



Finding the Right Fit: Exploring ESL Teachers and Students' Perceptions of iLit ELL, a Technology-Based Literacy Program's Use with High School English Language Learners

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Abstract: The purpose of this interpretative phenomenological study was to explore the lived experiences of ESL secondary teachers and their perceptions towards the use, effects, and integration of iLit ELL, a technology-based language program designed for English language learners, as well as the perceived effects the program had on students' motivation and attitudes towards learning English. Data were collected using teacher interviews, student focus groups, and final reflections, as well as researcher observations and field notes. The collected data were analyzed through the steps of Interpretive Phenomenological Analysis to broaden the breadth and depth of the content and complexity of each narrative independently. Data were then compared across individual experiences and interpreted in a dynamic and active process that involved double hermeneutics.

Based on the data collected throughout the study, findings indicated that technology integration is affected by teachers' adaptability to change; teacher mindset affects teachers' acceptance, integration, and effective use of technology; when applied purposefully, technology and differentiated instruction increases student motivation and teachers' efficiency; and technology with embedded scaffolds can enhance student autonomy and motivate student learning. From the emerging themes, the following recommendations are suggested for stakeholders and future research: differentiated professional development for teachers; applying consistent school and system-wide supports and beliefs on



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technology; adopting a universal designs method to teaching; further exploring teacher perceived efficacy and actual performance of technology integration; and a comparative study exploring best instructional models.

Keywords: iLit ELL, high school English language learners, technology, interpretive phenomenological analysis, ESL, student motivation

Résumé: Le but de cette étude phénoménologique interprétative était d'explorer les expériences vécues des enseignants du secondaire ESL et leurs perceptions concernant l'utilisation, les effets et l'intégration d'iLit ELL, un programme de langue basé sur la technologie conçu pour les apprenants de langue anglaise, ainsi que les effets perçus. Le programme portait sur la motivation et les attitudes des étudiants envers l'apprentissage de l'anglais. Les données ont été recueillies à l'aide d'entretiens avec les enseignants, de groupes de discussion d'étudiants et de réflexions finales, ainsi que d'observations de chercheurs et de notes de terrain. Les données collectées ont été analysées à travers les étapes de l'analyse phénoménologique interprétative pour élargir la largeur et la profondeur du contenu et de la complexité de chaque récit indépendamment. Les données ont ensuite été comparées à travers des expériences individuelles et interprétées dans un processus dynamique et actif, impliquant une double herméneutique.

Sur la base des données recueillies tout au long de l'étude, les résultats indiquent que l'intégration de la technologie est affectée par l'adaptabilité des enseignants au changement; l'état d'esprit des enseignants affecte l'acceptation, l'intégration et l'utilisation efficace de la technologie par les enseignants; lorsqu'elles sont appliquées à dessein, la technologie et l'enseignement différencié augmentent la motivation des élèves et l'efficacité des enseignants; et, la technologie avec des échafaudages intégrés peut améliorer l'autonomie des étudiants et motiver leur apprentissage. À partir des thèmes émergents, les recommandations suivantes sont suggérées pour les parties prenantes et les recherches futures: développement professionnel différencié pour les enseignants; appliquer des soutiens et des croyances cohérents à l'échelle de l'école et du système en matière de technologie; adopter une méthode de conception universelle pour l'enseignement; explorer davantage l'efficacité perçue par les enseignants et les performances réelles de l'intégration de la technologie; et une étude comparative explorant les meilleurs modèles pédagogiques.

Mots-clés: iLit ELL, apprenants de langue anglaise, technologie, analyse phénoménologique interprétative, ESL, motivation des élèves

Introduction

The purpose of this research was to explore secondary teachers' perceptions of iLit ELL, a technological resource and program designed for English Language Learners (ELL), as well as the perceived effects the application had on students' motivation and attitudes towards learning English. As one of the fastest-growing populations in the Canadian education system, ELLs face challenges in receiving language instruction that is specific to their learning needs and individual interests (Martínez, 2011). Many of these challenges are related to the increasing gap between the students' ages and proficiency stage in the English as a Second Language (ESL) classroom, as well as teachers' concerns regarding limited supports and access to developmentally appropriate and culturally responsive resources (Markham et al., 1996; Téllez & Manthey, 2015; Wang et al., 2008).

Currently, the *English Language Learners/ESL and ELD Programs and Services* (Ontario Ministry of Education, 2007) states that Ontario school boards are responsible for designing programs and services that are flexible and reflective of the ELLs' needs.

Although there are short-term literacy intervention programs for elementary students, these programs are specific to the development of native English speakers' reading and writing skills. Consequently, there are no specialized ELL literacy programs or content that are commonly used or mandated within Ontario's secondary system.

ESL teachers who work at the secondary level must search for supplemental readings and materials that are academically, socially, culturally, and developmentally appropriate as they work towards meeting the curriculum requirements. As an ESL coach, I have

observed and experienced the challenges faced by educators and adolescent students regarding meaningful, relevant, and age-appropriate programming, resources, and content. Researchers have also noted that instructional gaps in learner-specific programs, content, and materials lower ELLs' motivation and attitudes towards learning the target language (Pawan & Craig, 2011). As a result, students create meaning from these favourable or unfavourable experiences, which can positively or negatively affect their attitude and motivation to learn (Sayadian & Lashkarian, 2015).

Due to the limited technological resources designed for ELLs in Ontario and Canada, I searched beyond my boundaries and found iLit ELL by Pearson in the United States. Pearson's iLit ELL incorporates the research-based Sheltered Instruction Observation Protocol (SIOP) model, which is designed to meet the academic needs of ELLs through a series of interrelated elements, such as lesson preparation, building background, comprehensible input, strategies, interaction, practice/application, lesson delivery, review, and assessment (Echevarria et al., 2018). The instruction and material in iLit ELL focus on building ELLs' language acquisition and provide opportunities to strengthen students' speaking and language production. The program's lessons and routines are created to support students through a gradual release of instruction, which is backed by a high-interest library, immediate instructional support, and embedded coaching. Pearson's iLit ELL also offers assessments and diagnostics used to build and focus student instruction and to support teachers in delivering instruction that aligns with the learners' academic needs.

Although iLit ELL has proven to be successful at the elementary and secondary levels in the United States, it had yet to be tested in Canada (Pearson, 2015). In 2017, I completed a multiple case study and explored iLit ELL's effects on student language proficiency and language development, across four elementary ESL classrooms, from the perspective of

teachers. Data were collected using multiple sources, including grades from a diagnostic, teacher documentation, teacher focus groups, and direct student observation. During analysis, qualitative data was completed inductively, while quantitative results were analyzed using SPSS. Overall, the teachers who participated in the study shared mixed reviews of the intervention program. Although the teachers saw the benefits the program offered (e.g., increased motivation towards independent reading and building work independence and initiative), many of the teachers struggled to incorporate the program into their daily lessons in ways that met their student populations' needs. When modifications were successfully applied, the teachers witnessed the positive effects (e.g., increase in student engagement, interest in learning the English language, work independence, and an increase in focus). In all, the teacher participants believed that the program had the potential to thrive if it were placed in an environment with ELLs with higher English proficiency and greater exposure to formal education, particularly within the secondary system. As a result, I explored high school ESL teachers' perceptions and use of iLit ELL in two school districts within the Southwestern Ontario region, as well as the perceived effects the application had on student motivation and attitudes towards learning English using the following research questions:

1. What are teachers' perceptions of iLit ELL as a technological resource and program for ELL students?
2. How do teachers perceive iLit ELL to affect students' motivation and attitudes towards learning English?
3. What are teachers' perceived level of comfort in introducing new technology in their classroom programming?
4. How do students perceive iLit ELL as a tool for learning English?

Literature Review

Technology integration is defined as the fusion between the curriculum and the use of technology, where technology acts as an instrument to optimize student learning of content (Labbo et al., 2010). Recent studies emphasize the need for effective and quality-rich technology integration with ELLs, describing it as an approach to prepare 21st-century learners for the technology-driven world and an opportunity for educators to close the achievement gap among learners (Brown, 2016; Jacobs, 2010; Keengwe & Hussein, 2014). As a result, the teacher plays a critical role in facilitating effective and meaningful integration of technology, which mirrors the students' curriculum and learning needs (Debele & Plevyak, 2012; Dunbar, 2016).

Preparing ELLs as they move forward in their language acquisition is a priority that is linked to learner motivation, learner attitude, and instructional strategies (Calderón et al., 2011; Kanno & Kangas, 2014). To address the effects of learner attitude and motivation, researchers recommend that educators and curriculum developers consider incorporating up-to-date materials and supplementary resources that are relevant and of interest to the student learners, as well as implementing a curriculum that is meaningful and relatable (Abidin et al., 2012). Incorporating such materials provides students with the opportunity to develop a more profound meaning of the English language, mainly when instruction is presented in ways that are related to the student's cultural context (Rhodes et al., 2005). More specifically, quality instruction paired with the integration of technology deepens the language learning experience through non-linguistic features and interactive elements (Brown, 2016; Castro, 2015; Richards, 2015). The interactive elements of technology, such as images and sounds, paired with explicit instruction and differentiated tasks enhances students' language performance and motivation towards learning through engaging and

tailored instruction and activities (Coppola, 2004; Hattie, 2008; Shanahan & Beck, 2006; Van Olphen et al., 2012).

Unlike curriculum, technology continuously evolves and undergoes constant change. Although teachers are typically hesitant to adopt curricular or instructional nuances, their acceptance of technology is met with even more considerable apprehension (Ponticell, 2003; Straub, 2009). Teachers' attitudes towards change are central to the integration of technology and its success (Liu et al., 2004). Researchers have indicated that teachers' attitudes or concerns towards technology are affected by the teacher's level of confidence, knowledge of the program or technological tool, self-efficacy, and existing beliefs (Atkins & Vasu, 2000; Ertmer, 2005; Ertmer & Ottenbreit-Leftwich, 2010; Hew & Brush, 2007; Lawless & Pellegrino, 2007; Li et al., 2015).

An additional factor that affects teachers' attitudes and views of the use of technology is their level of familiarity with using technology in their practice. Smith (2009) argues that familiarity with technology is often a result of being a "digital immigrant" in the 21st century. A digital immigrant is defined as "someone not born in the digital age, not weaned on the multimodalities of computers, video games, and mp3 players" (Smith, 2009, p. 75). Such educators often struggle to understand the purpose, application, and integration of technology in their programming. Consequently, when teachers do not take a proactive approach to enhance their learning and understanding, they hinder students' exposure to effective information technologies, but more importantly, they model an attitude that separates technology from education (Smith, 2009).

Moreover, other studies have noted that various external, environmental, or teacher-related factors have a strong correlation to whether technology is used effectively in language classrooms (Atkins & Vasu, 2000; Egbert et al., 2002; Shin & Son, 2007). Such

factors include teacher pedagogical beliefs, limited teacher training, and school board financial constraints with tech, support, resources, time, and minimal numbers of available technology.

Theoretical Framework

To explore, interpret, and understand the experiences of the participants concerning my research aims, I grounded my study in the theoretical frameworks of Davis's (1989) technology acceptance model (TAM), Bandura's (1977) self-efficacy theory, the self-determination theory of Deci et al. (1989), and Krashen's (1982) input and affective filter hypothesis. The theories proposed by Davis (1989) and Bandura (1977) were used to explore the teacher participants' experiences, their perceived confidence, attitudes, level of comfort, and its effects on the degree of implementation. Davis's (1989) TAM framework suggests that attitudes towards technological systems are dependent on the individual's perception of the system's usefulness and perceived ease of use. Similarly, Bandura's (1977) self-efficacy theory argues that people's perceptions and beliefs of their abilities can dictate the success of their actions.

Additionally, the theoretical frameworks of Krashen (1982) and Deci et al. (1989) were used to study the effects of scaffolding on learning, as well as the relationship between student attitude and motivation in learning English. Krashen's (1982) input hypothesis, explains that language learners improve and progress when they receive second language input that is one step above their linguistic competence. The affective filter hypothesis indicates that affective variables (e.g., motivation, self-confidence, and anxiety) impact the process of second language acquisition. The effect of affective variables is studied further in the self-determination theory of Deci et al. (1989), which reconceptualizes motivation in

language learning by focusing on the innate characteristics learners require to motivate themselves, such as relatedness, autonomy, and competence.

Methodology

I used the qualitative method of Interpretive Phenomenological Analysis (IPA) to explore my research questions. IPA is essential to understanding the human experience (Smith, 2009). This type of qualitative research provides the flexibility to describe and interpret participants' understanding of a phenomenon (Willig, 2013). The IPA process is rooted in the central theoretical underpinnings of phenomenology (i.e., the study of human experience and consciousness), hermeneutics (i.e., interpretation), and idiography (i.e., the study of the particular).

Smith and Osborn (2008) describe phenomenology as a "detailed examination of the participant's lifeworld," where the researcher explores the layers and develops an understanding of how participants attach meaning to human experience (p. 53).

Completing an interpretive account requires the researcher to bracket their preconceived notions and personal experiences during data collection. The researcher acknowledges and sets aside their biases to recognize, describe, and understand the participants' reality and engagement with the phenomenon. This process allows the researcher to place themselves at the participants' lens, creating a more in-depth approach to sharing their story.

Hermeneutics requires the researcher to explore how participants mediate their experiences by placing themselves within the participants' shoes. Similarly, within the context of social constructivism, it is the belief that knowledge is built from the relationships we share with the participants we research (Sultan, 2018). In this sense, how

we come to know what we know is co-constructed and shaped by both the researcher and participants' experiences (Creswell, 2013).

The final theoretical approach to IPA is idiography, which moves away from a generalized account of the participant towards a "commitment to the particular" (Smith et al., 2009, p. 29). The researcher fosters a particular account through a two-step process. First, there is an in-depth analysis of each participant's perspective. This process requires the researcher to explore the data sets separately before forming generalized statements, allowing for a more focused, rather than universal, look into the phenomenon. Secondly, the researcher seeks to understand how the participants have understood the particular phenomenon.

Methods

In November of 2017, I met with the English as a Second Language (ESL) teaching staff from three secondary schools separately, totaling 13 educators. During the meeting, they discussed their concerns with classroom resources, were introduced to iLit ELL and its main features, and were proposed its use across the ESL classrooms. All 13 teachers agreed to implement the program for two consecutive semesters. Teachers were also reminded that the implementation of iLit ELL was at their discretion. They had full control over how they utilized and applied the program and its features during the two semesters. I chose to encourage iLit ELL as an open resource because it resembles how administrators and boards often introduce resources within my district.

Between November 2017 and January 2018, the teachers received three half-day workshops. The workshops were provided before implementation to advance teacher knowledge, skills, and application of the program. The half-day workshops took place in the teachers' schools and were led by a lead representative from iLit ELL through video conference calls and facilitated through my continued support and presence.

By February of 2018, once the semester for implantation began, only three secondary educators continued to participate. The remaining 10 participants withdrew from the study within the first month of the semester. When discussing their reasoning for withdrawal, many expressed feeling uncomfortable with technology, not knowing where to begin with the program, and feeling overwhelmed with the time and their existing responsibilities. Such feelings prevented the 10 teachers from even starting the program in their classrooms. As a result, three teachers persisted with the use of iLit ELL over two academic semesters.

Teacher participants: Aya earned her Bachelor of Education in 2009 and received her contract in 2012. She completed her basic qualifications in Intermediate and Senior division English, as well as Junior and Intermediate History. Between 2010 and 2016, Aya attained her Teaching English Language Learners Specialist. She often spoke about her love for helping others and assisting her siblings with schoolwork, but most of all she discussed how her own experience as an ELL left a deep imprint on her pedagogy.

Angus pursued a different career path for twelve years before receiving his Bachelor of Education in 2006. In that same year, he earned his English qualifications for Junior, Intermediate, and Senior divisions, and between 2006 and 2016, he received his Teaching English Language Learners Specialist. Angus has been working as a contract teacher since 2008. Angus expressed his passion for literature and language studies, coupled with his experience as having newcomer parents, as motivating him to pursue his career in teaching.

Aelina graduated from the Bachelor of Education program in 2013 and received her contract in 2015. She earned her Intermediate and Senior qualifications in English, as well as her Primary/Junior qualifications. She also holds additional qualifications in Teaching

English Language Learners, Special Education, and Kindergarten. Like Aya and Angus, Aelina discussed how her family experience shaped her practice and approach in ESL, and she often discussed her concerns for her students and the endless strategies she would take to ensure they experienced academic growth and feelings of belonging.

Student participants: There were approximately 65 English Language Learners (ELL) using the iLit program during the first semester and 19 during the second semester of implementation. The participants were between 16 to 18 years of age, including both males and females. The secondary school participants follow the *Ontario Curriculum Grades 9-12: English as a Second Language and English Literacy Development* (Ontario Ministry of Education, 2007), and students enrolled in the program were identified as Level ESLDO and ESLEO. These students are at the highest step in the language program before they enter a mainstream English class. Although there was a range among students' first languages, the most predominant first languages were Arabic and Chinese.

Semi-structured interviews: I explored teacher perceptions of the program, qualitatively, through semi-structured interviews to provoke a detailed description of the participants' accounts through questions that engaged their personal, emotional, and attitudinal feelings towards the experience. Interviews took place at the end of the first semester and the end of the second semester.

Focus groups and reflections: Student experiences were explored through focus groups and written reflections. The student focus groups consisted of 12 students (four from each school), which allowed me to engage and interact with each member in greater depth. The teacher participants selected students. Each teacher was invited to choose four students between semesters one and two for the focus group session. To be considered, students had to have used the program in at least one of the two semesters. Students who

used the program were also encouraged to respond to a series of questions related to their experience and use of iLit. I asked for the secondary use of the data from the participating teachers. The students' final reflections were reviewed to explore their use and perceptions of iLit ELL.

Researcher observations: Researcher observations are considered a natural form of data collection that is nonintrusive and grants the researcher access to primary data that relates to the participants' social world and experience with the phenomenon. I made a note of each of my personal and observed interactions with the teacher and student participants. My observations as an onlooker provided me with additional data that would be used to triangulate my findings and to deepen my interpretation of the participants' experiences.

Data analysis: Staying in line with IPA, I used the steps provided by Smith et al. (2009) and Willig (2013) as the foundation for my data analysis process. The following steps were used to unravel the participant's experiences, as well as my interpretations: close re-reading of the text, identifying and labeling emergent themes, analyzing themes about each account, and creating a summary table of themes and quotations. As IPA is a methodological approach that applies a microanalysis of the individual's experience through a balanced relationship of describing and interpreting, I needed to apply the method of double hermeneutics. IPA's double hermeneutic method focuses on two interpretations: first, the participant's interpretations of their own experience, followed by the researcher's interpretation of the participant's interpretations (Smith et al., 2009).

Summary of Findings

Over two semesters, Aelina used the program daily, as did Aya. However, Aya did not use the program in the second semester due to technical difficulties and the inability to access the program through her class devices. Angus approached implementation with the intent to use iLit ELL once a week; however, he did so sparingly, and by the end of the first quarter of the second semester, he ended his use of the program.

The following section provides a holistic view of each research question as it relates to the collected data, existing literature, and theoretical framework used in the study.

What Are Teachers' Perceptions of iLit ELL as a Technological Resource and Program for ELL Students?

When looking at the perceptions of the three teachers, Aya and Aelina perceived iLit ELL to be an effective technological resource for ELL students and saw an improvement in their students' writing, motivation, and confidence. Both teachers attributed these gains to the feedback, relevant content, and learning supports provided within the program. They also observed an increase in their efficiency as educators. However, on a larger scale, Aya and Aelina represented the minority, as Angus and the other 10 in-serviced teachers, either discontinued or did not initiate iLit ELL.

The reasoning behind Aya and Aelina's acceptance and perceived success with the program relates to Davis's (1989) technology acceptance model. Davis's (1989) technology acceptance model suggests external variables contribute to the user's perceptions of the program's perceived ease of use and usefulness, which affects their attitude toward, and application of, a new technological resource. Although the current and invited teacher participants initially perceived the program as useful, only Aya and Aelina recognized the program as having the ease of use. Unlike the other participants, Aya and Aelina spent

time navigating the program and built connections between curriculum, learning goals, and the content within iLit ELL, while others were deterred by its size, flexibility, and the personal time it required. Once Aya and Aelina established connections between content and curriculum, they experienced greater intentions to apply it.

In contrast, iLit ELL also appeared to hinder the flow of continuity, particularly for those who perceived iLit ELL to be an ineffective tool. For Angus, the most significant barrier of iLit ELL was its sheer size. The openness of iLit required teachers to invest time to explore, build connections, and, if desired, adapt the resource to the existing program. Angus' perceptions towards the program were heavily influenced by having to invest his time to explore and understand the resource. As demonstrated in the literature, time continues to be a setback when integrating technology due to the existing pressures and responsibility of having to plan (Brooks-Young, 2007; Liu, 2012; Tsai & Chai, 2012).

Overall, the teachers' perceptions of the program inevitably fell in line with current research, which indicates experiences, confidence, and mindset are essential elements in regulating the perceived effectiveness of a program and how often a program is applied and the extent to which it is used (Ertmer et al., 2012; Hur et al., 2016; Inan & Lowther, 2010). In the case of introducing iLit ELL, teachers who perceived their experience to be successful were more likely to continue to explore and utilize the program, as opposed to the teachers who found it cumbersome and timely. Based on my interpretation, those who experienced success, whether it was related to their practice or based on student observations, shared a growing sense of confidence in their ability to integrate and apply iLit ELL and perceived the program as highly effective; the teachers' perceptions related to Bandura's (1977) self-efficacy theory. Bandura (1977) explains self-efficacy as an individual's self-perception and beliefs about the capability of their actions. Although, the

teachers who perceived themselves as having a successful experience with the program still saw themselves as having room to grow and understand the program.

How Do Teachers Perceive iLit ELL to Affect Students' Motivation and Attitudes Towards Learning English?

The teachers' perceptions of iLit ELL's effects on student motivation and attitude towards learning English varied and were based on how the program's features were utilized and integrated. Teachers who explored, adapted, and applied multiple resources from the program observed an increase in student motivation, autonomy, and attitude towards learning. In contrast, if only a few components were accessed and the program was integrated inconsistently, little to no change was witnessed in students' attitudes and motivation towards learning by the teacher.

Aya and Aelina perceived iLit ELL as a powerful tool towards enhancing students' attitudes and motivation towards learning. Their perceptions were related to their application of the resource and their observations of students while integrating the diagnostics, lessons, interactive readers, and assessments from iLit ELL. The teacher-selected tools were applied purposefully to align with the curriculum expectations, as well as the aims of the course and student goals. Both Aya and Aelina noted how students took greater responsibility for their learning and were engaged in the assignments offered in iLit ELL. The changes observed in students was attributed to the iLit program, mainly, for its ability to differentiate tasks, produce personalized feedback, and provide choice for each learner. The teachers' observed degree of confidence relates to the self-determination theory of Deci et al. (1989), which suggests opportunities that build competence,

relatedness, and autonomy enhance student motivation and engagement towards learning.

Moreover, the teachers who perceived iLit ELL to have a positive influence on student motivation and attitudes towards learning attributed this effect to the personalized features within the program. Teachers and students discussed how the program was tailored to the students' learning needs, with features such as a student library that contained Lexile appropriate readings, immediate learner-centered feedback, and various tasks and assessments that focused on students' strengths and areas for improvement. When combined with other embedded supports, such as the picture dictionary, read aloud, and translator, these features mimicked the principles of the Universal Design for Learning (UDL) framework (Courey et al., 2013). The guidelines of UDL support all students universally by reducing barriers to learning through multiple means of representation, multiple means of expression, and multiple means of engagement (Courey et al., 2013). When applied to ELLs, Rao and Torres (2016) argue a close relationship between UDL and Krashen's (1982) input-hypothesis and affective filter hypothesis theories, as UDL promotes instruction that is one step above the student's comprehensible input, within non-threatening and non-anxiety producing environments.

In contrast, student motivation is alternatively affected when there is minimal planning and content does not align with students' language skills (Watkins & Lindahl, 2010). Teachers who did not notice a change in students' motivation towards learning also did not apply the program consistently or develop a plan for integration. Since the program was not implemented with purpose, Angus was unable to differentiate the motivational effects of his teaching from iLit. However, based on student written and focus group responses, those who engaged with iLit ELL for a limited time were motivated to continue the program for its positive effects on reading, writing, and comprehension.

What Are Teachers' Perceived Levels of Comfort in Introducing New Technological Tools in Their Classroom Programming?

The teachers' perceived level of comfort in introducing new technological tools in their classroom also varied. Teachers who admitted feeling hesitant and unsure of their ability to implement a new resource were the most flexible and open to change. In contrast, the teacher who expressed a great sense of pride and who explained feeling confident and unthreatened by change appeared to be the most rigid in their approach and navigation of the iLit ELL program. The contrast between the teachers' perceived level of comfort and actual comfort level seemed to align with my observations of the teachers' mindset.

According to Dweck (2006), there are two predominant types of mindsets: a fixed mindset and a growth mindset. A person who holds a fixed mindset believes that intelligence is innate, whereas an individual with a growth mindset believes intelligence evolves.

Regardless of the type of mindset a person has, it transpires through their interactions and communication.

Although research indicates that training, workshops, and demonstrations can enhance a teacher's level of comfort with introducing technology (Chen, 2008; Coleman et al., 2016; Murray, 2005), my observations and interpretation of the data demonstrate that mindset superseded such factors. All teachers invited to the study were given the same support, additional professional development opportunities, and one-to-one assistance, yet only those who displayed a growth mindset were committed, persistent, and open to introducing, exploring, and integrating a new technological resource.

Aya and Aelina both characterized their role as co-learners and demonstrated the importance of being flexible to the evolving and specific learning needs of their students

and the world in which they live. They also discussed being in a state of constant reflection and passionately shared how they extended their knowledge through research articles, collaborating with colleagues, and partaking in professional development. The approach taken by Aya and Aelina to implement and accept a new technological program reflects characteristics of a growth mindset.

In contrast, Angus's understanding of his knowledge and that of his students were concrete, explaining that he explicitly understood what they needed to know then, now, and in the future. Angus's attitude towards his knowledge relates to Dweck's (2006) belief that when teachers feel they have a permanent understanding of themselves and the learner, they hinder opportunities for growth. Additionally, when confronted with change and a new technological resource, Angus's actions aligned with Biesta and Teddler's (2007) assertion that teachers' limited belief in their ability to learn or foster change will deter their attempt to do so.

The contrast between the learner types reflects the mindset of the participants as they engaged in the study. Those who appeared to be lifelong learners possessed a growth mindset and approached change with receptiveness, whereas the static learner exhibited qualities of a fixed mindset through a resistant attitude towards change. By taking on the responsibility as agents of change and placing value in the instructional tool, teachers are more inclined to immerse themselves in rich experiences that foster relationships among the technological resource and their pedagogy, as well as their self-efficacy (Coppola, 2004; Wozney et al., 2006).

How Do Students Perceive iLit ELL as a Tool for Learning English?

Overall, the students voiced their desire to continue the program as part of their current and future studies. Students exposed to the program consistently noted an improvement in their writing abilities and reading comprehension. The enhancement in reading comprehension was discussed in greater detail by students primarily exposed to the interactive readers. Students who utilized the interactive readers explained how the program helped them to think critically about the text, build connections, and look for context clues when responding to questions related to the reading. Moreover, students immersed in additional assignments, lessons, and assessments noticed a relationship between the course content and the material in iLit ELL. In building connections, students shared common experiences, such as an increase in academic performance and engagement (Deci et al., 1989). The shared experiences appeared to be driven by the students' interactions with the program, as they were able to apply what they learned in class, receive relevant and immediate feedback, and participate in tasks that differed from the traditional method of pencil and paper.

In addition to optimizing the students' language learning experience, student participants discussed similar beliefs regarding the program's positive effect on their motivation, autonomy, and confidence. The students' perceptions of the program appeared to be influenced by the embedded supports, such as immediate feedback, translation, text-to-speech, picture dictionaries, and resubmission options, as well as the program's differentiated assignments, which aligned to the students' learning needs. The program's effect on reducing anxiety levels, increasing student motivation, and increasing self-confidence relates to Krashen's (1982) affective filter hypothesis, which indicates that high affective filters foster greater performance when acquiring a second language.

Students also experienced feelings of autonomy while exploring and engaging with the program's library. The students' capacity to think, act, and reflect independently appeared to be driven by iLit ELL's embedded scaffolds (e.g., initial reading survey, Lexile appropriate text, fiction and non-fiction selection, translator, and text-to-voice). The increased sense of autonomy relates to the self-determination theory of Deci et al. (1989), which suggests opportunities that foster competence, relatedness, and autonomy enhances learners' intrinsic motivation. Moreover, both students and teachers noted that the library increased students' interest and initiative in reading English texts. As a result, the students appeared to experience what researchers Wigfield and Guthrie (2000) defined as intrinsic reading motivation, which is the disposition to read for enjoyment and interest, coupled with extrinsic factors, such as personal satisfaction and higher academic achievement (Wang & Guthrie, 2004).

Aside from finding the program effective in enhancing their learning experience and sharing an overall appreciation for the program's library and an interest to continue its use, some students discussed their craving for culturally relevant and diverse texts. The concern for cultural and varied styled texts relates to the reader's cultural beliefs and socio-linguistic group, which implicates how students view, comprehend, interpret and think about a text (Kendeou & Van Den Broek, 2005). In this case, the students' sociocultural-context and language are relevant factors to consider when attempting to meet the learners' literacy needs, as they affect the students' level of engagement and motivation towards reading through the creation of relationships between text content and prior experiences (Freebody & Frieberg, 2001; Woolley, 2011).

Discussion and Conclusion

The purpose of this interpretive phenomenological study was to explore secondary teachers' perceptions of iLit ELL, a technological resource specifically designed for English Language Learners (ELL), and to study the perceived effects the program had on student motivations and attitude towards learning English. The study took place over two academic semesters in 2018, where teachers implemented the iLit ELL program autonomously into their existing English as a Second Language (ESL) class programming. As the first to research the use of the program among secondary educators in Canada, I addressed my research questions using teacher semi-structured interviews, student focus groups, student reflections, and my observations and field notes. As a result of my interpretation and analysis of the data, the following major findings emerged: teacher adaptability; the use of technology in differentiating instruction and increasing student motivation and teacher efficiency; mindset; and the importance of scaffolded instructional technology and autonomy in motivating student learning.

Teacher Adaptability

Teacher adaptability affected teacher perceptions and use of iLit ELL. Teachers who practiced a flexible and adaptable pedagogy to teaching and learning experienced the most success with integrating a new technological resource into their existing practice. Those who perceived a successful and effective experience with iLit ELL demonstrated a readiness to respond to change and recognized that change required flexibility in their practice, lessons, and assignments. The teacher participants who demonstrated being flexible in practice experienced higher levels of comfort and efficiency, and they observed an improvement in student motivation and work ethic while implementing the iLit ELL

program. While iLit ELL provided differentiated tasks for students, the teachers who perceived the most success also went beyond the program and adapted it as they felt necessary. Such experiences highlight how technology alone cannot improve ELLs reading, writing, oral, and listening skills. Rather, it requires personalized and meaningful experiences attained through teachers adapting the material through choice and their awareness of their students' strengths and areas of need.

The Use of Technology in Differentiating Instruction and Increasing Student Motivation and Teacher Efficiency

Through effective integration and use of technology in the classroom, teachers enhanced students' motivation, engagement, and achievement of content and language through interactive and personalized learning experiences and differentiated tasks while improving their efficiency as educators. Two out of the three teacher participants emphasized how iLit ELL alleviated the stressors of having to differentiate tasks while maximizing their time to provide additional modifications to meet the learners' needs. In doing so, these teachers witnessed an improvement in student engagement, work ethic, and motivation towards learning. Moreover, students who enjoyed working independently and wanted to improve their reading and writing skills, as well as their course grades, shared positive feelings towards the program while noting how iLit motivated them to complete the assigned task to their highest potential.

Mindset

One of the most prominent observations I made throughout the study and my analysis of data was the effect of teacher mindset on technology integration. According to Dweck (2006), individuals can express a fixed mindset or a growth mindset. During the study, I

found that teachers who displayed characteristics of a growth mindset were open to change and exploring, integrating, and adapting a novel resource.

In contrast, the teacher who demonstrated a fixed mindset seemed discouraged and challenged by the unfamiliar application, which led to its discontinued use. The importance of mindset was heightened further in my discussion with students and teachers, as it appeared to be infectious. Two out of the three teachers noticed a sense of excitement in their students when they introduced and used the iLit ELL program. These teachers mentioned modelling their enthusiasm before implementation and saw this attitude transfer to how their students accepted and perceived the program. Moreover, students' attitudes appeared to pour into their work ethic, showing greater commitment and motivation towards learning and achievement.

The Importance of Scaffolded Instructional Technology and Autonomy in Motivating Student Learning

Teachers recognized that the scaffolded support in iLit positively affected both engaged and disengaged learners. Students began to take the lead in completing assignments, put in the effort, and remained focused for the duration of the period. Students also reaffirmed these observations by commenting on iLit ELL's effects on their intrinsic motivation due to the program's multi-modal functions, as well as the examples, models, feedback, and practice within each lesson and assignment.

Limitations and Recommendations

Limitations

Although the sample size of Interpretive Phenomenological Analysis (IPA) research is generally small due to the depth of analysis, the participant pool of my research reduced from 13 to three within the first month. Secondly, due to technical difficulties and teachers' personal choice, iLit ELL was only used for two consecutive semesters by one participant, consistently for one semester by one, and inconsistently for one semester by the other. Thirdly, student focus groups were selected by teachers. Teachers were given the responsibility to select students that would represent the most diverse experiences based on the teachers' observations. Fourthly, all participants were purposefully selected by the boards and tied to the teaching subject area.

Additional limitations rest in the chosen methodology. The interpretive aspect of IPA research has argued to favour the researcher's personal bias while being a non-generalizable approach due to its focus on individual perceptions (Pringle et al., 2011). However, I chose IPA with careful consideration, since my research is grounded in my personal experiences as an educator. I believed it was necessary to interpret the data from my lens, which considers teachers' and students' perspectives. Through interpretation, I could bring to life the perceptions and lived experiences of the teachers who experienced the phenomenon, creating a detailed analysis of their experiences, rather than a broader set of theories.

Recommendations for Stakeholders and Implications for Future Research

Based on the emergent themes and major findings of teachers' perceptions of iLit ELL and its perceived effects on student attitude and motivation towards learning English, I suggest the following recommendations for stakeholders and future research:

differentiated professional development for teachers; applying consistent school and system-wide supports and beliefs on technology; adopting a universal designs method to teaching; further exploring teacher perceived efficacy and actual performance of technology integration; and a comparative study exploring best instructional models.

Differentiated professional development for teachers that enhance a growth mindset and acceptance towards technology: Teacher professional development (PD) is both costly and timely for districts and has been often considered ineffective in altering teacher practice. Throughout the study, I highlighted the significance and effects of differentiated instruction on student motivation and academic achievement. However, as part of my recommendation, I would like to shift the focus of differentiated instruction from student learning to teacher professional development. To foster a shift in mindset and enhance teacher comfort and confidence with technology, it is important that educators seek support, training programs, and workshops that are tailored to their interests, learning and teaching styles, and curriculum goals

Consistent school and system-wide supports and beliefs on the use of technology: Just as teachers' mindsets affect the mindsets of their students, districts' and administrators' beliefs and attitudes towards technology affect teachers' acceptance, optimal use, and effective integration of technology. Through a cohesive vision and value for technology integration, as well as having consistent follow-up support, teachers have greater direction on how to implement and integrate the tools into their practice, daily lessons, assignments, and assessments.

Adopting universal design methods to teaching: A significant finding among students and teachers was the applicability of iLit ELL across all learners of literacy. Programs that make learning accessible for all learners, such as the Universal Design for

Learning (UDL), can foster comprehensible input, raise confidence, and reduce anxiety through multiple means of representation, multiple means of expression, and multiple means of engagement. This differentiated approach to learning encourages teachers to be reflective in practice and to consider all elements of the classroom environment, materials, instructional tools, methods, and their role in delivery when planning. The adoption of UDL methods is particularly important for mainstream teachers at the secondary level who receive ELLs for non-sheltered courses and are required to teach academic language.

Teachers' perceived efficacy and actual performance with technology integration:

Contrary to common belief, perceived self-efficacy does not necessarily translate to the typical characteristics of a high or low efficacious educator. As found in this study, there was a disconnect between teachers perceived self-efficacy and actual performance when integrating technology. The teacher participant who assumed a high sense of efficacy was least adaptable towards the integration of iLit ELL, whereas the teachers who perceived themselves as initially having low efficacy were most flexible and adaptable to the resource. To enhance school districts' understanding of the supports needed to see new initiatives succeed and resources effectively utilized in the classroom, a more in-depth investigation between teachers' perceived self-efficacy and actual performance is suggested.

Comparative study exploring best instructional models: Upon reflection on my dissertation and recommendations, I also suggest the investigation and exploration of best models for sheltered and non-sheltered courses at the elementary and secondary level. Due to teachers' concerns and stresses regarding various levels of learners in the classroom, there is need for a consistent framework. I propose a comparative study between the Universal Design for Learning (UDL) and the Sheltered Instruction Observation Protocol (SIOP) models and their effects on teachers' pedagogy and students'

achievement in the Ontario context. However, unlike the methods used in this study, I propose a design that is based on fidelity in order to accurately and consistently measure the effects of the proposed frameworks.

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