“We’re communication teachers!”: The meaningful integration of Information and Communications Technologies (ICT) in intermediate English pedagogy

By

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Abstract

The purpose of this study was to explore the reported practices of Ontario intermediate English teachers who integrate Information and Communications Technologies (ICT) into their pedagogies. This research study was conducted using a qualitative research approach. It involved a literature review and semi-structured interviews with three Ontario grade 9 and 10 English teachers who self-identified as freely choosing to integrate ICT in all aspects of their pedagogies. The findings of this project include intermediate English teachers’ reports of integrating ICT in their pedagogies because it engaged students, facilitated student-centered learning environments, and helped them instruct about the different kinds of literacies students encounter and are required to use. Additional findings include teachers’ reports of inadequate support for ICT integrations from schools and school boards, the necessity for teachers to balance ICT integration with traditional teaching methods, and that the most beneficial professional development occurs in informal settings that are not necessarily English subject-specific. These findings imply that some Greater Toronto Area schools may not be receiving enough funding from school boards to support school-wide ICT purchases and English departments may be left without necessary tools for ICT integration. Likewise, these findings also indicate that some Ontario English teachers may not know where to find beneficial professional development resources, events, or opportunities about ICT integration in English.

Keywords: information and communications technologies, integration, Ontario Secondary School Literacy Test, literacy development, literacy engagement, teachers’ perceptions
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Chapter One: Introduction

1.0 Research Problem and Research Context

Language and literacy skills are integral to, and required for, successful functioning in everyday life. The Ontario Grades 9 and 10 English curriculum (Ontario Ministry of Education [OME], 2007b) states “language skills are lifelong learning skills that will enable [students] to better understand themselves and others, unlock their potential as human beings, find fulfilling careers, and become responsible world citizens” (p. 5). Language and literacy skills include reading, writing, comprehension, and communication skills. Students begin to develop and use these skills before they enter the formal education system. However, it remains the job of formal education to develop, refine, and enhance students’ abilities to communicate through language and comprehend the multitude of texts they encounter each and every day.

In Ontario, students’ literacy skills are formally assessed after they complete grade 9. The Ontario Secondary School Literacy Test (OSSLT) assesses students’ reading skills with reference to their ability to understand explicitly stated information and ideas, ability to make inferences, and ability to connect information to their own lives (Education Quality and Accountability Office [EQAO], 2011). The OSSLT also assesses students’ writing skills with reference to their ability to develop main ideas, support arguments with organized information, and the clarity of their writing style and conventions. Students are required to receive a passing grade on the OSSLT in order to receive their high school diploma and graduate (EQAO, 2011). Students who do not pass the test are able to re-take it and students who do not pass more than two times can enroll in the supplementary Ontario Secondary School Literacy Course. Students who receive a grade of 50 percent or higher in this course “are deemed to have met the secondary school literacy requirement for graduation” (OME, 2003, p. 10) and are permitted to graduate.
Adequate literacy skills are important beyond English class. Effective reading and writing skills are necessary for the successful engagement with, and completion of, all subjects offered in secondary school (EQAO, 2011). The Ontario Grade 9-10 English curriculum document (OME, 2007b) emphasizes that, although

> the teaching of literacy skills is embedded across the Ontario curriculum . . . it is the

English curriculum that is dedicated to *developing the knowledge and skills on which literacy is based* – that is, knowledge and skills in the areas of listening and speaking, reading, writing, and viewing and representing. (emphasis added, p. 3)

This places immense onus on Ontario’s secondary-school English teachers to adequately develop their students’ foundational knowledge of literacy practices. If students do not comprehend the basic knowledge and skills taught through their English instruction, they may be unable to demonstrate proper literacy skills in other academic subjects and their daily lives. It has been found that some students who perform poorly in high school English classes are less likely to continue into post-secondary education (Dion & Maldonado, 2013).

It is important to consider how advancements in technology and social media have changed how society reads, writes, communicates, and represents themselves. This has also changed how students engage with literacy. Literacy no longer focuses solely on print materials. Instead, today’s students are required to use literacy skills to decode meanings from a broad range of *texts*. The Ontario Grade 9-10 English curriculum documents defines a text as “a means of communication that uses words, graphics, sounds, and/or images, in print, oral, visual, or electronic form, to present information and ideas to an audience” (OME, 2007b, p. 119). This definition of text emphasizes that print-based materials are not the only available forms of

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1 This quotation is identical in all three curriculum documents. See OME (2006, p. 159) for Grades 1-8 Language and OME (2007a, p. 215) for Grades 11 and 12 English.
literature that students encounter in their everyday lives. Additionally, this definition of text highlights an important aspect of *multimodality* (The New London Group, 1996) because it recognizes that communication can and does occur through multiple modes of representation. For example, digital communications can often include aspects of written words, still or moving pictures, and sounds bytes (Sewell & Denton, 2011). Finally, the OME’s definition of text also acknowledges that advancements in technology – specifically digital technologies – have changed how the world interacts with, produces, and understands literacy.

Not only do today’s students need to be literate, they need to also be *digitally literate* (Toronto District School Board [TDSB], 2007). Digital literacies are a growing focus in twenty-first century learning (People For Education, 2014), and knowledge of Information and Communications Technologies (ICT) is a growing requirement for entering the Canadian and global workforce (Chen, 2015; Nowell, 2014). ICT include “multimedia resources, databases, Internet websites, digital cameras, and word-processing programs” (OME, 2007b, p. 35). In this research project, ICT includes all multimedia and Internet resources, social media applications, word processing programs, and technology devices (including, but not limited to, photo and video cameras, smartphones, computers, laptops, and tablets). The Ontario English curriculums discuss ICT as having a role in English programs because they can help students acquire data for assignments and connect remotely with their schools (OME, 2006, 2007a, 2007b). However, many students today use ICT on a daily basis and for academic purposes that involves more than just research or remote connections.

The focus on ICT integration in Ontario schools has become a “new normal” (People For Education, 2014, p. 8). There are numerous examples of increased attention towards the topic. For example, eLearning opportunities have emerged in Ontario that allow high school students to
participate in courses offered in online settings (OME, 2012; Ontario Public School Boards’ Association [OPSBA], 2013). The Education Quality and Accountability Office also announced that Ontario assessments, specifically the OSSLT, will be transitioning from paper to digital formats because “students are ready” for such a change to occur (EQAO, 2013). Moreover, in 2014, the Ontario Ministry of Education announced 150 million dollars of available funding to school boards for increasing technology in classrooms for that school year (Rieti, 2014). Further, to extend available technology in classrooms, many school boards in Ontario now follow a Bring Your Own Device (BYOD) policy (People for Education, 2014) where students can use their personal smartphones, tablets, and laptops during school hours for learning purposes.

However, increasing the availability of ICT in classrooms does not necessarily correlate increased student learning and performance. Having available ICT for student use is only one aspect of encouraging their success. Students cannot succeed as academic scholars, digital users, or globally-connected citizens if their teachers do not integrate ICT into their pedagogies. The Ontario Public School Boards’ Association (2009) recognizes a discrepancy among teachers’ abilities to adequately incorporate ICT into their teaching:

- a high proportion of teachers in Ontario classrooms graduated from teacher education programs in an era when technology, if it was a factor at all, was seen as an esoteric bell or whistle. . . . Most faculties of education have not rushed to embed the resources of technology in their programs and professional development offerings for teachers, more often than not, adhere to traditional class and workshop modalities. (p. 10)

Although this statement was made in 2009, it highlights an important concern: teachers need to possess the necessary skills to incorporate ICT into their classrooms, but they must also have positive attitudes and beliefs about its capabilities in the classroom and pedagogies.
Problems arise when teachers use ICT in the most basic sense – as tools to simply provide or facilitate a learning experience – instead of meaningfully integrating them directly into their pedagogies to be used as the learning experience. Teachers need instruction and support to be able to meaningfully use ICT for enhancing students’ learning experiences, instead of just as ‘fun’ or added-on activities (OPSBA, 2013). There is increasing emphasis on school boards’ efforts to provide teachers with updated knowledge and training to support new opportunities for students to engage with ICT in the classroom (Kelly, 2015). There is also an increasing realization that teacher education programs and professional development opportunities should ensure all teachers understand the importance of introducing ICT in their classrooms and have confidence integrating it into all subject areas (OPSBA, 2009; People for Education, 2014).

The intermediate division represents a suitable audience for introducing, including, and integrating ICT in English pedagogy because these students have been found to use technology in their everyday lives (EQAO, 2013; OME, 2013). Moreover, the intermediate years are particularly important for developing students’ literacy skills. Studies show that some students’ intellectual engagement begins to decline in the upper-elementary students (grades 6-8) and continues to decline during high school years (grades 9-12) (OPSBA, 2009). Other studies found that some Ontario post-secondary students possess inadequate literacy skills (Dion & Maldonado, 2013). Preparing students with adequate literacy skills is especially important in the intermediate grades in Ontario because students’ reading and writing competency is assessed when they enter grade 10 (by the OSSLT), and these years of schooling prepare students for their secondary years of high school, post-secondary education, the workforce, and their adult lives.
1.1 Purpose of Study

The purpose of this study is to explore the reported practices of Ontario intermediate English teachers who integrate ICT into all aspects of their pedagogies. The Ontario English curricula include a “Media Literacy” strand for elementary students (grades 1-8) and a “Media Studies” strand for intermediate and secondary students (grades 9-10 and 11-12) (OME, 2006; 2007a; 2007b). These strands emphasize the incorporation of ICT – such as films, newspaper articles, magazines, websites, and televisions commercials – to help students study and analyze media and communicative literacy (OME, 2006; 2007a; 2007b). However, this study focuses on how intermediate English teachers approach and meaningfully integrate ICT in all strands of the English curriculum and in all stages of their curriculum planning – not only in the media strands. In light of this, the purpose of my research is to learn strategies, techniques, and best practices for integrating ICT in Intermediate English pedagogy to engage students in their literacy development and promote enhanced literacy skills.

This research project approaches the issue of ICT integration in English pedagogy using semi-structured interviews with three Intermediate (grade 9 and 10) English instructors in Ontario, Canada. This study addresses how these teachers reportedly use ICT to relate curriculum content to their students’ experiences, how they use ICT to enhance and scaffold print-based literacy, their preferred resources for learning about ICT, and their strategies for overcoming challenges and barriers that arise when integrating ICT.

By considering how grade 9 and 10 English teachers approach integrating ICT in their pedagogies, it is my hope to provide a better understanding of the benefits and possibilities of ICT integration in English for any grade level. I also hope to provide teachers of all subject areas with information and examples of how ICT can be used to enrich and enhance their pedagogies.
Finally, this research project also hopes to bring attention to the necessity for professional development opportunities for both pre-service and established teachers regarding the importance of meaningfully integrating ICT in English pedagogies.

1.2 Research Questions

The primary guiding question for this research study was: how does a sample of Ontario’s grade 9 and 10 English teachers reportedly understand and integrate ICT into their pedagogies? Sub-questions that further guided this study include:

- What motivates these teachers to integrate ICT into their English pedagogies?
- How do these teachers reportedly use ICT to enhance students’ engagement with literacy in ways that are relevant to their lives and experiences?
- How do these teachers reportedly use ICT to support students’ literacy development?
- How do these teachers reportedly integrate ICT to achieve the requirements of the English Grades 9 and 10 curriculum beyond the Media Studies strand?

1.3 Background of the Researcher

I am a candidate for a Master of Teaching degree from the Ontario Institute of Studies in Education. I plan to enter the field of Education in Ontario at the age of 24 and aspire to teach English and Geography at the high school level (grades 9-12). I received an Ontario education from a small-town Catholic elementary school and a private Catholic secondary school where both student populations were extremely homogeneous. Although I was an adequate reader in my early years, my family’s socio-economic position meant that I had access to tutoring and extra-curricular help with literacy development. My reading abilities strengthened throughout elementary school and I developed a deep passion for writing after being introduced to Shakespeare’s works in grade 9 English. While I had always known that I wanted to pursue
teaching since early childhood, the passion I developed for literature and literacy teaching while in secondary school influenced my pursuit of English as my main teachable subject. I completed my Honours Bachelor of Arts at the University of Toronto with a specialist in English Literature and a minor in Geography.

I personally believe that literacy skills are the most important factor for student success in any subject. As a secondary school English teacher, I want to foster, develop, enhance, and advance my students’ literacy skills through methods that are meaningful to them and using resources that are relevant to them. The many children and adolescents I encountered in different tutoring, volunteering, and teaching opportunities influenced this goal. I increasingly found that I was working with children and adolescents who did not enjoy literacy activities or students who had turned away from literacy because they had poor abilities that were often combined with little desire to improve. These students saw no connections between essays and their everyday lives— they would have rather Tweeted a comment about a text or posted a picture of the physical novel on Instagram. I became frustrated by my own lack of knowledge for motivating students who did not share the same positive relationship with literacy that I did. I found that students were more interested in participating in their social media presence than focusing on their in-class literacy discussions. These students lead me to consider how I could integrate the technological devices and social media applications they found interesting into lessons to help enhance their engagement with the traditional literacy texts they were required to study.

I came to the realization that literacy and communication have greatly changed. Today, students are bombarded with different kinds of social media, applications, technological devices, and new forms of communication that were not available even a year ago. Technology, digital communication and social media interactions have changed what students read, how students
read, how students choose to communicate, and how students represent themselves in a digital world. Changes and advancements in technology, digital communication, and social media have also changed what kinds of literacy skills are valued in today’s society and needed for today’s workforce. This led me to ask how English teachers can integrate ICT into their English pedagogy to make their instruction relevant to students’ interests and the changing aspects of literacy of today. Through this research project, I intend to investigate the new, overlooked, and inspiring ways today’s English teachers are meaningfully integrating ICT into their pedagogies to make the curriculum and literacy skill development relevant for their students’ experiences.

1.4 Project Overview

To respond to the research questions, I conducted a qualitative research study using purposeful sampling to interview three intermediate (grade 9 and 10) English teachers about their meaningful integration of ICT in their English pedagogies. In Chapter Two, I review the literature pertaining to the influence of technology on literacy education, the differences between student literacy engagement with ICT inside and outside of the classroom, the rise of ICT integration in English pedagogy, and the role of the English teacher as the ICT-driven literacy facilitator. In Chapter Three, I elaborate on the research design and methods by defining qualitative research and explaining its pertinence to the study, outlining my participant recruitment strategies, and introducing my three teacher participants. In Chapter Four, I report on my six main research findings and discuss their significance in light of the existing reviewed literature. Finally, in Chapter Five, I identify the broad and narrow implications of the research findings for students, current and future English teachers, administrators, and policymakers. I also make recommendations for these parties and my personal teaching practice before suggesting areas for future investigation and research.
Chapter Two: Literature Review

2.0 Introduction to the Chapter

In this chapter, I review the research literature on changes in literacy due to the advancement of technology, the differences between student literacy and Information and Communications Technologies (ICT) engagement inside and outside of the classroom, the rise of ICT integration in English pedagogy, and the role of the English teacher as the ICT-driven literacy facilitator. Specifically, I consider the idea of multiliteracies when discussing how the understanding of what literacy is and means for today’s students has changed. I also review research on effective strategies for scaffolding and blending digital and print literacies in intermediate and senior English classrooms. Finally, I discuss challenges and limitations encountered when integrating ICT into English pedagogy.

This literature review includes studies from Australia, Canada, and the United States of America. The literature in this review focuses on teachers and students of intermediate English classes (grades 7-10) but I also makes mention of research about Junior and Senior grades (4-5 and 11-12 respectively) due to the scope of some studies and the transferability of the ICT, lessons, topics, or strategies between division levels. Additionally, with the exception of one major publication (The New London Group, 1996) the literature reviewed in this section is limited to works published from 2010 to 2016. Since technology is constantly progressing, changing, and enhancing, this purposeful range provides the most recent research on its integration available during the completion of this research project.

Finally, this literature review focuses on studies of the average English classroom environment. Some studies reviewed in this chapter emphasize ICT integration for students of low socioeconomic status (Callow & Orlando 2015; Callow & Zammit, 2012; Miller, Knips &
Goss, 2013; Zammit, 2015), and two studies focus on ICT-integration effects for English Language Learners (Li, Snow & White, 2015a; 2015b). ICT integration for each of the above-mentioned groups represents specific topics that should be explored explicitly. However, since classrooms are diverse and contain students with diverse needs, literature pertaining to these groups of students is not excluded, but is also not explicitly set apart. Additionally, literature regarding ICT devices or applications specifically designed for students with disabilities or special needs is not reviewed for this study. Literature regarding ICT for students with disabilities is a specific topic in itself that is broader than the scope of this research project.

2.1 Today’s ICT Changes and Affordances

It is undoubted that technology influences knowledge creation and acquisition (Nowell, 2014). Advancements in ICT have increased society’s accessibility and engagement with information and communication opportunities. Web 1.0 technologies differ from Web 2.0 technologies in terms of who participates in the creation of knowledge. Web 1.0 technologies such as dictionary or institutional websites rely on experts to provide knowledge and content (Nowell, 2011). Web 2.0 technologies and software—such as blogs, social media application, Wikipedia, and YouTube—broaden the authorship definition (Nowell, 2011). These types of Web 2.0 applications permit individuals who are not considered as hierarchical experts to create accessible information (Graham & Benson, 2010; Hammett, 2013). Web 2.0 technologies allow and encourage the participation of any individual with access to devices and the platform.

The term participatory culture, coined by Jenkins et al. (2006), specifically describes the affordances of websites and social media that allow any individual to contribute to the creation of digital knowledge and information (as cited in Beavis, 2013; Chen, 2015; O’Byrne & Murrell, 2014; Vasudevan, 2010). Web 2.0 applications allow knowledge-creation to be a communal and
collaborative activity among multiple authors (Graham & Benson, 2010; Hammett, 2013; Vasudevan, 2010). Interestingly, as the authority of the author changes, so does the relationship between the author and the reader. The relationship between the author and reader of digital texts is unlike the relationship between print-based author and reader; digital environment capabilities allow conversations and interactions between the creators and viewers to occur live, in real-time, and through simultaneous interaction (Darrington & Dousay, 2015). Today’s youth and adolescents use ICT to interact using such participatory platforms as part of their daily lives (Beavis, 2013; Huber, Dinham & Chalk, 2015).

2.2 Changes in Literacy

The need for English curricula to recognize how the prevalence of technology has changed how society reads, writes, and communicates is not a recent or emerging concern. Over the past two decades, researchers and policymakers have advocated for the inclusion of technology, digital media, and multimodality in all subjects and classrooms. Multimodality is the inclusion of multiple modes (textual, visual, audio, special, and others) to communicate. The New London Group (1996) coined the term Multiliteracies to express two main arguments. First, they recognize multimodality in communication because they find “increasing multiplicity and integration of significant modes of meaning-making, where the textual is also related to the visual, the audio, the spatial, the behavioral, and so on” (p. 64). Second, the “realities of increasing local diversity and global connectedness . . . require that we interact effectively using multiple languages, multiple Englishes, and communication patterns that more frequently cross cultural, community, and national boundaries” (p. 64). The New London Group understood that advancing technologies and rapidly globalizing societies had changed – and continue to change – the way individuals produce knowledge, communicate, and understand information.
The New London Group’s Multiliteracies Project challenged the idea that literacy was solely textual and added a dimension of socio-cultural emphasis to communication (Howell, Reinking & Kamanski, 2015). Current conversations about multimodality and the advancement of technology developed from The New London Group’s (1996) publication on multiliteracies (Graham & Benson, 2010; Hammett, 2013). Multimodality combines many modes of communication, representation, and interaction to produce or make meaning (Pantaleo, 2015). Multimodality – or more specifically, multimodal literacy – incorporates visual, audio, and/or spatial elements with text to move from the “static” print-based text and create “dynamic” communicative knowledge (Sewell & Denton, 2011, p. 61). Examples of multimodal literacy include graphic novels, slideshows, music, videos, films, podcasts, and other types of multimedia. Most communication practices today utilize multimodality (Howell et al., 2015), which means most students enter schools and English classrooms with familiarity of these types of representations.

2.3 The Student and Today’s ICT

The prevalence of technology in the lives of all citizens, and especially students, is not easily ignored. As stated, most of today’s junior, intermediate, and senior students are familiar and proficient with many forms of participatory culture communication, multimodal literacy, and ICT. However, the sustained use ICT is not always represented in K-12 curricula (Beach, 2012; Carroll, 2011; Hammett, 2013; Wendt, 2013). ICT has been banned in some schools and classrooms (Nowell, 2014) and some teachers may choose to leave ICT out of their lessons (Orlando, 2014). Failing to meaningfully integrate ICT in schools and classrooms can have detrimental effects for students literacy learning and development (Ajayi, 2015; Darrington & Dousay, 2015; Nowell, 2014; Sewell & Denton, 2011; Wendt, 2013). In order for students to be
adequately prepared to join today’s workforce, they need instruction that includes ICT and makes relevant connections between it, the curriculum, and their lives.

2.3.1 Disconnects between in-school and outside-school ICT and literacy

There exists a disconnect between the types of technologies, medias, and literacies students engage with inside and outside of the classroom (Beach, 2012; Callahan & King, 2011). Therefore, students experience a glaring difference in the literacies they use in their everyday lives and the ones they study or practice with in schools. With relation to English class, some students have been found to consider traditional, print-based reading to be boring (Ajayi, 2015). Other students expressed that most traditional writing assignments felt irrelevant to their lives and experiences (Hammett, 2013; Howell et al., 2015). Students were also reported to feel may a lack of opportunity to demonstrate their skills that went beyond traditional reading and writing practices (Darrington & Dousay, 2015). Consequently, students who feel unmotivated by traditional reading and writing exercises may show decreasing academic engagement and performance (Darrington & Dousay, 2015; Wendt, 2013). The combination of these issues can lead students to believe that the literacy skills they possess and use outside of the classroom are not transferrable or relatable to the skills they are required to demonstrate for credit inside the classroom (Hammett, 2013).

Moreover, there also exists a disjuncture between how ICT, medias, and literacies are perceived by teachers and students inside and outside of the classroom (Beavis, 2013; Boche & Henning, 2015; Nowell, 2014; Vasudevan, 2010). Teachers’ failures to properly integrate ICT into the classroom can lead students to feel as if they are missing important learning opportunities. In some cases, certain technologies such as mobile phones or computers have been banned from classrooms and schools (Nowell, 2014; Li et al, 2015b). Nowell (2014) interviewed
an grade 11 female student from who strongly advocated for using her technological devices in class because it allowed her to more easily take, store, and access class notes and materials.

On the other hand, failing to meaningfully integrate ICT into classrooms can also lead students to disassociate technology from academic merit (Li et al., 2015a). In relation to English class, some students have been found to struggle to understand or conceptualize how their everyday ICT could be used to facilitate formal academic learning (Nowell, 2014; Vasudevan, 2010). Social media applications, such as Facebook, Instagram, Tumbler, YouTube, and Pinterest are typically left for leisurely pleasure and not included in academic study (Li et al., 2015a). Li et al. (2015a) interviewed middle school students in Massachusetts, United States of America and found that some believed communicating with their teacher on Facebook would be awkward. The authors found that these students could not always recognize the similarities between communicating on a social network website and posting homework questions on a class-based, academic website (engrade.com) (Li et al, 2015a). Improper or refused ICT integration in today’s classrooms may risk teaching students a distinction between how ICT can be used to enhance their learning and which ICT cannot or should not be brought into an academic setting.

2.3.2 Preparing students for the future

Many researchers (Beavis, 2013; Huber et al, 2015; Sewell & Denton, 2014) argue for the possibilities, benefits, and opportunities that the integrating ICT into English pedagogy provides for current English students’ literacy development and future literacy success. Many studies collected in Wendt’s (2013) literature review show that not all students possess sufficient literacy and digital literacy skills upon entering secondary school. Difficulties with literacy skills can result in consequences for students’ academic achievement in English and other school subjects, and for their general success as part of the future workforce (Huber et al, 2015; Sewell
& Denton, 2011). Not only do students need to be equipped with literacy skills to achieve success in school and life, but students must also be increasingly apt at navigating, negotiating, understanding, and making meaning from multiple modes of communication (Beach, 2015), including digital and online modes (Chen, 2015). Students leaving secondary schools must not only be able to read and write, but must also be able to comprehend and communicate meaning in physical and digital environments (Wendt, 2013).

Post-secondary instruction typically involves a blend of classroom interaction and online learning (Waldron, 2014). In a study of “disruptive” technology in secondary classrooms, Nowell (2014) found that many secondary students expressed concerns regarding the lack of digital instruction in their secondary schooling and felt inadequately prepared for their future studies. These students’ concerns are warranted, as it is essential for them to have a good grasp of literacy and digital literacy in order to be successful in the twenty-first century workforce (Wendt, 2013). Therefore, the job of the English teachers at the secondary school level must be twofold: they must help students develop and sustain traditional print-based literacy skills while also preparing students for the literacies and communicative methods required of them in their future schooling, careers, and lives. In order to facilitate this goal, teachers should be prepared to meaningfully integrate ICT in their pedagogy.

In this section I reviewed literature on multiliteracies and multimodality, today’s students’ involvement in participatory culture, the advancement of ICT, and the disconnect between literacy and ICT in everyday and academic environments. All of these aspects of literacy or ICT development combine to create new expectations for graduating students in the twenty-first century and influence the shift that should occur to promote the integration of ICT into English curriculums and pedagogies.
2.4 The ICT-Driven English Pedagogy

English instructors should be willing to help students see the importance, necessity, and potential of integrating ICT in their pedagogies. While basic integration is better than no integration at all, it is important that English teachers reflect on their purposes of integrating ICT and establish a clear goal for its use to ensure their integration is meaningful and relevant. Researchers (Beach, 2015; Beavis, 2013; Sewell & Denton, 2011) report that harnessing students’ ICT engagement of applications and devices used outside of the classroom can positively impact their in-classroom performances. While parents, teachers, and policy-markers can identify many challenges and limitations regarding ICT integration into English lessons, Nowell (2014) discussed the opportunity for the proper use of applications to help students develop reading, writing, and comprehension skills.

Researchers describe the purpose of ICT integration in two related ways. First, ICT should bridge the differences between how students engage with literacy inside and outside of the classroom (Ajayi, 2015; Boche & Henning, 2015; Graham & Benson, 2010; Hill, 2014). Second, ICT should scaffold students’ understanding of traditional print-based literacy (Boche & Henning, 2015, Connors & Sullivan, 2012; Callow & Orlando, 2015; Zammit, 2013). These two purposes will be expanded on and discussed in detail in the next two subsections.

2.4.1 Meaningfully integrating ICT into English instruction

Both of the aforementioned integration purposes highlight the importance of ICT being a stepping-stone and purposeful connection to traditional literacy skills and practices, and not simply used as a replacement or supplement for them (Boche & Henning, 2015). Traditional literacy studies, skills, and practices cannot be ignored when ICT is integrated with English pedagogy, nor can ICT be a stand-alone pedagogical tool. Flanagan and Shoffner (2013) found
that simply “adding technology to instruction does not automatically create a meaningful change in learning or instruction” (p. 242). Students benefit most from ICT integration when it is used to extend and enhance their learning experiences (Ajayi, 2015; Sewell & Denton, 2011).

In many cases, meaningfully integrating ICT means creating new or additional instructional goals (Howell et al., 2015). For example, ICT can be used to extend student knowledge and deepen connections to traditional print literature. Boche and Henning (2015) studied the practices of a teacher who used YouTube clips about camping and wilderness survival and an online article about Garbage Island to help students relate to and understand aspects of *Life of Pi*. In this case, the teacher used ICT to anchor students’ understandings of new ideas with concepts they already understood (see also Sewell & Denton, 2011 for similar integration examples). Meaningfully integrating ICT in English instruction fosters students’ understanding of texts and connects them to their lives and experiences (Callow & Orlando, 2015; Callow & Zammit, 2012; Chen, 2015). Likewise, ICT can be meaningfully integrated into instruction when it is used to present information in ways that resonate with different students’ learning preferences. Callow and Zammit (2012) found enhanced student engagement through the use of an Interactive White Board when the teacher transformed learning language conventions into a visual experience.

Students’ understandings of difficult material can be strengthened or extended when multiple modes of representation are used as part of instruction. In these examples, ICT was found to help students gain a deeper understanding of the print-based or traditional literacy being taught when ICT was integrated.
2.4.2 Meaningfully integrating ICT into English evaluations

While meaningfully integrating ICT into lesson instruction is important and beneficial for student learning, there are also benefits of incorporating ICT into assessment and evaluation expectations. ICT has been found to optimize students’ engagement while promoting text-based literacy when it is purposefully integrated into assignments and evaluations (Ajayi, 2015; Beach, 2015; Boche & Henning, 2015; Bull & Dupuis, 2014; Connors & Sullivan, 2012; Hammett, 2013; Huber et al., 2015; McClay & Peterson, 2013).

Blending print-based and digital literacies in assessment has been shown to increase student engagement, motivation, and content-specific knowledge (Bull & Dupuis, 2014; Sewell & Denton, 2011). Studies (Ajayi, 2015; Sewell & Denton, 2011) have shown that students might be more inclined to apply themselves in assessments when they sense the opportunity to use their skills and can relate the content they study to their personal lives. Many researchers (e.g., Ajayi; 2015, Connors & Sullivan, 2012; Hammett, 2013) have studied the impact of assignments and evaluation projects that blend traditional reading of texts and writing of responses with digital presentation modes. Powerpoint presentations (Hammett, 2013; Hill, 2014; McClay & Peterson, 2013), scripted and filmed scene interpretations (Connors & Sullivan, 2012; Howell et al., 2015; Sewell & Denton, 2011; Tobin, 2012), blog projects (O’Byrne & Murrell, 2014), podcasts (Beach, 2015; Ryan et al., 2010) and digital posters (Boche & Henning, 2015; Ajayi, 2015) are all examples of digital modes of assessment that blend traditional literacy practices with new forms of digital presentation.

Connors and Sullivan (2012) found positive student reactions to a scripted scene interpretation project. In their study, Connors and Sullivan (2012) reported that students were excited to complete an assignment that was not a traditional essay, and did not regard reading the
text or completing two formal writing assessments included in the project as traditional English work. Offering students a new and ICT focused medium or modality for presenting their ideas may foster more positive views and engagement toward traditional literacy practices.

However, teachers do not need to rely on fancy or expensive technology to integrate aspects of multimodality into assignments. Researcher Pantaleo (2015) advocates for the inclusion of multimodal projects that can be integrated in assessments and evaluations without needed digital technologies. Nonetheless, it should be noted that websites and digital applications do exist for creating digital graphic novels and comics. Paper-and-pencil graphic novel assignments provide an avenue for teachers to integrate multimodality into the classroom and also provide a pathway for then integrating ICT if it is available (Beavis, 2013; Callahan & King, 2011; Huber et al., 2015; Pantaleo, 2015).

Overall, researchers have shown that integrating ICT into assessments and evaluations can be beneficial for student engagement, motivation, and learning. There are multiple different platforms and formats available to integrate ICT into assessments and evaluations. It should be noted that different forms of multimodal assessment can be used even where the ICT availability is scarce to provide students with similar experiences or even introduce multimodal literacies.

2.5 Challenges to and Limitations of ICT Integration in English Pedagogy

Teachers may experience challenges or limitations when they attempt to integrate ICT in their English pedagogies. In this section, I review two main areas where limitations or barriers regarding ICT integration: the school or classroom environment and teachers’ attitudes. Both these challenges have implications for teachers’ abilities to integrate ICT in their pedagogies and provide students with ICT-based literacy opportunities.
2.5.1 Environment-specific challenges and limitations

Environment-specific challenges and limitations can include the availability of the technology (Chen, 2015; Flanagan & Shoffner, 2013) and its ease of access (Peterson & McClay, 2012). These two factors can be encountered separately or in combination.

Any inaccessible ICT automatically becomes unavailable; however, Peterson & McClay (2012) conducted teacher interviews that revealed how classroom desktop computers were available to students but limited quantities and poor Internet access made their use inaccessible. Schools located in low-socioeconomic or remote areas often have limited accessibility and difficulties acquiring or maintaining technology for their students (Chen, 2015; Peterson & McClay, 2013). Additionally, technological accessibility becomes a challenge when students have unequal opportunities to own and use technology outside of school. Some students may not be able to afford access to personal technological devices (Nowell, 2014; Waldron, 2014), while other students may have more technology at home than can be provided in schools (Li et al., 2015b). Teachers may feel limited by the unavailability or inaccessibility technology when deciding whether to integrate ICT use in their English pedagogies.

Another environment-specific accessibility challenge includes the Internet itself. Teachers may be reluctant to include ICT in their English pedagogies because it might require students to access and use external, and possibly non-academic, websites (Chen, 2015; Sewell & Denton, 2011). Teaching students about online safety is always a concern when embarking on projects that require Web 2.0 access, and is an even greater focus when social media is involved due to the risk of cyberbullying (Howell et al., 2015; Vasudevan, 2010). Another concern regards plagiarism. Many researchers suggest that English teachers may find it useful to instruct students about proper digital etiquette and citation methods when introducing students to ICT use to
negate any dishonest behaviour (McClay & Peterson, 2013). Likewise, integrating ICT in the classroom has been found to provide opportunities for teachers to instruct students about appropriate research strategies and source credibility (Ajayi, 2015; Chen, 2015; Sewell & Denton, 2011). Although the Internet raises concerns for student safety, researchers have shown that teachers can utilize these concerns to enrich lessons and add to student learning. Promoting ICT inclusion, safety, and reliability in pedagogy can benefit students’ academic success and social interactions (Vasudevan, 2010).

2.5.2 Teacher-specific challenges and limitations

Teacher-specific challenges and limitations related to incorporating ICT in English pedagogy include teachers’ attitudes and beliefs. Also, teachers’ perceptions about the importance of ICT and their abilities to use ICT in their personal and instructional lives influence if and how they integrate it in their English pedagogies.

Studies (Kirkscey, 2012; Orlando, 2014; Shirvani, 2014) have found that teachers are less likely to incorporate ICT in their classroom if they believe it is ineffective for their instruction. In a longitudinal study of four high-school teachers in Sydney, Australia, researcher Orlando (2014) found that one secondary English teacher had a negative attitude about the necessity of using ICT in her instruction. Orlando (2014) found that the teacher chose not incorporate any ICT in her pedagogy until the syllabus, written and enforced by the school, specifically required students to use a particular application.

Teachers may also find it challenging to incorporate technology because of time constraints and feel that instructing their students about using ICT leaves little time to adequately instruct the required curriculum content (Kirkscey, 2012). Many teachers in the United States experience conflicts between integrating ICT and strictly following curriculum because they may
feel positive standardized test results are more important for their students than experimenting with ICT (Callahan & King, 2011; Chen, 2015; Connors & Sullivan, 2013; Li et al., 2015a; Miller et al., 2013).

Additionally, teachers have been found to experience anxiety toward incorporating technology (Shirvani, 2014). Anxiety most often arises because teachers feel they do not possess sufficient knowledge about the ICT they want to use (Chen, 2015; Orlando, 2014; Pantaleo, 2015). Shirvani (2014) found that some pre-service teachers believed technology increases and changes at a faster pace than teachers can become familiar with and utilize it. Many teachers also reported feeling that the degree to which students engage with technology might afford them greater knowledge of devices and applications than their teachers possess (Nowell, 2014; Ryan, Scott & Walsh, 2010; Tobin 2012). This anxiety can lead some pre-service or established teachers to fear that technology is leaving them behind (Shirvani, 2014).

A teacher’s age has also been found to limit his or her willingness to incorporate ICT in his or her pedagogy (Flanagan & Shoffner, 2013; Orlando, 2014). This suggests that teachers who grew up and acquired their training while ICT was still emerging may be less familiar with its capabilities than those who grew up and completed their programs when ICT was on the rise. Orlando (2014) found that experienced secondary English teachers (with 10+ years in the field) were less inclined to integrate ICT in their classrooms. Shirvani (2014) found that older pre-service teacher candidates (with the average age of 30) believed more strongly in the necessity of teacher training than their younger classmates with the average age of 22. These older teacher candidates felt less experienced with ICT than their younger teacher candidates.

It is not uncommon for English teachers to have apprehensions toward integrating ICT in their pedagogy. Availability and accessibility, safety, available time, and personal experiences all
influence a teacher’s motivation and ability to integrate ICT in his or her pedagogy. However, teachers should recognize the benefits and opportunities that integrating ICT in their pedagogy will afford their students and consider strategies for overcoming these barriers and limitations.

2.6 The Benefits of ICT Training for English Teachers

In a changing digital age, teachers need initial training and continued professional development for using and integrating ICT in their pedagogies (Ajayi, 2015; Chen, 2015). Many studies have found a need for teachers to receive training about ICT integration. Professional development introduces teachers to new and relevant forms of ICT (Kirkscey, 2012; Shirvani, 2014) and has been found to emphasize the appropriateness and affordances of incorporating ICT for student learning (Chen, 2015). Pre-service and practicing teachers need to be educated on meaningfully integrating ICT so it becomes part of students’ learning experience and not an extra or added-on activity (Ajayi, 2015; Flanagan & Shoffer, 2013). McClain and Peterson (2012) suggest that teachers hold some responsibility for seeking out new ways to improve their instruction through professional development, conferences, their colleagues, and through their own inquiry; however, providing teacher education about the benefits of ICT integration should begin with teacher education programs and policy makers (Ajayi, 2015). Teachers should have explicit training about ICT integration in English pedagogy in order to recognize its benefits, opportunities, and potentials for enhancing students’ literacy development.

2.7 Conclusion

In this chapter, I reviewed literature pertaining to changes in literacy understanding and advancements in technology, students’ differing experiences with literacy and ICT inside and outside of the classroom, the importance and benefits of meaningfully integrating ICT into instructional practices, and the challenges and limitations of integrating ICT in English
pedagogy. This review emphasizes the need for English teachers to embrace students’ ICT interactions outside of the classroom and blend ICT integration with traditional literacy practices to foster enhanced understanding of English and more engagement in learning experiences. This review points to the need for further studies on meaningful practices of ICT integration in English pedagogy, as well as further research on the effectiveness of teacher training on ICT.
Chapter Three: Research Methodology

3.0 Introduction

This chapter is devoted to the description and details of my research methodology. I begin by reviewing the general approach to my research, the procedures, and the instrument for my data collection. Then, I elaborate on my participant recruitment methods and sampling criteria. After that, I identify the three participants in the study and provide a brief background of each of them. Next, I explain the data analysis procedures and provide a review and analysis of the ethical considerations related and apparent to my specific study. I also briefly acknowledge the range of methodological limitations in the study before highlighting its strengths. Finally, I conclude with a summary of the key methodological decisions and outline a rationale for these decisions given the research purpose and questions.

3.1 Research Approach and Procedures

This research study was conducted using a qualitative research approach. It involved a literature review and semi-structured interviews with three Ontario Grade 9 and 10 English teachers inquiring about their meaningful integration of Information and Communications Technologies (ICT) in their classes.

Qualitative research involves making personal interpretations regarding a topic through data made of words, pictures, and descriptions (Creswell, 2009). It is usually contrasted with survey-based and experimental quantitative research, which uses numbers and statistics as the primary data sources (Creswell, 2009). The goal of quantitative research is to test and define relationships between theories through numerical data and closed questions (Creswell, 2009). Positivist, quantitative research tests hypotheses or theories through closed questions and
portrays participants as objective numerical statistics rather than agents (Creswell, 2009; Traianou, 2014).

In contrast, qualitative research provides an avenue for exploring how individuals understand or come to know a phenomenon or problem (Creswell, 2009; Hammersly, 2013). Qualitative research focuses on uncovering individuals’ lived experiences and drawing meaning from the details of individuals’ words and pictures (Merriam, 2002). Qualitative research approaches are inductive: qualitative studies emerge from a lack of existing theory or the need to build toward theory through knowledge and understandings from individuals who experience phenomena (Creswell, 2009; Merriam, 2002). The epistemological and ontological paradigm or way of thinking about the world that grounds qualitative research is constructivism; researchers rely on the meaning their participants construct from their knowledge and understanding of the situations they encounter (Creswell, 2009).

Spencer, Pryce and Walsh (2014) argue that qualitative research methods have grown and strengthened in use and acceptance even though more attention was largely paid to quantitative approaches in the past. A qualitative research approach was appropriate for this research project because I examined the lived experiences of Intermediate English teachers who integrate ICT throughout their pedagogy. I engaged in interviews with my participants guided by open-ended questions to understand how they make meaning from their experiences (Merriam, 2002).

3.2 Instrument of Data Collection

Semi-structured interviewing is the primary instrument for data collection in this study. They are valuable to this study and its purpose. Semi-structured interviews contain a mix of questions that are highly structured and asked in a pre-determined order. The question areas are guided by a topic but also created throughout the interview conversation (Merriam, 2002). Since
“the goal of qualitative research is to uncover as much about the participants and their situations as possible” (Jacob & Furgeson, 2012, p. 3), semi-structured interviews allow planned focus questions but also provide the opportunity for improvised and impromptu questions. Flick (2007) describes the flexibility of semi-structured interviews as a beneficial characteristic since questions can be adapted to suit participants’ needs. Hence, the opportunity to adapt some of the interview protocol or improvise additional questions benefited some participants and allowed for a richer and more detailed collection of data for my study.

Brinkmann (2014) argues that qualitative interviews “give voice” to participants’ experiences and stories. He contrasts this to some quantitative methods that decontextualize participants’ responses and therefore become “objectifying” (p. 297). Unlike quantitative surveys where closed (yes or no) questions are asked to determine the objective theory of a topic (Creswell, 2009), qualitative research uses open-ended interview questions to allow participants to explain the meaning and perspectives they understand from their experiences (Merriam, 2002). The use of open-ended questions in my interview protocol permitted my participants to provide detailed information about themselves and their situations that expand and clarify their ideas (Jacob & Furgerson, 2012).

My interview protocol (located in Appendix B) is organized into five sections. I began by asking questions related to my participants’ personal experiences and philosophies for integrating ICT in the English curriculum. These questions were followed by inquiry questions about how my participants perceive ICT integration affects student engagement and literacy development. Next, I asked questions related to my participant’s personal motivation for ICT integration. Finally, the last two sections focused on the supports or hinders my participants
encounter when trying to integrate ICT and the forms of professional development that are available to them or have been experienced. Example questions include:

- Do you feel that your students are more motivated to complete reading and writing assignments when ICT is integrated?
- Could you describe your personal philosophy about what it means to meaningfully incorporate ICT in your pedagogy and classroom?
- Where does your inspiration for ICT integration stem from?
- What sources do you consult when you want to learn about a new ICT integration opportunity?

3.3 Participants in the Study

Here I review the sampling criteria I established for my participants and discuss a range of possible avenues for teacher recruitment. I have also included a section where I introduce each of the participants: Patricia, Nancy, and Julia.

3.3.1 Sampling criteria

This study includes interviews from three Greater Toronto Area grade 9 and 10 English teachers. Due to the nature of the research question and small number of participants involved, it is important that all participants meet a specific set of criteria to ensure the study is valid. Gentles et al. (2015) caution researchers about the potential issues of using pre-determined criteria for sampling methods. They remind researchers that utilizing specific and pre-determined criteria risks excluding some participants who may not fulfill all criteria but could provide valuable data. This caution was considered for this study and criteria are specific to the project but still broad enough as not to limit many individuals from meeting the criteria.
All participants must have met the following four criteria in order to have been selected for this study:

1. All participants must willingly and freely integrate ICT in all aspects of their English pedagogy (planning, instruction, and assessments) by their own choice.
2. All participants must have at least three consecutive years of full-time teaching experience in grades 9 and/or 10 English in Ontario schools.
3. All participants must currently teach grades 9 and/or 10 English (any level).
4. Participants will not hold official undergraduate degrees, diplomas, or certificates in any technology-based program and participants will not hold (or be working towards) an Ontario Additional Qualification in Technological Education.

In order to answer the main research question, the teachers interviewed in this study will have willingly integrated ICT in their English classes. It is important that English teachers identify themselves as freely integrating ICT in their pedagogies since the Ontario English Curriculum does not require, specify, or state the use of specific ICT. However, with plans and trials of providing the Ontario Secondary School Literary Test (OSSLT) through an online format (Education Quality and Accountability Office [EQAO], 2011), today’s English teachers face new challenges for preparing students for technology use.

Additionally, the teachers must choose to holistically integrate ICT in all aspects of their pedagogies including planning, instruction, and evaluation. This criteria ensured that teachers are choosing to integrate technology in their pedagogies and that their integration is both thoughtful and purposeful; otherwise, they would not be able to adequately participate in the research study since I aimed to discover their methods, strategies, and best practices for ICT integration.
I required that my participants had at least three consecutive years of full-year teaching experience at the grade 9 and/or 10 level because I believed it was a sufficient amount of time for teachers to become familiar with their teaching environment and the grade level. Moreover, this amount of time will have allowed the participants opportunities to facilitate ICT integration on multiple occasions and with multiple groups of students. This minimum experience requirement also meant that these participants will have had more opportunities to seek out professional development opportunities offered at their schools and community. This criterion also allowed participants to give advice to other teachers and comment on their experiences with professional development and training as they integrated ICT in their English pedagogies.

I chose teachers of grades 9 and 10 as the participants for this study because grades 9 and 10 are the middle grades in the intermediate and senior grade range. Additionally, and more specifically, grade 9 and 10 teachers are relevant to this study because the OSSLT evaluates students’ literacy skills during their grade 10 school year (EQAO, 2011). Since grades 9 and 10 are important years for students’ literacy engagement and development, interviewing teachers of these grades will provide rich and relevant information about the integration of ICT in intermediate and senior English classes. If the OSSLT, on its most basic level, now requires students to read and write through digital means, I believe grade 9 and 10 English teachers are best able to provide students with the most valuable preparation, and their examples could be extended into higher grades or use as introductory means for lower grades.

Finally, since I aimed to raise awareness about the opportunities for all teachers to integrate ICT in English instruction, I was interested in interviewing teachers who did not hold any degrees, diplomas, certificates, or qualifications in any technology-based programs. While I think that these types of programs are extremely beneficial for teachers looking to learn about
ICT capabilities, I wanted my study to reflect the experiences of teachers who willingly seek out
ICT integration without prior ICT-specific training. My intention was for these teachers’
accounts to inspire other teachers to integrate ICT in their pedagogies, even if they felt they do
not have official training.

3.3.2 Sampling and recruitment procedures

Sampling procedures are the methods by which individuals are chosen to participate in a
study (Daniel, 2012). Recruitment methods are the means by which a researcher finds
participants. Random sampling and recruitment methods were not suitable for this research
project due to the specificity of the research question and scale of the study (Creswell, 2009).
Random or probability sampling and recruitment methods are usually better suited to quantitative
research projects that aim to make a generalization over a large and diverse population
(Creswell, 2009). Random sampling methods provide each individual in a population with an
equal opportunity to be selected (Creswell, 2009). The kinds of sampling used by qualitative
researchers include convenience and purposeful sampling. Convenience sampling—referred to as
availability sampling by Daniel (2012) – means the researcher chooses their participants based
on their ease and availability of participation. Patton (2015) describes purposeful sampling as
logical and powerful because it allows “information-rich cases for in-depth study” (p. 264).

My participant recruitment methods include convenience, purposeful, and snowball
recruitment. I used my personal connections with past teachers and current professors to inquire
about English teachers they knew who currently integrate ICT in their pedagogies. This is a
method of convenience and purposeful recruitment because specifically selected individuals to
contact that were already available to me. I also extended this recruitment method to also include
snowball sampling because I asked these individuals to recommend other teachers who may fit
my criteria and would be willing to participate in my study. Snowball sampling describes the effect of sequential individuals finding out about a study through other individuals. Daniel (2012) explains that snowball sampling increasing the sample size through links and connections between people who are contacted.

An ethical concern that surrounds snowball sampling is the concern that individuals’ names and contact information can be provided to a researcher without their knowledge or consent (Daniel, 2012). To avoid this ethical dilemma and ensure any possible participants did not feel pressured or obligated to participate, I provided my initial connections with an overview of my research study, the participant criteria, and my contact information that they distributed to the individuals they felt were suitable. I advised my contacts and sequential individual they contacted through snowball sampling to contact me if they would like to participate, instead of passing along contact information to me to use.

3.3.3 Participant biographies

I provide a brief biography of each participant that includes key information about their background as an English educator, their philosophies about English and literacy instruction, their previous experience with ICT integration in the classroom, and other information that pertained to the research question and purpose.

Patricia has been teaching for over ten years at the secondary level. She also has five years of post-secondary teaching assistant experience. Patricia completed her Bachelor of Arts, Master of Arts, and Master of Ed in Ontario. She currently teaches at a large Greater Toronto Area secondary school with a range of students from diverse cultural and socio-economic backgrounds and large ranges of abilities. Patricia’s school does not follow any technology
programs and individual teachers permit Bring-Your-Own-Device (BYOD) policies. Nancy is an avid user of ICT on a personal level and has had experience writing blogs and creating websites. Nancy has over ten years of teaching experience with the majority occurring at the high-school level. She completed her Bachelor of Education in Ontario. Nancy teaches at a relatively new Greater Toronto Area school whose community is comprised of affluent and comfortable families. Nancy’s school follows a BYOD policy but provides students with access to multiple stationary computer labs and mobile computer and iPad carts. Nancy first experienced an increase of technology when she taught for a brief period in the United States of America. Since then, she developed a curiosity for integrating different ICT in her classroom.

Julia has been teaching English at the high-school level for five years. She completed both her Bachelor of Education and Master of Education in Ontario. She currently teaches at an independent school in the Greater Toronto Area. The community is composed of affluent, middle to upper-class families. The school follows a one-to-one device policy where all students purchase a personal laptop through the school. Julia was first introduced to the benefits of ICT integration during her Masters program and integrates many strategies and much research from her former professors.

3.4 Data Analysis

Qualitative research is largely interpretive research (Creswell, 2009; Merriam, 2002). Trent and Cho (2014) describe data analysis as summarizing and organizing the gathered data. Organizing data involves a coding process. Coding provides an explanation of how the researcher defines the data, and includes codes, indexes or categories, and themes (Gibbs, 2007). Codes are specific and particular (such as individual words or phrases) which are sorted into indexes or categories, which are then sorted into themes that encompass a broader idea.
The purpose of coding and sorting data into a hierarchy is to highlight the different examples and types of things that are present in the data (Gibbs, 2007). Gibbs (2007) explains that “coding means recognizing that not only are there different examples of things in the text but that there are different *types* of things referred to” (p. 4).

Further steps in data analysis involve arranging the coded data to observe patterns that occur within it (Cho & Trent, 2014; Merriam, 2002). Both Creswell (2007) and Merriam (2002) assert that data analysis occurs simultaneously with data collection, interpretation, and analyzing. Creswell (2007) explains an example of this simultaneous process: the researcher can recall information from a previous interview while coding a current one and is able to jot notes or make connections that will later further inform the coding process or develop into results.

My own data analysis procedure included these methods. I began by transcribing each individual interview immediately after it occurred. Then, I coded each transcript individually, sorted the coded data into categories, and analyzed the categories to develop major themes. I continually looked for common and divergent themes within the data that were relevant to my research questions and purpose. I also included and spoke to the significance of any null data. Finally, I interpreted the data and related my findings to the relevant literature previously reviewed.

### 3.5 Ethical Review Procedures

The possibility of potential harm in qualitative research is relatively low but can occur on rare occasions (Traianou, 2014). There are no known risks of potential harm through the participation in this study. This study and its interviews would be characterized as low risk because there are little chances of psychological or physical harm (Morse et al., 2008). I do not foresee any particular question putting a participant in a vulnerable position or eliciting an
emotional responses. However, to ensure my participants feel comfortable and aware, I minimized the risk of potential harm by providing them with the interview questions ahead of time. Additionally, participants were reassured in conversation and in writing that they had the right to refrain from answering any interview question they felt uncomfortable with. I also ensured they were aware that they had the right to withdraw from participation at any stage of my research study at any time.

In conjunction with being aware of the risks of potential harm in qualitative studies, researchers (Creswell, 2009; Morse et al, 2008; Traianou, 2014) discuss the importance informed consent when undergoing qualitative interviews. All participants in this study were be asked to sign a consent letter giving their consent to be interviewed as well as audio-recorded (see Appendix A). This consent letter provided an overview of the study, addresses ethical implications, and specifies the expectations of their participation. This consent letter also reminded participants that they may withdraw from this study at any time.

Morse et al. (2008) discusses the necessity of ongoing and continual consent during qualitative studies. Ongoing and continual consent was facilitated in my study as participants had the opportunity to review their interview transcript and were be encouraged to clarify or retract any statements before I began conducting the data analysis. Participants also had the right to withdraw from my study even after their interview had been transcribed.

To ensure there was no harm to my participants’ identities, reputations, or statuses, all participants were asked to provide a pseudonym for themselves or were assigned a pseudonym and asked to approve it (Traianou, 2014). Further, participant identities remain confidential and any identifying markers related to their schools or students were excluded from the interview transcript. All data (audio recordings and interview transcripts) is stored on my personal,
password-protected laptop and will be destroyed after five years. The only other individual who had have access to the transcripts was my second-year research course instructor.

3.6 Methodological Limitations and Strengths

When speaking about methodological strengths regarding qualitative research studies, Hammersly (2013) explains that the many data-collection opportunities available for researchers help to create in-depth studies. He argues that different kinds of data, such as observational notes, interviews, and accounts from different informants, allow for comparisons and confirmations of the interpretations that arise during data analysis. A limitation of this study lies in the approved ethical parameters that only permit interviews with educators. This study cannot use or include or use observational data, surveys, or input from students and parents. While the goal of qualitative research is not to generalize findings about a topic over a large population (Spencer, Pryce, & Walsh, 2014), the small number of participants involved in this study limits its impact and also prevents the findings and results from being generalizable. Nevertheless, the findings of this study will be relevant and applicable for English teachers looking to integrate ICT technology in their pedagogies.

A strength of the methodology lies in data collection instrument. Direct interviews with each participant allowed me to focus my questions on their experiences with ICT in their pedagogies. Creswell (2009) explains some limitations of interview studies, which include the articulate ability of participants, the filtering of their experiences, and the relocation from their natural field setting. While I was unable to interview my participants in their school settings, I was able to prompt and encourage detailed articulations of their experiences with ICT in English using the flexible interview protocol (Hammersly, 2013). Moreover, interviews were particularly valuable to this study because they were a form of conversation between my participant and
myself that provided rich and essential knowledge of my participants’ experiences (Brinkmann, 2014). By analyzing the three coded interview scripts as my only primary data sources, I was able to uncover specific information from my participants and preserve their voices. Through interviews, my participants were able to reflect on their experiences with integrating ICT in English pedagogy and spoke about their personal philosophies, trials, successes, and advice.

3.7 Conclusion: Brief Overview and Chapter Four Preview

In this chapter I provided a review of my methodological choices. I began by comparing quantitative and qualitative research and explained the appropriateness of using a qualitative research method to answer the research question. I then spoke about semi-structured interviewing being the primary data collection method and explained the benefits of semi-structured interviews for this qualitative context. Next, I listed and explained my participant sampling criteria and described my sampling and recruitment procedures. I provided detailed rationales for each of my sampling criteria and explained the relevance of my convenience, purposeful, and snowball sampling and recruitment procedures. I also provided a brief introduction to each participant that explained their experiences and philosophies in teaching and integrating ICT in their pedagogies. I continued by speaking about my data analysis procedures and explained why simultaneous data collection and analysis will benefit the depth of my findings. I then reviewed the ethical procedures and identified ethical the ethical concerns regarding potential harm, continual consent, and anonymity. Finally, I identified a few of my study’s methodological limitations, such as the number of participants and constraint of available data, but also highlighted its strengths, such as the conversational semi-structured interviews and focus on my participants’ lived experiences. Next, in Chapter Four, I report and expand on the
research findings by highlighting the main themes that emerged through my data analysis and relating them to the relevant literature previously reviewed.
Chapter Four: Research Findings

4.0 Introduction

In Chapter One of this research project, I introduced my research topic – teachers’ experiences of ICT integration in English instruction – and posed the research question: how does a sample of Ontario’s intermediate English teachers reportedly understand and integrate Information and Communications Technologies (ICT) into their pedagogies? In Chapter Two, I analyzed recent literature pertaining to the changes in literacy due to advancements of technology, the differences between student literacy and technology engagement for academics and leisure, the increased necessity of ICT integration in English pedagogy, the English teacher’s role in ICT integration, and the barriers associated with integrating ICT in English pedagogy. In Chapter Three, I explained my research methodology by defining qualitative research and its benefits for this study, gave an overview of my sampling criteria, and introduced the three participating upper-intermediate English teachers.

This fourth chapter will present and discuss the themes related to ICT integration in intermediate English pedagogy that emerged through the analysis of my research interviews. The six main themes that emerged are: teachers report that ICT integration engages students in English curriculum, teachers demonstrate how ICT integration facilitates student-centered learning environments, teachers perceive ICT integration develops fully literate students, teachers believe that ICT inequity and availability limits its possible integration, teachers argue for the importance of promoting effective and meaningful ICT integration practices in English, and teachers perceptions of effective professional development practices. Each theme section will explain the theme, support it with participant examples, and connect it to the relevant literature reviewed in Chapter Two.
4.1 “If It’s Not Relevant To Them, What’s The Point?”: ICT Integration Reportedly Engages Students In English Curriculum

English teachers who integrate ICT in their pedagogies reported that students are more engaged in and develop deeper understandings of the curriculum content being studied. All three participants spoke about the necessity of providing their students with instructive examples and learning activities that integrated ICT. They argued that ICT is relevant and engaging for students, and students’ increased engagement allows them to reinforce and extend the curriculum concepts or topics being discussed. The following examples echo Ajayi’s (2015) encouragement for teachers to “leverage” technology to “bridge the gap” between student interest and curriculum content (p. 98).

Patricia believes in the power of using her students’ excitement about and interest in ICT as motivation for complete learning activities. She provided a pedagogical example where she used an online quiz tool, Kahoot, to harness their excitement and interest and direct it toward a social justice study that she felt strongly about:

if I do a Kahoot with the students, they are all up in that! [Laughs] They whoop, they yell, they get excited! It’s a competition! …With my grade 10s last year I did a Kahoot because I felt they needed to learn about Afghanistan and, you know, not every grade 10 student is going to be excited to learn about the tribes in Afghanistan. … So it really focused their attention on the reading of dry information and trying to remember facts and things, because they knew that there wasn’t going to be a quiz, there was going to be a Kahoot.

Patricia explicitly distinguished the Kahoot experience from a quiz because she believes the incentive behind a quiz is absorbing content for individual marks, while preparing for and
participating in the Kahoot makes learning the content a communal and interactive experience for her students. Engaging in the live and communal Kahoot quiz made learning the content relevant to Patricia’s students. Patricia’s use of the Kahoot quiz served as incentive for students to actively participate in reading the articles and learning the information.

Likewise, Julia specifically talked about how she used ICT’s interactivity to engage her students in important lessons about the writing process. She explained:

I’ve mentioned [earlier in our interview] the writing process and also the part of the English curriculum about metacognition and reflection. And I think for most students it’s kind of an afterthought. But [it’s different] when you see the real-time change on the Google Docs that they edit themselves. ... Students send me work for other classes just to get a second set of eyes. So that piece of technology and seeing the benefits of it in real-time has redefined, for them, the idea of editing their work. And they see so much more value in editing than I saw when I was a student or even my students a few years ago before I was using it.

In this example, Julia highlighted how ICT engaged students in, and changed their perceptions of, editing their work. Julia’s remark shows how the ability to receive immediate feedback and see real-time changes in their writing made editing relevant to their students. Her response also shows that her ICT integration extended student engagement because they applied their tool and learned importance of the editing process to other subjects as well.

Many researchers (Ajayi, 2015; Boche & Henning, 2015; Darrington & Dousay, 2015; Flanagan & Shoffner, 2013; Hammett, 2013; Li et al., 2015, Tobin, 2012) found students had positive responses to curriculum when technology was integrated. When implementing a digital, multimodal text assignment, teacher-researcher Sullivan stated: “most surprising to me was that
although the assignment required a considerable amount of reading and writing, the students didn’t regard it as work” (Connors & Sullivan, 2012, p. 224). The study found that providing students with opportunities to use ICT in the classroom fostered greater engagement in tasks and changed their attitude toward activities, which then lead to increased understanding of the curriculum.

By integrating ICT in their pedagogy, Patricia and Julia offered their students tools that engaged them in the content and experiences that made the skills they were learning relevant. As confirmed by the reviewed literature, students benefit from ICT integration in English pedagogy because it connects their interests to the tasks and curriculum. Next, I will discuss teacher’s perceptions of how ICT integration in English pedagogy also benefits students because it helps facilitate student-centered learning environments.

4.2 “I Try To Sort Of Flip It Around”: ICT Integration Reportedly Facilitates Student-Centered Learning Environments

English teachers felt that integrating ICT in their pedagogies improved students’ learning experiences and literacy development because it reportedly created student-centered learning environments. All three of my participants agreed that ICT integration allowed them to give students more opportunities to participate in instruction and provided students with a more active role in their own learning.

Nancy reflected on the advancements of ICT she experienced throughout her career. She explained her perceived benefits for student participation when she integrated ICT:

I feel like when I first started I was doing all the research and all that work for my students. I feel like it was more teacher-driven then and now I feel like it’s semi teacher-driven because, with all the access to technology, either with computer labs, or iPads, or
electronic devices … I might say to them “look up or research X” and they can do that literally on the spot.

Here, we can see how ICT integration changed the way Nancy approached her teaching and also how her students acquire knowledge. Instead of her feeling she was the only source of knowledge and had to relay all the answers to her students, she now feels she can now take a less-dominant role and provide her students with more opportunities to find information themselves. Nancy felt that integrating ICT in her pedagogy meant she gave her students more opportunities to participate during classroom instruction and take more responsibility for their own learning.

Patricia also perceived that ICT integration permitted her to take a less-dominant role in providing knowledge and information to her students. She described herself as a “guide on the side [while] they’re working.” With limited access to ICT in her school and official no programs to provide ICT for students, Patricia felt that her methods of integration provided students with more opportunities to work collaboratively in-class and then use their ICT to support and extend their learning afterward. She explained:

most of the activities I’m doing are collaborative. … I think if a student can sit there and work by themselves then they can do it at home, right? That doesn’t really need to be done during class time then. I try to sort of flip it around there. What I want to see is them generating ideas. So when we did the novel study we did that in sort of a literature circles kind of mode, where they were required to post the findings of their discussion into a wiki [after class]. So they learned about wikis and got experience doing that. But in class, the classroom portion was the discussion.
Patricia’s strategy for technology integration created a student-driven classroom. Students worked together in a collaborative environment to create and answer questions about the daily content, and then engaged with technology to consolidate their learning at home. The wiki provided an online extension of this student-driven environment because students were able to keep a collection of their work, share their findings with others, comment on other’s work, and access their responses throughout the unit. Patricia believes that her ICT integration makes students agents of their own learning in both the face-to-face and online classroom environment.

Like Patricia, Julia also used ICT to create student-centered learning experiences through formative assessments. Julia described one example of how she integrated ICT outside of the classroom so that she could focus her in-class time on content and teachings influenced by students’ needs:

there’s this program called EdPuzzle, and with my grade 9s, while we were doing *To Kill a Mockingbird*, I got a clip from the film and they completed the EdPuzzle for homework. That was a great way of flipping the classroom for me because sometimes I find it challenging to flip the classroom in English. But that was really successful and my students really liked it.

EdPuzzle is an online tool that allows teachers to insert mandatory questions (multiple choice, true or false, written response, etc.) throughout video clips. The video clips pauses and does not allow the user to continue until the question is answered. Using this tool, Julia’s students engaged with the content at home and come to class prepared to discuss their answers to the questions. Using EdPuzzle also allowed Julia to see responses to quiz questions as soon as they were completed, so she was able to direct the following in-class discussions or instruction to
areas where students struggled. Julia’s formative assessment and inclusion of ICT beyond the classroom helped tailor her in-class instruction to meet students’ needs.

Researchers (Beach, 2012; Callahan & King, 2012; Hill, 2014; McClay & Peterson, 2013; Waldron, 2014) found that blending ICT integration with traditional teaching methods produced classroom environments that fostered greater student-driven learning. In a study of Canadian teachers’ ICT integration strategies, McClay and Peterson (2013) found that teachers are “better able to pay attention to individuals and … know where they are and what they need at any given moment” (p. 50) when students work on individual or group-lead inquires instead of leading full-class, teacher-lead instruction. Using ICT in or beyond the classroom permits teachers to gather data about student progress and then use that data to implement activities and resources in their lessons to promote depended student understanding. Additionally, in a study of her own practices of using an online learning space to complement classroom instruction, teacher-researcher Waldron (2014) argued that “there were some students who took ownership of their learning, and whose experience was enhanced by using the online classroom (p. 11). These students were able to control their learning and feel responsible for their participation and success. ICT integration provides pedagogical strategies for teachers to guide students through student-centered learning opportunities.

All three of my participants provided examples where students benefited from ICT integration because they were able to create and facilitate student-centered learning environments. As shown by the research and my participants’ examples, ICT integration can provide more opportunities for students to be agents of their own learning and gain specific assistance from their teachers. While these teachers used ICT integration as a tool to teach with, the next section describes how they also use ICT as the subject being taught.
4.3 “I Prepare Them To Be Fully Literate”: ICT Integration Reportedly Develops Fully Literate Students

Teachers who integrate ICT into their English pedagogies believe students must be literate in all forms of communication in order to be successful in and beyond the classroom. Since the Ministry of Ontario (2007b) defines a text to include multiple different modalities and medias, my participants explained that they integrate ICT because they feel responsible for ensuring that their students can understand, use, and analyze different modalities and medias.

When I asked each of my participants why they believed ICT connects to English instruction, they all gave similar responses. My participants felt that different literacy skills were needed when students analyzed traditional literature, web pages, and videos. When I asked Patricia “how does using ICT connect to the development of you students’ literacy skills?”, she provided a response that explained how ICT is both a content and a medium:

[Laughs] you know what I’m going to say to this one: it [ICT] is literacy. You can’t be completely literate unless you understand how to read, write, and create in all of the forms that are available to you. So, if there are some students who have no idea how to read, write, or create online, then a significant portion of their literacy experience is gone. … You have to be media literate, it is an essential skill in the twenty-first century … and that’s what we’re trying to do as English teachers. We’re communication teachers! We teach students how to communicate effectively in any form that they choose and there are many more forms than there ever were.

Patricia used ICT to facilitate learning but also as the main learning topic to ensure students had opportunities to develop multiple multimodal literacy skills. Patricia recognized how ICT advancements have changed literacy today and the implications for individuals who do not possess full or adequate literacy skills. Her response illustrated her strong belief that English
teachers are responsible for instructing students about literacy in any and all available forms. Both Nancy and Julia also explained how the literacy skills they teach their students extend beyond traditional reading and writing and shared their commitments to helping their students develop skills to use and analyzing different literacies.

Related to the importance of helping students develop literacy skills in multiple medias, one of my interview questions generated discussion about the Ontario Secondary School Literacy Test (OSSLT). I was curious to know whether these teachers perceived their integration of ICT as helpful for their students as they prepare for a test that, up to this point, had only focused on traditional literacy (i.e., print reading and hand-written communication)\(^2\). I was not surprised when all three participants gave negative responses. Nancy was blunt in her dismissal, commenting, “I don’t really see a direct correlation, per se. But I do think the integration of technology helps them to be a literate person.” Julia was a bit more optimistic and “hoped” her integration helped, but admitted that she “see[s] where the literacy test is not as progressive as instruction has become.” Patricia voiced her opinion on the discrepancy between the test and instruction and explained: “I don’t think a standardized test is going to measure the kinds of literacies that we want our students to have.” All three teachers advocated for the necessity of helping their students develop multiple literacy skills that are important for everyday life that are not assessed by the OSSLT.

Like Nancy, Julia, and Patricia, researchers (Callaghan & King, 2011; Connors & Sullivan, 2012; McClay & Peterson, 2013) also found the tension between the different literacies teachers feel responsible to integrate in their pedagogies and the expectations of standardized tests. My participants’ statements show that they integrated ICT in their pedagogies because they

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\(^2\) The Education Quality and Accountability Office announced that the OSSLT would be transitioning to an online format (EQAO, 2013), but the first trial test had not yet occurred when the participant interviews were conducted.
believe it helps students develop essential skills that they must possess beyond the scope of the OSSLT and beyond the walls of the academic classroom.

Patricia’s previous statement about ICT’s connection to literacy and all three teachers’ responses on the importance of being literate in all forms of communication are directly echoed in the literature. Researchers (Ajayi, 2015; Bull & Dupuis, 2014; Callow & Zammit, 2012; Huber et al., 2015; 2011; Miller et al., 2013; Nowell, 2014; Pantaleo, 2014) discussed the necessity of students being fluent in and knowledgeable of different forms of literacy. In a study of the integration of visual literacy through the use of graphic novels in English classes, Pantaleo (2014) found that “in order for students to become visually literate, they need explicit instruction – pedagogy that focuses on visual design, composition principles, and image analysis … that will then affect their selection, employment, understanding and interpretation of the modal affordances of image” (p. 114). Any form of literacy (media literacy, print literacy, or digital literacy, etc.) can replace ‘visual literacy’ in Pantaleo’s (2014) argument. Pantaleo’s (2014) argument relates to Patricia’s original response about ICT’s connection to English: if students are not taught about the different and emerging literacies and not guided on how to use and integrate them in their lives and studies, they may lack significant skills and experiences necessary both inside and outside of the classroom.

My participants in this study believed students require practice and knowledge of the different literacy skills that their ICT integration affords them. These teachers and the reviewed literature suggested that if students are not instructed about different media and digital literacies and do not gain practice engaging with them, they will not be able to properly use or apply their knowledge for future uses. The next section describes the biggest difficulties my participants reportedly encountered when they attempted to integrate ICT in their pedagogies to help students
develop these necessary twenty-first century literacy skills.

4.4 “These Things Need Top-Down Support”: ICT Inequity and Availability Limits its Integration Possibilities

Teachers identified that issues with ICT equity and availability limit their ability for effective integration in English pedagogy. Although each of my participants teach in different schools that follow different policies regarding ICT use, each of them attested to the difficulties inequity and unavailability can cause when attempting to integrate ICT in their pedagogies.

Patricia, who teaches in a school without a concrete ICT policy, advocated that “the number one barrier is getting support for it.” Patricia allowed and “expected” students to bring any available technology they had to her classes. She was able to use many resources and strategies to ensure that students who did not have access to devices could experience ICT integration, such as bringing in her own devices and having students share devices during smaller activities. However, she felt that her school did not accept or understand the need for ICT when she admitted that “it’s hard with an English department budget, obviously, but technology was never planned or saved for”.

Patricia believed that support for ICT integration needed to come from higher and more powerful institutions. She justified this by explaining:

if the boards are not going to put a ChromeBook or something in every student’s hand, I don’t know what the solutions are to solve that equity problem. I don’t think BYOD is the solution to that. But there’s nothing to stop the government from giving, for example, a 100% tax deduction to a computer for every kid – whether a laptop or notebook or whatever it is that the parents want to buy. Then, suddenly, it’s free, right?

Patricia felt the inequity faced by her students affected the degree to which they could fully and effectively engage in English content and activities. Patricia recognized policies that attempt to
make ICT available in schools but opposed these with what she considered a more equitable solution. Patricia’s recommendation that boards and governments implement incentives to make ICT affordable and available to students is twofold: it could decrease issues of inequity among schools and provide teachers with greater opportunities and less excuses to integrate ICT.

Conversely, Julia and Nancy felt their schools provided their students with ample access to ICT, either through one-to-one laptop programs or BYOD policies and multiple available stationary and mobile device labs. Both teachers were grateful for their vast and almost unlimited opportunities to integrate ICT and remembered previous situations when they did not have that luxury. Nancy acknowledged the difficulties some teachers may face when ICT access is limited when she said:

I work at a brand new school with 2-3 computer labs on every floor. I know of schools that only have a couple of labs and don’t have iPad carts. Or, there are schools where students are less affluent and don’t have electronic devices or Wi-Fi at home. I feel like all those things can contribute to whether or not you can integrate it in a classroom.

Similarly, Julia remembered previous experiences at her school before a one-to-one laptop program was implemented. She said she felt integrating ICT was “more of a challenge” then because it was difficult to book a mobile or stationary lab when the whole school relied on them.

Discussions surrounding the challenges of equity and availability with relation to ICT integration are notable in the reviewed literature. Researchers (Beach, 2012; Callow & Orlando, 2015; Chen, 2015; Flanagan & Shoffner, 2013; Li et al, 2015; Nowell, 2014; and Waldron, 2015) make mention of teachers struggle to effectively integrate ICT when inequity exists in its availability among schools and students. When studying the limitations some Canadian teachers face when trying to integrate ICT that is inaccessible because of budgeting, Peterson and McClay
found that these teachers “should not be expected to write grant proposals and applications to gain the necessary tools to meet curriculum requirements and provide engaging projects for their students” (p. 145). At this time, solutions to ICT equity and availability issues focus on teacher integration strategies similar to those mentioned by Patricia and strive to make due with the most that is available.

As analyzed in the previous section, teachers integrate ICT in their English pedagogies because they feel responsible for ensuring that their students develop literacy skills in all forms of communication available, but sometimes face challenges regarding ICT equity and availability. While Patricia was the only teacher who currently experienced difficulties with the ICT available to her, both Nancy and Julia also acknowledged the struggles they faced in the past are ongoing dilemmas that others teachers are still experiencing. However, as will be discussed in the next section, all three of my participants also recognized that the quality of their ICT integration in English was more important than the quantity of it.

4.5 “When We Overuse It, It Becomes Redundant”: The Importance of Promoting Effective and Meaningful ICT Integration Practices in English Pedagogy

All three of my participants agreed that they view ICT as helpful tools for enhancing both student learning and their instruction, but are meticulous about the amount of ICT they integrate and the purposes for which they use it. Nancy believed using ICT strengthened her instructional abilities, commented that she could “see that sometimes a Socratic conversation about something can be just as effective too.” Throughout their interviews, all three of my participants alluded to a delicate balance between using traditional literacy or instruction methods and using ICT integration to extend and enhance their English pedagogy.

Ajayi (2015) defined and explained the SAMR model for ICT integration. In this model, the way ICT is integrated Substitutes, Augments, Modifies, or Redefines the original tool used or
task completed. Julia spoke about the SAMR model and explained how she consulted it when she considered different ICT integration opportunities in her pedagogy:

if [integrating ICT is] for the sake of typing up a good copy, that’s helpful, but I don’t think that’s necessary. I’m teaching mostly the editing process and the work-shopping process, so it’s more worthwhile for me to offer technology as an option to help students develop that writing process, rather than me saying “okay, do all of your paperwork, use all your pens and pencils and paper, and now type me up a perfect looking copy”, right? Transcribing [using ICT] does nothing for me. Sure, transcribing might be faster than writing it out again, but, there’s another platform called the SAMR model, and [transcribing] is the lowest stage of the SAMR model because it’s just substituting computer for paper and pencil. Sometimes it’s effective, it depends what you have to do, but you know, for the sake of doing it, just to say “now we’re typing”, I don’t think it’s that worthwhile.

For Julia, integrating ICT in her pedagogy focuses on making the holistic experience worthwhile for her students by directly relating the ICT to the task. Instead of offering ICT for every activity she does with her students, Julia carefully considered learning opportunities when ICT would ‘redefine’ their experience and focused her integration on those instances. She said she valued the fundamental advancements and enhancements that ICT integration afforded her students, especially those with Individual Education Plans whose experiences are enriched by sheer substitution strategies, but also cautioned about ICT over-integration leading to redundancy.

Nancy espoused the same attitude as Julia when she considered the most appropriate times and uses for ICT integration in her English classes. She responded to my question, “what does meaningful ICT integration look like or mean to you?” by saying:
I feel like it means that we’re not using technology for the sake of using technology. Because I have had experienced myself, and I’ve seen colleagues experience the same thing, where students have an iPad or a computer and they’ll sit on it for an hour and not actually do what they’re supposed to be doing. So they’re either surfing the Internet or playing games and I feel that’s not really useful. I feel like it needs to be accountable, so there needs to be goals at the end that they need to accomplish individually or as a group.

Nancy repeated Julia’s idea of not using ICT “just for the sake of it”. She stated that she wanted to ensure her ICT integration was purposeful and had clear objectives so that it did not become a distraction or digress from the work students were meant to complete. For Nancy and Julia, choosing to integrate ICT in their English pedagogies meant first analyzing the benefits the ICT would bring to the topic or activity and then setting clear goals about the purpose of its use.

Few researchers touch on the idea of meaningful ICT integration. Tobin (2012) found students’ did have tendencies to use ICT inappropriately or become overwhelmed with the freedom of browsing the Internet. She suggested teachers scaffold Internet use by providing specific links for students to visit and providing clear objectives for internet time, similar to Nancy’s suggestion for clear tasks and goals. In a study of two high school teachers’ experiences using technology in English instruction, Flanagan and Shoffner (2013) quoted one participant’s recognition of the need for “a clear and compelling reason” (p. 252) to integrate ICT into her English pedagogy. This statement echoes Julia’s outlook on ensuring the ICT is necessary for the task or topic. It is notable that researches rarely discussed the importance of specifically selecting ICT for certain activities or distinguished the benefits of using more traditional instruction strategies for others.
My participants explained their philosophies for ensuring their ICT integration in English was necessary and purposeful. I found that few studies from my literature review discussed the importance of teachers being selective in their ICT choices and considering more traditional methods for other activities. In the next section, I make connections between teachers’ discussions of the most effective ways to integrate ICT and my participants’ perceptions of the best professional development opportunities.

4.6 “Talk To Other Teachers, Talk To Mentors, Go On Twitter!” Teachers’ Perceptions of Effective ICT Professional Development Practices

These three English teachers believed that the most beneficial professional development for ICT integration was informal and was not specific to their teachable subject. All three of my participants spoke about examples of professional development that occurred informally, such as through Twitter or other social media platforms, and between themselves and other colleagues at staff meetings.

It is important to note that none of the teachers in this study received concrete ICT integration instruction in their teacher education programs and did not complete Additional Qualifications in ICT-based courses. Researchers (Kirkskey, 2012; Nowell, 2014; Shirvani; 2014) found that teacher-education programs should place more emphasis on modeling proper ICT integration for new teachers. In this section, I focus on continued professional development opportunities for English teachers that can substitute a lack of formal ICT integration education or enhance concepts gained through more recent teacher education courses.

Both Patricia and Julia named Twitter was their most valuable professional development and networking resource. Twitter is a free online social media platform and application that allows users to “tweet” 140-maximum character posts, along with pictures, links, and videos. Users can “like” and comment on posts, tag other uses on posts, search posts using hashtags (#),
as well as “retweet” posts to share them on their feeds. Both teachers explained that they created professional teacher accounts to use specifically for finding and sharing resources, participating in and moderating Education Chats, and connecting with teachers in other boards and around the world who are also “investigating [the] common goal” (Patricia) of ICT integration. With the amount of individuals sharing their resources and ideas on Twitter, Patricia remarked, “it’s been amazing for me to be able to see the things that people are doing”. Patricia and Julia favor this resource for the breadth of materials different individuals share and its ease of accessibility.

All three of my participants also spoke of the benefits of seeing how other teachers of other subjects integrate ICT in their pedagogies. Julia argued that “a tool is a tool” and saw ICT integration in other subjects as examples of “someone showing [her] that this is a tool available and [her] thinking ‘how can I use that in a way that’s meaningful and not just for the sake of it?’.” All three of my participants advocated that they preferred learning about the general capabilities of an ICT through someone else’s integration practice. They all described situations where being the onlooker in a foreign subject often gave them more opportunities to view the ICT itself and make their own connections to English and their pedagogical needs.

Nancy specifically remembered attending a professional development day at her school where different teachers presented an ICT device or application and how they used it in their classroom. Nancy spoke about a math teacher who demonstrated how she videotaped a lesson or problem-solving technique, added a voiceover, and uploaded it onto YouTube. Nancy explained:

I was thinking ‘that’s really neat’, but I think it works better in a math classroom than an English classroom. But I can see how to use that for a tutorial on a basic [English] thing: like using [our class site] or how to research something. So it’s made me think about why I haven’t done this for my own students yet. But maybe that will be my next step.
Nancy’s thought process about the application and its possible uses directly demonstrates the benefits of professional development outside of English. Seeing something she initially thought might “work better in a math classroom” gave her ideas about how she could integrate it in her English classroom and further encouraged and inspired her to want to integrate it.

Based on the discrepancy among what my three participants cited as their most beneficial encounters with professional development, I believe the reviewed literature contains many misconceptions and generalities. Researchers (Ajayi, 2015; Beach, 2012; Chen, 2015; Howard et al., 2015; Kirkskey, 2012; McClay & Peterson 2013; Shirvani, 2014) make general arguments about the need for school boards and institutions to provide more professional development for teachers without defining or explaining what kinds of specific professional development are necessary. For example, in her study of technology use in Ontario public schools, Chen (2015) argues “the wide variation in teachers’ use of technology uncovered in this study suggests a continual need for high quality professional development to help teachers integrate ICT to support classroom teaching and learning” (p. 17). Chen (2015) also recommends that the “breadth” of professional development in school be rethought (p. 17). These recommendations are broad and do not define or specify what constitutes meaningful or effective professional development for ICT integration, whereas my three participants provided specific examples and instances of professional development they found beneficial and effective.

My three participants strongly advocated using professional development opportunities available to them through social media and other colleagues. Unlike the reviewed research, which recommends broad and blanketed statements about the need for more professional development, my participants pushed for more teachers to use professional development opportunities readily available to them.
4.7 Conclusion

In this chapter I discussed findings from my participants’ interviews that emerged through six dominant themes.

I found that this sample of intermediate English teachers integrated ICT in their pedagogies because they found it engaged students in the curriculum and allowed them to create student-centered learning environments. Both of these findings converge with the literature reviewed. It was evident from both the teachers’ responses and the literature that exposing students to multiple forms of literacy is important in and beyond the classroom.

My participants advocated for the necessity of teaching twenty-first century literacies but noted, with support from the reviewed literature, the current inability for standardized tests to measure these literacies and the lack of readiness students experienced if teachers did not instruct them on different literacies.

With regard to barriers for ICT integration in English, all of my participants and many researchers from the literature recognized the inequity of ICT availability as the largest site of struggle. I found that teachers were selective of the ICT integration opportunities they offered their students and questioned the purpose and goal of using an ICT before they chose to use it over traditional instruction methods. Examples of this type of thinking were limited in the reviewed literature.

Finally, I found that my participants valued informal professional development opportunities that were specific to the ICT itself, but not necessarily subject-specific. While the teachers spoke to social media and staff meeting sharing opportunities as their best resources, the literature diverged by giving prominently unspecified requests for quantified professional development. Overall, my three participants demonstrated that they understand ICT integration
in intermediate English pedagogy to be about using relevant tools to effectively prepare students to be literate in growing and advancing forms of literacy.

Next, in Chapter Five, I discuss broad and narrow implications for English and general teachers intending to integrate ICT in their pedagogies. I also give recommendations for teachers, school boards, and the ministry with regard to the six themes discussed, focusing especially on ICT availability in schools, making ICT integration meaningful and effective, and the nature of professional development opportunities. Finally, I note potential areas for further research on ICT integration in English with reference to twenty-first century literacies and professional development opportunities.
Chapter Five: Conclusion

5.0 Introduction

In this chapter, I begin by reviewing the key findings from Chapter Four and discussing their significance in the context of the body of educational research. Next, I will speak to the broad implications of my research for the educational community and its narrow implications for my own future practice as an Information and Communication Technologies (ICT)-integrating English teacher. Then, I explain my recommendations regarding ICT integration for different educational stakeholders. Following this, I examine areas for future research and conclude with comments on the research project and the future of ICT integration in English.

5.1 Overview of Key Findings and Their Significance

As outlined in Chapter Four, I uncovered six key findings about the integration of ICT in intermediate English pedagogies from my qualitative interviews with my three participants.

Firstly, teachers reported that integrating ICT in their pedagogies engages intermediate students in the English curriculum. Both Patricia and Julia provided pedagogical examples in which they perceived that their reported use of integrated ICT provided students with communal and authentic learning experiences that fostered engagement incomparable to pen and paper learning. This is significant because using ICT integration to ‘hook’ students’ interest reportedly fostered greater engagement in the task and reportedly led to deepened content understanding.

Secondly, teachers demonstrated how ICT integration facilitated student-centered learning environments. All three of my participants provided examples where their reported use of ICT in intermediate English classes created opportunities for students to actively participate in lessons and activities, collaborate with their peers, take responsibility and initiative for finding information, and have choices in how they demonstrated their learning. Reportedly integrating
ICT in their pedagogies also provided my participants with important information regarding individual students’ literacy progress. My participants’ reported integration of ICT in intermediate English was significant for their instruction because it helped them plan future lessons in response to students’ performances, understanding, and levels of learning.

Thirdly, all three of my participants were adamant that their ICT integration in intermediate English contributed to the development of fully literate students. Nancy explained that students cannot be fully literate if English teachers do not educate them about all forms of communication – especially digitally-based ones. Since texts comprise more than just written words (OME, 2007b), integrating ICT into their English pedagogies meant that my participants were reportedly providing students with opportunities to engage with multiple texts and develop multiple literacy skills to apply in their future schooling, careers, and lives.

Next, I found that teachers reportedly experienced and understood how ICT inequity and availability limits its possible integration. While Patricia taught in a school where ICT was limited, she reportedly developed strategies and practices for ensuring all students could participate in activities and experience using ICT. Nancy and Julia remembered their own experiences where ICT was limited. All participants felt that inequity between schools challenges English teachers’ levels of motivation and abilities to integrate ICT into their pedagogies. This is significant because if ICT funding is not regulated for schools, ICT integration and learning opportunities are not equitable for all students and staff.

On a related note, I also found that my participants valued the quality over quantity when it came to their ICT integration practices in English. All three participants argued for the thoughtful and purposeful inclusion of ICT that included clear objectives for students and was interspersed with relevant traditional instruction methods. This is a significant finding because
few researchers from the reviewed literature discussed this concept, and also because it relates to the research question of uncovering meaningful applications and instances of integration.

Finally, I found that all three of my participants valued informal professional development that was often not directly related to English when they intended to learn about new practices for ICT integration. My participants described receiving their most beneficial professional development from other teachers in their schools and through online communities. My participants described instances where they developed connections between an ICT and their English instruction goals, even when the ICT use was demonstrated for another subject. Whereas the reviewed literature urges for a greater quantity of ICT integration professional development opportunities for English teachers, this finding is significant because it shows that teachers report ICT integration professional development opportunities are often readily available for English teachers in schools and through online means.

These six findings lead to implications for multiple stakeholders in education. In the next sections, I will offer and discuss implications and recommendations based on these findings.

5.2 Implications

In this section, I discuss the broad and narrow implications of the research project and my findings. I begin with the broad implications for members the educational community, including school administrators and boards, English teachers, and intermediate students. Then, I explain narrow implications that pertain to my personal professional identity and future practice.

5.2.1 Broad implications for the educational community

The information I gathered from the interviews with three grade 9-10 English teachers illuminates broad implications for Ontario administrators, school boards, new and established English teachers of all grade levels, and intermediate students.
Some Greater Toronto Area schools may not be receiving enough funding from school boards to support school-wide ICT purchases and some English Department heads might not be able to allocate enough of their budget for ICT. As discussed by my participants, some new or established English teachers in these situations might let their limited ICT accessibility negatively influence its integration in their pedagogies. New or established English teachers may not be willing to apply for grants (Peterson & McClay, 2012), may not have the means to supply their class with their ICTs, or might teach students who do not have devices readily available. These equity and availability issues may force any English teachers to be without necessary ICT tools and resources for integration in their pedagogies.

Some new or established Ontario English teachers might not be engaging in professional development opportunities regarding ICT integration that are offered though official professional development events, informally by other teachers at staff meetings, or online through different websites and applications. New and established English teachers could also be only attending subject-specific professional development events or might not have the time or funds to attend larger conferences with ICT focuses. Additionally, Ontario principals and school boards might not be encouraging ICT professional development sharing among staff or educating schools about all of the ICT professional development options available. As noted by my participants, professional development about ICT integration in English might not be reaching all new and established English teachers because they might not know where to find available resources.

Some established Ontario English teachers might not be integrating available ICT in their pedagogies. Consequently, other established English teachers might be integrating available ICT to some degree in their pedagogies but their integration strategies might be basic and/or might include ICT use without instruction about media literacy. Any ICT integration in English
pedagogy should be viewed as positive because it contributes to students’ development of twenty-first century skills and digital literacies. However, new or established English teachers who do not integrate any ICT in their pedagogies or only include minimal and substitutive ICT may not be providing their students with a holistic and future-preparatory English curriculum.

Finally, students of English teachers who do not integrate ICT in their pedagogies could be missing opportunities to become “fully literate [people]” (Patricia). When ICT is integrated in the Ontario English curriculum, intermediate students may have the opportunity to earn higher grades in English, might be more engaged in their literacy development, and could gain deeper understandings of the English curriculum. Moreover, these students might be more successful with the multiple literacies they use and encounter daily. Developing strong literacy skills through ICT integration can provide all – and especially intermediate – students with higher success in other subjects, greater enrollment in post-secondary schooling (Dion & Maldonado, 2013), and greater success in their future careers (Nowell, 2012).

5.2.2 Narrow implications for my professional identity and practice

I began this research project with the hope of discovering strategies for bringing my students’ interests in ICT into the classroom as a means to promote literacy engagement and development. By implementing suggestions and findings from my research, I can make myself a more successful intermediate English educator and benefit my future students.

As a current teacher candidate completing a teacher education program when ICT is a growing focus, I have many options for sharing and growing my current knowledge. I can first, from the suggestions from my participants, reflect on the different ICT I have been exposed to in different subjects and connect them to the English curriculum objectives. Doing so might allow me to expand my repertoire of tools and strategies that I would be able to incorporate into my
English pedagogy. I can also create professional accounts on different social media sites to begin building my professional development network and can explore the ideas other teachers have shared online about ICT integration in English. By engaging in these reflective and professional development opportunities, I will gain ideas and insight for ICT integration in my pedagogy.

As a beginning teacher, I can bring the knowledge I have gained into my classroom and school. I can also offer to host an ICT-based professional development event at my school to help other staff members begin expanding their knowledge. I will also use my established professional social media accounts to begin contributing my lessons, strategies, reviews, and ideas for integrating different ICT in intermediate English pedagogy to other interested users.

Further, as a beginning teacher, I can critically evaluate my ICT integration methods and ensure my inclusion of ICT is relevant, purposeful, meaningful, and balanced though self-reflective journaling or blogging. By continually evaluating and refining my practices, I can ensure my ICT use and integration enhances the English curriculum, is authentic, and is not just used in my pedagogy for the sake of it or as an add-on. I will also teach my students using ICT and, more importantly, about ICT so they can develop holistic literacy and communication skills.

I believe it is the job of any teacher to engage students in their subject, prepare students to be successful in that subject, prepare students to apply their subject skills to their future, and inspire them to be life-long learners. I believe that the English teacher’s role is to guide students through different forms of literacy and help students develop a sustained understanding of the importance literacy plays in their everyday lives. I believe that today’s English teachers must equip students with experiences to help them comprehend and communicate the multiple and varied texts they encounter and use. Since ICT plays a large role in how most students
communicate today, I believe English teachers need to include it in their pedagogies to provide students with relevant, relatable, and necessary literacy and learning experiences.

I further believe that the purpose of schooling is to prepare students for their futures. I also believe that equity issues in education mean some students emerge more adequately prepared than others. Speaking specifically about ICT integration, I do not think all students will be able to succeed in all aspects of literacy and the English curriculum if teachers do not expose them to all the available modes of communication. Most of today’s students are highly involved with digital literacy—leaving ICT out of their daily instruction will not prepare them for the demands of an ICT-literate society.

As I will expand on next in my recommendations section, I believe it should fall on governments and school boards to work together to ensure all schools have equitable ICT that can be integrated in classrooms. However, I also believe English teachers need to take initiative and find strategies for bringing ICT into their pedagogies when resources are limited.

5.3 Recommendations

In conjunction with my findings, I am making the following recommendations for Ontario policymakers, teacher education programs, school boards, and English teachers.

5.3.1 Recommendations for policymakers: Ontario Ministry of Education

I understand that the Ontario Ministry of Education is a busy governing body that oversees many aspects of schooling and education. The first recommendation I offer is to update the Ontario Grades 1-8 Language and Grades 9-10 and 11-12 English curriculum documents. All three documents were last revised ten years prior the completion of this research project (OME, 2007b). With the constant advancement of ICT, I believe all English teachers would benefit from updated suggestions on how to include ICT content in their classroom and pedagogies. Although
technology will continue to advance and change, “teacher prompts” throughout the document could include mentions of specific ICT media or programs English teachers might consider when implementing the curriculum. Since different subjects’ curriculum documents are continually being rewritten and revised, I believe immediate attention in a two to three year timeframe is suitable and reasonable to produce the three updated English curricula documents.

Next, I recommend that the Ontario Ministry of Education and Education Quality and Accountability Office [EQAO] need to update and change the Ontario Secondary School Literacy Test (OSSLT) to better reflect the types of literacies students are developing through their English classes. As all three of my participants explained, their integration of technology does more benefit for students’ holistic literacy learning than it does for their preparation for the literacy test. While moving the test into a digital format is a worthwhile and celebratory first step (EQAO, 2013), I believe that future attention needs to be placed on the nature of the questions found in the test. Once large-scale trials have succeeded and the technical glitches experienced in the Fall 2016 trial have been overcome (EQAO, 2016), it will be necessary to have the test allow students to view different types of texts and respond to them in ways that reflect digital and media literacy. I commend the transition to the online format and believe future students will benefit even further with a new OSSLT, introduced within the next two years, which can be administered online and measures their understandings of all literacies.

An additional recommendation I am making to the Ontario Ministry of Education concerns equity and funding for ICT across all school boards. I am influenced by Patricia’s recommendation that the Ontario Ministry of Education work with provincial governments to create tax deductions or other technology programs or plans. With such initiatives, all families could be able to afford ICT devices for their children and all teachers could afford ICT for their
Since ICT can be integrated in all subjects, allocating more and equitable funding for all Ontario schools would benefit students’ learning across all subject areas. It would be utopian to recommend that these policies be put in place immediately. However, I believe that immediate conversations and planning could produce such programs for all Ontario students in the next five to ten years.

5.3.2 Recommendations for teacher education programs and Ontario school boards

As a current teacher candidate, I have been exposed to many different ICT experiences in almost all of my required courses. I recommend that teacher education institutions immediately require the mandatory inclusion of ICT in all subjects and courses. As discussed by my three participants, the most beneficial and valuable professional development comes from seeing any ICT used in any context. Thus, future English teachers currently completing teacher education programs will benefit from experiencing ICT in every subject of their initial teacher education. Making policies about mandatory inclusion in all courses ensures that future English teachers are fully prepared to meaningfully integrate ICT in their pedagogies.

As a prospective English teacher applying to many school boards in Ontario, I recommend that Ontario school boards adjust the breadth of their interview questions for occasional, long term occasional, and full-time teachers. I recommend that school boards begin immediately considering any prospective intermediate or secondary English teacher’s views toward ICT integration and their plans for including ICT in their English pedagogies through interview questions. This recommendation also extends to teachers of all subjects. New applicants coming directly from teacher education programs should be equipped with multiple examples of their future ICT integration strategies: I believe focusing attention on this subject in
the throughout the application and hiring process might increase prospective English and general teachers’ engagement with ICT as they begin their careers.

5.3.3 Recommendations for teachers

As a current teacher candidate, I understand the demands and stresses of the initial teacher education programs, and also understand the benefits it provides for my future career. To teacher candidates and new English teachers, I recommend that we immediately showcase the knowledge we have gained from our preparatory programs by co-teaching with other teachers and educating staff about the necessity for students to be literate in many ways, including, but not limited to, print and digital literacies. I also wholeheartedly recommend that we continue to develop our awareness of new information and strategies by immediately joining professional learning networks online, in schools, in our boards, and in our communities. Creating professional social media accounts will allow us to join conversations, collect resources, contribute our own ideas to the growing body of professional development, and stay up-to-date with relevant ICT integration knowledge and strategies.

I firmly believe that all teachers should be lifelong learners and that it is never too late for anyone to learn something new. I recommend that English teachers who do not integrate ICT in their pedagogies immediately begin preliminary research to understand why students benefit from ICT integration. An additional immediate recommendation would be to explore different ICT integration opportunities available through professional learning networks, IT personnel on staff, or other English teachers. As a next step, to be introduced in the following school year, I recommend that these teachers find one ICT platform or device, become comfortable using it, and integrate it into one English lesson or throughout one English unit. Attempting to integrate
ICT is a necessary first step, especially for established English teachers who may not engage with ICT on a daily basis.

Further, I believe English teachers who do not integrate ICT in their pedagogies will succeed in learning integration strategies if they are offered friendly and positive support. Therefore, I recommend that new and established English teachers who do integrate ICT in their pedagogies actively participate in in-school professional development opportunities to share their knowledge with the staff community. New and established English teachers who integrate ICT in their pedagogies can find positive and respectful ways to introduce teachers who do not integrate ICT in the pedagogies to examples, strategies, and resources.

Additionally, and most importantly, I recommend that all new and established English teachers who integrate ICT into their pedagogies immediately and continually evaluate their integration methods to ensure they are purposeful, meaningful, necessary and relevant. As discussed previously in Chapter Four, models such as the Substitution Augmentation Modification and Redefinition (SAMR) (Ajayi, 2015; McKnight et al., 2016) or the often related Technological, Pedagogical Content Knowledge (TPCK) (Mishra & Koehler, 2006) are excellent resources for judging how an integration method fits on a continuum or within a subject area. I have found these models and accompanying research valuable for considering how students benefit from ICT integration methods and believe they will remain useful resources even as ICT advances.

5.4 Areas for Further Research

This qualitative study was limited to data acquired semi-structured interviews with three intermediate English teachers. I think an initial extension to the study would be to enlarge the scale and the number of participants. Additionally, the small number of participants was
concentrated from the Greater Toronto Area, so further research studies should seek to expand participant locations to gain a better picture of Ontario’s English teachers’ ICT integration practices.

A complimentary area of research could entail semi-structured interviews with intermediate English students to gauge their perceptions of the benefits of their English teachers’ ICT integration. A next step might be interviewing students directly from the grade 9-10 classes of the teachers in this study or recruiting large numbers of intermediate students from Ontario. Additionally, large-scale quantitative studies of intermediate English students could be undertaken to understand their perceptions of ICT integration in English.

Further research might also consider action-based or ethnographic studies of intermediate teachers’ ICT integration. Adding additional case studies of ICT integration in English might provide the literature field with more examples of and support for ICT integration in English. Additionally, I believe case studies of teacher-researchers coaching and training established English teachers who do not integrate ICT, such as the example of Ajayi (2015), will enrich the literature field. These studies will also provide positive and constructive examples of the benefits, for both English teachers and students, of ICT integration in English pedagogies with support from peer mentors.

Lastly, I believe research on future changes to the OSSLT are necessary so that future intermediate English students can experience a standardized assessment that evaluates the multiple literacies they are developing and establishing through English teachers’ integration of ICT in English. Future research can also consider advancements of ICT and the possibilities and capabilities for its continued, redefined, and meaningful integration into English pedagogy.
5.5 Concluding Comments

Conducting this research project over the past two years has been an enlightening experience for me. This project has enhanced my knowledge of ICT integration opportunities in intermediate English pedagogy and provided me with excellent examples, resources, and role models for my own future integration practices. I am excited and hopeful to enter my career as prospective intermediate English teacher in Ontario, and feel prepared to help my students develop and enhance their literacy skills through the meaningful and relevant integration of ICT.

I strive to continually reflect on my teaching pedagogy to ensure I can prepare all students for success in English and communication today and in the future. I hope to see a province where all students are able to access and use ICT with ease, and where intermediate English teachers integrate ICT with confidence and purpose. I am excited to see how future technological advancements will enhance education, especially English education.
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http://www.tdsb.on.ca/HighSchool/Yourschoolday/Technology.aspx


Appendix A: Letter of Consent

Dear ________________________,

My name is Alyssa Povegliano and I am a student in the Master of Teaching program at the Ontario Institute for Studies in Education at the University of Toronto. A component of this degree program involves conducting a small-scale qualitative research study. My research will focus on teachers’ experiences of integrating Information and Communications Technologies (ICT) in English classes at the intermediate and senior level. I think your knowledge and experience will provide insights into this topic.

Your participation in this research will involve one approximately 60 minute interview, which will be audio-recorded and transcribed. I would be grateful if you would allow me to interview you at a place and time convenient for you, outside of school time and off of your schools property. The interview can also be arranged over Skype if necessary. The contents of this interview will be used for my research project, which will include a final paper, as well as informal presentations to my classmates and peers. I may also present my research findings via conference presentations and/or through publication.

You will be asked to choose a pseudonym (or approve one that has been assigned) to maintain your anonymity and I will not use your name or any other content that might identify you in my written work, oral presentations, or publications. This information will remain confidential. Any information that identifies your school or students will also be excluded. The interview data and transcripts will be stored on my personal, password-protected laptop and the only other person who will have access to the research data will be my 2nd year Research course instructor (Dr. Lee Airton). You are free to change your mind about your participation at any time, and to withdraw even after you have consented to participate. You may also choose to decline to answer any specific question during the interview. I will destroy the audio recording after the paper has been presented and/or published, which may take up to a maximum of five years after the data has been collected.

There are no known risks associated with participation in my study. I will share a copy of the transcript with you shortly after the interview to ensure accuracy and allow you the opportunity to clarify or retract responses. I am very grateful for, and look forward to, your participation in my study.

Sincerely,
Alyssa Povegliano

MT Program Contact:
Dr. Angela Macdonald-Vemic, Assistant Professor – Teaching Stream
Consent Form

I acknowledge that the topic of this interview has been explained to me and that any questions that I have asked have been answered to my satisfaction. I understand that I can withdraw from this research study at any time without penalty.

I have read the letter provided to me by Alyssa Povegliano and agree to participate in an interview for the purposes described. I agree to have our Skype the interview audio-recorded.

Signature: _____________________________________________

Name: _________________________________________________

Date: _________________________________________________
Appendix B: Interview Protocol

Opening:

Hello, my name is Alyssa Povegliano and I am a Masters of Teaching Candidate attending the Ontario Institute for Studies in Education. The topic of my Masters of Teaching Research Project focuses on how English teachers approach the integration ICT in intermediate and senior English classes.

Through this project, I hope to investigate the new and innovative ways English teachers are using ICT to meaningfully facilitate their planning, lessons, and evaluations. I am interested in learning how your integration of ICT helps achieve the Ontario English curriculum and how it fosters student engagement and literacy development. I am also interested in learning about your personal philosophy and motivations for ICT integration, as well as the supports or barriers you have encountered.

In our 60 minutes today, I will ask about your experiences integrating ICT in your English classes.

Demographics

1. How long have you been teaching?
   a. How long have you been teaching grade 9/10?

2. How many English classes did you have this past year?

3. When and where did you complete your initial teacher education training?
   a. Was there an emphasis on using technology in the classroom during your teacher education training?
   b. (if yes) Can you tell me a bit about those experiences?

4. Do you have any other training or qualifications relevant to teaching or ICT?

5. Can you describe your personal connection to ICT?
   a. How do you feel your personal connection compares to your students’?

6. Can you describe your school community?
   a. Can you tell me a bit about the accessibility or availability of technology at your school? PROMPTS What types of technology is available: classrooms, library, Chromebook carts, iPads, BYOD, compute program, etc.?
   b. Do you feel ICT is easily available and assessable at your school?
ICT Integration in the Curriculum

7. Where does your inspiration to integrate ICT in your English teaching come from?

8. What does ‘meaningful ICT integration’ look like, to you?

9. What in your view makes ICT integration in the English classroom unique?

10. Would you say that your use of ICT integration redefines the way you teach or the work your students produce? Why or why not?

11. Can you describe one example of how you use ICT in your…
   a) Planning?         b) Instruction?        c) Evaluation?

12. Can you walk me through a recent lesson or assignment that integrated ICT?
   PROMPTS how did you prepare for it? How did you explain it to your students? Did you use any new technology or devices? What were your expectations for the lesson/assignment?

13. Can you describe a lesson or assignment where you integrated ICT but it did not go as planned? PROMPTS what caused the major problems? How did you feel as it happened? How did your students react?
   a. How did you resolve the issue?

14. What ICT device or application do you use most in your classroom?
   a. How do you use it?

15. Do other teachers in your division (or department) also integrate ICT? Can you talk about their strategies and how they compare to your own strategies?

Student Engagement and Literacy Development

16. Do you feel that your students are more engaged in class when you include ICT in your lessons or assignments?
   a. (if yes) Can you give a specific example of increased engagement?
   b. (if no) Why do you think that is the case?

17. Do you feel that your students are more motivated to complete homework and summative assessments when ICT is integrated?
   a. (if yes) Can you give an example you have witnessed?
   b. (if no) Why do you think that is the case?
18. In your experience, how does using ICT connect to the development of your students’ literacy skills?

19. As a grade 10 English teacher in Ontario, you have prepare students to complete the OSSLT. Do you think that your integration of technology is helpful in this preparation?
   a. Why/why not?
   b. Do you have an example?

Supports and Barriers

20. What do you feel is the biggest barrier you encounter when integrating ICT?
   a. (if personal) Has this become easier to overcome the more you integrate ICT?
   b. (if technological) What are some strategies you use to alleviate this challenge?
   c. What is your best advice for others who might encounter this challenge?

21. What do you feel is the biggest barrier other teachers encounter when integrating ICT technology?

22. What sources do you consult when you want to learn about a new technology?
   PROMPTS: colleagues, friends, family, the Internet, trial and error?
   a. Do you prefer teaching yourself about the device or application or do you prefer to consult with someone else?

23. Are there any professional development opportunities offered at your school to teach you about ICT integration?

24.1 If yes:
   a. Have you attended any? Why or why not? (if yes, proceed to b/c. if no, proceed to d)
   b. Did you find it helpful? Please elaborate/explain further.
   c. Would you recommend such sessions to other teachers looking to integrate ICT in English?
   d. What other workshops would you like to see offered? PROMPTS: application based, device based, or integration based

24.2 If no:
   a. Would you like to see these opportunities available?
   b. Do you think you would attend such programs if they were available?
   c. What specifically would you like to see focused on or offered?

(#25-27 ONLY if answer to #24 was yes)

25. Have you ever attended workshops about ICT devices or applications outside of your school/organization?
a. Can you tell me about the knowledge you gained from the workshop?

26. Did you find it to be a valuable opportunity for individuals looking to gain knowledge about ICT?

Closing

27. What advice do you have for a new teacher with minimal technology experience who wants to integrate ICT in his/her English class?

28. Do you have any final thoughts?

Wow! Okay, well I think we’ve reached the end of our interview. Thank you very much [name] for your time today and willingness to participate in my research. I particularly appreciate your … (ex, openness, details, ideas, ). As a pre-service teacher who hopes to integrate ICT in English, I have learned a lot from your experiences. Now that we are finished, do you have any questions for me?