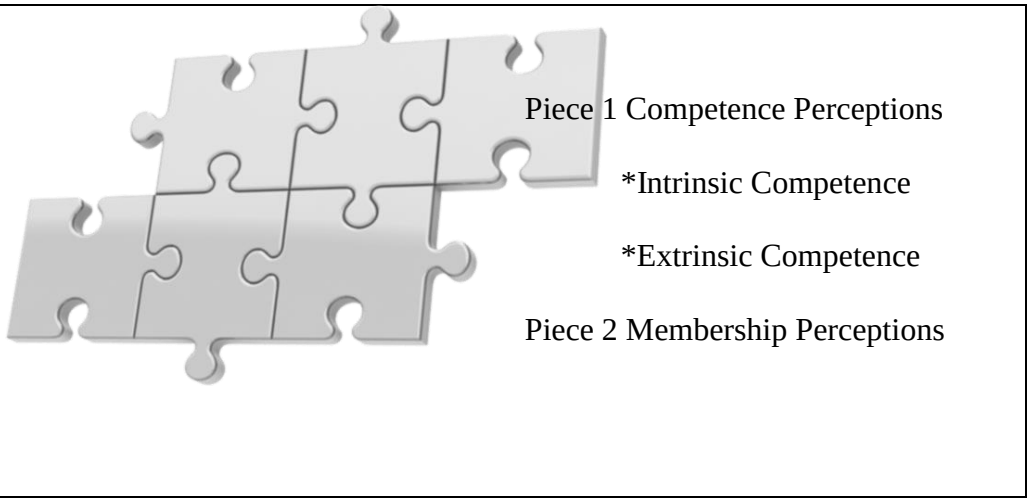

Figure 4. Literate Identities Interconnected Components.

Competence: Intrinsic and extrinsic. Intrinsic competence is a self-perceived proficiency statement where the adolescents described their view of how adept they feel they are at a given practice, such as *I am good at doing Google searches*. Many adolescents made definite statements which clearly articulated their perceptions regarding their intrinsic competence. For example, Danny indicated that he had low intrinsic competence in his abilities as a researcher: "[I'm] not very good at it…I'm not as good at finding stuff. I get distracted" (Interview, lines 582, 590). Danny' statements revealed he had an idea what skills would be necessary to be a good researcher, however, he ultimately was cognizant that he felt he lacked those abilities, which led to his assertions that he was not good at that particular practice. Nick described that when using Microsoft Word he felt very competent because of the level of instruction he had received in his computer class: "I basically learned how to do everything in this class and I think I know most everything about Microsoft Word…because in this class, whenever we do projects we basically do stuff we've already learned" (Interview, lines 122-123, 127-128). For Nick, the fact

that his computer instruction revolved around practicing, not learning new skills indicated he knew all he needed to know, and thus resulted in high intrinsic competence perception for that practice.

Additionally, the adolescents often made internal comparisons between their abilities and others, which resulted in statements about their perceived intrinsic competence in comparisons with others. For instance, Aiden offered that he did not feel he was very good at using Microsoft Word, but made comparisons between his abilities and the abilities of others:

> I'm not the best or smartest with Word. I've seen others better or smarter at Word. Sometimes I've seen them go really, really fast. Faster than anyone I've ever seen before in my whole life. My mom can type 80 WPM (Interview, lines 424-426).

Aiden's statements relayed low intrinsic competence in his skills as both a Word user and typist. While Aiden was comparing his competence against others, the evaluation made was ultimately his own, reflective of his own intrinsic competence perceptions. Similarly, Sam offered that he felt adept at using PowerPoint software because he had been using it for several years: "[As] I get older, and some people need help, I can show them where they need to go, like help them out" (Interview, lines 382-383). Sam's statements relayed a high intrinsic competence in his PowerPoint abilities, so high in fact that he felt he could assist others if they were experiencing difficulty. Both Aiden and Sam made statements that indicated they had definite perceptions about their intrinsic competence in these particular new literacy practices. Intrinsic competence

often manifested itself when adolescents relayed comparisons between themselves and others. Further, with both of these exemplars, the adolescents made comparisons between their abilities and the abilities of others, however the fact that the competence comparisons were internal is what makes them examples of intrinsic competence. Thus, intrinsic competence is defined not only as self-perceptions about their abilities, but often those perceptions were made in relation to how they thought they were doing compared to other people.

Extrinsic competence is how adolescents think others would perceive how good they were at a given practice, such as *my teacher thinks I am better than other students when using the computer*. Many adolescents were clearly able to describe how they felt others would rate their competence in a given new literacy practice. For example, when describing his competence in a particular online video game he played with his cousin, Chuck offered: "I think he sees me as pretty good 'cause I have a lot of wins" (Interview, lines 823-824). Chuck's statements revealed he had high extrinsic competence in his abilities. Kevin relayed he knew that his teachers thought he was good at PowerPoint, more so than when he used Word, because of the amount of freedom they gave him when he was working on a given PowerPoint project:

> Because whenever I use PowerPoint I feel more free than Microsoft [Word] because they don't give us a specific font or font size for the letters, or Times New Roman or anything. We're free on that one for the titles and the facts that we have and pictures, and that kind of stuff. And also, we haven't done a lot of PowerPoints, but whenever I did I aced

them and after that I knew that I'm good at PowerPoints (Interview, lines 527-531).

For Kevin, the freedom his teachers offered him was an indicator of his abilities, resulting in high extrinsic competence statements. Additionally, the fact that he had received high scores further solidified his feelings of high extrinsic competence.

Intrinsic and extrinsic competence identifiers often went hand-in-hand in terms of how these young adolescents perceived their literate ability. Perceptions of high competence often led to positive self-perception statements within a particular context. For example, Cristal described it made her feel good when a friend of hers got stuck using the computer and asked her for help: "She likes it when I use the computer, whenever she's having trouble, she's like, you do it" (Interview, lines 405-406). Conversely, Miranda described she thought her teacher would tell her to try a lower-level on an educational math website, but that did not seem to impact how she perceived her overall intrinsic competence:

> My teacher's opinion would be ok, you can do this… If you want to do this, ok. Just keep the level down, you know…I think I'm kind of good at this. I actually think I'm gonna rock this out (Interview, lines 479-481, 494-495).

With both of these exemplars, the adolescents indicated they had positive intrinsic competence, even though the extrinsic competence levels displayed by others differed. With Miranda in particular, her own intrinsic competence

perceptions overrode her teacher's opinion. However, this is not always the case, as illustrated by Raye when she described feeling immature for enjoying and playing a game called Pou in which one takes care of an alien being. Raye relayed she had positive intrinsic competence regarding her abilities to play that game, and she discussed that others went to her when they wanted to play the game, which indicated she had a positive extrinsic competence perception of her abilities; however, ultimately, she said "I feel childish. Very childish…[but] it's a fun game" (Interview, lines 73-77). In this exemplar, Raye had both positive intrinsic competence and positive extrinsic competence, however, she felt that the game is not age-appropriate, which indicated that she did not have a positive view of the literacy practice overall, even though she made statements indicating high intrinsic and extrinsic competency as a player of this game. With Raye, her perception of the literacy practice in which she was engaging had more impact on her than her overall competence within the practice. Chris also discussed a literacy practice he did not highly value, using PowerPoint:

> It can be hard sometimes, like if you don't know where a certain thing is, like I don't know where all the buttons are and stuff, you know…Since a lot of my friends don't use it I'm pretty good. Cause not a lot of other people use it…If I was to take a survey with other people I probably wouldn't be very good [compared] to people who use it daily with work and stuff like that" (Interview, lines 356-357, 362-363, 367-368).

Chris's exemplar showed he had both low intrinsic competence and low extrinsic competence in this particular practice. These low self-perceptions led

to a negative intrinsic and extrinsic competence description in regards to his skills as a PowerPoint user. Chris did not appear to highly value the literacy practice associated with this particular program. Thus, another element that emerged as critical in the way in which these adolescents viewed themselves as literate individuals was the overall value they placed upon the literacy practices in which they engaged. With Cristal and Miranda, the literacy practices in which they were engaging were ones they felt positively about, and with Raye and Chris the opposite was true. Thus, the adolescents' perceptions regarding the given literacy practice seemed to have a direct impact upon their views of themselves as members within that particular literacy context.

Competence continuum. The intrinsic and extrinsic competence perceptions of himself or herself as literate individuals occurred on a continuum, were dynamic (in the sense that they could be in a state of flux), and varied from high to low, or somewhere in-between. Several of the adolescents in the study indicated that for them, practice and progress were directly tied to their overall feelings of competence within the community of practice in which they navigated. For example, several adolescents commented on the point that they were still learning how to play and had not achieved mastery when demonstrating various literacy practices. For example, Liam offered:

> I don't know. It really depends on how long they've been playing it. I've only known about this for maybe a year and a half. So if someone's known about it for two, three years, they could have a higher skill level than I have. But I have beaten the game (Interview, lines 345-347).

For Liam, his overall ability evaluation seemed directly related to how competent he felt as a literate individual when playing a particular game, both in regards to his intrinsic and extrinsic competence. Liam's response demonstrated that while he felt he was adept at playing a game in certain instances, he was aware that others could potentially be better or have a more developed skill set based upon the length of time they had been playing the game. Juliette offered that in regards to using Microsoft Word:

> I know a lot about Word since I just play around with it, but I don't consider myself like an expert, but I do know more than most of the kids in my class do and maybe some in the older classes since I just play around with it and you know just experiment…but I do think I know some more than some other kids do (Interview, lines 244-249).

Juliette's responses also indicated another important competence evaluation that several adolescents mentioned: the element of practice. Many of the adolescents discussed they learned to figure out and how to participate in various practices simply by practicing. Juliette's response illustrated she saw a direct connection between the amount of practice she had demonstrated and her overall skill-level. Similar to Liam, she felt skilled and thus indicated she had high competence perceptions, but her exemplar also indicated that if she was comparing herself to others with more expertise her intrinsic and extrinsic competence evaluation may have differed, at least in terms of her overall competence in the given practice.

Further, many adolescents discussed having specific goals for improvement when engaging various literacy practices. Max regarded himself as a competent game player and his statements indicated he had high intrinsic and extrinsic competence views of himself as a gamer. Max discussed when he was trying to master a new game or new level within a given game that he often watched online video tutorials to help him master the necessary strategy components. For Max, the entire reason he watched these tutorials was to improve his game playing skills. Sarah also offered that while she felt confident as a text messenger she wished that she could type faster. Through their descriptions it was clear that both of these adolescents felt high intrinsic and extrinsic competence at the level they were performing in these various applications, however, their responses and the fact that they had set continual goals for improvement in regards to said practices indicated they were continually working towards developing and improving their skills within these practices. Competence descriptions such as these indicated their knowledge of the practices was developed enough that they understand what skills they need to hone in order to retain their proficiency within these practices. Further, the creation of these goals indicated competence may be measured in terms of a continuum where continued progress is a constant goal. For these adolescents it did not seem that a given individual simply has high or low competence, but rather there is a range of abilities they have within a given practice that may always be in transition. This range of abilities indicated their competence was in many cases in a state of active development.

Membership. Another factor that emerged related to how adolescents perceived themselves as literate individuals was how they felt about themselves as a member within various new literacy communities of practice in which they had membership. Membership was indicated by a statement(s) which included feelings related to how adolescents viewed that they fit in within the various new literacy webs to which they belonged and how they viewed themselves as a member within said literacy webs and/or practices. Membership emerged as having five varying roles: novice, intermediate, insider, outsider, and peripheral. Additionally, followership and understanding the rules of membership roles within the community of practice emerged as important to their overall perceptions of where they fit in within those roles.

Membership roles. Membership was often described as having a fluid range, where adolescents described varying roles of membership within the different new literacy webs to which they belonged. A novice member would be one who has entered the community and is either taking steps towards becoming a full member or actively trying it out, but currently exhibits low roles of membership. For example, Miranda described that while she played online games often, she did not really understand what to do and where to go for assistance:

> I just would like to know how to, you know, learn new games…and actually how to do these…actually know how to do the stuff that I'm playing so that I actually, you know, get the game… I mean like if

somebody would be there with me it will be a great time... I would like it too, [for] somebody to help me there (Interview, lines 437-443).

For Miranda, her responses indicated she was not a full member within the gaming communities in which she traversed, but rather a novice member. When Miranda struggled, she was inexperienced and did not know where to go for support in those communities of practice. She went on to say she often would ask her younger brother to play with her so he could help guide her, although that was not something he wanted to do often, which left her feeling disconnected from those online communities of practice. Miranda's statements further indicated she wanted to become a more complete member, which emerged as an important facet in increasing one's membership within the community of practice.

An insider member would be one who is skilled in the mores of the particular community of practice. In contrast with Miranda, Liam also discussed looking to friends for support when playing an online game, Wizards101, but ultimately viewed his membership in the gaming communities in which he traveled differently: "I've gotten so used to playing without my friends that I prefer playing without them…The only real time I need them is when I'm stuck on a certain part. That's the only time I really need them" (Interview, lines 152, 156-157). Liam's descriptions demonstrated he was more of an insider than Miranda. For Liam, the friends with whom he played Wizard 101 were often not available, so he had learned to participate within the community of practice without them, which enabled him to have a more complete membership within

the community of practice. Consequently, it seemed that his membership role was more developed than Miranda's, because he had learned to participate without known peers within the community, whereas Miranda felt stifled and indicated she could not participate fully on her own. Liam would be considered an insider member because he was skilled and he indicated he could interact within the community of practice independently. Further, he had learned to problem solve and knew where to go for support and assistance. Liam also knew that at times having the support of other community members could be helpful. This indicated he really understood the community of practice he was involved with which would make him an insider. Thus, an insider is not only skilled in the ways of the community, but has completely embraced their role within the community of practice and participates fully.

Intermediate members possessed skills and demonstrated understanding of the community of practice; however, they were not full participants within the community of practice yet. For example, Juliette described her membership role in an online writing forum called Writebooks where members would post portions of stories they were writing and ask for help from their community: "I haven't personally posted, but I read, and I leave comments. I haven't put chapters or something. But, I have read some and they're very interesting books" (Interview, lines 408-409). Juliette went on to say that she provides other members with feedback and ideas on how to continue to develop the stories they were working on. Juliette's statements suggested she was also a skilled member who knew what was going on, so she was not a novice,

however, she was not participating fully, which would be indicated by posting her own original material, so she was not an insider, rather, she was an intermediate member.

Peripheral members have gained entrance into the community, but did not take necessary steps to increase their participation and understanding of the given community of practice. In some instances, the adolescents described they had obtained some level of membership, but the membership was incomplete and their actions did not indicate they were interested in attaining a more complete level of membership, so they too lurked on the edges of the practice, but as a peripheral member. For example, Raye described she signed up for a Facebook account to communicate with her family, but that she will often just play games or "just do the private message thing" (Interview, lines 426). For Raye, she seemed to be a peripheral member who really did not understand the platform and how to use Facebook in a widespread way. She further relayed that Facebook was not a platform she used often with her friends, which limited the amount of exposure and practice she had within that particular community of practice. Raye's statements indicated she was a peripheral member as opposed to a novice member, because her statements did not indicate Facebook was a practice she valued or that she wanted to increase her skills in order to participate more fully. Similarly, Danny described he was not good at Minecraft, because he did not use it as much as other kids his age: "I just never go on and do it, do anything" (Interview, line 663). For Danny, he felt his lack of practice and decision not to play Minecraft impacted his ability to participate as a

member within that particular community of practice. Raye and Danny lacked the desire to increase or embrace their membership, which resulted in being considered peripheral members within that practice.

An outsider is on the edges of the community of practice and does not know how to gain membership within a particular community of practice. Several adolescents described that they were not a member of a particular community of practice, but indicated they were interested in becoming one. For example, Cristal described that her parents used Twitter and Facebook for practical reasons such as finding out news and what their friends or acquaintances were doing, and she wished she knew how to use them too. Cristal said she felt that "Facebook and Twitter are faster than actually driving to a friend's house, and actually talking to them and driving back. It's faster than waiting for a text message to load" (Interview, lines 319-321). Cristal seemingly based her perceptions of what it meant to be a literate individual on the practices she had seen her parents use, and deduced, at least in some capacity, that she was not a fully functioning literate individual because she did not belong to or understand what to do in those communities of practice. Cristal was an outsider because she was acting on the outside borders of the community in terms of her understandings about these new literacy practices. Similarly, Max described how he had used Skype in the past, and stated he wished he had more people to interact with: "I did like using Skype, just haven't found a real need for it...I don't use it now almost at all" (Interview, lines 575-577). For Max, he did not know how to become a member of a Skype community and was also

on the outside of the community. He was interested in finding out more, but had not been able to make that leap into having acquired membership.

Followership. Another factor that emerged at two of the three sites was that several of the adolescents believed their membership within a new literacy community of practice could be indicated by how many followers they had. Followers are people within a community of practice that are interested in what another particular individual has to say to the point that they will "follow" them. Followership can take on different forms within different platforms, but usually, followers play an active role within a community of practice as they comment, "like," or give an indication of their opinions on particular topics that a community member has posted or shared. Followership also seems to occur on a continuum, where the more followers that one has, the more fully embraced or accepted they seem to be by the particular community of practice within which they are interacting. Sarah relayed it was important to her that she have a lot of followers on Instagram. She offered that a friend of hers had been on Instagram for a long time and had only a few followers, but that she had just joined and already had over 100 followers because she posted more often. Within this social context, the ability to communicate with others was not only important, it affected how Sarah perceived herself as a literate individual and how she felt about her own membership within the social community on Instagram. Sarah relayed she felt she had been able to attract and keep many followers likely because she communicated in a way that others responded to, which indicated she had high feelings of membership within that community of practice and was

operating as an insider member. Further, Sarah felt that having a lot of followers meant that others liked to know what she thought about different pictures, and thus topics in general. Conversely, Max offered a different take on Instagram:

> I've had it for about three months and only posted two pictures. I -- other people feel the need to just post, post, post. I only say, well, I'm only going to post it for stuff that is actually very important, and I don't usually -- like I said, I've only got two pictures, so I only post when it's important or something…I keep my followers at a minimum. Just, if I really don't know people and I really don't really want to, I don't really care what they are doing. I just don't follow them. But I follow all the kids in my grade and my class, and I really just, just to kind of see what they are doing…I like pictures unless…people post a lot of different -- a lot of pictures at once, and then I just kind of scroll down through them (Interview, lines 735-739, 767-773).

Max indicated the most important consideration for him was to post information that was significant. Additionally, Max relayed he rarely tagged people and did not follow celebrities as Sarah did. He also conveyed that usually he only logged into Instagram on a weekly basis, as opposed to Sarah who checked in daily. This indicated that both of these Instagram members differed not only in relation to how they used this social network, but it impacted their perceptions regarding their membership within the community with regards to having followers; Max indicated he did not place much importance on the act of having followers, thus, for him, having followers had a neutral effect regarding his

membership within that community of practice. Max was also an insider member because he had the skills necessary to participate within the community of practice and participated fully, but on his own terms. For Max, not having a lot of followers was not something that he cared about. Sarah, on the other hand, did care that she had a lot of followers. These examples illustrate the perceptions of membership can vary from individual to individual and have different impacts upon their views of membership within various communities of practice. Further, Max seems to go back and forth between being an insider member and a peripheral member, depending on how he viewed his role within the community of practice. This could indicate that membership roles could change depending on one's purpose; however, it is not entirely clear as described within our conversation and would need to be investigated further.

Chris also discussed having followers, but in relation to blogging. In our conversation he examined his inability to attract followers when he blogged. He relayed that "not a lot of people follow me on [my blog]…I'm taking a break from it because no one really used it anymore…We just lost hope because nobody would follow us or looks at them" (Interview, lines 439, 444-445, 452). Chris elaborated further and said that his cousins had created blogs and that inspired him and his brother to create one. He said he wrote about "all the stuff I like. I do baseball and I talk about baseball. I talk about games I play, Minecraft, and all that" (Interview, lines 459-460). Sports and Minecraft seem to be topics that would be of interest to his peers, but it did not help him build a following. In this example, he possessed the technical literacy skills necessary

to create the blog, he possessed comprehension related skills centered on discussing topics he and other kids his age would be interested in, but he ultimately lacked the ability to build a large following, nor was he able to capture their attention in such a way as to increase his fan base. For Chris, not being able to attract followers who regularly read his blog led him to think that no one wanted to read what he was writing about, which consequently led to negative perceptions regarding his membership in this practice and caused him to not want to blog anymore. As a blogger, Chris would be considered a peripheral member, because he understood some of what was required within the community of practice, but had not been able to move up and increase his skills to the point where he was able to increase his followership, and ultimately had stopped trying to participate in the practice.

Involvement rules. A few adolescents discussed not understanding the rules for involvement within certain platforms and/or practices, which led them to make statements indicating that they may not feel like a full member of a given community of practice because of these misunderstandings. Ultimately, they seemed to lack knowledge in regards to the shared rules that members need to possess in order to effectively interconnect with others in a particular practice. Incomplete or insufficient understanding of the rules of involvement within a community of practice often led these young adolescents to question their membership role within the community at large. This, in turn, affected their membership within the community of practice or affinity space. For example, while texting was a very popular practice, there were a few adolescents who felt

they did not know "how" to text appropriately. In these cases, it was not that they did not possess the technical literacy skills necessary to type and send a given message, but rather it seemed there were certain nuances of the practice that remained unclear and impacted their membership within the community of practice. For example, Anson discussed not understanding conventions regarding how long he was supposed to wait between texts and what exactly he was supposed to say in a given text. He stated he preferred to use text messages primarily to send pictures that might help explain a message he wanted to relay, and usually they were just sent to family members such as his parents. He described that he felt awkward when texting. Alternatively, Raye offered that while she was an avid texter, some of her classmates felt she texted too much and thought she was annoying. These revelations illustrated that even an avid texter may have difficulty mastering some of the underlying skills necessary to text and communicate well with others within that community of practice. In Raye's case, it appeared she did not understand the rules held by other members within the community as to what were appropriate texting practices. These are skills which are necessary in order to achieve full membership within the community of practice. The exact skills that are lacking here with Anson and Raye remain unclear. It may be a social issue in terms of not understanding the context appropriately, which would be directly related to the *awkward* and *annoying* descriptions these adolescents relayed. What is clear is that there are rules and understandings that have yet to be mastered by some adolescents. For Anson, these observations led him to regard his abilities as a texter negatively,

resulting in a low membership perception for that practice. Similarly, Raye conveyed she was confident in her abilities to text, however, by relaying that others perceived her to be annoying indicated there may be a negative aspect related to her ability to effectively communicate with her peers via text message. However, while she acknowledged this, it did not seem to negatively impact how she viewed herself as a texter; her perceptions of her skills as a texter seemed to remain positive regardless of how others viewed her, resulting in high membership perceptions. For Anson, it was clear he did not feel like a full member within the community of practice of text messaging; Raye still retained overall high membership perceptions as a texter, but her discussion revealed there may be aspects of her abilities to communicate in this text messaging community of practice that could lead her to develop a low membership perception in the future.

Lila also described not understanding some of the nuances of the practice of blogging. She described she had learned about blogging from her mom, but did not feel confident in her own blogging abilities, specifically how to get others interested in what she would be writing about. For Lila, she did not understand how to blog in a way that would be of interest to her peers. She described she wanted to start a blog to review books, but even though she had the idea and felt confident in her abilities to review and write about books, she did not understand the nuances of how to involve her peers and gain their interest. This resulted in low membership perceptions for Lila, who would be considered an outsider in the blogging community of practice. With Lila, not

understanding the rules for involvement within her given community of practice impacted her ability to participate effectively with the community. This resulted in low membership perceptions for her.

Literate identity operationalized. The adolescents' literate identities fluctuated between positive, negative, neutral, and varied within different contexts. However, their literate identities emerged to be fluid and malleable, which suggested that as their feelings about their competence and membership within a given community of practice or affinity space changed, so too could their literate identity. Some adolescents may have had positive literate identities across many practices because of their views of their overall competence and membership perceptions, some may have had negative literate identities across practices, and some had a mixture of the two. It is important to note that no one adolescent demonstrated solely neutral literate identities based upon how they discussed their perceptions of competence or membership. For some, the value they placed upon certain components of their competence or membership seemed to outweigh other perceptions. Thus, literate identities are not only dynamic and multiple, but the nuances of one's literate identity are highly impacted by the contexts in which the practices are situated.

An individual who has a positive literate identity would describe himself or herself using positive terminology when describing their overall abilities. For example, Cristal stated she felt she was confident in her new literacy skills when doing research and completing research projects:

> I feel really good, 'cause I can go on Google and search when I'm researching stuff… My mom and dad know that...but they do get really annoyed when I wait to do my project at the last minute, and have to do it on the computer, but they think I'll get it done, because I'm a computer genius like my dad. Sometimes (Interview, lines 341; 364-367).

Cristal's exemplar showed she had high intrinsic competence and extrinsic competence when doing research, and further, she felt membership within the community of practice because she not only knew how to participate well, but exhibited skills that were similar to members with more expertise whom she esteemed. This resulted in an overall positive literate identity. However, use of the word *sometimes* implied that at times and within certain circumstances or contexts this may not be the case, however, in our discussions she relayed positive views and perceptions regarding her overall abilities amongst several different new literacy contexts.

Nick described he was very confident in his abilities as a Minecraft player, because it had been easy for him to learn to play, and he felt good in comparison with his peers: "It was pretty easy to learn because the controls are easy…I play it a lot and dominate my friends when it comes to player versus player" (Interview, lines 601, 641). Nick's description revealed he had high intrinsic competence perceptions, and he had always felt comfortable within that community of practice. Further, he felt he had the support of his friends, many of whom played the game with him, and some support from his parents:

> They know that I'm on my server a lot and they, they think I play it too much. Well, my mom does. My dad, he likes Minecraft, too, even though he… never played it. Like um, for Halloween last year, he made me a costume, of one of the bad guys, called uh, creeper (Interview, lines 807-810).

Nick's exemplar revealed that even though he was aware of his parents' concerns that he played the game too much, ultimately they supported him in this particular interest, so much so they would help him create a Halloween costume. He went on to say he felt his parents thought he was a good player. Thus, even though his parents had reservations about the amount of time he devoted to Minecraft, Nick still indicated he had high extrinsic competence perceptions. Nick was well versed on the game of Minecraft and spent the majority of his demonstration time discussing and explaining the game and its practices, indicating he was an insider member. This suggested that if the intrinsic competence perceptions and value placed upon the practice were high enough, that reservations made by a valued other, in this case his parents, would not necessary impact his extrinsic competence perceptions. Nick's high intrinsic and extrinsic competence views coupled with his strong membership perceptions resulted in him demonstrating a positive literate identity.

While Nick felt quite positive about his literate identity as a Minecraft player, he expressed a different perception regarding his identity as a Microsoft Word user. Nick relayed he had learned to use Word in his computer class at school and felt he knew how to use it well, because he was rarely taught new

aspects of the program, thus indicating he had a high sense of intrinsic competence with regard to using the program. He also stated he felt confident using the program and when asked to compare his skills to those of his friends he said that "some of them aren't so great at computer stuff" (Interview, line 144) and that he was slightly better. Nick's body language and tone of voice indicated that while he may feel a sense of competence when using the program, he did not highly value the practice. Further, he went on to say he never used Word for fun and that Word was primarily used for school-related activities or assignments. This indicated he had loose school-based membership ties to communities of practice related to Word, indicating he was a peripheral member. Based on these statements and non-verbal cues coupled with his competence and membership perceptions, it seemed that Nick had a neutral literate identity within the Word community of practice.

For some adolescents, their literate identity perceptions seemed to be indifferent, indicating they had neither positive nor negative feelings about their literate abilities, but rather expressed neutral sentiments about the various practices in which they traversed. It is not that they didn't have an opinion, but rather that they did not seem to care or be affected by feelings of membership or competence within these practices. Neutral perceptions seemed to go hand-in-hand with low value perceptions related to the practice and/or context. Interestingly, the neutral literate identity was the least common manifestation of literate identity that emerged from this study.

When asked how he felt about himself as a game player, Danny shrugged his shoulders and said he did not feel he played as well as his peers. He went on to say that playing Minecraft online was not a favored practice and he only played Minecraft when he was over at a friend's house and not because he enjoyed it, but rather for lack of anything better to do: " I don't know, it's just something to do" (Interview, line 432). Danny' statements suggested he had low intrinsic competence in relation to his skills as a game player. Interestingly, Danny's comments, body language, and tone of voice did not indicate that this bothered him. Further, he was not that interested in Minecraft because he had no real membership ties to playing the game, just a friend with whom he would play the game on occasion. The fact that he did not seem to be seeking to gain membership indicated he was a peripheral member within that particular community of practice. As a result, he seemed to regard himself as having a neutral literate identity in the online gaming context. He saw himself as neither positive or negative, just indicated that overall he felt indifferent about his literate abilities within that community of practice. Interestingly, Danny expressed a negative perception of himself as an online researcher, saying he was "not very good at it" (Interview, line 582). He went on to describe that he had difficulty staying focused and finding what he was looking for. He demonstrated how he would search for topics, basing his demonstration on a search he had done recently for a school project. His tone of voice and statements indicated he was still frustrated by this search. Further, Danny did not indicate that he had knowledge of how to seek help within that community

of practice, which implied that he was an outside member. Danny seemed to have low competence perceptions coupled with low membership perceptions, which in this case did seem to bother him more than it had with regards to his perceptions as a Minecraft player. Overall, Danny' statements implied that he had a negative literate identity in the online research community of practice.

An individual who has a negative literate identity would describe himself or herself in a negative way, possibly using negative terminology when describing their overall abilities. In several instances, it seemed that the adolescents who participated in the study were hesitant to describe themselves or their skills negatively, rarely stating that directly. Rather, those perceptions seemed to manifest themselves in the negative ways in which they described the practice, such as *Instagram is lame*. For instance, Brandon described that he felt playing games online could be "tough and frustrating" (Interview, line 195). Sometimes he didn't know if he wanted to continue playing a game because of this frustration: "I like it and I don't like it because it gets real frustrating, I wish you could just unlock the levels without having to [get] to the other levels…it's always so hard to get like, to [get to] the next, it's always nerve-wracking" (Interview, lines 275-276; 285-287). He also relayed that sometimes he would get so frustrated while playing games that "I want to throw my computer down" (line 384). These statements indicated he had low intrinsic competence perceptions. Brandon conveyed he didn't know where to look within a game to get help and that "I just get frustrated… Sometimes I would give up. I would be like I have to go through like 10 levels to quit" (Interview, lines 244-245). It

seemed that even though he wanted to improve, and often seemed to force himself to keep practicing, that ultimately he would give up. Also, the fact that he did not know where to go to get support implied he did not have membership within an online gaming community of practice. Further, he relayed that his parents did not think he was a good game player and had imposed restrictions on the amount of time he could spend using the Internet so that he often used it "when my mom and dad probably aren't home" (Interview, line 97). Thus, his statements insinuated that not only did his parents not think he was good, but that they did not support his use of technology, which likely impacted his low extrinsic competence perceptions. Brandon's descriptions regarding his intrinsic and extrinsic competence, along with his lacking clear membership, suggested he had a negative literate identity within the online gaming community of practice.

Summary

Among these adolescents, perceptions regarding their competence and membership within the various new literacy contexts in which they traversed impacted their views of themselves as literate individuals. The adolescents in this study demonstrated that they participated within a variety of new literacy contexts and the practices they participated in were overtly communicative in nature, thus emphasizing the socio-cultural importance of new literacy contexts in which they traverse. Meaning making was found to be a constantly occurring component within the practices in which they participated. Further, the skills they demonstrated seemed to be hierarchical in that there were basic skills

necessary to operate within a practice, and more complex skills which became necessary in order to reach higher levels of performance within the practice.

Chapter 5: Findings

The purpose of the present qualitative study was to add to the current body of research regarding new literacies and literate identity. This study sought to examine the new literacy practices and new literacy skills adolescents in the sixth grade demonstrated in order to ascertain what affect these skills and practices have upon their literate identity formation. Specifically, this study explored how adolescents used technology and the technology practices and tools with which they were familiar. The specific research questions addressed in this study were:

- How are the literate identities of sixth grade adolescents shaped by the new literacy skills and new literacy practices in which they participate?
    - In which new literacy practices do sixth graders participate?
    - What new literacy skills do sixth graders demonstrate?
    - What are their literate identities as they participate in these new practices?

Review of the Methodology

A phenomenological qualitative research design was employed because the study sought to explore the lived experience among young adolescents as they participated in various new literacy practices. The use of a phenomenological perspective allowed for a deep analysis of the demonstrated

new literacy practices in which they participated, along with an exploration into the perceptions they had regarding said practices.

Participants and setting. There were 18 sixth grade adolescents from three different suburban parochial schools in a southwestern state who participated in this study. Participating students were recruited from an initial pool of 87 sixth grade students. The adolescents all attended schools where grades Pre-Kindergarten through eighth grade were served on the same campus, which allowed for exploration of their new literacy skills and new literacy practices without being tied to either an elementary school or junior high school setting. Of these 18 adolescents, 56% reported they were white, non-Hispanic, Asian 11%, Native American 11%, Black 6%, Hispanic 6%, and other 10%.

Design and procedure. The adolescents were both recruited and assented at their schools. All adolescents were given a Student Technology Survey where they provided basic background and demographic information and indicated online and offline literacy practices in which they participated. Additionally, the adolescents highlighted two practices on the survey they felt they were most competent using and which practices they did not feel as competent. These highlighted practices were intended to act as a springboard for discussion during the next part of the study. During the Student Discussion and Demonstration portion of the study, adolescents were given the opportunity to discuss both the favored technology tools they used as well as encouraged to explain the practices they had highlighted on the survey. The Student Discussion and Demonstration was designed purposely to be student led so as to

more clearly explore the essence of students' new literacy experiences. Adolescents were encouraged to demonstrate any of the practices that stood out to them or that they wanted to demonstrate as we had our discussion. Discussion continued simultaneously throughout the student demonstrations and continued to follow student leads. All of the interviews took place at the adolescents' schools, except for one which took place at a local library, and the majority lasted about 60 minutes in length. A program called iShowU Pro® was used and yielded real-time screen capture with a video recording and an audio recording of the session, both of which were analyzed during the analysis portion of the study.

Analysis. An inductive analysis approach was used in order to search for patterns or themes in the data collected (e.g.: field notes and transcriptions). First, significant statements were selected from small groups of transcriptions in order to horizonalize the data. As patterns began to emerge, a codebook was generated which became the core of my analysis and helped elucidate relationships and linkages amongst the data. I continued this process with small groups of transcriptions from various schools until all transcriptions were coded and then repeated the process again. This process aided me in making sure that all possible codes were explored and were clearly described. Any new codes that emerged were added to the codebook, which allowed me to make sure that my codebook was representative of all emerging themes and non-repetitive. Summary charts were created for each participant and organized by corresponding school in order to pare down the information and better

horizonalize the data. Once the summaries were finished, I looked for resulting patterns, which helped me address my research questions.

Discussion of Findings

A key finding from this research on literate identities was that adolescent competence perceptions and membership perceptions have a direct impact upon their literate identities within the various new literacy practices in which they engage. Other key findings about new literacies that emerged were that new literacy practices are interconnected, new literacy skills are hierarchical in nature, and that adolescents traverse within both affinity spaces and communities of practice.

Literate Identities Demonstrated

This study sought to explore the ways in which adolescents' literate identities were shaped by the new literacy practices and new literacy skills that they participated in and demonstrated. Student discussion and demonstrations revealed these adolescents exhibited both intrinsic and extrinsic competence which occurred on a continuum, varying roles of membership within the practices in which they engaged, and that literate identities are multiple and vary between contexts.

Competence connections. Some important findings regarding competence emerged as a result of this research. The ways in which adolescents discussed and described how they perceived their ability to do something well or efficiently, and further exhibited positive self-perceptions regarding their proficiency indicated they had two types of competence perceptions: intrinsic

competence and extrinsic competence. This extended previous research which alluded to the fact that competence was not a singular construct, but likely had elements of both intrinsic and extrinsic dimensions (Beach & Ward, 2013; see also Young & Beach, 1997; Collins & Beach, 2012). Specifically, the way that Beach and Ward (2013) operationalized literate identity put direct emphasis on both internal perceptions (as reflected through the young adolescents' feelings regarding their 'literate attributes') and their external perception (as reflected in the adolescents' perception regarding their competency in a given context). In the present study, specific evidence was found to support these previous assertions. Further, in the present study, the adolescents' perceptions regarding both their intrinsic and extrinsic competence were especially pronounced. One major difference with the design of the present study in regard to previous studies (Beach & Ward, 2013; Collins & Beach, 2012; Young & Beach, 1997) was that in this study, adolescent digital literacy activities were both discussed and demonstrated, which yielded a rich description of the types of digital literacy practices in which adolescents engaged. Additionally, the adolescents had the ability to demonstrate a variety of digital literacy practices, most of which were not classroom based. These findings have extended the knowledge regarding competence in non-classroom based literacy events. The addition of the demonstrations allowed the adolescents to replicate literate activities which made the conversation more layered and likely increased the depth of student answers and offered a deeper understanding regarding adolescent competence within the contexts they were demonstrating.

Also, the present study occurred in a one-on-one setting in contrast to some of the other studies (Beach & Ward, 2013; Collins & Beach, 2012). Thus, students may have been more inclined to freely explore their individual competence perceptions with the researcher. These augmented understandings regarding the impact of both intrinsic and extrinsic perceptions in relation to the literate identities of the adolescents in this study help us have a more multifaceted understanding regarding competence, especially within digital environments. It is clearly evident that we must support and examine both how adolescents perceive their competence in regards to extrinsic performance measures and how that perception was internalized, resulting in intrinsic estimations, because the relationships are what defines their literate identities. Encouraging student reflection and encouraging them to think metacognitively about their feelings regarding their perceived competence may be a key in this regard. This connection between literate identity and metacognition has not been researched previously, but it may be connected to the positive impact the teacher/student relationship has upon increasing students' literate identities that both Akey (2007) and Skerett (2012) discussed in their studies.

The present findings support previous assertions (Beach et al., 2013; Collins & Beach, 2012) that competence varies within different contexts and seemingly occurs on a continuum. In my study, the adolescents indicated their perceptions fluctuated from high to low, or somewhere in between, indicating that competence did indeed occur on a continuum. Further, in my study, several student responses indicated they had continued goals for improvement in regards

to their proficiency within the new literacy practices in which they engaged. The presence of these continual goals indicated that for these adolescents, improvement was an active and ongoing process. Collins and Beach (2012) found the variations in adolescent competence levels evidenced in their study reinforced their belief that literate identities transform as students progressed through school. These findings indicated their understandings of the transitional nature of competence. My study bolsters the idea of a competence continuum which is often in a state of active development. The fact that the competence perceptions of the adolescents in my study fluctuated on a continuum also implied that the literate identities of the adolescents were not only fluid, but malleable as well, because at its core, literate identity is about perceived competence. If an adolescent perceived his or her competence was low in a particular practice, the literate identity within that context was negative. However, many of the adolescents actively sought to improve or change, often offering specific skills that they wanted to improve. They also often said they were "still learning" about a new practice and they desired more exposure and subsequently more time to practice and hone their skills. These types of statements demonstrate not only the active nature of their literate identities in relation to their perceived competence, but also indicate they were aware of these perceptions and actively trying to improve their skills. This finding also supports previous assertions that adolescent perceptions about their competence within a given community of practice or affinity space can change (Akey, 2007; Beach & Ward, 2013).

Membership implications. The relationship between literate identity and feelings of membership, or belongingness were themselves manifested in the discussions I had with adolescents in this study. Part of a literate identity, being either positive or negative or somewhere on the continuum, is dependent upon the feelings of membership adolescents had within the affinity space or community of practice in which they participated. This notion of membership, in connection to the belongingness that one has within a particular community of practice, was discussed by Beach and Ward (2013). In that study, membership emerged as a significant construct related to how adolescents viewed themselves as literate individuals (Beach & Ward, 2013). Membership was also highly valued in my study, and it emerged that there were different membership roles the adolescents held within the practices in which they participated. The present study found evidence of membership within digital contexts had five roles: novice, intermediate, insider, outsider, and peripheral. These roles were directly tied to their overall perceptions regarding the practice in which they were participating. The varying degrees of membership within the contexts of the communities of practice in which they participated became important to their personal perceptions of membership, because they were viewed as defining features of their literate identities. It was these memberships that became integral to the development and evolution of the adolescents' literate identities as new literacy platforms and new literacy practices manifested, often necessitating the need for new membership within a new community of practice. Further, membership was discussed in terms of having a fluid range, which was

active and changed depending on how their roles changed. Thus, the practice and consequently, the membership roles these adolescents had were likely always in a state of change. Previous research (Beach & Ward, 2013) demonstrated how young adolescents' understandings about their membership within a class or school setting can impact their literate identities, yet we have not clearly understood this connection as it occurred in digital contexts.

Beach and Ward (2013) held that literate identities of the young adolescents in their study were impacted by the "willingness, ability, and choice to participate in the literacy community of practice at school" (p. 250). The roles the adolescents in the present study held also directly influenced their willingness to participate in digital communities of practice, and thus had direct implications on their membership perceptions within digital contexts. Conversely, some adolescents specifically chose to not participate and act as a peripheral member, lurking on the edges of the practice. Choosing not to participate was often tied to value perceptions they made related to the given community of practice. Similar to the Beach and Ward (2013) findings within school-based communities of practice, adolescents in the present study exhibited similar dispositions in regards to participation within digital contexts. This finding is significant because it bolstered the theory that membership was important and directly related to the literate identities that adolescents hold within a variety of literacy contexts.

Multiplicity and contextual nature. My study found evidence to support the previous assertions that literate identities are multiple and vary

between contexts (Beach & Ward, 2013; Collins & Beach, 2012). However, my study focused upon practices that occur outside the context of school, thus extending our understanding of literate identities in multiple contexts. Many studies have examined the ways in which children and adolescents' literate identities were manifested within school contexts (Beach et al., 2013; Beach & Ward, 2013; Collins & Beach, 2012; Young, 1996; Young & Beach, 1997), yet no studies examined the ways in which literate identities, as defined by Beach and Ward (2013), may vary within other contexts. The present study gave adolescents the ability to discuss a wide variety of practices within multiple settings, which emerged to be dependent not only upon the context and community of practice, but also related to the affinity spaces they traversed within digital contexts. The findings in this research serve to further increase our understandings of how context impacts literate identities in digital contexts. Understanding how adolescents perceive their literate identities in digital contexts is necessary to obtaining a more multidimensional understanding regarding their literate identities. Beach and Ward (2013) theorize that "Children's flexibility in understanding the different communities and being able to be boundary crossers (Wenger, 1998), activating the literate identity that fits in the particular context, is key to their engaged participation in those different literacy communities of practice" (p. 251).

By understanding the multi-dimensional nature of adolescents' literate identities, and further, the relationship that exists between the multiple contexts in which they traverse and the impact that said contexts have upon their literate

identities, we serve to help increase their 'engaged participation' in different digital communities of practice and digital affinity spaces in which they participate. We know that adolescents possess multiple literate identities in multiple contexts, so the key to understanding their literate identities may likely be connected to the ways in which they cross boundaries between one practice and another. Wenger (1998) holds that boundaries can be crossed "when participants are able to recognize an experience of meaning in each other and to develop enough of a shared sense of competence to do some mutual learning" (p. 140). This shared sense of competence exemplifies the social nature of literacy and the way in which meaning making is ever present in the literacy contexts in which we traverse. As adolescents communicated and collaborated in digital contexts, their competence perceptions impacted not only their overall feelings of competence, but further, served to impact the other members in their communities of practice with whom they interacted.

New Literacy Practices Demonstrated

This study sought to explore the new literacy practices in which adolescents engaged. Student discussion and demonstrations revealed that students participated in a variety of communicative participatory new literacy practices (both asynchronous and synchronous) and non-participatory new literacy practices.

Interconnectedness of new literacy practices. This study revealed that new literacy practices were often combined in novel ways with other new literacy practices within the various literacy webs in which adolescents

participated. Further, it seemed as though the literacy practices demonstrated were rarely used in isolation, similar to Gee's (2000) assertions that the socio-cultural practices in a given context were mediated by the ways that literacy tools and practices were linked and "dynamically interacted" together (p. 184). The present study provided evidence to support Gee's assertions regarding the dynamic interactions that occurred between the practices that adolescents participated in and the literacy tools and subsequent skills that resulted. In the present study, I examined multiple literacy practices used simultaneously, which enabled me to become aware of the ways in which the new literacy practices were interconnected. Several of the studies reviewed in the literature review for this study examined new literacy practices in a singular way, instead of looking at them in their entirety, such as how Black (2005, 2009) described the use of fan-fiction sites or how Lewis and Fabos (2005) examined instant messaging. In both of those studies, the new literacy practice that was the main focus of the research was examined; the ways in which the main new literacy practice may have been connected to other practices was not explored in the articles.

The interconnectedness of literacy practices was an important finding because the ways in which adolescents participated emerged and was multi-faceted. The majority of the students that participated in this study moved seamlessly from one practice to another, indicating that meaning making was always occurring. Further, by utilizing the think-aloud narration strategy, I was able to get a more in-depth understanding into how the practices may be interconnected from the adolescents' own perspectives. The practice of

communicating within the social networking practice of Instagram was replete with such examples, because users combined practices as they engaged and participated with each other. For example, some Instagram participants posted pictures from their own phones, or some discussed how they obtained images from a search engine such as Google. Thus, the new literacy practice of online researching may be utilized. Once they found an image, users usually posted a comment to asynchronously communicate to their followers the significance of the picture they chose. While the practice of Instagram was an asynchronous practice, some of the adolescents used it more synchronously by posting comments in order to prompt friends to respond more quickly. If their friends were online at that time then their communication at times became synchronous, demonstrating what Hratinski (2008) posited about the indistinct lines that could occur between asynchronous and synchronous practices. Finding evidence to support this assertion was pertinent, because it demonstrated the ability that adolescents had to adapt a given platform to meet their communication needs. Further, it also demonstrated the interconnectedness of the practices and the ability of the adolescents to maximize the usefulness of the interconnectedness of new literacy practices to achieve their desired communication, both synchronously and asynchronously.

Affinity spaces and communities of practices. Additionally, the adolescents in the current study demonstrated and discussed that they traversed between various affinity spaces and communities of practice. Some studies reviewed specifically focused on either affinity spaces (Lewis & Fabos, 2005;

Sanford & Madill, 2007) or communities of practice (Chandler-Olcott & Mahar, 2003) in connection with the new literacy practices they examined. If we view literacy as a web, we can generalize that adolescents participate in combination literacy events and practices that interweave and connect, some in which they hold membership (community of practice) and some in which they express interest, but are not connected to the practice by membership (affinity space). For example, several of the adolescents described that they belonged to communities of practices such as Instagram. With Instagram there were definite rules for membership; members understand how to post and communicate with each other. Conversely, some adolescents preferred to be individually involved in affinity spaces, such as several who liked to play games found on sites such as www.miniclip.com. Adolescents described that they could visit that space (e.g.: miniclip.com), play the game, and leave. These miniclip.com games were described as fairly easy to play and the adolescents that participated in these types of affinity spaces generally described them as places they just happen into but return to because of their interests and not because they were personally connected to each other.

Some research has examined the presence of both of these constructs, affinity spaces and communities of practice, as aspects within the same practice. Consider the examination of electronic journaling by Guzzetti and Gamboa (2005). In that study, the distinctions between the two concepts were intermixed and not distinctly separated. Guzetti and Gamboa (2005) specifically described the journaling site that the participants used as an affinity space, but several of

the descriptions related to how the adolescents viewed the practice tied more clearly to membership, because they seemed connected to that site and its other members, which seemingly led researchers to describe the two concepts together. For example, the way in which Guzetti and Gamboa (2005) described how the shared language that had developed as adolescents communicated with each other within that particular journaling site acted as an 'identity kit' which indicated membership within that digital context. The use of the term affinity space intermixed with terms related to membership indicated that the defining characteristics between communities of practice and affinity spaces may be not be inherent within the practice itself, yet manifest themselves in the practice as a result of participant perceptions. This finding indicates that the ways in which adolescents interacted within both affinity spaces and communities of practice need to be explored further in order to more clearly understand how adolescent perceptions may impact the ways in which adolescents navigate within a variety of new literacy practices.

Participants demonstration of new literacy skills. This study sought to explore the new literacy skills evidenced in the practices in which adolescents participated. Student discussion and demonstrations of various new literacy practices revealed that adolescent participants demonstrated three categories of skills: technical literacy skills, comprehension literacy skills, and hybrid communication and collaboration literacy skills.

New literacy skills. Van Deursen and Van Dijk (2010) identified four categories of internet skills, two of which described medium-related internet

skills (operational and formal internet skills) and two of which described content-related internet skills (information internet skills and strategic internet skills). The new literacy skills that were evidenced in the present study combined use of the internet and further emphasized the meaning making involved in the new literacy practices in which these adolescents engaged. For example, the Van Deursen and Van Dijk (2010) description of operational internet skills was similar to my category of technical literacy skills, however, my definition of technical literacy skills encompassed new literacy skills that directly influenced the ways in which the meaning making occurred, and specifically, how adolescents learned to read, write, or use literacy in digital environments. As Van Deursen and Van Dijk (2010) sought to describe internet skills, their skill categories were inherently different than the literacy related skills I focused on. My findings add to our current understandings about the new literacy skills that adolescents have, and further emphasize the inherent role that meaning making plays in digital contexts. These are important clarifications necessary to fully understand the new literacy skills adolescents may have.

In the present study, technical and comprehension literacy skills combined, on occasion, in such a way that they created an additional sub-category, transitional literacy skills, which acted as a bridge linking the two skill sets together. Transitional literacy skills served to facilitate or enhance meaning making, advancing our understandings regarding the communicative nature of the new literacy skills that were demonstrated. Van Deursen and Van Dijk

(2010) did not create a category of skills that fully explained transitional literacy skills, however their strategic internet skills category had elements similar to my transitional literacy skills category in that they described strategic internet skills as "taking advantage of the internet" (p. 896). The strategic internet skills category described by Van Deursen and Van Dijk (2010) emphasized having a goal in mind in order to fully benefit from the internet. Conversely, in the present study, transitional skills were skills adolescents exhibited when they deviated from the original goal. These transitional literacy skills emerged when users were not intentionally looking for something, but subsequently discovered a potentially new use or method related to their original task. Thus, the descriptions provided by the adolescents in the present study indicated there was an element of variance within the technical literacy skills and comprehension literacy skills, thus providing evidence that there was an overarching adaptability and flexibility in the skill situated not only within the practice, but also tied to the purpose for the activity. In addition, transitional literacy skills were also tied to novel findings, which may indicate the discovery of a new purpose was an inherent feature of these skills; however, the connection to these novel findings needs to be explored further. There were no studies that discussed transitional literacy skills directly in the literature in the same way as I defined it in this study. These transitional literacy skills may have presented themselves because of the nature and depth of this study. As multiple practices were explored in combination with adolescents using the think-aloud narration

style, adolescents' cognitive processing was transparent in a way that had not been previously demonstrated or studied.

Additionally, the Van Deursen and Van Dijk (2010) information internet skills category had elements similar to the category that I labeled as comprehension literacy skills. In their study, the information internet skills category focused on having a topic in mind, selecting information, and evaluation of sources. However, the present study yielded a more extensive understanding of the literacy-focused, comprehension type new literacy skills that adolescents exhibited in a variety of contexts at both the literal level and more advanced comprehension literacy skills that surfaced when researching, summarizing, and analyzing in digital contexts. Van Deursen and Van Dijk (2010) had no category related to communication and collaboration skills. Thus, the present study built upon previous works such as Van Deursen and Van Dijk (2010), which researched internet skills and applied them to new literacy skills within new literacy contexts. The findings of the present study have increased our understandings regarding the new literacy skills adolescents exhibited when they communicated and collaborated in digital contexts.

An important finding surfaced regarding the development of certain skill sets that developed internally at specific sites, such as the texting patterns that emerged at Saint Palladius. At Saint Palladius, the participants discussed they had received previous instruction from their teachers regarding the importance of not using abbreviations when texting. At Saint Palladius, the students seemed to have been influenced by the direct instruction they had received regarding

how to text, indicating that their views of literacy were situated within different social contexts and expectations than those at the other sites. Consequently, students at Saint Palladius and Saint Hyacinth, the sites where texting was discussed most frequently, developed different types of technical literacy skills related to how they texted each other and practices arose that were unique to their specific communities of practice. This finding contrasts some of previous findings regarding texting practices. For example, Thurlow (2003) found that the ultimate goal of texters in her study was to quickly produce comprehensible messages. Participants in Thurlow's (2003) study used various abbreviations in order to quickly produce said messages. The findings in my study indicated that the ultimate goal for those participants at Saint Palladius was also to produce comprehensible messages, with specific focus centered on the ease of readability of texts, and specifically avoiding the use of abbreviations. The prior skills the adolescents possessed seemed to directly impact the new literacy skills that emerged in relation to texting. This finding would need to be explored further to ascertain how often this may occur and with what skills.

New literacy gaming skills. Another significant finding emerged regarding how adolescents described learning and mastering new literacy skills within various digital games. Several adolescents in this study discussed how they learned to play games while practicing the game independently and was evidenced by either just playing around with the game and learning from their successes and mistakes, or by using in-game tutorials with multimodal features (i.e.: displayed images, character movements, special effects, etc.) to aid them.

This independent learning contradicts the findings in Hung (2013) where players were shown to have learned how to play new games with both in-game tutorial assistance and guided help from an expert. The findings indicate that adolescents in this study may not have been aware of the skills necessary to learn a new game before they engaged in a new practice. This implies that new literacy skills may not transfer from one context to another automatically. Mastering a given game developed skills such as transitional literacy skills that bridge comprehension and technical literacy skills. These types of skills need to be studied further to better understand exactly how they serve to better connect or bridge technical and comprehension skills together within new literacy gaming contexts.

One other finding of this study extended previous research regarding multitasking skills. In previous studies, Jacobs (2004) and Lewis and Fabos (2005), multitasking surfaced as participants were engaged in multiple instant messaging conversations at once, which emphasized a tie to communication. In the present study, multitasking skills were exhibited as students collaborated and communicated both synchronously and asynchronously within digital environments using several digital platforms at once, for example, if students were Skyping while playing a game synchronously. While the tie to communication would be apparent as they communicated and collaborated in the game via the video-conferencing platform, the present findings extended the multitasking to various digital platforms, at times when the adolescent participants were communicating with each other via Skype and toggling back

and forth from that platform to a game they were synchronously playing. In order to multitask in this way, adolescents had to demonstrate a certain level of adeptness with technical literacy skills when they set up their screens and games to enhance communication and still effectively play the game. Further, the conversations they had while playing aided in their ability to effectively collaborate during game playing. These findings increase our knowledge of how multitasking has evolved in digital contexts, and has become more complex. In the present study, the ability to manipulate several platforms along with communicating and collaborating became apparent. As such, it appears that the new literacy skills required to successfully participate in these practices are more complex than previously thought.

Literacy Web and Literate Identities

New Literacy Practices and New Literacy skills are directly interconnected. Often, the connections between the two were seamless. For example, the new literacy practices in which adolescents participated were directly impacted by the new literacy skills that they possessed. Further, those perceptions regarding new literacy skills impacted both feelings of competence and membership that individuals had, which served to impact their literate identities. For example, when researching online, students' ability to move back and forth between practices was directly tied to their online researching skills. Adolescents discussed how they would go online to find the perfect graphic to help them elucidate a concept or point. When doing so, they moved between given practices, such as PowerPoint, first using the list of images within the

program, and then combining the images and textual features of that program, such as borders, with graphics found online to generate a pictorial representation of the concept they wanted to explain. The ability to find an image online was highly impacted by their ability to effectively search both offline and in digital spaces. In order to find an image, they needed to possess certain technical literacy skills, such as knowing how to access the Internet and use a search engine, and comprehension literacy skills related to knowing which site might produce the best image they were looking for. They also needed transitional literacy skills, such as being able to modify a search when it was not yielding the desired image. The perceptions regarding their competence in being able to find a representative image would serve to impact their literate identity as a researcher or creator or as one adolescent described it "a suggestor" who guided his group as they searched for such an image.

The previous example explained the ways in which the new literacy practices were connected and impacted by the new literacy skills that adolescents possess. Further, as Wenger (1998) theorizes "we function best when the depth of our knowing is steeped in an identity of participation, that is, when we can contribute to shaping the communities that define us as knowers" (p. 253). Our literate identities are inherently impacted by the literacy contexts within which we interact and participate. Additionally, Gee (2004) offered that "even if people interacting within a space do not constitute a community in any real sense, they may still get a good deal from their interactions with others and share a good deal with them" (p. 78). Thus, while both Gee and Wenger hold

different views on membership within digital platforms, they agree that the impact of interaction and participation in these platforms is integral to understanding what defines us as literate individuals. As individuals interconnect with others as they participate in a variety of communities of practice and affinity spaces, their literate identities are being shaped by not only their perceptions of competence, but also their membership within their digital literacy webs.

Implications of Study: Recommendations for Practice

In conducting this study and in reading the literature, one theme kept repeating: new technology practices surface and transform constantly. As digital immigrant practitioners we are attempting to guide digital natives who understand technology and digital spaces in ways that are still foreign at times to even the most technologically savvy of us. Beach et al. (2013) alluded to the fact that we should start a conversation and talk to our students about what they are doing, "there is much to be learned from talking with students" (p. 169). The best way to stay abreast of new changes is to talk to our adolescent students about the types of practices they do, and try to mimic these within our classrooms. Discussing the new literacy practices in which they participate will help adolescents feel like they are competent members within classroom communities as well as digital communities. This will also help adolescents feel competent in their literacy learning in multiple settings.

This study illustrated that the socio-cultural underpinnings of New Literacies are directly tied to the meanings young adolescents develop from the

various literacy webs with which they are interacting. For example, this study took place in digital settings in an area that was previously unexplored in relation to literate identity. Understanding the types of new literacy practices and new literacy skills that students have is essential information educators need to have in the 21st century. It is imperative that teacher education and preparation coursework and professional development for veteran teachers are geared towards understanding how to teach with technology within multiple contexts. Further, pre-service and veteran teachers need to be aware of the complexities of new literacies; just having access to the technology is not enough. Teachers need direct instruction on how to use new literacies to augment their content area teachings.

Understanding how students' sense of competence in digital environments serve to impact their class performance is important as well. For instance, if a sixth grade teacher discovers that several of her students use Instagram, activities could be created to mimic some of those principles in the classroom, such as creating a series of captions for a group of pictures designed to introduce a new topic in the classroom. More importantly, understanding that adolescents' literate identities are shaped by both competence perceptions and membership perceptions can aid teachers in reaching students and in reframing negative identities that have developed (Akey, 2007). Creating opportunities for adolescents to participate in authentic-like practices within the classroom can help cultivate feelings of competence and membership in the class activities that may lead to and facilitate not only the understanding of how their literate

identities form, but serving to reframe them as well. Further, understanding the varying roles of membership adolescents have within a variety of new literacy practices in which they engage can aid teachers as they plan instruction in academic settings. For example, a student that has a membership role of an insider in gaming contexts may serve as a student leader when incorporating new online educational games into the classroom curriculum. Understanding how students literate identities are impacted by the digital practices in which they engage can have positive implications for improving and extending their literacy learning in classroom contexts. Additionally, even adolescents who have more negative views of their literate identities in academic settings may have strong positive literate identities in digital contexts. Understanding the multiple nature of their literate identities can aid teachers in strengthening students' academic literate identities.

Limitations of the Study

It is important to discuss the limitations of this study. One such limitation was the access to the technology we used. While I offered all students the option of meeting either at their school or a nearby public location, such as a local library, all but one interview took place at their particular schools. The school principals allowed us to have access to the schools' Wi-Fi, but that meant that there were certain restrictions imposed at the particular school sites that may not have been in place at each child's home. Also, while the students discussed using a variety of platforms, such as tablets, smartphones, and gaming systems, due to both financial and time constraints of the present study, only platforms

accessible via a computer were demonstrated in the study. Other platforms were discussed, but perhaps not demonstrated. Also, due to certain legal age restrictions of certain practices, not all could be demonstrated fully in this study. For example, Instagram users are supposed to be 13. None of the Instagram users in the study were 13 at the time of the demonstrations, therefore, I had them discuss that practice as opposed to demonstrating it. The sampling of students occurred within parochial schools and should be considered when making comparisons of the findings of this study. Additionally, the sample size was sufficient for a qualitative study, but would not allow for generalizations of the data. Further, the socio-economic status of the adolescents and their access to technology may vary considerably with public school peers in similar regional locations.

This study explored student perceptions regarding recreational new literacy practices. Additionally, this study took place during a limited time period and did not allow for multiple demonstrations. Multiple observations over the course of a school year would have allowed for a more complete picture regarding adolescents' literate identity formation over a given time period. The socioeconomic status of the adolescents in the study may also be viewed as a limitation and not representative of adolescents who attended public schools in similar neighborhoods or the access they may have to technology.

Recommendations for Future Research

There are several recommendations for future research that have surfaced as a result of this study. First, continued exploration into the digital

practices of adolescents is necessary in order to fully understand the complexities of new literacies. In order to fully examine the varied and multiple natures of adolescents' literate identities in digital contexts, research into all the new literacy practices in which they engage is necessary. Examination of a variety of technological tools such as gaming systems and various types of platforms should be utilized, ideally in a natural setting to gain a more complete understanding of the new literacy practices in which adolescents participated. Further, in regard to observing practices via the internet, it would be beneficial to have unrestricted access so that students could access the various sites they routinely use. Observing how adolescents engage in new literacy practices in natural settings may also help clarify how some asynchronous practices are used synchronously. Another consideration would be to conduct a study over the course of an extended time period with sixth grade students in both digital contexts at school and other digital recreational contexts simultaneously. Examining competence in a variety of digital contexts would give a clear understanding of the different competence and membership perceptions adolescents have within different contexts. This would enable exploration of the impact of the context on their literate identities. Also, this examination would enable the collection of longitudinal data in a variety of digital settings and would serve to increase our understandings of their new literacy skills and new literacy practices and the impact said skills and practices have upon the formation of their literate identities. Finally, the adolescents' perceptions of their roles of membership within digital contexts were prevalent in this research

study. It would be useful to observe adolescents in other settings where feelings of membership were prevalent in order to better understand how the membership roles they held within the literacy webs in which they participated served to impact their literate identities.

Summary

The purpose of this study was to examine the new literacy skills and new literacy practices of sixth grade adolescents in order to understand the effect that said skills and practices have upon their literate identity formation. New literacy practices were shown to be interconnected, likely due to the fact that the adolescents manipulated the practices in order to better facilitate asynchronous and synchronous communication. Further, adolescents revealed they navigated both in affinity spaces and within communities of practice, which seemed to be linked to perceptions regarding the given new literacy practice.

New literacy skills were found to be hierarchical, and meaning making was found to have an inherent role within digital contexts. A sub-category of new literacy skills which bridged the foundational technical literacy skills with the higher-order thinking skills involved in comprehension literacy skills emerged. These transitional literacy skills were solely demonstrated in this study when adolescents deviated from their original goal, indicating that flexibility and adaptability were situated within the practice and also tied to the purpose for the activity. Some new literacy skills developed exclusively at certain sites, which indicated that the situational context had direct implications on the new literacy practices that can develop. Finally, multitasking skills

within digital contexts were found to be not only related to effective communication, but had evolved as it had become necessary to not only multitask while communicating and collaborating, but also to effectively maintain the original platform (such as playing the game).

Literate identities were found to be impacted by both competence perceptions and membership perceptions within digital contexts. The importance of both intrinsic competence perceptions and extrinsic competence perceptions within digital contexts was found to be significant amongst the adolescents that participated in the study. Further, competence was demonstrated to not only vary, but seemingly occurred on a continuum which was often in an active state of development. Membership was also found to be active and five different roles of membership emerged from the adolescent demonstration and discussions. The present study bolstered previous findings that literate identities are multiple and vary between contexts (Beach & Ward, 2013; Collins & Beach, 2012).

This study found that the new literacy skills and new literacy practices of adolescents were not only interconnected, but also impacted the literate identities of the adolescent participants. Continual discussion of adolescents' new literacy practices and skills is imperative in order to stay connected to the types of new literacy practices in which they engage. The study was not without limitations, chief among them was the accessibility of the technological tools and platforms. Further exploration into the digital new literacy practices of adolescents is necessary in order to continue to develop a clear understanding of

the new literacy skills and new literacy practices they have. These understandings are necessary to examine how literate identities form within digital contexts.

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Appendix A: Student Demographic Information

Student Information Sheet

Directions: Please answer the following questions to the best of your ability. Your answers will not be shared with anyone else.

Name: _____ **Date** _____

Birthdate: _____ **Your Age:** _____ years old **Your Gender:** o Female o Male

Your Ethnicity: _____
(e.g. African-American, Asian-American, Caucasian, etc.)

Computer Instruction Questions

1. **Do you have computer classes at this school?** Yes No
   a. **If yes, how often do you have this class?** Daily Weekly Other: _____
   b. **If yes, how many years have you taken them?** _____
2. **Have you attended a different school before you came to this one?** Yes No
   a. **If yes, did you have computer classes at that school?** Yes No
   b. **How many years did you have computer classes at that school?** _____
3. **What types of technology activities do you do at school?** _____
   _____
   _____

Appendix B: Student Technology Survey

Technology Practices

How often do you use a computer or technological device (*like a phone or TV*) to complete the following tasks?

Check the response that most accurately describes how often you do each of the following activities:

	Never	Once or Twice a year	Monthly	Weekly	Almost daily
On the Computer Off-line Practices:					
Play Games					
Do homework					
Word processing software (*like Microsoft Word*)					
Text Messaging					
Create or read mobile phone novels					
Create a database					
Produce multimedia projects (*using software like Power Point*)					
Others (*Please list*):					

Of the off-line practices you said you do, could you give me an example of the type of off-line tools you use?

Play Games: _____

Do Homework: _____

Word processing software: _____

Text Messaging: _____

Create or read mobile phone novels: _____

Create a data base: _____

Produce multimedia projects: _____

Others: _____

	Never	Once or Twice a year	Monthly	Weekly	Almost daily
On the Computer On-line Practices:					
Play Games					
Do homework					
Word processing software (*like Microsoft Word)*					
Create a database					
Online chatting and video conferencing *(like Skype or Webinar)*					
Exploring websites because of a homework assignment					
Exploring websites for my own interest					
Blogging (*like blogger.com*)					
On-line journaling *(like Penzu or LiveJournal)*					
Zining					
Creating websites					
Listening to Music *(like Pandora)*					
Produce multi-media projects (*like Prezi or animoto*)					
To create multi-media presentations (*like Prezi or animoto*)					
Social Media (*like Facebook*)					
Bookmarking or tagging (*like delicious or diigo*)					
Instant Messaging					
Communicate through e-mail					
Work with graphics and pictures					
Others: *(Please list below other programs you use)*					

Of the on-line practices you said you do, could you give me an example of the type of on-line tools you use?
Play Games: _____
Do Homework: _____
Word processing software: _____
Create a database: _____
Online chatting and video conferencing: _____
Exploring websites because of a homework assignment: _____
Exploring websites for my own interest: _____
Blogging: _____
On-line journaling: _____
Zining: _____
Creating websites: _____
Listening to Music: _____
To create multi-media presentations: _____
Social Media: _____
Bookmarking or tagging: _____
Instant Messaging: _____
Communicate through email: _____
Work with graphics and pictures:_____
Others:
_____
_____
_____

Please list the 2 technology practices you checked above that you feel you are the best at.

1. _____
2. _____

Please list the technology practice you listed that you feel you don't feel you are as good at.

1. _____

Thank you for completing this survey!

Appendix C: Student Discussion and Activity Demonstration Script

The purpose of this script is to explain what a sample discussion may sound like. However, all Student Discussion and Activity Demonstrations will vary as each individual student's discussion is based upon their particular responses on the Student Technology Survey. Additionally, discussions will follow student leads, which will yield different types of questions to be generated for each particular child.

Project Title:	New Literacy Identities in the 21st Century: Examining the Skills and Practices of Sixth Graders
Principal Investigator:	Lisa Delgado Brown
Department:	Instructional Leadership and Academic Curriculum

*Researcher portions are in italics.

Initial introduction and test of software

I will go over the research purpose, answer any questions and complete a quick 2-5 minute test demonstration that will serve as an icebreaker between the researcher and participant. This quick test demonstration will also allow the participant to see what the audio and screen capturing may sound/look like. This time will also allow the researcher to ensure that the iShowU Pro® software is working correctly.

Thanks for agreeing to take part in this study. I wanted to work with students like you to better understand how a child's literate identity, which is how you see yourself as a reader and writer, can be shaped by the types of reading and writing you do. Specifically, I am interested in how you use technology and what practices and tools you are familiar with. All of this information will help me better understand what types of technology can help kids become better readers and writers.

If the questions are unclear, let me know and I'll re-explain them. You can add in extra details, or pass on any questions you don't want to answer. You may quit at any time. Do you have any questions before we start? Wait for student response and answer any questions they may have.

Do you remember the name you chose when you did the Student Technology Survey? That is called your pseudonym and you will be using that name during all of our discussions today. Student will verbalize that they remember their chosen pseudonym and tell me what it is. I will then look for the Student Technology Survey that matches that particular pseudonym.

All right, ___Student Pseudonym__ let's get started. The first thing we're going to do today is check and make sure our audio/video recorder is working. I will be using a program called iShowU Pro® to capture screen shots, which are like video pictures of what you're doing and what we are discussing. I am using this program so that I can better remember what we talk about and the activities you show me. Let's try it out for a minute so that I can make sure it is working correctly. Do you have any questions for me before we start? Wait for student response and answer any questions they may have.

In the study, and during the practice sessions I'd like you to use a Think Aloud strategy to narrate what you are doing. Have you ever done a Think Aloud before? If student responds yes, ask them to describe how they did it. If the description they provided matches the way that I will be using this narration style then we will skip the remainder of this section, if not, or if it partially is like the way the Think Aloud will be used, then I will explain that the way in which I am intending to use the Think Aloud differs slightly. I will then continue with the following section as needed. ***Narrate means that you are telling me step by step what you are doing so that I can get a really clear idea of what is going on. Let's practice this. Here is a piece of blank paper and a pen. I want you draw a picture of a tree. I'd like you to practice describing to me what you are doing.*** Guide students through the process and if necessary provide guiding questions such as: ***While you are doing this please describe what it is you're drawing. What details did you decide to use? What kind of tree have you drawn?*** After rehearsal period ask: ***Do you have any questions?*** Answer any questions about this strategy at this time.

You're doing great so far Student Pseudonym! Now, to test out iShowU Pro®, I'd like you to open a program called Microsoft Word. I want you to locate the file on the computer and open up the program. While you are doing this iShowU Pro® will be recording what we're saying and also capturing screen shots. I'll show you what this looks like and sounds like after we do this quick practice. Are you familiar with that program I mentioned, Microsoft Word? If you are great, if not I'll help guide you. Also, remember, while you are doing this to use that Think Aloud style of narration we discussed. Wait for student response. At this point, encourage child, if familiar with the program to open the program up. If child is unfamiliar, guide step-by-step through the process of opening the program.

(If child is familiar with the program and comfortable opening it up skip this portion of the questions). ***Do you see that icon on the bottom left of the computer screen? That is the Start icon. Please click on it and a list of program titles will appear.*** (Microsoft Word has a short-cut here that students will be directed to use.) ***Do you see where you can click on Microsoft Word? Wait for student response, offer additional guidance if necessary. Great, click on that to open up the Microsoft Word program.***

Once the program is open ask the participant the following series of questions. ***Great job opening up this program. Now I'd like to ask you to type a quick sentence here. Please type me a sentence about your favorite type of pizza.*** Wait for participant to

type in the sentence. ***Great, could you read it for me?*** Wait and listen to participant response. ***Great! My favorite pizza is pepperoni. Do you have a favorite pizza place?*** Wait and listen to participant response. ***That's a good one! Now, we've finished our practice session. Let's replay our recording so that we can make sure the software is working and that both of our voices are clear.*** Replay audio/video capture at this time. If audio and video capture is working well proceed to main study portion. If there is a problem it will be addressed at this time. If student voice is inaudible or the screen capture feature is not working, practice an additional sentence such as "What is your favorite fast food restaurant?" Replay the audio/video capture to ensure the voice is more audible or screen capture is more clear.

General information regarding favored technology tools

Below is a sampling of possible questions. Each student would not be asked all of these, rather, I have included them as a detailed example of the specific questions I will plan on using to probe students for further information.

Now that we've gotten all that practice taken care of let's start the Student Activity and Demonstration. Remember that Student Technology survey you filled out a few weeks ago when you agreed to participate in my research? That survey gave me a lot of information about how you use technology and the types of things you do. That's what I'd like to start talking about today.

> ***One of the questions I asked you about was the types of technology tools you use. Here are the tools you said you use ….(***read student-selected answers back to the child). ***When did you start using these types of tools?***
> ***How much time do you spend daily using these tools? Weekly?***
> ***Which tool do you think you are the best at using? Why? (answer A)***
> ***What do you use it for?***
> ***Is there anything else you'd like me know about the types of technology tools you use?***

Demonstration and Discussion of Favored New Literacy Practices

> ***The next part of the technology survey asked you about the types of activities you might do using technology tools. Here are the things you said that you do ….(***read student-selected answers back to the child). ***You also chose 2 practices that you felt you were the best at. You chose*** (read student-selected answers back to the child). **(answers B&C)**
>
> ***Let's talk about <u>answer B</u>. Why do you think you're good at <u>answer B</u>?***
> ***When did you start doing <u>answer B</u> ?***
> ***Can you describe how you learned to do <u>answer B?</u>***
> ***Were you always good at doing this?***
> ***When you use/do <u>answer B</u> do you like to use it on your own? Why or why not?***
> ***If yes: Could you please explain to me why you choose to do <u>answer B</u> with a partner/group?***

I'd really like to see how you do answer B. Please show me how you do answer B. Please remember to use that Think Aloud strategy we practiced while you are showing me how you are doing this.

At this point I would ask the participant to demonstrate his/her ability to navigate or participate in one of the particular new literacy skill areas they reported using previously. As they narrate their activity demonstration, I would also ask them questions such as those listed below to continue to probe their thinking about how they see themselves as readers/writers. The student discussion is designed to follow student leads; as a result, not all of the probe questions will be utilized. These are provided to give an example of the types of probe questions that may be used. It is impossible to accurately depict all potential probes as each student's discussion will vary (based upon the direction they choose to take).

Is there anything about answer B you wish you knew how to do better? Why or why not?
Do you think you're better at answer B than your friends? Why or why not?
How do you feel about yourself as a/an answer B? Why?
Do you think your parents think you are good at using answer B? Why or why not?
What about your teachers? Do you think that your teachers think you are good at using answer B? Why or why not?
What do your friends think about how you use answer B? Why do you think so?
Is there anything else you'd like me know about answer B?

The same question series will be repeated for answer C.

You're doing great so far Student Pseudonym! Let's talk about answer C.
Why do you think you're good at answer C?
When did you start doing answer C ?
Can you describe how you learned to do answer C?
Were you always good at doing this?
When you use/do answer C do you like to use it on your own? Why or why not?
If yes: Could you please explain to me why you choose to do answer C with a partner/group?
I'd really like to see how you do answer C. Please show me how you do answer C. Please remember to use that Think Aloud strategy we practiced while you are showing me how you are doing this.

At this point I would ask the participant to demonstrate his/her ability to navigate or participate in one of the particular new literacy skill areas they reported using previously. As they narrate their activity demonstration, I would also ask them questions such as those listed below to continue to probe their thinking about how they see themselves as readers/writers. The student discussion is designed to follow student

leads; as a result, not all of the probe questions will be utilized. These are provided to give an example of the types of probe questions that may be used. It is impossible to accurately depict all potential probes as each student's discussion will vary (based upon the direction they choose to take).

> ***Is there anything about answer C you wish you knew how to do better? Why or why not?***
> ***Do you think you're better at answer C than your friends? Why or why not?***
> ***How do you feel about yourself as a/an answer C? Why?***
> ***Do you think your parents think you are good at using answer C? Why or why not?***
> ***What about your teachers? Do you think that your teachers think you are good at using answer C? Why or why not?***.
> ***What do your friends think about how you use answer C? Why do you think so?***
> ***Is there anything else you'd like me know about answer C?***

Demonstration and Discussion of Least Favored New Literacy Practice

If one was supplied: ***On the technology survey I also asked you to name a practice that you felt you were not as good at. You chose*** (read student selected answers back to the child). **(answer D)**

> ***Let's talk about answer D. Why did you choose this one as one you're not as good at?***
> ***When did you start doing answer D?***
> ***Can you describe how you learned to do answer D?***
> ***When you use/do answer D do you like to use it on your own? Why or why not?***
> ***If yes: Could you please explain to me why you choose to do answer D with a partner/group?***
> ***I'd really like to see how you do answer D. Please show me how you do answer D. Please remember to use that Think Aloud strategy we practiced while you are showing me how you are doing this.***

At this point I would ask the participant to demonstrate his/her ability to navigate or participate in one of the particular new literacy skill areas they reported using previously As they narrate their activity demonstration, I would also ask them questions such as those listed below to continue to probe their thinking about how they see themselves as readers/writers. The student discussion is designed to follow student leads; as a result, not all of the probe questions will be utilized. These are provided to give an example of the types of probe questions that may be used. It is impossible to accurately depict all potential probes as each student's discussion will vary (based upon the direction they choose to take).

Is there anything about <u>answer D</u> you wish you knew how to do better? Why or why not?
Do you think you're better at <u>answer D</u> than your friends? Why or why not?
How do you feel about yourself as a/an <u>answer D</u>? Why?
Do you think your parents think you are good at using <u>answer D</u>? Why or why not?
What about your teachers? Do you think that your teachers think you are good at using <u>answer D</u>? Why or why not?.
What do your friends think about how you use <u>answer D</u>? Why do you think so?
Is there anything else you'd like me know about <u>answer D</u>?

We are almost done. Is there anything else that you'd like to share with me about any of the technology tools or practices we discussed today?

We talked a lot today about the technology tools and practices you use. This has given me a great idea about how you see yourself as a reader and writer. Is there anything else you'd like me to know about how you see yourself as a reader or writer?

Thank you so much for talking with me today and taking part in my study! You've really helped me learn about the kinds of technology tools and practices that kids like you use and think are fun and important. Thanks again!

Appendix D: Student Technology Survey Results

Technology Practices Survey Results

	Never	Once or Twice a year	Monthly	Weekly	Almost daily
On the Computer Off-line Practices:					
Play Games	1		2	3	12
Do homework	3		4	5	6
Word processing software (*like Microsoft Word*)	1	3	6	6	2
Text Messaging	7	3	1	2	5
Create or read mobile phone novels	11	1	1	3	1
Create a database	11	3		4	
Produce multimedia projects (*using software like Power Point*)	5	7	4	2	
Others (*Please list*):	5			4	1
On the Computer On-line Practices:					
Play Games		1	4	3	10
Do homework	1		4	8	5
Word processing software (like Microsoft Word)	6	3	5	3	
Create a database	10	4	1	1	
Online chatting and video conferencing (like Skype or Webinar)	6	3	4	1	4
Exploring websites because of a homework assignment	2	2	8	1	4
Exploring websites for my own interest	2	1	6	4	5
Blogging (like blogger.com)	17	1			
On-line journaling (like Penzu or LiveJournal)	17	1			
Zining	17		1		
Creating websites	12	4			2
Listening to Music (like Pandora)	5	1	3	3	6
Produce multi-media projects (like Prezi or animoto)	17	3	2		
To create multi-media presentations (like Prezi or animoto)	12	3	2		
Social Media (like Facebook)	8	1	4	3	2
Bookmarking or tagging (like delicious or diigo)	13		2	2	
Instant Messaging	11		2		7
Communicate through e-mail	7	3	4		3
Work with graphics and pictures	8	2	2		1