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THE RELATIONSHIP BETWEEN SECONDARY ELA TEACHER PEDAGOGICAL PRACTICES, STUDENT SELF-REGULATED LEARNING AND DIGITAL SELF-EFFICACY IN A BLENDED LEARNING ENVIRONMENT

by

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The student author, whose presentation of the scholarship herein was approved by the program of study committee, is solely responsible for the content of this dissertation. The College of Education will ensure this dissertation is globally accessible and will not permit alterations after a degree is conferred.

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ii

DEDICATION

This dissertation is dedicated to the inspiring memory of two individuals who continue to live on in my classroom. First, I dedicate this dissertation to my grandfather, Robert Earl Bills, who went home during my doctoral program. Through his example, he taught me the value of generosity, determination, and literacy. These qualities have shaped my educational career, and provided me enough courageous gumption to persevere through the complexities of a doctoral program, while engendering a positive vision in the process. Overcoming a life-long hearing impairment, he thrived in comprehensive ability. Opening his garage wood shop to neighborhood children, he taught students the value of loving school and the joy of learning a skill. Though he did not have the opportunity to finish college, he never abandoned his love of reading books. Pursuing priority number one, he willingly set aside academia to support our family. The gift of Mildred's primer, assembled with found poems, I carry with me to inspire the miracle of literacy. He took great pride in my accomplishments, reminding me to prepare since there is still more to come. Inheriting his vision, idealism, and pertinacity, his legacy lives on.

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TABLE OF CONTENTS

Page

LIST OF FIGURES

LIST OF TABLES

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ABSTRACT

In the era of emerging technologies in the 21st Century classroom, secondary English Language Arts (ELA) students may exhibit complications in navigating literacy in blended learning environments. The purpose of this research study focused on addressing a gap in the current literature in these specific areas to investigate the relationship between ELA teachers' pedagogical practices and elements of secondary students' learning motivation for ELA. Specifically, this study explored secondary ELA students' perception of teachers' classroom practices, self-regulated learning, and digital self-efficacy. The overarching research question in this study examined: *What relationship exists between (a) the pedagogical practices of secondary ELA teachers in a blended learning environment and (b) student self-regulated learning and digital self-efficacy?*

Following an explanatory sequential mixed-methodology research approach (Creswell & Clark, 2017), this study collected quantitative self-report data. During Phase 1 data analysis results revealed compelling evidence of motivating effects of students' perceptions of self-regulated learning, and digital self-efficacy in blended learning environments. Phase 2, semi-structured interview explored connections between teachers' influential pedagogical practices in the blended classroom and student motivational constructs reported in Phase 1. Data mixing occurred between Phases 1 and 2 and also at the interpretation stage of data analysis, reported with a comprehensive description of categories and subcategories.

The conclusions of this research study considered quantitative and qualitative data independently and together. Students' perceptions of teachers' pedagogical practices hold significant relationship to student perception of digital self-efficacy, self-regulation and engaged motivation for learning English in a blended classroom. Theoretical implications for secondary

high school English education are described, within focusing leadership recommendations, considering pedagogical practices, and facilitating student self-regulated digital self-efficacy employment within the English blended learning environment. Implications for English teacher professional development, limitations of the study, and future research recommendations are also discussed.

Key Terms: Blended Learning Classroom, Self-Regulated Learning, Self-Regulated Learning Online (SRL-O) Questionnaire, Student Centered-Learning and Digital Self-Efficacy

CHAPTER 1.   PROBLEM AND SIGNIFICANCE

The purpose of this mixed-methods study is to explore relationships that exist between (a) secondary English Language Arts (ELA) pedagogical practices in a blended learning environment and (b) student self-regulated learning (SRL), and digital self-efficacy (DSE). As will be exhibited in the literature review, research has been completed for related topics, specifically for SRL (Blackmore et al., 2021; Dignath & Veenman, 2021; Zimmerman & Martínez-Pons, 2012). Student predisposition to exercise online confidence and self-efficacy has been irregular (Chang et al., 2018).

Background of Problem

Images of the 21st Century classroom invoke inspiring instructors, who wield vast, innovative technology (Dhillon & Murray, 2021; Hanimoglu, 2018; Lepp et al., 2021). Integrative digital tools offer teachers a range of solutions for a range of complex educational complications that arise (Rios et al., 2018). Pedagogical and technological skills of educational leaders, who implement personalized instruction within subject area content knowledge (Carioli & Peru, 2016, 2019), may facilitate teachers' daily choices (De la Varre et al., 2011; Lepp et al., 2021). On the other side of the screen, integrated educational technology of online learning platforms promises robust, eager students, ready for versatile lessons (Dhillon & Murray, 2021). This ideal vision does not clarify the process of how proficient teachers achieve motivated students. Even less clear is how promising students should be prepared for a digital learning experience (Lepp et al., 2021), or how students could be taught to learn in this self-regulated digital atmosphere (Carioli & Peru, 2016, 2019; Moran, 2018; Robertson et al., 2021).

Teachers as Leaders in Digital Environments

Gatekeepers to guide learning in virtual spaces are found not just in schools. Researchers have found that teachers require select attributes to not only become self-regulated learners themselves, but also to employ a particular ability to build academic tenacity in a student-centered classroom (Dweck et al., 2014). From a range of backgrounds, educators stressed individual preferences for digital educational tools that could improve effectiveness and seek creativity with innovative, supportive administrators (Snyder, 2018). Empirical research investigators discovered and identified learning agility, rather than job performance in professional success, linked success effectiveness through potential (Dai et al., 2013). If teacher leadership in digital environments could create academic tenacity through self-monitoring checks, frameworks would foster students' resilience through self-regulated DSE.

Accordingly, learning ability that inspires student self-centered learning may improve teacher leadership practices in blended classroom settings to prompt student efficacy (Avalos et al., 2021; DeJulius & McLean, 2019; Smart & Marshall, 2013). Empirical evidence provides support to assist educator intervention in differentiating the facilitation shift within classroom practices from teacher-centered to learner-centered learning (De la Varre et al., 2011). In a related study, De la Varre et al. (2011) supported the strengths of a blended learning environment, a hybrid of integrating internet features with face-to-face instruction that aligned with research conducted by Garrison and Kanuka in teacher effectiveness (De la Varre et al., 2011).

In addition to the challenge of diverse skill sets within populations of students, individual talents, attributes, or motivation levels can be just as varied (Carioli & Peru, 2016, 2019). Students need motivating guidance while traversing digital environments, allowing them to gain

confidence in building skill sets requiring relevant engagement into online blended learning (Rios et al., 2018). Understanding the complexity in creating an inclusive blended learning classroom, researchers De la Varre et al. (2011) examined ways that digital environments may provide social support in learner-centered instruction (De la Varre et al., 2011; Greene et al., 2015; Rios et al., 2018).

A specific scenario-based, web-based training intervention implemented learner-centered classroom training practices for all facilitators (De la Varre et al., 2011), a group of facilitators were also provided specific ways to inspire emboldened students in order to develop a specific reassuring classroom climate (Greene et al., 2015). Conducted over the course of two years, in this longitudinal study included 700 student participants from over 93 rural schools in the United States (De la Varre et al., 2011). Teachers who encouraged individual responsibility in students found that students developed an element of self-monitoring to enable learning (Greene et al., 2015; Zhu & Bonk, 2020; Zumbrunn et al., 2020). It is therefore evident, educators' ability to inspire student practice with 21st century classroom tools directly motivates self-regulated learning.

In online blended learning classrooms, teachers who applied certain digital pedagogical practices were able to increase student awareness (De la Varre et al., 2011; Greene et al., 2015; Rios et al., 2018). A varied intervention that incorporated student-centered pedagogy within teacher practices have also been shown to directly help students apply digital strategies used in the classroom (De la Varre et al., 2011). Organized teacher support provided to teachers, who may then provide supports to student, have the opportunity to bolster student confidence when related to DSE for perpetual digital learning in digital learning environments (De la Varre et al.,

2011). Beyond cultivating individual digital competencies, teachers must develop these skill sets in students, as well (Lepp et al., 2021).

Teachers who have not supported digital learning eagerness before instruction miss opportunities, though certain teacher attributes can support the development of SRL in blending classrooms (Rios et al., 2018; Velasco et al., 2022). Specific scholars explored SRL-based interventions to discover strategies to foster high school students' online learning core classes, such as writing, science, and history, thereby identifying studying commonalities and differences across the SRL research (Greene et al., 2015). Principal methods used to study and discover strategies to nurture online learning for high school students, through interaction either with peers or computer-based tutors rather than teachers, employed frameworks of SRL provisions and prompts (Greene et al., 2015). Scaffolding would be a vital teacher pedagogical tools for modeling student development through structured supports fostering students' online SRL (De la Varre et al., 2011; Greene et al., 2015).

Additional research is required for implementing SRL interventions to facilitate the development of student eagerness for achieving DSE in support of individual literacy needs. The present research study will explore the relationship between DSE and ELA secondary student motivation for learning in a blended learning environment. Further research is needed to explore the factors contributing to varying levels of enthusiasm for both teachers and students in blended learning ELA classrooms.

Digital Self-Efficacy

With the increase of technology in modern classrooms, school faculty and staff must implement new educational tools to meet students' needs. The importance of self-efficacy, defined as one's belief in one's capacity to complete a task (Bandura, 1982), would be relevant

within online environments in modern schools. According to Akgül and Atalan Ergin (2022), *digital self-efficacy* (DSE) presents a learner's perception of personal capacity to "manage necessary online tasks" (p. 1675). During the last few years, optimism regarding the online environment in virtual educational spaces has prompted further investigation. In the examination of the effects of resilience of school staff members upon DSE, research results suggested that engagement with e-learning experiences in an online environment could help students. Specifically, such studies revealed a significant quantitative data correlation between the impacts of resiliency to influence school staff which has been shown to prompt higher DSE (Akgül & Atalan Ergin, 2022).

Statement of Problem

Obtrusive barriers in learning exist at both the instructor and student levels. The notable discrepancy between learning agility and self-regulation complicates efficiency in 21st century classrooms (Dai et al., 2013). Research demonstrated that the lack of standard instructional practice in digital, online learning could impact the degree of disconnect between inherent student motivation and DSE (Velasco et al., 2022). Likewise, investigators have explored the need for DSE in preservice teachers as a prerequisite for developing SRL (Dai et al., 2013; Fuchs et al., 2022; Velasco et al., 2022). Effective educational leaders can similarly empower students in exercising SRL (Dignath & Veenman, 2021; Greene et al., 2015; Rovers et al., 2019). In particular, the practice of teacher clarity, inventive learning strategies, and foundational reflective tendencies would support student motivation in the development of SRL (Dewitt, 2020) in DSE.

Effective leaders must fluidly improvise systems of assorted pedagogical practices, incorporating learning opportunities, which will elucidate complex educational issues.

Envisioning challenging action plans along with practical strategies (Dewitt, 2020), educators can institute methods for students to acquire these self-regulation skills, fundamental in cultural competency to achieve both SRL with DSE development in students. Establishing sufficient purpose, practitioners must combat intricate educational leadership and managerial predicaments, namely within student motivation, diversity, and assimilation of digital educational tools into functioning curriculum for a blended learning classroom (McMullan & Sutherland, 2020). Further research is needed for teacher leaders to acquire access to professional developments that identify effective pedagogical tools that build competences in online SRL to meet student needs.

Student self-efficacy within an online classroom may also have a transformational effect on student motivation and in combating student learning obstacles, such as test anxiety (Azizi et al., 2022; Borekci & Uyangor, 2018). In particular, research reported upon motivating unmotivated students presented six true-to-life practical lessons, focusing on recounting personal experiences that related to actionable strategies in the classroom (McMullan & Sutherland, 2020; Vawter, 2019). To illustrate, researchers have organized regulation of motivation in the classroom into enthusiasm, empowerment, encouragement, emotions, and expectations (Robertson et al., 2021; Vawter, 2019). Student attitudes matter.

Barriers of academic anxiety complicate student learning confidence within 21st Century digital literacy in blended learning classrooms (Khiat, 2022; Khiat & Vogel, 2022). Self-regulated digital confidence in learning is the student-related factor. Motivation may also support student social needs in learning, when joined with blended learning and academic anxiety (Lepp et al., 2021).

Specifically Wang et al. (2013), emphasized that digital learning environments confronted students with a sense of anxiety, an observation also supported by research conducted by Bates and Khasawneh. Students responded with the emotive response of fear, spawned from unfamiliar computer technologies, causing both confusion and withdrawal due to loss of personal control, resulting in learning frustration (Wang et al., 2013). Scholars Azizi et al. (2022) explored the interrelation between students' e-learning anxiety in online courses and individual learning confidence, referred to as computer self-efficacy (CSE). Furthermore, these researchers investigated the mechanisms and factors of CSE, revealing that CSE contributed to participants' e-learning anxiety, which consequently elicited feelings of insecurity anxiety (Azizi et al., 2022). Students who lacked proficiencies in computer abilities, ineffectively learned in the online classes, which acerbated student anxiety (Azizi et al., 2022). Necessary research is needed to discover what can be done to prevent these common occurrences.

Student motivation, mindfulness and DSE in learning performance should be addressed (Wang et al., 2013). The objectives of instructional designers could construct operative online courses that could develop students to become autonomous, engaging key strategies for self-regulated learners and enhancing independence in learning effectiveness (Wei & Chou, 2020). The relative dearth of research in this area should encourage investigators wishing to determine which pedagogical strategies can be promoted, allowing the range of instructional practices for regulating student learning and self-monitoring strategies in traditional learning environments as well as blended learning settings (Wang et al., 2013). Further research will add to the existing literature through study findings that identify the relationship between SRL and various technological tools.

Educators, moreover, are failing to take notice of research that examine student perceptions to online learning with digital competencies, such as technical efficacy in computer navigation skills while accessing the internet (Wang et al., 2013). Pedagogy is needed that develops learning agility through student self-efficacy in a digital environment that meets students' educational needs (Rios et al., 2018). By taking into account the impact of evidence of online e-learning anxiety (Rios et al., 2018; Wang et al., 2013; Wei & Chou, 2020), identifying contributing factors in blended learning environments, may also combat academic anxiety experienced by students.

Purpose Statement

The purpose of this mixed-methods explanatory-sequential study is to examine the relationship between ELA teachers' pedagogical practices in a blended learning classroom and student motivation, SRL, and DSE. Building on previous research regarding the cause of student digital learning obstacles (Azizi et al., 2022; Borekci & Uyangor, 2018; Hariri et al., 2021), this present classroom-based research study investigates the relationship between teacher practices in a public high school in a southeastern city of the United States in relation to student perception of students' self-reported SRL and DSE. As discussed by Rios et al. (2018), learning motivation is a vital key within a digital learning environment. Specifically, the current study explores the following, overarching research question: *What relationship exists between (a) the pedagogical practices of secondary ELA teachers in a blended learning environment and (b) student self-regulated learning and digital self-efficacy?*

Significance of Study

The professional implication of this research will provide crucial avenues for educators and students alike, with identification of real-world applications for self-regulation patterns that

will change learning mindsets regarding digital competencies. Educational technology (ed. tech.) tools are currently acknowledged to be pedagogical choices that change the teacher-centered classroom into a student centered, learner-driven classroom to support student motivation (Hariri et al., 2021; Rios et al., 2018). The connections between teacher pedagogical practices in blended learning classrooms and student self-regulated outcomes could be significantly clarified by the results of the study presented here.

Especially when fostering an engaged student-centered learning atmosphere, teachers who acknowledge digital learning complications through regulation can use student motivation to nurture students' academic success (Borekci & Uyangor, 2018; Hariri et al., 2021; Lepp et al., 2021). E-learning, through various online forums, is now a fundamental part of a constructivist, student-centered educational space (Dhillon & Murray, 2021). In student-centered classrooms, teachers encourage agency in students by providing an active learning environment (Neth et al., 2020; Taylor & Iroha, 2015). Settings where students can predict (Azizi et al., 2022) and regulate digital active classroom activities boost confidence (Neth et al., 2020). Student-centered classrooms provide teachers a method of forming self-efficacy in students (Rios et al., 2018).

In seeking to increase the likelihood of student satisfaction in online learning, researchers Rios et al. (2018) highlighted study that illuminated student traits that bolstered technology self-efficacy. Referred to the conscientiousness, this key trait activates ability in the learning process, which would directly and positively affect students' effectiveness as a learner (Rios et al., 2018). Educational technological tools could be the answer to improving productivity (Burnett et al., 2014). This present study will investigate research to identify and examine what scholar Burger and Reevy's (2022) defines as technology self-efficacy, namely "an individual's belief in their ability to carry out a specific behavior and produce desired outcomes" (p. 348). Additionally, the

present research study explores the relation of student-centered engagement with educational technology tools, as well as the impact students' DSE can have on motivation (Hariri et al., 2021).

The proposed solutions have been successful for learning the content of science, especially when students intentionally exercised classroom procedures centered on supporting students' regulation (Ambaryani & Putranta, 2022) and efficacy (Smart & Marshall, 2013). When focusing on student-centered learning, equal importance can be attributed to the interplay of skill (Smith et al., 2017) essential success combine in teacher classroom talk with questioning, alongside interrelated student cognitive factors (Smart & Marshall, 2013). In other words, students who actively engage modeling to "explain their reasoning about a concept in science can increase other students' efficacy for approaching similar tasks" (Smart & Marshall, 2013, p. 252). Similarly, explanatory research focusing on highlighting student perception of SRL techniques is needed, especially within student development of technological self-efficacy.

Specific groups of individuals that would be impacted by this current research study are namely teachers and students. In teacher awareness, "teachers prefer what they believe is valuable, and this affects their choice of learning objectives and content" (Lepp et al., 2021, p. 3). Professional development showing instructors how they can use blended learning online classrooms to support SRL and DSE might be key to increasing student awareness of the learning process. Learning opportunities for both teacher and student strengthen connections, while teachers improve enhanced metacognition with questioning methods while facilitating student-centered discourse (Smart & Marshall, 20213). Student-centered classrooms characteristics directly relate, according to where student-regulated learning can be supported.

Raising intentionality of SRL practices can shift teacher attentiveness in teacher-centered classrooms to student mindfulness, by bridging regulated learning into student-centered classrooms (Dhillon & Murray, 2021; Lepp et al., 2021). Study corroborate previous findings. Ultimately, the current research study can demonstrate that participating in select practices would promote self-regulated learning outcomes (Rios et al., 2018; Santibanez & Guarino, 2020; Wang et al., 2013).

The professional significance of this research provides clear implications of the impact of teacher pedagogical practices that enhance student learning ability. Teachers who encourage student-centered classroom may help students develop digital confidence within a blended learning classroom. This research within a blended learning environment can provide educators and students alike with motivational strategies, directly or indirectly galvanize SRL, by spurring students to self-regulate individual learning (Dignath & Veenman, 2021). Additionally, this present study intends to build upon research that suggests student-centered classrooms would promote a learning climate for students to develop learning confidence in self-regulation (Dhillon & Murray, 2021; Lepp et al., 2021; Rios et al., 2018), that could also support DSE (Wang et al., 2013). In this way, teachers who enable students to employ student-regulated online learning platforms such as makerspaces (Hall, 2014), exercise initiative that can provide an optional way of learning by giving hands-on experience in experiential learning, rather than what students receive in a passive classroom space.

Limitations of the Study

The current research study makes use of a mixed-methods explanatory sequential research approach to examine secondary school student perceptions of the pedagogical practices of ELA instructor who incorporated SRL into coursework within blended classes. The

limitations exist in the current study concerning factors that do not address the overarching research question. This research study will not include (a) any public-school administrator participant perspective, (b) any sample perspective from teachers of ELA, science, technology, engineering, and math (STEM) courses participant perspective, (c) any public-school instructional coaches in any other core content classes would be addressed in the participant perspective, or (d) No student of science, technology, engineering, and math (STEM) courses participant perspective. These itemized limitations would require further research to explore further areas in the field of educational pedagogical practices that incorporate DSE. Limitations also include a potential ethical complication that included select participants being associated with employment of the primary investigator at a public school.

Organization of the Study

The organization of the current research study included a brief literature review of educational leadership, blended online learning classrooms, and student DSE in ELA. The literature review also focused on the operative facilitation of Zimmerman's (2002) Self-Regulated Learning, and Bandura's (1982) Self-Efficacy to refine the scope of study. A mixed-methods research model also included an inquiry panel survey to gather quantitative, digital data in Phase 1. Data analysis informed the next step. Pragmatic implications for understanding student perception of DSE in a blended-classroom environment also required a Phase 2. For dependability, Phase 2 design collected semi-formal, interview open-ended question responses from respondents. Furthermore, Phase 2 data was analyzed by coding topics into identified, emergent themes. In order to validate Phase 2 data, the current study employed a *member check* to confirm dependability of assigning responses into appropriate themes in the qualitative data. The final step reported study findings.

Clarification of Terms

Blended learning classroom: Researchers Uz and Uzun (2018) explored avenues to identify the impact and influence of blended learning upon learning of students with SRL and self-directed learning skills and suggested that a *blended learning classroom* "is one of the frequent concepts which have been included in the studies that aim to make use of technology in recent educational activities" (Uz and Uzun, 2018). As discussed by Uz and Uzun (2018) in support of Garrison and Kanula, Osguthorpe and Graham, and Williams' research, the definition of a blended learning classroom mainly "as the combination of traditional face-to-face teaching and online teaching" p. 877). Uz and Uzun (2018) also extended this definition by citing Clark and Mayer's research of *blended learning* incorporated "not only learning environment, but also the collaborative use of different teaching methods to increase the learning outputs" (Uz & Uzun, 2018, p. 877).

Computer self-efficacy (CSE): Educators Azizi et al. (2022) designed an empirical mixed-methods study which investigated the operation of students' computer self-efficacy (CSE) relating to the correlation between e-learning anxiety in online courses and theoretical framework of Bandura's Social Cognitive Theory, cited here, which posits that "one of the cognitive factors affecting students' behavior is self-efficacy" (Azizi et al., 2022, p. 2).

Conscientiousness: As discussed by Rios et al. (2018), *conscientiousness* is referred to the key trait that activates technology self-efficacy, which can activate the online learning process, thus directly affecting students' effectiveness as a learner.

Cultural competency: Investigators Shafritz et al. (2016) referred to cultural competence as a fundamental twenty-first century leadership skill that Sue et al. defined by suggesting leaders should process three distinctive components of (a) awareness, (b) cultural knowledge, and (c) intrapersonal skills within public organizations. Shafritz et al. (2016) also cited Rice and

Mathews' cyclical flow chart on professional development for individuals to acquire diverse cultural competencies, knowledge, and skills in order to form organizational change through innovative agency within public service establishments (Shafritz et al., 2016).

Digital self-efficacy (DES): Scholars Akgül and Atalan Ergin (2022), defined *digital* self-efficacy (DSE) as a learner's belief of personal capacity to navigate necessary digital tools to "accomplish online tasks" (p. 1675). In addition to Burger and Reevy (2022) research that incorporated the statement that *Technology self-efficacy* as "an individual's belief in their ability to carry out a specific behavior and produce desired outcomes" (p. 348).

Educational technological (ed. tech.) tools: These are referenced as online, digital educational tools students use in blended or digital classrooms that consequentially exhibited student learner autonomy (self-efficacy), engagement and motivation in the learning process (Dhillon & Murray, 2021).

Evidence of impact: Intentional findings which leaders measure, collaborate on how to collect this evidence in order to show what instructional design that was planned had a measureable impact on student learning, demonstrated by student outcomes and how the group driving this improvement engages community (Dewitt, 2020).

Experiential learning: Educators Von Gillern et al. (2021) focused on experiential learning in action, rather than empirical research study based evidence. Methods used in this study explore six avenues to develop ELA standard-based instruction through student-centered, self-regulated learning adaptations that focused on digital tools promoting DSE in that "there are very few things that 90% of young people do of their own volition…they value playing games; one of the their self-directed, out-of-school goals is finding time to play games" (p. 64).

Learning agility: Researchers Dai et al. (2013) argued that *learning agility* would be an important variable for achieving success in life (Dai et al., 2013). Dai et al. (2013) supported the versatility of learners by citing researchers Lombardo and Eichinger's definition of the term *learning agility* "as an ability and willingness to learn from experience and subsequently apply those lessons to perform successfully in new or first-time situations" (p. 109).

Metacognitive knowledge and metacognitive regulation: As argued by González Galli et al. (2020) cited Schew et al, and Dye and Stanton's posits the differences between *metacognitive knowledge* and *metacognitive regulation* are notable. González Galli et al. (2020) cited Veenman, "while *metacognitive knowledge* refers to what we know about our thinking, *metacognitive regulation* refers to how we control our thinking in our learning; more specifically, *metacognitive knowledge* would be declared knowledge about the interrelationships between the subject, the task to be performed, and the strategies to be used; *metacognitive regulation* would include the ability to monitor, guide, control and manage one's learning and behavior during the problem solving" (González Galli et al., 2020, p. 8).

MOOCs: As Lee et al. (2020) remarked: "Massive Open Online Courses (MOOCs) have emerged as a new platform for online learning" (p. 24). These digital classrooms also demonstrate a distinct lack of "interaction between instructors and learners, as well as the ability for significant learner support; these unique characteristics of MOOCs require learners to have the ability to self-regulate their own learning more than [any other] traditional online courses" (Lee et al., 2020, p. 24). Stephens and Jones (2014) also described the origin of the term MOOC as occurring when Stephen Downes and George Siemens so labeled "a free, online course of 2,300 students taught at the University of Manitoba" (Stephens & Jones, 2014, p. 346). Implications of digital learning platform of MOOC are also domestic, as the New York Times

reported, "Harvard University and the Massachusetts Institute of Technology (MIT), enrolled 370,000 students in MOOCs in Fall 2012" (Stephens & Jones, 2014, p. 346).

Motivated strategies for learning questionnaire (MSLQ): As discussed by Broadbent et al. (2022), the MSLQ refers to a survey instrument developed by Pintrich that provide convergent vitality by measuring key determinants of SRL. Motivational constructs included the measurement of significantly associated SRL-related behaviors such as "self-efficacy, intrinsic goal orientation, task value, and the control of learning beliefs were positively and significantly related to and in predicting self-regulated learning" (Lim & Yeo, 2021, p. 334).

Self-efficacy: Educators Azizi et al. (2022) carried out a study that cited the theoretical framework of Bandura's Social Cognitive Theory (SCT) which posits that interactions with the environment has a direct impact upon learning when "the cognitive factors affecting students' behavior is self-efficacy" (Azizi et al., 2022, p. 2).

Self-monitoring: As illustrated by researchers Zhu and Bonk (2020), Zimmerman and Paulsen's research, cited here, developed four steps to enhance student self-monitoring abilities that advanced perpetual self-monitoring practices. Strategic stages guide learners with sequential steps: "(1) Students start monitoring at collecting data about academic task; (2) Students exercise structured monitoring protocol provided by the instructor; (3) Students practice independent self-monitor to adapting to the course tasks to learner needs; (4) Students apply self-regulated self-monitoring to transfer learning, in order to potentially developing original self-monitoring protocols" (Zhu & Bonk, 2020, p. 33).

Self-regulated learning (SRL): Researchers Rovers et al. (2019) suggested that intentionality exercises Zimmerman's (1989, 2002) social-cognitive SRL model by enabling students "the process of cyclical three phases: forethought, performance and reflection" (p. 2). González Galli

et al. (2020) cited Schraw et al., "*Self-regulated learning* has three components: cognition, metacognition and motivation" (p. 8). Alongside Pintrich's research, also cited here, practitioners expounded techniques to implement student cognition in regulation exercising the "social-cognitive model of SRL that posits motivation, self-efficacy and goal orientation as the discerning aspects of SRL" (Rovers et al., 2019, p. 2).

Self-regulated learning (SRL) practitioner stages and components: Specifically, as discussed by researchers Wang et al. (2013), the set of learning processes associated with SRL, Pintrich and Zusho's research, cited here, outlined an operative SRL framework in four stages of active student engagement in learning: planning, monitoring, control and reaction/reflection to self-monitor (see above) learning through self-regulation (p. 303). ***Practitioner teachers*** may structure learning "within these four, interactive stages [where] students may apply SRL with cognition (the ability to encode content), motivation (relates personal beliefs or attitudes), behavior, and context of learning (development of cognition and metacognition)" (Wang et al., 2013, p. 303).

Self-reporting: Veenman (2011) explored the limits of self-reporting data while examining strategic teaching processes in reading. As suggested by Veenman (2011) self-reporting is highly fallible because verbalizing experiences cannot quantify inferences since these "processes are neither fully controlled, nor fully animated; consequently, learners may not be fully aware of ongoing processes" (p. 205).

STEM: Commonly defined as science, technology, engineering, and math (STEM) courses, Blackmore et al. (2021) explored academic areas focusing on academic performance as a consequence of self-regulated learning and self-efficacy. Investigating successful academic

transitions "one must appreciate; this review will evaluate self-regulated learning theories, the collaboration of self-advocacy" (Blackmore et al., 2021, p. 170).

Student agency: Engendering agency (the capacity to empower or exert power) in students with an active learning environment, where students are capable to predict and regulate digital active classroom activities, provides teachers with a way of forming self-efficacy in students (Rios et al., 2018 par. 17).

Student self-motivation ability: As Dewitt (2020) remarks, "Motivating students should be one of the most exciting parts of an educator's job…pre-service teaching programs had not prepared [teachers] to engage and motivate students" (p.73).

Student technology self-efficacy: Student self-efficacy refers to the confident awareness that one is able to complete required academic tasks (Rios et al., 2018). Within an online classroom "students' characteristics would be related to their level of self-regulated learning, level of technology self-efficacy, and course outcomes" (Wang et al., 2013, p. 305). Burger and Reevy (2022) also defined *Technology self-efficacy* as "an individual's belief in their ability to carry out a specific behavior and produce desired outcomes" (p. 348).

Social-emotional learning (SEL): A system of "empowering all students—those who struggle with mental health issues and those who do not—with the strategies they need to be successful in life" (Dewitt, 2020, p. 67).

Technology self-efficacy: Related to digital self-efficacy triggered by *Conscientiousness* (see above) the online learning process, affects students' effectiveness as learners (Rios et al., 2018, p. 6). As suggested by Burger and Reevy (2022), the term *Technology self-efficacy* involves interaction with technology and extends Bandura's concept that a person can believe that by exercising an individual ability will "produce desired outcomes" (p. 348).

CHAPTER 2.   REVIEW OF RELATED LITERATURE AND RESEARCH

There currently exists a volume of research, including considerable empirical data, which concentrates on students' perceptions of identified obstructions to learning in the secondary ELA classroom. However, the relationships that may exist between secondary ELA teachers' pedagogical practices in a blended learning environment and (a) student self-regulated learning (SRL) and (b) related digital self-efficacy (DSE) have not yet been examined. As such, there exists only limited research in this area. Much of the current practitioner literature includes data-driven instruction models regarding how to efficiently improve student skill sets. These studies have demonstrated that schools worldwide seek practices to improve student reading comprehension deficits in secondary ELA education (Carioli & Peru, 2019). Though prior studies have provided context offering invaluable insights, preceding action research studies have tended to offer only minimal exposure of how the common practice of rampant testing, intended to measure academic achievements, actually exacerbates students' struggle with acquiring literacy and that furthermore, this practice does not promote autonomy.

Current literature that would determine educational spaces to support literacy learning, only seems to acknowledge the prodigious student responsibility. In secondary education, students naturally exhibit individual confidence (or insecurity) in eagerness and willingness in literacy development. Student perception complicates matters, especially in a prevalent testing environment in public high schools (Borekci & Uyangor, 2018). Therefore, exploring whether SRL and academic stagnation (Borekci & Uyangor, 2018) are circumstantially associated concepts might promote subsequent academic achievement.

The existing body of knowledge focusing on blended classroom environments of secondary ELA students, especially those who frequently confront literacy learning challenges,

is inadequate. For this reason, study becomes imperative in determining relationships between conducive, pedagogical practices of teachers and self-regulation in student learning. In exploration of technological self-efficacy ability levels, recognition of factors contributing to student academic outcomes, in regards to self-monitoring, could provide pathways for confidence in learning for students (Borekci & Uyangor, 2018; Burnett et al., 2014; Dhillon & Murray, 2021).

The goal of this literature review is to recapitulate contemporary academic findings regarding the impact of instructional practices supporting structured student learning with emerging, widespread technologies in the blended learning environment (Burnett et al., 2014). In approaching ELA education in the 21st Century digital blended classroom, it is vital to explore all relevant options. The question of curriculum leadership decisions in pedagogical choices in educational technology (ed. tech.) tools, also begs an answer of innovative shifts of the teacher-centered classroom into a student-centered, learner-driven classroom to support student motivation (Hariri et al., 2021). In this context, the organization of the present literature review is also focused on the subsets of leadership practices that direct teacher and student behavior and perspective and that determine relationships of self-efficacy and motivation in literacy development in blended ELA secondary classrooms. Likewise, a review of the prominence of E-learning, through various fundamental, online forums examined a student-centered educational space (Dhillon & Murray, 2021). Technological self-efficacy, referred to as learner-chosen *conscientiousness* in the learning process, promotes students' confidence and affects students' effectiveness as learners in online learning environments (Rios et al., 2018).

This literature review explores the constructs of SRL, DSE and motivation and relation of student-centered engagement with ed. tech. tools. The connection between experiential factors,

technological tools and individual productivity in online learning have been examined (Burnett et al., 2014; Dhillon & Murray, 2021; Rios et al., 2018). Ultimately, the present study investigates identifying the relationships, if any, that exists between secondary ELA teachers' pedagogical practices in a blended learning environment research into curriculum leadership characteristics, and pedagogical practices, student SLR, DSE, and motivation is included.

Search Strategy

The strategy to search for and identify foundational texts for this study began with determining basal criteria that would outline basic components, which in turn directed the keyword criteria used to search databases. Keywords included, but were not limited to, curriculum leadership, teacher pedagogical practices, student motivation, self-efficacy, ELA educational leadership, experiential learning, e-learning educational tools, and digital self-efficacy. Databases that were selected for use with these keywords were DISCUS, EBSCOHOST, ERIC, Google Scholar, The ProQuest, and SAGE. Information sources included books, dissertations, peer-reviewed journal articles, and theses. According to search databases over 300 resources, dating from the 1980s, were determined to hold pertinent textual evidence relevant to this study. The majority of perused databases yielded works published in the last 13 years.

Preceding, seminal sources were also identified to establish the context of educational psychology to measure student perceptions of learning. The most relevant source material clarify inherent constructs for the reader to understand the background of student learning objectivity in an encapsulation of research studies. This search followed logical sequences, provided in the reference section of this dissertation, have been determined as the most germane sources for this study's literature review.

Content in Leadership

Leadership in the form of curriculum administration can foster teacher capacity. By finding creative ways in public schools to support teachers, administrators can balance restrictive budgets, critical parents, and scrutinized educational institutions that would otherwise restrict teachers from innovation aimed at developing student SRL (Snyder, 2018). Educational leaders should note distinctive customs that fashion thriving leadership practices. Closer inspection by educators of Bolman and Deal's (2017) leadership frames can become vitally important when endeavoring to ensure effective leadership practices in the ELA blended-classroom. While exercising organizational change, trained leaders can take the advantage of the opportunity to replace former ineffective leadership practices (Al-Omari, 2013).

Bolman and Deal (2017) Four Leadership Frameworks

According to Bolman and Deal (2017) leadership styles can be classified into four categories; *Classical Structural, Human Resource, Political* and *Symbolic* leadership frames. Curriculum leader administrators in schools should be prepared to negotiate in order to gain teachers' confidence. Especially important when school leaders implement inquiry-focused, student-centered, experiential learning classrooms. Along with measuring the effect of this organizational change, development can be significant in relation to student self-efficacy and learning outcomes. Potential solutions to leadership issues may require more than one of the leadership frames delineated by Bolman and Deal (2017). Organizational leaders who have made decisions to impose a foundational curriculum change are often absent during the implementation stage, and administrative leadership staff who are unseen cannot ensure effective daily implementation (Al-Omari, 2013). However, a leader in ELA curriculum development who employs a mixed 21st Century leadership (Rost, 1993) could invent visible support in process,

human connection in policy, advocacy, and ritual celebration to ensure success (Bolman & Deal, 2017). Curriculum leadership can benefit from considering Bolman and Deal's (2017) leadership frames to effect organizational change.

As illustrated by Bolman and Deal (2017), a *Structural* curriculum traditional leader would provide clear-cut steps for implementation (Bolman & Deal, 2017). All facilitating teachers who are actively implementing this significant academic change daily, must employ pragmatic training for buy-in when confronting practical, technological barriers that hinder untrained teachers in blended learning classrooms. For example, such barriers may hinder students from logging in and effectively navigating, accessing, and completing learning activities in any digital learning tool being engaged (Bolman & Deal, 2017). Likewise human agents operating within the framework of a *Human Resource* (or *Political*) styles, a leader might call on a solid power base of allies, such as technological aid from colleagues, to support the process of change (Bolman & Deal, 2017). Pragmatic challenges concerning the core content provided in curriculum changes might *not* match the subject facilitating teachers' technological skill in teaching; thus, teachers may not be able answer questions appropriately during learning activities. Nonetheless, emotive intelligences in a *Human Resource* leader would help students overcome these challenges through social supports (Bolman & Deal, 2017). As described by Bolman and Deal (2017), a *Symbolic* leader aspire effort to accelerate engagement of students, the ritual of learning routines engage employ learning engagement when students who may predict learning works well in the process stage. Despite this leadership variety, *Symbolic* leadership typically provides a unified purpose with a kick-off activity to encourage eager student participation and improve learning motivation success (Bolman & Deal, 2017).

Intermingled leadership styles in curricula may develop supportability (Bolman & Deal, 2017; Rost, 1993; Sasnett & Ross, 2007). Within the framework of a *Symbolic* leadership style, a leader would feel the need to inspire a culture of confidence in establishing a *routine* ritual and social celebration to foster student motivation in learning. Combining attributes are needed to meet student needs. If learning momentum slowed, such a leader would keep students on track with a module learning system. Efforts by implementing teachers could improve student learning strengthening *structural* needs of learners, ensure a *political* equity self-assurance in program solution and collaborative emotive *Human Resource* learning processes (Bolman & Deal, 2017; Shapiro & Stefkovich, 2016). Alternatively, if teachers were unable to answer students' common question *why*, then they must invent impromptu solutions (Bolman & Deal, 2017). A *political* leader (or mixed leadership) archetypally advocates for students to ensure comprehension with clear communication of purpose (Bolman & Deal, 2017). These interwoven leadership styles may improve sustainability through curriculum (Bolman & Deal, 2017; Rost, 1993).

Educator Al-Omari (2013) investigated curriculum leadership in self-reported teacher perceptions of preferred school administrator leadership attributes using the four leadership frames mentioned earlier. Through a quantitative survey study representing 610 teacher participants, Al-Omari (2013) employed Bolman and Deal's developed instrument *The Leadership Orientation Survey*. Responses were collected from participants using a 5-point Likert type scale to reveal findings that in terms that Bolman and Deal had stratified (Al-Omari, 2013). Leadership research results stressed the foundation that the most effective predictor of an effective leader was connection, who should adopt competencies in the *Political* and *Symbolic* frames, and with an emphasis in S*ymbolic* leadership that would "inspire change" (Al-Omari, 2013, p. 252).

By investigating similar educational leadership contexts, Snyder (2018) also referenced Bolman and Deal's research of four foundational leadership frameworks, which can focus insight for educational leaders (Snyder, 2018). Leadership engagement was key. Methodology used in Snyder's (2018) study collected qualitative data solicited perceptions from teacher within structured interviews about the effectiveness of school administration leadership. Participants responded using Bolman and Deal's (2017) leadership frames (Snyder, 2018). Study results suggested that the teacher interview data indicated that self-reported information is highly valuable when examining leadership practices (Snyder, 2018). Identifying teacher perceptions about leadership practices help teachers gain awareness for needing inspiration from leaders (Snyder, 2018). The study conducted by Snyder (2018) indicates using self-report for measuring perception of leadership strengths can be relevant when examining curriculum leadership in student-centered, experiential learning that provokes student self-efficacy.

Study findings showed that most teachers responding to Snyder's (2018) survey clearly valued "the *human resource* frame" (p. 161). The results also indicated that, as part of creating a positive climate within the community, teachers wanted their administrators to inspire investment into celebrating local history with S*ymbolic* leadership. Administrators should also provide teachers with a clear path for professional development, and they should communicate basic curricular expectations through *structural* leadership. Finally, teachers also reported that they needed opportunities for dialogue while implementing initiatives created by leadership with a *political* mindset (Snyder, 2018).

Furthermore, Mullins (2020) explored compassion of administration teams in empathizing with colleagues' capacity during a crisis to fulfill professional duties and maintain high expectations (Mullins, 2020). Human emotive connection during crisis can be fostered

through leadership practices. As described by Mullins (2020), that through Bolman and Deal's foundational research for leadership frames, perceptions are essential. Participants reported that effective leader responses during a crisis bridged the aforementioned leadership frames (Mullins, 2020). This scenario allowed administrators to engage with training in a foundation of non-academic personnel that directed additional efforts for the assessment process and response (Mullins, 2020). Particularly important, Mullins (2020) illustrated the value of observing leadership frames in action, which can likewise aid curriculum leadership. Teachers need curriculum leaders who are trained in leadership frames to inspire confidence through implantation of student self-efficacy in a student-centered, experiential learning environment.

Twenty-First Century Leadership

Further professional development that accesses leadership frames must exhibit the purpose of cultural collaboration. Stakeholders require equitable options of emotional intelligence, standardization, and improving efficiency through restructuring team configurations. Beyond the archetypes of *leaders* and *followers*, researchers have discovered stylistic modes in which certain types of leaders examine issues (Bolman & Deal, 2017; Mullins, 2020; Snyder, 2018). Making sense of system complexities can be an initial step. Deconstructing multifarious norms or pervasive expectations in school systems, educational leaders must formulate formidable action plans to solve complex dilemmas. Educational leaders must distinguish distinctive leadership methods that are especially pressing in the field of organized education (Shuls & Flores, 2020).

Education in blended learning online environments require specialized strategies. Conceptions of group success exclusively leaning upon the guidance of leadership figures, rarely maximizing upon the gifts of members (Al-Omari, 2013). Roles oftentimes merge (Bolman &

Deal, 2017; Mullins, 2020; Snyder, 2018). Appreciating educational management approaches different from those favored by leadership, requires more than just relying upon hierarchical traditions (Dewitt, 2020; Shuls & Flores, 2020). Twenty-first century leadership may help clarify pedagogical implementations in student self-monitoring and motivation.

Rost (1993) examined *standard*, *germane* and *organic* definitions of the classic leaders and followers, thoroughly delineating distinctions between leadership and management. Sufficiently prolific in the education field, Rost (1993) proposed powerful trends that predicted twenty-first century leadership theory as applied in various organizations—not just in schools— by suggesting influential factors for future ideologies. Leadership theory is especially relevant to leaders grappling with systematized education during dynamic times. Rost (1993) likewise suggested the extent to which effective twenty-first century educational leaders would require cultural competency (Shafritz et al., 2016), to be able to educate the *whole* child (Dewitt, 2020).

Complex educational issues routinely create ambiguous purpose, while uncertainty endangers *the effectiveness* of digital learning (Sugarman & Lazarin, 2021). Educational leaders must fluidly improvise systems of assorted learning opportunities with interconnected routines that anticipate and address the needs of challenging learning climates. Establishing sufficient purpose, instructional practitioners must combat intricate educational leadership administration and management predicaments associated with teacher retention, student motivation, diversity, and assimilation of digital educational tools into functioning curricula. Solutions must thus become organic. Gaps in the leadership conceptions of practitioners inhibit progress, and thus developmental progress.

The present study will aim to benefit educational stakeholders, administrative teams, and teachers by using empirical evidence to identify, evaluate, and critique the strengths and

weaknesses of the foundational contexts that form leadership through pedagogical practice. Actionable twenty-first century leadership in the field of education must employ more than a simple mode. Strong management practices determine both effective and ineffective attributes through a series of foundational, interrelated symbolic, political, human resource, and classical organization leadership theory frameworks (Al-Omari, 2013; Bolman & Deal, 2017; Mullins, 2020; Rost, 1993; Snyder, 2018). Twenty-first century leadership in the blended learning classroom is key for achieving successful student outcomes in the online learning environment.

Teacher Self-Efficacy

Primarily, teachers find abundant student need in the blended learning online classroom. Investigation of leadership practices can begin on the first day of school. Noel and Shoffner (2019) studied teacher self-efficacy by examining teacher expectations as compared with their actual experiences in transitioning into first-year teaching. Qualitative methods were used to examine teacher perception and behavior (Fish & Jumper, 2021; Noel & Shoffner, 2019). This transitional period study included reflective responses and interview transcripts for documenting lived experiences of three professionals in the field. Study findings revealed two major concerns that hindered self-efficacy, namely, classroom management and building rapport (Noel & Shoffner, 2019). Results suggested teacher pedagogical practices mattered.

In particular, study findings reported that teachers who were trained in confidence with digital tools received 100% improved student outcomes in regards to participation (Noel & Shoffner, 2019). In addition, all teacher participants' self-efficacy within teaching practice increased, at the start of the study two-thirds of the participants reported low self-efficacy, while at the conclusion of the study participants reported high self-efficacy showing significant expectations of success (Noel & Shoffner, 2019). Twenty-first century leadership practices and

training align with the need to build teacher confidence (Fish & Jumper, 2021; Noel & Shoffner, 2019). Even with a thorough understanding of subject content, if teachers enter the classroom with insufficient understanding of the crucial pedagogical practice to connect knowledge of curricula to student confidence in learning, low teacher self-efficacy may result, negatively affecting student confidence to learn (Noel & Shoffner, 2019).

Fish and Jumper (2021) explored a strong connection between teacher perception of teacher self-efficacy and the ability to feel confidence within online teaching and learning. Quantitative methods were also used in the form of a nationwide online survey, solicited by the Family & Consumer Sciences (FCS) Teacher Association. Participants included FCS teachers assigned to teach secondary students in grades 6–12, from whom a total of 380 responses were received. The survey results revealed teachers especially valued clear and frequent communication of districts directives, which in turn directly impacted teacher efficacy in personal ability to organize and teach online classes (Fish & Jumper, 2021). Districts that encourage teacher-efficacy with supporting teacher engagement will reinforce teacher confidence in fostering collaborative teacher agency (Calvert, 2016). Teacher agency and confidence builds positive online educational climates (Fish & Jumper, 2021; Noel & Shoffner, 2019). Quantitative research design can provide valid data, the results of which can illustrate teacher perceptions of online teacher self-efficacy in teaching and learning. Most importantly, these finding suggest that while districts can promote teacher self-efficacy with clear communication, teachers may also promote relevant clear communication routines to bolster student self-efficacy.

Educational Theory

The shift from teacher-centered to learner-centered classroom instruction can complicate student outcomes. The underlying foundation of education that could be focused upon empowerment student-centered practice with equivocal outcomes may directly impact motivation and DSE. Researchers have explored effective teacher pedagogical practice in learner-centered schools located in the United States with those of more traditional schools, in order to compare standardized testing results, and student awareness (Avalos et al., 2021; DeJulius & McLean, 2019; Lee et al., 2021). Investigators inquired and identified specific personal learning (PL) practice with technology, while comparing and contrasting national survey data submitted by teachers from high- and low- performing schools implemented within learner-centered schools (Lee et al., 2021). Researchers explored quantitative data on school performance as measured by state standardized test scores, schools' adequate yearly progress (AYP). In one study "schools' adequate performance and profile data were collected from the National Center of Education Statistics or each State's Department of education" (Lee et al., 2021, p. 1228). Findings from a quantitative surveys data collection tool revealed that solicited teacher perspective of student-centered PL practices and recognition of effective technology use had been strategic to improve student learning outcomes in the learner-centered classroom (Al-Omari, 2013; Fish & Jumper, 2021). The success of learner-centered classrooms influence motivation in learning processes.

Student-Centered Learning

In classrooms, student-centered learning may result in progress within both motivation and SRL. A total of 431 participants ELA teachers in 72 learner-centered schools in the U.S. responded to the survey representing two significantly different groups, one high-performing and

the other low-performing (Lee et al., 2021). In a teacher pedagogical, learner-centered classroom exercise, as discussed by De la Varre et al. (2011), an intervention had been implemented. By having *all* teachers, tutors and learning support facilitators in the study undergo web-based training in the study undergo web-based training at the start of the study. The intervention group of facilitators were provided specific practices to motivate and encourage students and develop a self-monitored and regulated classroom climate (De la Varre et al., 2011). Results suggested that high school students who monitored their own learning responsibility exhibited more positive interactions with teachers. Moreover, shared accountability created connections between students and teachers that improved overall students' personal connection of purpose in school and school in the study student performance (De la Varre et al., 2011; Lee et al., 2021; Swan et al., 2020).

In addition to previous research, related study reported enhanced student connections with *real-world* projects (Taylor & Iroha, 2015), whereas findings suggest the design of instruction matters when students incorporate career goals into PL plan (PLP). Student-centered learning was key to bridge the gap between high- performing and low-performing schools (Lee et al., 2021). Significant correlations between student awareness in self-monitoring and regulation was also rated high in motivation by respondents in the high-performing group (Alvi & Gillies, 2020; De la Varre et al., 2011; Swan et al., 2020). Data analysis revealed that teachers who also assessed non-academic performance helped students place value on project completion, by gaining awareness in such areas as effort, work ethics, time management, communication, and collaboration (Broadbent, 2017; Lee et al., 2021; Wang et al., 2013).

Learner-centered classrooms can be assembled through different means. Even when the learner-centered schools' approach was examined, researchers learned about how to create

student-led learning goals that would align with student awareness (Avalos et al., 2021; DeJulius & McLean, 2019; Smart & Marshall, 2013). Academic goals that include career aspirations can engender students' monitoring in the learning progress by actively engaging in providing enough feedback to build relationships throughout the practice (Alvi & Gillies, 2020; Lee et al., 2021).

Social connections can also promote learner-centered classrooms. Swan et al. (2020) similarly explored and identified connections between the relationships between student-centered learning and success by examining the *Community of Inquiry (CoI)* within online education (Cleveland-Innes & Hawryluk, 2023). Swan et al. (2020) also explored two similar comparative models of education through empirical research. Participant including 242 students, responded to an online *Barnett-Lennard Relationship Inventory* (BLRI) survey that gathered quantitative data (Swan et al., 2020). The longitudinal panel inquiry design was intended to reveal student perceptions of engagement with course content presented via a student-centered practice (Marshall et al., 2011). The difference between the total 163 participant sample, 79 students were full-time online learners, while the remaining students were enrolled in at least one online course (Swan et al., 2020). Results suggested that a CoI can impact student awareness that directly influenced learning outcomes (Cleveland-Innes & Hawryluk, 2023).

De la Varre et al. (2011) supported and cited Garrison and Kanuka who argued that integrating student-centered learning into blended learning may be an effective way of combing the benefits of both features in internet-based and in-person learning (De la Varre et al., 2011). As shown through empirical data, high-performing schools are considerably enhanced when furnished with a technology system that may integrate teacher use of technology in student-centered practice (Lee et al., 2021). The use of digital tools that included the BLRI online survey, quantitative methods generated student response data of student perceptions of

self-monitoring in exposure to social and cognitive processes—the level-of-regard, empathy, genuineness, and unconditionally in the CoI—within the online courses taken, responses Likert-type scale (Swan et al., 2020). According to study findings, connections exist between level of regard and empathy for the CoI preferences, teaching preferences, and student-centered presence in particular (Swan et al., 2020). High fidelity to learner-centered approaches, implemented with integrated technology system, can be effective in Personal Learning (PL) schools to support the functions of accountability in recordkeeping, planning, learning, and assessment (Lee et al., 2021).

De la Varre et al. (2011) examined through an inquiry model with a test-retest, longitudinal survey, and studied cultivation of social support in emphasizing a learner-centered model of instruction (De la Varre et al., 2011; Lee et al., 2021). Over the course of two years, 700 student participants from 93 U.S. rural schools included a mixed-methods empirical evidence study of online distance learners in U.S. rural high schools that scrutinized randomized qualitative data collection from facilitator interviews and teacher debriefing meetings (De la Varre et al., 2011). The data analysis revealed pragmatic ways for teachers as practitioners to engage in student-centered intervention to guide self-control factor practices in the classroom, thereby enhancing academic outcomes (De la Varre et al., 2011; Lee et al., 2021; Swan et al., 2020).

Several investigators have employed a coding data analysis of qualitative data that revealed apparent themes of student-centered, blended learning effectiveness (De la Varre et al., 2011; Lepp et al., 2021; Swan et al., 2020). As investigated by De la Varre et al. (2011) the timeline of data collection is important to gain feedback from educational facilitators (teachers, tutors, and support staff) at the midpoint and at the end of the academic year. Referring to the

study, at the mid-year interview, quantitative data analysis facilitated an intervention design for facilitators and their students, enabling a shift in the perception of teachers and facilitators to plan for incorporation of learner-centered practices (De la Varre et al., 2011). Themes that emerged from transcripts of facilitator interview analysis reported benefits of student-centered learning through positive correlations of role definition resulting from online training and strategies effectively used in the classroom, along with expectations in the perceptions of student-centered learning experiences (De la Varre et al., 2011).

Student Academic Self-Efficacy

In a student-led classroom, students are encouraged to follow individual learning paths, through supportive frameworks designed to build learning confidence (Azizi et al., 2022; Bandura, 1982; Blackmore et al., 2021). Variable academic settings provide students with opportunities to acquire a growth mindset when they are provided teaching pedagogical practices curricula that best serve their ability to ascertain learning assurance (Dweck et al., 2014). Attributed to Bandura (1982), the concept of self-efficacy represents students actively integrating individual and situational dynamics that create self-confidence. Certain classrooms that promote students self-confidence can be found in existing literature.

Findings from several research studies suggest that the skill of the teacher can increase a structure for students that may provide self-efficacy and self-esteem (Azizi et al., 2022; Carioli & Peru, 2019; Hariri et al., 2021). Researchers studied physiological and verbal persuasion, social support that resulted in facilitating self-efficacy in the classroom (Blackmore et al., 2021). Improved structures enhance student outcomes directly because of student perceptions. Teacher pedagogy in the classroom allows instructors to promote academic tenacity through teaching efficacy, supporting students and creating an effective collective atmosphere full of significant

possibilities (Dweck et al., 2014). Accomplishment of communal efficacy requires persuasive means of linking objectives to shared purposes (Bandura, 1982). Teachers can create learning climates that can promote student wellbeing while supporting self-efficacy.

Students' perceptions directly influence academic performance. Students' attitudes, awareness and mindsets about intelligence directly influence academic ability levels (Dweck et al., 2014; Lee et al., 2021). As discussed by Azizi et al. (2022), the active use of the theoretical framework of Bandura's seminal Social Cognitive Theory student learning functions from the cognitive factors basis of self-efficacy, which in turn directly impacts students' behavior. Bandura (1982) reported, a better predictor of student behavior is how valuable future success seems to the student, and not only relying upon past accomplishment itself.

Teaching self-efficacy, can be exercised when educators implement intervention that augments students' levels of learning confidence. Academic success increases through interconnection. Self-efficacy impacts a learning task, by first prompting growth by acquiring influential skill sets which develop through action (Blackmore et al., 2021). As discussed in a report by Dweck's et al. (2014), student perception ultimately influences student outcomes. A study incorporating a mixed-methods design, student mindset patterns and personal perception of learning for recorded student reactions to praise (Dweck et al., 2014). Bandura (1982) suggested that promotion of self-efficacy is fundamental. An extension of self-efficacy can be educators' facilitation of providing students with ample occasions to build learning achievement (Blackmore et al., 2021). Student self-efficacy can be taught through intervention.

According to Bandura (1982), intentional self-awareness help students plan for success, while addressing the next set of developmental challenges. *Mindset* innovators Dweck et al. (2014) explored student academic performance by considering psychological factors affecting

student efficacy and beliefs about learning. Through empirical analysis of case studies, investigators discovered that achievement in the field of academic development, rather than raw talent, depends upon the intentional application of self-regulatory skills, alongside student perceptions that contribute to academic tenacity (Azizi et al., 2022; Blackmore et al., 2021; Dweck et al., 2014).

Positive correlation findings (Blackmore et al., 2021; Dweck et al., 2014) suggest a connection between academic success and self-efficacy. High self-efficacy is therefore inherently *good*. In particular, Blackmore et al., (2021) suggest "self-regulatory strategy training can enhance students' self-efficacy accuracy, self-regulation ability and academic achievement" (Blackmore et al., 2021, p. 172). School leaders should promote educators to offer self-efficacy calibration intervention. Academic self-efficacy can relate to self-regulated student behavior when students create individual goals with self-control in the use of learning and communal goals (Dweck et al., 2014). Intentional mindset interventions could also affect academic achievement by fostering *academic tenacity* and academic confidence in students (Dweck et al., 2014). By promoting teacher self-regulated skills (De la Varre et al., 2011; Dweck et al., 2014; Lee et al., 2021) researchers suggest that school administers can encourage both teacher and student self-efficacy by enhancing student motivation. Performance through cognitive and motivational scaffolding promote student autonomy, and also intrinsic motivation with communal belonging (Dweck et al., 2014). Through school leadership, scaffolding students to learn the relationship between self-efficacy and accomplishment may remain with the student.

Self-Regulated Learning

Pedagogical practices that encourage student self-monitoring, implement a step toward self-regulated learning (SRL) that can bolster student DSE and impact motivation (De la Varre et

al., 2011; Lee et al., 2021; Swan et al., 2020). Student-led academic accomplishment that fosters SRL can be key in developing self-advocacy to seek guidance in goal setting, time management, and building confidence in learning strategies (Zimmerman & Martínez-Pons, 2012). It is possible to stop poor self-regulation with vital self-monitoring practices. Within regulation of self-efficacy, students can create attainable objectives in the planning phase of learning within a digital environment (Blackmore et al., 2021). Especially relevant to the modern classroom, where learners face psychological complications to learning, educators support student confidence by inspiring operative mindsets in students, thus increasing students' ability to self-regulate through motivation (Dweck et al., 2014). Accordingly, Zimmerman's research (2002), as cited by Blackmore et al., (2021), researchers find that teachers who support student confidence in learning through a self-regulated learning model proposed that student behavior consisted of three phases: forethought, performance, and self-reflection.

Dignath and Veenman (2021) reviewed classroom observation studies and found several compelling correlations. Teachers who support student metacognitive development directly coach SRL strategies, which in turn enables students to develop learning strategies (Dignath & Veenman, 2021). SRL skills are also needed for translating learning strategies successfully into individual, self-directed confidence in the learning process (Dignath & Veenman, 2021). Teachers train students to self-regulate and help students gain conscientiousness in a digital learning environment (Rios et al., 2018). Learners that employ SRL can facilitate personal reflection in the effectiveness of implemented study strategies, thus improving student cognition that can lead to monitored self-control techniques for future learning opportunities (Blackmore et al., 2021). Encouragement of SRL impact of student outcomes. Teacher practices can support development of widespread learning effectiveness when students' SRL produces a self-

perception of learning confidence (Dewitt, 2020; Dignath & Veenman, 2021). In these ways, SRL helps student development.

Self-Regulated Learning Key to Successful Academic Transitions

Complications result from transitions, from grade to grade and class to class. Researchers Blackmore et al. (2021) explored connections in evaluating academic, transitional time periods during which student learning processes are assessed. Student perceptions can be relevant to teacher pedagogical practices. Learners exhibit inherent insecurity (or confidence) during transitions from middle to high school and high school to university. Students who ascertain the empowerment self-efficacy through SRL in digital environments may break cycles of poor learning habits (Blackmore et al., 2021). Transitions into a blended learning classroom also reveal similar trends. From 17 classroom observation studies conducted in various school settings, researchers observed explicit instruction of direct classroom instruction alongside subtle supplementary strategies that directly evidenced SRL student development (Dignath & Veenman, 2021). Students can gain transitional skills within different learning environments.

Equally important is the relationship between sequential steps. Dignath and Veenman (2021) unified the work of scholars who developed research instruments, citing both Zimmerman's (1989, 2002) process model of SRL, and a regulatory checklist created by Schraw, Spruce and Bol. These tools help teachers distinguish between teachers' instruction of metacognitive strategies, and framework structures that guide student learning processes of behavior, self-monitoring and motivation. In determining appropriate steps for student outcomes, special attention was given to three phases of the SRL cycle: planning, monitoring, and evaluation. (Blackmore et al., 2021; Dewitt, 2020; Dignath & Veenman, 2021).

Examining research methods that incorporate learning task sequences could build student confidence. Where students could participate in SRL strategies regulated independent writing processes, teachers were found to provide confidence with intentional support and development with explicit instruction into the complex, cognitively demanding strategies of students motivating themselves while incorporating extensive scaffolding of self-regulated strategies (Dignath & Veenman, 2021). While focusing on indirect activation of SRL, students who were motivated fostered the development of SRL. Related to student outcomes, the direct instruction of metacognitive strategies and the learning opportunities that allow motivation for students to self-regulate offer new insights c Student who connect learning opportunities can create a sense of confidence in learning while navigating transitions.

Building SRL may connect with intentionality. Findings in the literature revealed habitually struggling students fail to achieve enhanced persistence in learning during academic transitions, Corno as cited Dignath and Veenman (2021), stressed that prioritizing metacognitive strategies, teachers focused less on SRL. Within the field of STEM, other processes that may be engaged with SRL include student awareness in forethought, which correlates with other self-reflective processes (Zimmerman, 1989, 2002). Teachers can structure student self-evaluation as intervention (Blackmore et al., 2021). Study results also suggested that teachers who choose to activate metacognition within student learning, inspired confidence in productive student self-evaluations (Dignath & Veenman, 2021). This perpetual cycle fostered students' ability to self-regulate and efficiently adjust self-efficacy (Blackmore et al., 2021). Students may use the instruction of acquired skills to gain cognitive strategies to learn, monitor, and regulate that learning to successfully navigate academic transitions from grade to grade and class to class with.

Educational Digital Self-Efficacy

It is just as important for teachers to exercise confidence in the ability to use technological tools with digital self-efficacy (DSE) in student instruction as students to engage with learning such confidence in digital learning environments. Teachers are responsible for leading with sound teaching choices to improve the education of students; an action research study explored the influences of teachers' pedagogical decisions, and how these decisions affect the success of remote learning (An, 2021; Hanimoglu, 2018; Lepp et al., 2021). Qualitative research methodology, researchers questioned a sample of science teachers working in a total of 18 schools, most with class sizes of 20-24 students (Lepp et al., 2021). To illustrate research questions examining the extent of teacher self-efficacy, educators explored teacher perceptions through semi-formal interviews. Study findings revealed important factors that influence teachers' pedagogical decisions during remote learning and how these decisions were reflected in the teaching process during distance learning (An, 2021; Hanimoglu, 2018; Lepp et al., 2021).

Equally important, themes emerged concerning teachers' engagement with existing online educational tools, and digital competences; to ensure consistency these two were sub-categorized into teacher-related factors and student-related factors (Lepp et al., 2021; Rios et al., 2018; Wang et al., 2013). Leaders in the classroom provide direction with educational technological tools for instruction (Lepp et al., 2021; Rios et al., 2018; Wang et al., 2013). Specific findings demonstrated that teachers must consider student-related factors in exercising DSE with delivery of content, existing digital tools and how various student homes were prepared to provide effective learning with digital learning tools (Lepp et al., 2021; Sugarman & Lazarin, 2021). Teacher's attitudes may directly influence student learning within a digital learning environment.

According to teachers, there can be additional factors that contribute to effective online learning. The existence of purposeful digital tools was an identified factor in creating an effective online learning environment for both teachers and students (Lepp et al., 2021; Rios et al., 2018; Wang et al., 2013). In addition, findings from studies suggest providing navigable workloads for both teacher and student, while prioritizing well-being, were also pertinent factors relating to teacher pedagogical decisions in efficient digital learning environment (Lepp et al., 2021; Rios et al., 2018; Wang et al., 2013). Noting these results, researchers became aware of how valuable digital tools can be to effectively create an effective learning environment with creating learning confidence in students that achieves digital efficacy (An, 2021; Hanimoglu, 2018; Lepp et al., 2021). Teachers can create systems of learning that promote student learning within digital learning environments.

Teacher Support Structures for Online Environments

Several studies examining supports for teachers who implement online instruction. In support of social contexts of learning in online, digital spaces, (Carioli & Peru, 2019; Lepp et al., 2021; Shafritz et al., 2016). Technology-based design for an online network structure can be intended to increase productivity and academic success. Researchers studied social structures for faculty roles and responsibilities in academic digital settings (Burnett et al., 2014; Lepp et al., 2021; Snyder, 2018). In addition, using qualitative methods to gather data, Burnett et al. (2014) reported on the advantages of faculty, collaborative online networks for supporting employee satisfaction while increasing productivity. Collaborative online social supports can help teachers and faculty navigate digital learning environments.

Findings also suggest the specific need for practical digital framework: The Goal Achieve Network for the Diversity of Alignment to Leverage Faculty Expertise (G.A.N.D.A.L.F.E)

system provided support through a defining quality of self-forming groups focused on a single goal through achievement (Burnett et al., 2014). Using an alternative framework (Yammer, GANDALFE and other theoretical alternatives) enabled administrative agents to align goals of the academic institution with participation of faculty members (Burnett et al., 2014). These results are promising for teachers and students alike to bolster DSE (An, 2021; Carioli & Peru, 2019; Wang et al., 2013). Online tools create learning opportunities for teachers.

In the same way, an increasingly digital world offers digital classrooms that have significantly changed secondary education (Hanimoglu, E. (2018). Researchers conducted a study of English for Academic Purposes (EAP) teachers' perception of E-learning technology; researchers explored formal and informal contexts of student education, and relation to student success, (Carioli & Peru, 2019; Dhillon & Murray, 2021; Wang et al., 2013). Accordingly, studies included in this research made use of a mixed-methods approach for data collection. Teachers were asked to respond to a mix of binary, objective, multiple choice, Likert scale, and short-response digital surveys. In-depth interviews were also conducted to enhance validation and authenticate data interpretation (Dhillon & Murray, N., 2021). Study results were promising, reporting examination of teacher perceptions of student behavior and confidence in learning within online environments.

Student Digital Self-Efficacy

Further, Dhillon and Murray (2021) examined teachers' use of various E-Learning tools. The results showed that the tools most widely used by ELA teachers engaged in EAP instruction were illustrating video (96% of surveyed teachers used) and Virtual Learning Environments (VLEs) (85% of surveyed teachers used). Specifically, reported within the EAP teacher interviews, particular changes observed in ELA students exposed to digital educational tools

were consequently an increased student learner autonomy (self-efficacy), engagement and motivation (Dhillon & Murray, 2021; Lepp et al., 2021; Wang et al., 2013). Certainly, students in these EAP classes benefited from the use of E-Learning Technology, as an active, student-centered learning environment, resulting from the necessity to become competent and able to conduct internet research, communicate formally through e-mail, engage within online platforms and ultimately complete and submit assignments using digital platforms (Dhillon & Murray, 2021; Rios et al., 2018; Wang et al., 2013).

In research aimed at exploring effective pedagogy to improve students' reading comprehension, Carioli and Peru (2016) examined a metacognitive technique. Implementing a Teachers' Guide to *Think-Alouds* digital learning environment classrooms were selected for examination in order to support student online reading comprehension (Carioli & Peru, 2016, 2019). The researchers studied current primary and secondary teachers who reported that they were not purposefully and adequately prepared to intervene to foster students' mastery of ELA standards in an Online space (Carioli & Peru, 2016, 2019). The literature review conducted by these researchers focused on the need for student self-regulation while employing DSE. In order to develop techniques for cognitive processing and strategies in online reading comprehension, paying special attention to modeling, guided practice and reflection, researchers became necessary when creating a *Think-Alouds* Teachers' Guide (Carioli & Peru, 2016). This study substantiated the need for further, valid data to show primary and secondary teachers to be adequately trained in *Think-Alouds*, specifically in reading comprehension with a *Think-Alouds* Teachers' Guide in order to empower learners to gain confidence to learn within digital learning environments while exercising self-regulation techniques (Carioli & Peru, 2016, 2019).

Carioli and Peru conducted a follow-up study (2019) in which they continued to investigate the value of implementing a Teachers' Guide to *Think-Alouds* in order to support student self-efficacy in effective reading comprehension of online texts (Carioli & Peru, 2019). Researchers studied the *Think-Alouds* teaching technique with 89 student participants ranging in age from 10 to 14, placed into either an experimental group or a control group (Carioli & Peru, 2019). Both student samples were examined before and after the period of training. In the examinations, students were required to access and express a critical analysis of an online text (Carioli & Peru, 2019).

Ultimately, findings suggested that the *Think-Alouds* pedagogical tool empowered learners' confidence (Carioli & Peru, 2019). By exercising self-regulation, students could gain DSE in online reading contexts. These searchers noted that teachers trained with the *Think-Alouds* procedures in the experimental group enabled student DSE who were more confident to learn, opposite from teachers who had no training in the control group (Carioli & Peru, 2019; Rios et al., 2018). In addition, this study suggested that *Think-Alouds* should be compared with other pedagogical tools, pre-posttests, or even gather data from a larger sample of students in order to substantiate the validity of these findings (Carioli & Peru, 2019; Rios et al., 2018; Wang et al., 2013). Teachers who use interventions can create student SRL in DSE.

Nevertheless, *Think-Alouds* are not the only teaching technique researchers examined in attempting to find tools that effectively foster student DSE in online classrooms. Rios et al. (2018) explored pedagogy designed to engender student DSE and satisfaction in remote distance learning programs within digital learning environments. Furthermore, researchers studied student perceptions of individual online course differences with engaging various personal types of students and how this impacted individual student course confidence for learning and satisfaction

(Rios et al., 2018). It was concluded that stress-free navigation of online educational technology tools fosters a strong sense of student learning confidence while providing active engagement. Equally important, student self-report responses voiced the value of teacher presence in digital learning environments that communicate clear expectations. Explicit feedback, stable social context, and organized course content also helped support cognitive development in students identifying personal confidence, strengths and weaknesses (Lepp et al., 2021; Rios et al., 2018). Further data analysis suggested that self-directed learning engages efficient technological tools that develop student DSE in a digital learning environment that meets students' educational needs (Lepp et al., 2021; Rios et al., 2018; Wang et al., 2013).

In order to understand the relationship among students' characteristics and previous experience in online learning, SRL, DSE, course satisfaction, and performance, researchers explored confidence factors (Wang et al., 2013,). Scholars Wang et al. (2013) cited Pintrich and Zusho's definition of cognitive factors in SRL as key in engaging self-control of behaviors with motivation, goal-directed, and recognition of confidence for academic tasks. Wang et al. (2013) likewise investigated ways to study relationships between SRL empowering students' characteristics, and technology self-efficacy in course outcomes in online environments. Researchers suggest potential opportunities for imparting student DSE by implementing educational technological tools as a mode for learning (Burnett et al., 2014; Carioli & Peru, 2019; Dhillon & Murray, 2021). Teachers can create structures that promote student DSE within engaging students in digital learning environments.

Connections of Blended Learning

Dynamics within the traditional in-person classroom are quite distinct from those in an innovative, digital educational setting (Carioli & Peru, 2019; Graham, 2005; Uz & Uzun, 2018).

Despite the debate regarding components, scholars and practitioners agree that even if the term *blended learning* has not been clearly defined (Means et al., 2013), it has been suggested that course learning content should be (?) digitally accessible by at least 25% digital tools (Means et al., 2013,). Combining the benefits in face-to-face instruction with those of digital learning platforms has resulted in *blended learning* classrooms (Graham et al., 2005; Means et al., 2013; Rasheed et al., 2020).

Uz and Uzun (2018) suggested combining the effectiveness of traditional face-to-face teaching and online teaching through pedagogical choices. Accordingly, blending learning teachers may discover conceptual theory that institutes practices can prompt student efficacy within digital learning. Effective characteristics in blended learning are evidenced in the goals of instructional leaders (Carioli & Peru, 2019; Rasheed et al., 2020; Rios et al., 2018).

Employing methods to improve student learning outcomes, including instructional practices, teachers that engage students with the use of classroom educational technology define the term *blended learning (*Rasheed et al., 2020). Blended learning collaboratively combines the benefits of joining digital innovation with the strengths of the physical in-person learning environment (Uz & Uzun, 2018). As suggested by Kirwan and Roumell (2015), educators can leverage *best practices* with respect to an online component, aligning student needs with developmental profits of deliberate fashioning online roles, dispositions, and characteristics.

As described by Uz and Uzun (2018), researchers argued substantial dynamics (Means et al., 2013) influence students' ability can prompt agency through blended learning (Graham et al., 2005). Despite beneficial permutations of students' social, cognitive, and technology engagement, there exist clear drawbacks to blended learning classrooms. (Rasheed et al., 2020). Complications suggest innovation requires creativity.

Challenges of Blended Learning Classrooms

Specific contributing factors (Hariri et al., 2021; Rasheed et al., 2020; Rios et al., 2018) of technological access, anxiety, complexity impact student learning. Illiteracy negatively affects teaching and learning in digital learning environments (Carioli & Peru, 2016, 2019; Graham, 2005; Graham et al., 2005). Beyond defining the advantages of blended learning, the term is not complete without a brief debate of complications that face both teachers and students. Obstacles in blended learning include student isolation, teacher technical literacy and access to technology.

Achieving the goal of equitable education requires exploring approaches to teaching and learning that move from isolated instruction toward an autonomous, (Esmail et al., 2017). A self-directed model of education, where all participants can have a deliberate liberating education, benefits and supports both the community, as well as the individual (Kolb & Kolb, 2017). Null (2017) argued that instruction is enacted through active decision making, and that curriculum in a democracy should provide preparation for civic participants to function inside the community (Esmail et al., 2017; Null, 2017). Blended learning accordingly promises to expand the limits of both online and traditional *in-person* learning inside classrooms that prepare students for twenty-first century vocations and civic activities (Gallup Inc., 1999; Rasheed et al., 2020; Rios et al., 2018). Particular obstacles of literacy include complications of encouraging students to read and to learn to express themselves clearly in writing (Carioli & Peru, 2016, 2019). Additional challenges in blended learning classrooms include SRL (Zimmerman, 2002), instructor technological competence (Rasheed et al., 2020), and efficient access to educational technological tools (Sugarman & Lazarin, 2021).

An initial factor that stops students from learning is a feeling of isolation. Student self-monitoring and regulation development inside a blended learning classroom can be inherently

challenging for students (Carioli & Peru, 2016; Hariri et al., 2021; Rasheed et al., 2020). SRL, in particular, is essential for students to process learning through technological competencies that lack explicit instruction (Rasheed et al., 2020). Within findings from a literature review, Rasheed et al. (2020) discussed isolating factors that influenced student ability to self-regulate, concerning motivation in procrastination, lacking time management skills, and limited preparation (Hariri et al., 2021; Zimmerman, 2002). Nevertheless, connecting the use of learning technology in combination with enhanced motivating educational technology can influence student outcomes (Howard & Howard, 2017). A feeling of isolation can inhibit student development within a digital learning environment.

A second factor of technological illiteracy and insecurity facing instructional learners also complicates learning inside a blended classroom. Confidence in educational technological tools also concerns teachers, coaches, and instructors (Carioli & Peru, 2016, 2019; Rasheed et al., 2020). A review of literature suggested a vital need for instructors of blended online classrooms who are competent with digital learning platforms (Rasheed et al., 2020; Rios et al., 2018). Yet Rasheed et al., (2020) argued that the necessity of acquiring technological literacy or competency poses challenges for teachers as adult learners. At times teachers may feel that they are being subjected to high-tech intimidation, resulting in confusion and resistance to change (Rasheed et al., 2020). Teacher technical self-efficacy will improve teacher effectiveness (Jeon, 2017), even more so within a blended classroom of learning ELA classroom. Confidence in technological literacy impacts the effectiveness of teachers, coaches, and instructors in blended classrooms.

A third issue that impacts student learning in a blended classroom reflects equitable access to technology for students and teachers (Graham, 2005; Hariri et al., 2021; Rasheed et al.,

2020). The critical need of technological training is vitally necessary for the ability of teachers and students to proficiently use available technology (Carioli & Peru, 2019; Rasheed et al., 2020; Rios et al., 2018). Rasheed et al. (2020) reported that teachers or students who face inequitable access lack any combination of technology hardware, technical training, software support or bandwidth, which directly impacting users sufficient ability to use technological tools (Esmail et al., 2017). Other reasons that influence reluctant blended learning teachers include inability or illiteracy in using online digital technology specifically, which can develop student agency in modern educational settings. Select teachers may face special challenges as a result of successive use of traditional methods of teaching without digital tools (Rasheed et al., 2020). Access to educational technological tools also challenges students to learn in a blended learning classroom.

In short, obstacles in blended learning include student isolation, teacher technical literacy and access to technology. Teachers may face drawbacks in a blended learning classroom, especially when loyalty, proficiency and success of traditional face-to-face strategies are challenged, therefore classroom instruction may be disrupted with the ever emerging and innovating educational technology. Rasheed et al., (2020) suggested in contemporary classroom students are assumed with inherent digital skills would experience *fewer* problems. Conversely, teachers who are less familiar with corresponding pedagogical practices represent an "older generational teachers are likely to be less digitally capable" (Rasheed et al., 2020, pg.10). Nonetheless, the benefits of blended learning include exhausting the possibilities into integrating an enhanced model incorporating both face-to-face and online aspects (Rasheed et al., 2020). Instructors who are made aware of pitfalls, in contributing factors such as student isolations, teacher technological self-efficacy, and access to technology instructor technological competency, and efficient use of technological tools (Howard & Howard, 2017), are prepared for

strategic learning, and student development within a blended classroom. Teachers' satisfactory routine, system, and proficiency can also be applied to blended classrooms with traditional methods. Educational leaders advance forward when formulating vigorous pedagogical theory that can be applied to current and future curriculum practices.

Essential Pedagogical Practices

To be considered effective in blended learning, teachers' pedagogical practices in a blended learning environment must improve student learning outcomes (De la Varre et al., 2011; Hariri et al., 2021; Lee et al., 2021). Enhanced didactic technology has improved and enabled student outcomes (Alammary et al., 2014; Jeffrey et al., 2014; Rasheed et al., 2020). Enriched pedagogical methods that support learning results combine theory with practice (Means et al., 2013). Leveraging the assets of online and face-to-face teaching, instructors may effectively engage didactic routines within blended learning environment. Teacher presence applying pedagogical practice can enhance student social, cognitive, and efficacy learning in blended classrooms.

First: Social Engagement-Collaborative Approach

Collaborative learning specifically depends on sharing emergent thoughts about connecting class content with experience others including teachers, tutors, and various peers (Means et al., 2013). Theorist Daniel Goleman's foundational research popularized the social awareness term Social Emotional Learning (SEL), suggesting forming emotional intelligences enriched student outcomes by providing student relationship management (Neth et al., 2020; Ornstein & Hunkins, 2017). Teachers who link social supports and self-efficacy enhance student academic outcomes within online learning (Lai et al., 2021; Rios et al., 2018). Hence, blended learning instructors who supporting student development with assigned accountable roles social

pedagogical practices by leveraging constructivist differentiation in small group instruction (Kolb & Kolb, 2017; Ornstein & Hunkins, 2017; Rogers, 1969). In these ways teachers of blended learning classrooms may demand high standards in learning outcomes.

Metacognitive awareness through social emotional learning trigger positive student outcomes (Cook-Sather, 2011; Dewitt, 2020; Ornstein & Hunkins, 2017). To this end, Broadbent et al. (2022) developed a measure of student perceptions of SRL in social online classrooms and blended learning contexts. Leveraging empirical analysis, these researchers developed a "socially aware" (p. 152) self-reporting tool online SRL through digital means (Zimmerman, 1989, 2002). Students who engage metacognition prompt success.

Likewise, the benefits of blended learning can engage learners. Specifically designed for clarifying the strength of blended learners, students grasped learning strategies when practitioners adopted a social cognitive perspective, establishing student learning awareness in *metacognitive regulation* (Broadbent et al., 2022; Ornstein & Hunkins, 2017). Student can trigger motivational beliefs in "*metacognitive regulation* [that] include the ability to monitor, guide, control and manage one's learning and behavior during the problem solving" (González Galli et al., 2020, p. 8). Over time, intentionally creating habits of inviting learners into reflective dialogue for learning to integrate social awareness (Cook-Sather, 2011; Ornstein & Hunkins, 2017) promoted formation of an inclusive environment that fostered a sense of belonging (Jeffrey et al., 2014; Swan et al., 2020). Gaining learning awareness, students deliberately operate in the benefits of blended learning classrooms.

Second: Cognitive Engagement-Experiential Learning Approach

Stress-free navigation of online educational technology tools fosters a strong sense of confidence while providing active engagement (Rios et al., 2018). Cognitive engagement with

experiential learning offers clear instructional that invokes curiosity and motivates student to learn content (Jeffrey et al., 2014). Theorist Carl Rogers claimed that teachers of learner-centered classroom commonly promote self-actualization through cognitive process of experience (Ornstein & Hunkins, 2017; Rogers, 1969; Swan et al., 2020). Inquiry based instruction allows students the learning opportunity to regulate metacognition.

Employing experiential learning, scholars Rios et al. (2018) argued that pedagogical practices that upheld teacher presence with stable social context, enhancing instruction with organized course content would offer students cognitive engagement in students' awareness in self- actualization within digital learning environments (Alammary et al., 2014; Rios et al., 2018). Additional investigators similarly revealed emergent experiential learning themes of student-centered blended learning effectiveness while students clarified personal learning strengths and weaknesses (Azizi et al., 2022; De la Varre et al., 2011; Swan et al., 2020). An intervention engaged the perception of teachers and facilitators to practice fusion of learner-centered practices in the experiential learning of students (De la Varre et al., 2011; Ornstein & Hunkins, 2017; Rogers, 1969). Teacher routines what encourage students to engage learning into experience find students profit from the process.

Instructors who provide clear, unambiguous instructions and guidelines in assessment, within both traditional and online contexts, improve student outcomes (Jeffrey et al., 2014). When students reflect upon challenging inquiry experiential learning, learners engage metacognition that ask students to discover limits of personal ability (Alammary et al., 2014; Jeffrey et al., 2014). Within a blended classroom, students engage with interactive activities, which allow students to move at one's own pace, or to regulate learning (Means et al., 2013). The use of technology has been found to engage students within a supportive SRL environment

(Gambo & Shakir, 2022). Practitioners reported benefits resulting from online training and strategies of student-centered experiential learning through positive correlations. Effectively used in the classroom, explicit coaching facilitates student expectations of the social perceptions of student-centered experiential learning experiences (De la Varre et al., 2011; Kolb & Kolb, 2017; Swan et al., 2020). In these ways, clear communication benefits students' inquiry in experiential learning within a blended classroom.

Third: Teacher Presence Engagement-Constructivist Approach

Pedagogical practices that support teacher presence with transparency by clear expectations with explicit feedback helps student learning outcomes (Cook-Sather, 2011; Rios et al., 2018). The theorist Lev Vygotsky's Social Constructivism promoted effective Experiential Learning teaching scaffolding along with peer engagement, both of which would enhance a child's learning outcomes (Ornstein & Hunkins, 2017). Additionally, teachers may restructure experiential learning digital instruction by changing perceptions.

In order to improve student growth within powerful digital instruction in online classrooms, teachers require intentionality. Moreover, Kirwan and Roumell (2015) argued that similar traits in experiential learning defined factors of effective online pedagogy including "student—instructor interaction, student-centered learning environment, time-on-task, and quality, interactive learning activities" (p. 33). Such pragmatic pedagogical structures increase digital competencies, and student outcomes.

Particular scaffold instruction can clarify experiential learning pedagogy (Cook-Sather, 2011; Ornstein & Hunkins, 2017). As digital screen time is required in blended classrooms, each learning process should be considered valuable and necessary, especially when learners are led by one or more facilitators (Means et al., 2013). Feedback from teachers to students within

digital learning environments that is elaborated, timely, often, or nearly instant, ensures for

students smooth future learning through supporting individual steps (Jeffrey et al., 2014; Rios et

al., 2018). Bolstering teacher immediacy, in practice such as Think-Alouds in experiential

learning, is crucial (Carioli & Peru, 2016, 2019). *Immediacy* in teachers, coaches, and instructors

is vital to enhanced student outcomes in blended learning classrooms (Jeffrey et al., 2014; Rios

et al., 2018).

Connections: Key Takeaways in Re-Engaging At-Risk Students

In summary, the most important considerations must be fostering successful learning

processes that support student outcomes in blended learning classroom environments by social

engagement with a collaborative approach, cognitive engagement through experiential learning

approach and teacher's presence through a constructivist approach (Cook-Sather, 2011; Kolb &

Kolb, 2017; Means et al., 2013). Leveraging the strengths of both online and face-to-face

instruction would support student learning outcomes. Starting with supportive learning contacts

could negotiate blended learning conditions for re-engagement (Jeffrey et al., 2014; Rios et al.,

2018). Ultimately, educators, coaches and instructors of blended learning classrooms must

pursue vital recovery methods to monitor students in order to structure early at-risk students

identification of those disengaged from the digital classroom (Carioli & Peru, 2019; Jeffrey et

al., 2014; Rios et al., 2018).

Motivation of Student Learning

Student self-efficacy in a blended, online classroom could also have a transformational

effect on student overall motivation in online learning (Carioli & Peru, 2019; Hariri et al., 2021;

Wang et al., 2013). Individualized solutions can be found for the unique needs of each student

(Ambaryani & Putranta, 2022). Related studies, in particular, have reported success in

54

motivating unmotivated students with practical lessons, focused on self-motivation that brings content theory by relating actionable online learning strategies into personal experiences (Azizi et al., 2022; Carioli & Peru, 2019; Hariri et al., 2021).

To illustrate, researchers categorized motivational factors in virtual classrooms into the following five categories: SRL enthusiasm, empowerment, encouragement, emotions, and expectations (Carioli & Peru, 2019; Hariri et al., 2021; Vawter, 2019). Teacher practices can make an impact. Purposefully, educator and motivational presenter Vawter (2019) relates personal experience by recounting a need that required bolstering group enthusiasm and motivation, relating to the incredible task required by teachers in every class, every day (Azizi et al., 2022; Sugarman & Lazarin, 2021; Vawter, 2019). In this interpersonal way, Vawter (2019) encourages teachers to use practical life lessons in the classroom to increase motivation of both teachers and students (Azizi et al., 2022). Teachers can impact student motivation.

The interrelated concepts of motivation and SRL can be unclear. Discovered through research studies, teachers examined the impact of research study pedagogy upon students constructing a reading self-concept in order to develop voice (Carioli & Peru, 2019; McMullan & Sutherland, 2020). Indeed, findings demonstrate that, within a selected context, students who use interactive collaborative reading in this limited action-project, with accountability were able to voice effective responses in writing (Carioli & Peru, 2019). Furthermore, students were more sensitive to learning and gained an awareness of broad educational structures when teachers used action-research cycles as part of improved practices in the ELA classroom (McMullan & Sutherland, 2020). The study results illustrate an alarming discovery of student lack of motivation against assessments (McMullan & Sutherland, 2020; Sugarman & Lazarin, 2021). As discussed by Dweck et al. (2014) mindset matters, and when students perceive they cannot attain

success, intervention is needed to help student *to learn at all costs* (Borekci & Uyangor, 2018; McMullan & Sutherland, 2020). SRL may influence student motivation in more than one way.

Additionally, motivation as it relates to literacy acquisition affects students' ELA reading comprehension (Sugarman & Lazarin, 2021). As explored by scholars McMullan and Sutherland (2020) and Sugarman and Lazarin (2021), the motivation of a class of disadvantaged high school ELA students was impacted when teachers attempted to enhance student reading comprehension skills. In particular, researchers used student interviews, journals, and open-survey questions to gather qualitative data collection (Clark & Ivankova, 2015; Edmonds & Kennedy, 2017). This research design helped investigators to further understand the factors contributing to student literacy achievement (McMullan & Sutherland, 2020; Sugarman & Lazarin, 2021). How SRL impacts motivation rates requires additional examination.

Measurements to Gauge Motivation

As explored by Hariri et al. (2021) further examples promote self-regulation and student learning motivation, indicating positively correlated elements to predict effective student learning strategies. Specifically, researchers applied the Motivated Strategies for Learning Questionnaire (MSLQ) as a quantitative research design with 408 public secondary students (Hariri et al., 2021). Study findings suggested that, depending on student metacognitive motivation factors such as value, expectancy, and affective components, students who intervened in their own learning can significantly predict academic achievement (Hariri et al., 2021).

In particular, motivation also related student academic stagnation (Azizi et al., 2022). Alternatively, educators Borekci and Uyangor (2018) examined the relationship between family attitudes, students' motivation, academic complications and how these factors relate to student academic achievement. The study sampled from a population ranging from grade 9 to 12, a

sample of 496 high school students, students volunteered to take mixed-methodology research study (Clark & Ivankova, 2015; Edmonds & Kennedy, 2017) that examined motivational factors (Borekci & Uyangor, 2018). The participant sample completed The Revised Test Anxiety, Academic Procrastination Scale in qualitative questions responses (Borekci & Uyangor, 2018). Significantly, the primary findings of these investigations indicated that positive attitude of supportive families of students contributed positively to the academic success of students demonstrating self-efficacy, motivation, self-esteem, and good study habits (Borekci & Uyangor, 2018; Hariri et al., 2021; Sugarman & Lazarin, 2021). In these studies, significant correlation was revealed between higher levels of resistant student tendencies and lower academic achievement. These findings relate specifically to the factors that influence motivation in student learning outcomes that can be relevant for examining relationships, if any exist, between student SRL, DSE and motivation.

Foundations of the Methodology

Without a doubt, researchers should specify the appropriateness of the context in which mixed-methods research study had been implemented (Edmonds & Kennedy, 2017). As discussed by Edmonds and Kennedy (2017), scholars who seek to understand the comprehensive dynamics of the research problem would find that isolating quantitative data or qualitative data collection lacks depth. Methodology that employs both a quantitative and a qualitative methodology will subsequently ensure a deeper, pragmatic understanding (Edmonds & Kennedy, 2017). To be able to neutralize strengths and weaknesses of quantitative and qualitative data collection, the rationale for using a mixed-methods approach leverages the individual benefits and the faults of either qualitative or quantitative methods (Clark & Ivankova, 2015; Edmonds & Kennedy, 2017). Practically, by intentionally combining both quantitative and qualitative data,

"the overall argument is that the researchers will obtain and integrate different results that compensate for each other and jointly provide a better understanding of the research problem" (Clark & Ivankova, 2015, p. 6).

Mixed-Methods Research

Clark and Ivankova (2015) reported the key processes and research terminology for mixed methodology design with an illustrative, sequential flow chart. Researchers could note that the initial process begins with developing research questions, navigating quantitative and qualitative data collection that would ultimately provide investigators with evidence to inform data analysis (Clark & Ivankova, 2015). Scholars Clark and Ivankova (2015) provided justification why researchers should understand rationales and provide clarity to the role of mixed-methods approach.

Systematic nuances exist between definitions of mixed-methods research, when a study requires more than one quantitative or qualitative approach, necessitating specific terminology to delineate these types of variations (Clark & Ivankova, 2015; Edmonds & Kennedy, 2017). According to Clark and Ivankova (2015), investigators could employ "defining mixed-methods research by drawing on and citing specific definitions found in mythological literature" (p.15). Paradigms, cultural norms, and mental models represent the term *philosophy*, as a "collection of assumptions and values about the nature of reality and knowledge that provide the foundation for a research study" (Clark & Ivankova, 2015, p. 3).

Key concepts of *Communities of research practice* refer to those who share common beliefs, agendas, substantive knowledge, and who are especially helpful when implementing a mixed-methods research study (Clark & Ivankova, 2015). Using examples from publications, Clark and Ivankova (2015) illustrate various research scenarios that required clarification in the

terminology. Implementing more informal or formal rhetorical style, according to experts, Clark and Ivankova (2015) suggest researchers clarify terms within mixed-methods research. Such discrepancies found in research study results require reconciliation. Researchers use *triangulation* for integration of data within a mixed-methodology research design to provide a clearer understanding of a research problem (Edmonds & Kennedy, 2017). To determine valid practical, conclusions about a phenomenon or directly compare numerical or categorical results contained from a quantitative method and consequently validate qualitative "convergence or divergence" (Clark & Ivankova, 2015, p. 6). When researchers are addressing different research questions or research goals as a basis for their argument *Complementarity* can provide a more comprehensive understanding (Clark & Ivankova, 2015).

Understanding the rationale for implementing the epistemology of mixed-methods research within the current study is most beneficial for ascertaining research designs within inquiry study (Edmonds & Kennedy, 2017). Rationales for researchers to employ mixed-methods approaches often include complementarity or triangulation, according to the time period allotted for the quantitative and qualitative data collection and analysis components of their mixed-methods studies (Clark & Ivankova, 2015). *Complementarity* will especially help describe a qualitative method to interpret the quantitative data in the present study to describe general educational trends that occur (Clark & Ivankova, 2015) within SRL practice in the high school classroom.

Instructional scholars Edmonds and Kennedy (2017) similarly contrasted the follow-up explanation design as well as participant-selection design. Specifically, in the follow-up explanation design, researchers exercise the framework of soliciting and collecting qualitative data in order to clarify the quantitative responses (Edmonds & Kennedy, 2017; Simpson &

Linder, 2014). While analyzing relevant *quantitative* findings, investigators sequentially consider the *qualitative* data that will ultimately further validate the initial quantitative findings (Edmonds & Kennedy, 2017). Within the follow-up explanations, the quantitative results are seen as more significant than the qualitative responses (Simpson & Linder, 2014).

Participant-selection design nevertheless functions within a series of processes (Edmonds & Kennedy, 2017). Phase 1 typically facilitates participant selection using quantitative designs that engender qualitative data, as illustrated in the data collection from questionnaires that provide criteria-related sampling (Edmonds & Kennedy, 2017). Phase 2 provides the focal point, as qualitative content analysis techniques would then be used to examine descriptive, open-ended, semi-structured interview transcripts (Edmonds & Kennedy, 2017). By providing a contact email address, student participant from Phase 1 may volunteer to respond in semi-structured Phase 2 interviews. Interviews may be conducted through individual or paired groupings of students, depending on scheduling to allow for ethical practices for minors for all interviews.

In a relevant mixed-methods research study example provided insight. Simpson and Linder (2014) particularly examined how early childhood educators were "being prepared to work with young children aged birth to five to develop early mathematics skills and processes" (p. 340). Intentionally choosing a sequential data collection approach, the authors sought a two-step process in applying mixed-methods research design, the research team investigated instructor perceptions by implementing two phases of research that collected both qualitative and quantitative data for analysis (Simpson & Linder, 2014).

Practitioners Simpson and Linder (2014) postulated that for a valid view this study must incorporate the *complementarity* of both professional trainers and preservice and in-service

teachers (Simpson & Linder, 2014). For preservice and in-service teachers in particular, participants in the study included those working in home-based facilities, childcare facilities, and school districts with a 4K program or Head Starts. These participants were also employed within a school district with 2- and 4-year teacher preparation program faculty; in the first phase, the large-scale quantitative measurement included 815 participants in the digital survey administration (Simpson & Linder, 2014). Further, from the 815 participants sample responded in the first phase, in the second phase, 20 participants were selected and responded in semi-structured interviews (Simpson & Linder, 2014) qualitative data used to make sense of the qualitative data (Edmonds & Kennedy, 2017). The use of this methodology efficiently provided educational insight.

Summary

In short, within an inquiry instruction research study design that follows a mixed-methods explanatory-sequential methodology functions with quantitative data collection first, followed by a quantitative explanatory phase in order to clarify connections (Clark & Ivankova, 2015; Creswell & Clark, 2017). Prior studies that provide participant perspectives often offer insight into educational practices contexts. Attention to participant confidence worsens students' struggle with literacy when teachers are not adequately trained in available digital tools (Sugarman & Lazarin, 2021). Existing literature that focuses on cognitive processes, identifies emergent trends, and at times promote self-regulation in student learning (An, 2021; González Galli et al., 2020). However, when learners are engaged through self-monitoring, students are then able to regulate metacognitive activities, and thus in doing so achieve enhanced cognitive learning outcomes (Alammary et al., 2014).

Two main trends specifically developed throughout research literature review. Evidential technological tools for education provides learners the support to develop self-efficacy (Dhillon & Murray, N., 2021). The second inclination identifies contributing factors of student learning within relevant snapshots of digital blended classrooms (Carioli & Peru, 2019). While examining active learning in student-centered digital classroom environments, researchers have discovered the significance of organized structure within efficient learning (Rios et al., 2018). Regardless of class content, digital learning spaces have improved students' efficacy for learning in student-centered environment (Lepp et al., 2021).

Currently, research on secondary ELA students' perspective of blending-learning is missing. While an incomplete body of literature exists that focuses on blended classroom environments, SRL pedagogical research lacks digital contexts. To understand the impact of instructional practices that support structured student learning, study becomes critical to ascertain relationships between online ELA learning and leadership attributes of teachers in a digital sphere. The goal of this literature review investigated available empirical studies that began to identify a gap in the research that explored emerging, widespread technologies. In this current research study, identification of student self-report motivating factors have revealed knowledge of causal dynamics of students with DSE. Vital investigation of the relationship of contributing factors in student cognitive processes, through a mixed-methods approach, in ELA blended classrooms could reveal how secondary students' perceptions of educational technological tools operate in relation to exploring student self-efficacy in engaging SRL.

CHAPTER 3.   METHOD AND PROCEDURES

The mixed-methods research design adopted here intended to discover insight into the scope of blended learning. Students should have a voice in the ELA secondary classroom blended learning environment. Investigation into revealing the relationship of student motivation to student reports of teacher pedagogical practices framed this study.

Purpose Statement

Specifically, the present study explores the following overarching research question: What relationship exists between (a) the pedagogical practices of secondary ELA teachers in a blended learning environment and (b) student self-regulated learning and digital self-efficacy? By building on previous research, this classroom-based research study investigates the relationship between the impact of students' self-reported SRL upon DSE and learning motivation in a midsize, urban high school in a southeastern city of the United States. The purpose of the current study is to examine the relationship between (a) secondary English Language Arts (ELA) teacher pedagogical practices in blended learning environments and (b) student digital self-efficacy (DSE), and self-regulated learning (SRL).

Overarching Research Question

1. **(Overarching Research Question)** What relationship exists between (a) the pedagogical practices of secondary ELA teachers in a blended learning environment and (b) student self-regulated learning and digital self-efficacy?

Research Questions

2. **(Quantitative Phase)** What relationship exists between secondary ELA students' digital self-efficacy and self-regulated learning in a blended classroom environment?

63

3. **(Qualitative Phase)** How do the pedagogical practices of secondary ELA teachers influence student digital self-efficacy and self-regulated learning in a blended classroom environment?

Study Overview

This current study incorporated an explanatory-sequential approach in a two-step mixed-methods design to collect sequential quantitative and qualitative data. In order to address the research questions of this study, this mixed-methods design examined the relationship between teacher pedagogical practices in blended learning environments and student SRL and DSE. In addition, the procedure of the mixed-methods approach to gathering quantitative questionnaire data as illustrated in Appendix A. Reported in Appendix B the qualitative semi-structured interview protocol helped to clarify and delineate the pragmatic issue of ELA student motivation in blended learning environments.

Clark and Ivankova (2015) reported the key processes and terminology for mixed-methods research related to student perceptions of blended learning. Paradigms, cultural norms, and mental models grouped under the term *philosophy*, as an assortment of conventions and tenets about the nature of reality and knowledge that provide the groundwork for a research study (Clark & Ivankova, 2015). Key concepts of *Communities of research practice* refer to groups sharing common beliefs, agendas, and substantive knowledge, defining a suitable set of such communities can be especially helpful when implementing a mixed-method research study (Clark & Ivankova, 2015).

A correspondingly philosophical aspect of mixed-method research design can be viewed through a pragmatist worldview (Creswell & Clark, 2017), especially helpful when investigating personal perception of individual actions in a problem-centered orientation using pluralistic,

everyday practice. Creswell and Clark (2017) similarly mentioned the worldview of *pragmatism* as solution oriented. Within the human behavior in social science research, Creswell and Clark (2017) emphasized the importance of employing a research problem. Creswell and Clark (2017), citing Tashakkori and Teddlie, Morgan, and Patton, stressed how these authors expressed applying pluralistic approaches to initiate understanding about the problem. In addition, Creswell and Clark (2017) also referred to the research of Cherryholmes and Morgan who suggested that (a) including a postmodern lens in a mixed-method study offers insight into pragmatists' view, and that (b) social justice and political aims concur when research exists within potentially unseen historical, political or social learning dynamics contexts (Creswell & Clark, 2017). These undercurrents are especially relevant to literacy learners in the secondary ELA public classroom.

The use of mixed-methodology can explored individual perceptions. In related studies, Simpson and Linder (2014) examined the refinement of data collection in a two-step process in a mixed-methods research design that explored teacher perceptions. As described by Edmonds and Kennedy (2017), explanatory approaches provide relevant data analysis in clarified. This design approach is illustrated in the data collection from questionnaires that provide criteria-related sampling (Edmonds & Kennedy, 2017). The procedure in Simpson and Linder's (2014) study plan was also based on a triangulation of data derived from two phases, namely, a recipient survey and a set of follow-up recipient interviews. In the mixed-methodology design provided by Smart and Marshall (2013) illustrated a clear path between research avenues that helped clarify student-centered discourse, and accordingly enabled enhanced levels of cognitive engagement in students. In this way, the current study has been designed to investigate student perceptions of teachers' pedagogical practices that promote an atmosphere that supports SRL in an explanatory-sequential design.

Intentional study design as discussed by Smart and Marshall (2013) with mixed-methodology ensured researchers a well-rounded glimpse into analyzing data findings that suggested that teachers with higher levels of content knowledge may be more comfortable with assigning explicit tasks that require students to engage with innovative learning methods. The procedures used in classroom-based, observational explanatory-sequential study intentionally centered on ushering in students' efficacy for learning may bridge more than just science class (Smart & Marshall, 2013). Likewise, the primary study was implemented into two phases of research, both including collection and analyses of qualitative and quantitative data to gain insight into student perceptions through confidence levels of learning ELA in a blended classroom.

While analyzing relevant *quantitative* findings, the primary study investigator sequentially considered the *qualitative* responses that ultimately further validated the initial quantitative findings. Within the follow-up explanations, the quantitative results are more important than the qualitative responses as a starting point. Participant-selection design, nevertheless, functions within a series of processes. In the planning stage, the primary investigator employed participant-selection design involving a two-phase process. Phase 1 typically facilitated participants' selection using quantitative designs that engender qualitative data, as illustrated in the method research design of Edmonds & Kennedy (2017), culminating in the data collection gathered from questionnaires that provide criteria-related sampling. Phase 2 provided descriptive open-ended semi-structured interviews protocol, whereas the qualitative content analysis techniques had been used to analyze the interview responses (Edmonds & Kennedy, 2017).

As the results of Phase 1, the criterion of the quantitative data analysis revealed significant learning goal results, needed to develop the Phase 2 semi-structured interview protocol. Accordingly, Phase 1 data informed the selection of participants for Phase 2. During Phase 2, a qualitative semi-structured interview protocol was used to conduct interviews of select participants. This Phase 2 protocol, under the direction of the dissertation chair and committee, had been developed or revised for use within interview sessions of intentionally selected participants. The learning outcome of the data collected from Phase 2 identified themes that helped explain quantitative data derived from Phase 1

As Privitera & Ahlgrim-delzell (2019) described, survey methods and further additional steps in the survey process refer to the progress of developing, determining and monitoring the research instrument, as well as investigating potential response bias. Following a mixed methodology discussed by Edmonds and Kennedy (2017), Phase 1 of the current research study included selection of participants responded to a quantitative questionnaire survey, reported in Appendix A. Analyzing relevant quantitative findings, the primary study quantitative analysis required a development of a Phase 2 protocol, recounted in appendix B. Phase 2 of the primary study included collecting interview transcripts that provided the focal point as qualitative, descriptive data. This two-step mixed-methods design operated using a series of processes to provide the qualitative responses that ultimately further validated the initial quantitative findings. This research study received IRB Approval, documented in Appendix C.

Instrumentation

Two major instruments were used in the present study. These were (1) a quantitative self-report measure used to gather quantitative data in Phase 1 and (2) a semi-structured interview

protocol used to gather qualitative data in Phase 2. Each of these will now be discussed in greater detail.

The Phase 1 survey was designed in accordance with the principles established by Panadero (2017) and Broadbent et al. (2022), who developed a 44 items quantitative questionnaire measure, used in the primary study to explore student perceptions of digital learning environments. Quantitative data collected in this way explored student perceptions through self-report, including individual motivational learning strategies in which students engaged documented perceptions within learning in a blended classroom context. To this end, researchers Panadero (2017) and Broadbent et al. (2022) examined a related series of instruments in order to develop the instrument, reported in Appendix A, that can measure student perceptions of SRL in both online classroom and blended learning contexts (Broadbent et al., 2022).

Rather than studying empirical case study analysis, scholars Broadbent et al. (2022) set out to develop a comprehensive student self-report measure of online SRL through quantitative means, specifically designed for blended and online learners, incorporated both motivational beliefs and learning strategies researchers and engaged a "social cognitive perspective" (Broadbent et al., 2022, p. 152). In the published report of this instrument, participants included 634 students randomly sampled study from the following various contents: Education Arts, Health, Science and Business (Broadbent et al., 2022).

A measure of convergent vitality was applied to the Motivated Strategies for Learning Questionnaire (MSLQ) developed by Pintrich (Broadbent et al., 2022). Instrument developers Broadbent et al. (2022) built the SLR-O questionnaire through pertinent, developmental steps that acted as a guide had been recommended by Devellis and Thorpe. Alongside a review of

many existing questionnaires that measured online learning, consulting the literature was a primary step that ascertained the possibility of SLR in an online context (Broadbent et al., 2022).

In the study conducted by Broadbent et al. (2022), resilient results revealed to investigators that this developed instrument can further contributed to the online SRL literature with a can be used both in "blended and online learning contexts" (p. 155). Through research, in order to estimate the validity of the SRL-O, the corresponding MSLQ had been used to reconnoiter the relationship between these two questionnaires. Correlating the MSL-Q self-efficacy scale data with the developed with SLR-O self-efficacy scale revealed resilient parallels (Broadbent et al., 2022). In addition, during the development of this quantitative research instrument, the researchers have identified limitations of this instrument as the wording used in some items did not denote to *online* in *motivation* nor did results sufficiently necessitate the term *online* to fully ascertain adequately respondent process learning (Broadbent et al., 2022) or motivation in digital learning environment context.

In order to explore specific student perceptions of blended learning the explanation design provides an order to first collect qualitative data, intentionally to guide the quantitative data collection and analysis (Edmonds & Kennedy, 2017). The examples provided by Edmonds and Kennedy (2017), demonstrated a clear distinction between research options that the primary researcher could use while conducting the current explanatory-sequential study to illuminate secondary students' perceptions of learning. In the current study, the SRL-O had been administered during Phase 1, as an online questionnaire to participants as quantitative data had been collected. The participants who selected divergent responses in the SRL-O strategies provided quantitative data that had also been collected for Phase 2 participant selection. The

research deign incorporated equality between quantitative data and qualitative data collection (Edmonds & Kennedy, 2017).

Research Design

In this current study, to be able to examine digital learning environments, participants need to learn within a blended classroom. Figure 3.1 demonstrates the process for ensuring that all student participants are learning in a blended learning environment the primary researcher employed. The checkoff list, illustrated in Figure 3.1, had been distributed to all participating students' teachers to ensure each student participant had been in a blended learning classroom. If at least half of the listed items are selected, teachers have documented confirmation that students enrolled in these respective classrooms are learning in blended learning environments.

Figure 3.1 *Documentation for Student Participants in a Blended Classroom*

List all the ways you use Google Classroom Suite (digital ways of instruction, data collection, and communication) in your classroom:

- Email Communications

- *Leave a Note* in Google Classroom

- Announcement Boards

- Discussion Boards

- Interacting with Students by Feedback

- Providing Instructional Material

- Post Assignments

- Collect Completed Student Work (data collection)

The present study set a high priority on ethical considerations. According to Privitera and Ahlgrim-delzell (2019) upholding the confidentiality or anonymity of respondents should be a researcher's crucial responsibility while gathering research data. Ethics concerning the administration of surveys refer to the ethical creed that the survey administration should not coerce, harass, hassle, or expose survey respondents. Additional information can be found in the Ethical Considerations section below.

In the current study, specific data were collected, detailed in Figure 3.2, using an explanatory sequential mixed-methodology research approach. Phase 1 consisted of administration of a Likert-type interval measure scale; this instrument measured students' self-reported SRL and DSE. In addition, this survey offered participants to report a volunteer option to discuss about which digital self-engaged, educational technology tools helped to motivate and

empower confident learning. Phase 2 followed a qualitative design and was based on semi-structured interviews in which participants provided narrative qualitative data on teachers' pedagogical practices in the blended environment, and how those practices related to students' DSE and SRL. This current study investigated research that examined the relation of student engagement with educational technology tools, students' DSE and motivation effects on students in the ELA blended learning classroom. The research study received IRB Approval, stated in Appendix C.

Figure 3.2 *Overall Mixed-Methods Research Design*
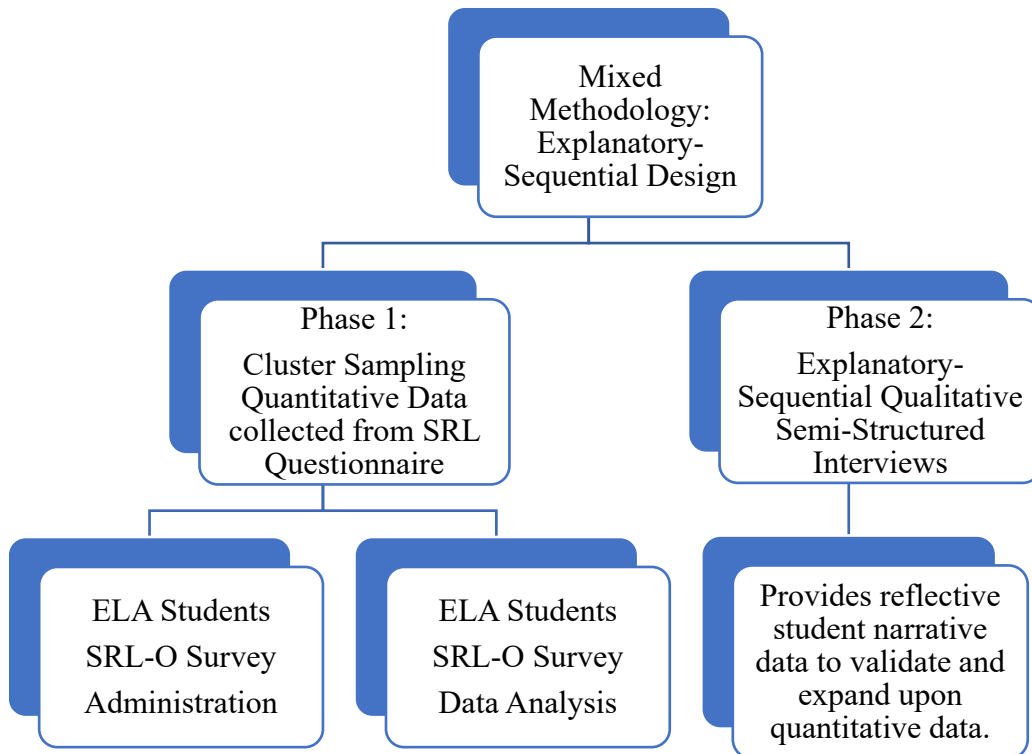
Data collection: Justification of Mixed-Methods Explanatory-Sequential Approach

In a *pragmatist's* worldview, intentionality comes to the forefront when strategically providing a rationale as to why mixed-method researchers collect multiple quantitative and qualitative data with variant procedures of data collection and analysis underpinning different

worldviews and assumptions (Creswell & Clark, 2017). Similarly, Clark and Ivankova (2015) discussed and determined data type definitions that are relevant to the current study and that provided pertinent information as to how to gather specific qualitative and quantitative data for the specific overarching research question: *What relationship exists between (a) the pedagogical practices of secondary ELA teachers in a blended learning environment and (b) student self-regulated learning and digital self-efficacy?* The relevancy of engaging a mixed-methods design for the present research study clarifies and articulates alignment with analyzing both quantitative and qualitative data collection.

In addition, Clark and Ivankova (2015) provided justification why researchers should understand rationales and provide clarity to the role of a mixed-method approach and specify the appropriateness of the context in which mixed-method research study was implemented. In order to understand the dynamics of the research problem, researcher can discover data limited. By isolating quantitative or qualitative data collection, investigators find data that lacks depth. A procedure that employs both a quantitative and a qualitative methodology would subsequently ensure a deeper, practical understanding counterbalancing strengths and weaknesses (Clark & Ivankova, 2015). Deliberately coalescing the two types of research methods, the overall practicality is that researchers have the opportunity to collect and compensate dissimilar results that in turn assimilated together commonly have the chance for investigators to provide a better insight into the research problem (Clark & Ivankova, 2015).

Understanding the rationale for implementing the epistemology of mixed-method research within this topic is most beneficial for ascertaining content for the introductory chapters of this dissertation. Most researchers' rationales most often employ synchronized time for both the quantitative and qualitative mechanisms of mixed-methods studies, including triangulation

and complementarity. Complementarity could especially help describe the quantitative method to interpret the qualitative data to describe general educational trends that occur within SRL practice in the blended learning classroom.

Setting

The setting of the present mixed-method study was an urban public high school in the southeastern United States. The total student enrollment of the school was approximately 1,729 (National Center for Education Statistics et al., 2023). The economic makeup of the city where the school is located is low and middle class. As illustrated in Figure 3.3, 69% of students receive free or reduced-price lunch. Culture of achievement varies between schools and from district to district. Readers of this research action-study should note how these differences shift dynamics. The primary study was located within an urban city in a public high school.

Figure 3.3 *Percentage of Free or Reduced Lunches for Student Body*
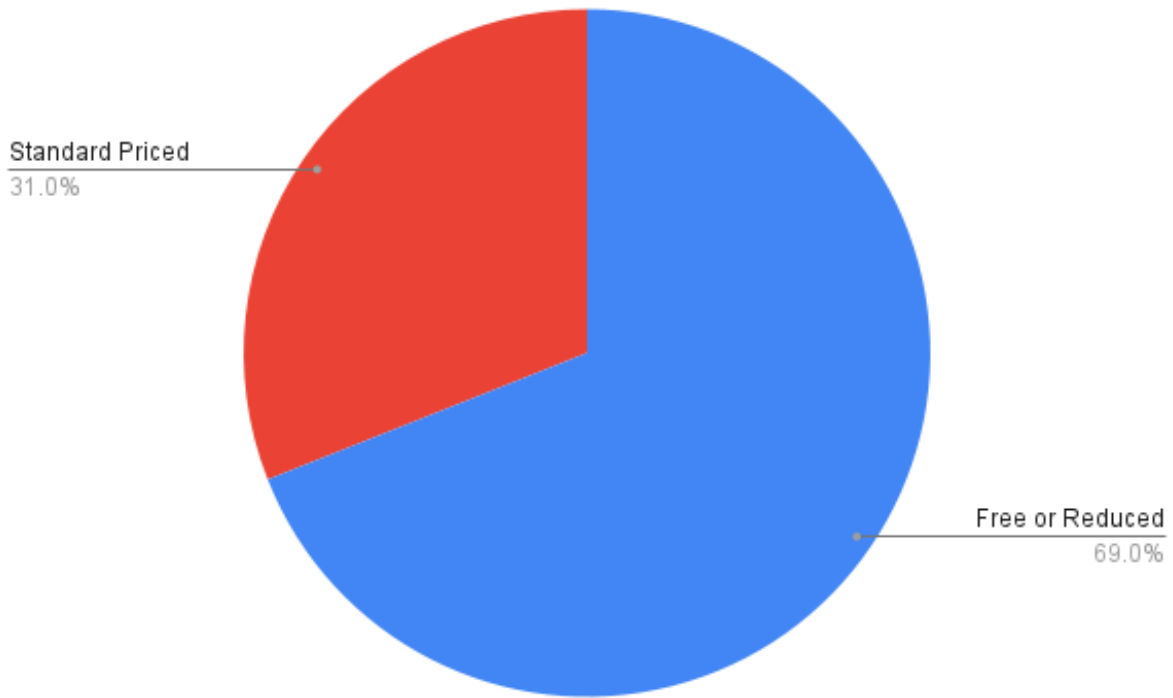
Primary Information

The technology available to all students is referred to as 1:1 ratio, where all students are responsible for learning are issued (a) a Chromebook allowing access to the digital online learning platform Google Classroom through Schoology and (b) a district specific email account (National Center for Education Statistics et al., 2023). The technology available to teachers in each classroom ranges from a Dell presentation, Clear-touch or Promethium board, projector, document camera, and classroom camera. The demographic information, reported in Figure 3.4,

a contextual student body representing: 1% American Indian, 1% Asian, 7%, Two or more races, 12% Hispanic, 37% African American and Caucasian 42%.

Figure 3.4 Demographics of Student Body

Demographics of Student Body
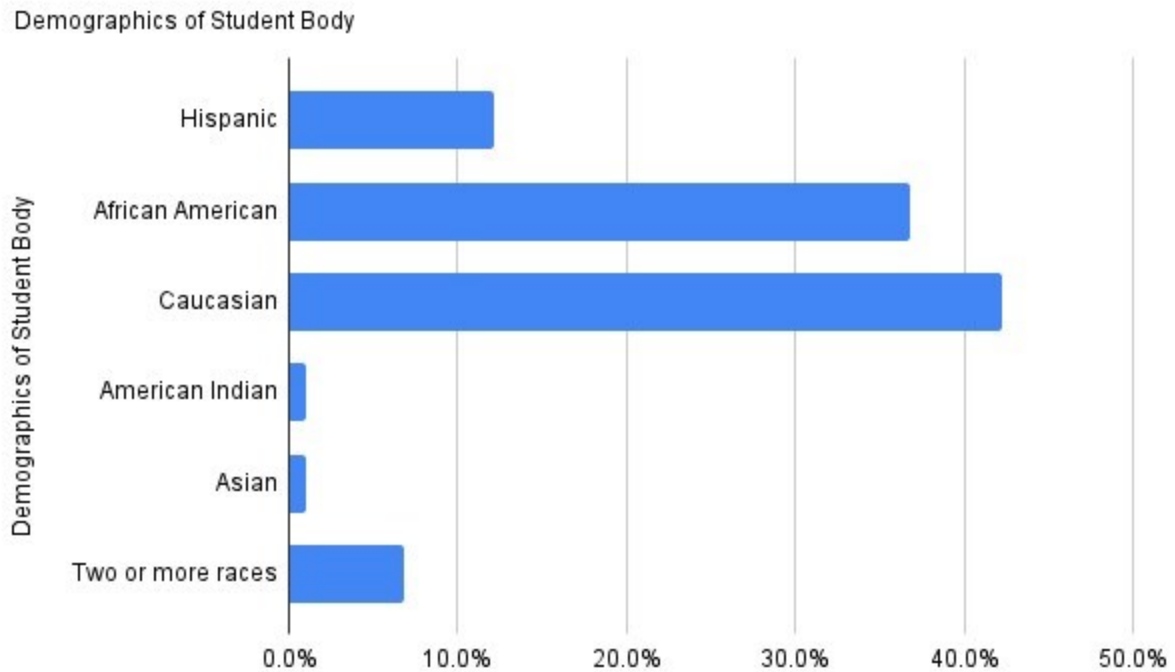
Secondary Information

The special services provided by the local district administrative office for the students of this selected public high school include the following: exceptional student services; multilingual (ML, formerly known as English speakers of other languages [ESOL]) services; gifted and talented services; and career and technology education. In addition, particular educational opportunities are available, with an alternative bell schedule for tutoring time. The

alternative bell schedule facilitates personalized instruction for each student, allowing time to work on enrichment, enhancement, or remediation activities, the need for which is determined by individual performance in core classes. The enhanced bell schedule also provides time for teachers in addition to their common planning time within departments. Accordingly, additional time is built into the schedule for Professional Learning Communities (PLCs). PLCs operate to calibrate pacing guide timelines with alignment of common content units (between different teachers who teach the same class) coordinating culminating *Common Formable Assessments* (CFAs) for major test grades to provide equity for all students. Additional professional development (PD) time allows time for improving proficiency in 1-to-1 instruction for both students and teachers in educational technological (ed. tech.) tools to support DSE. PD includes mandatory in-service hours provided during preplanning at the start of each semester, monthly in-service professional development days, weekly faculty team meetings during planning times, and throughout aforementioned Flex/WIN (What I Need) tutoring time allotments.

Students are trained by teachers to use their assigned Chromebooks to be able to effectively navigate standard school-wide tools such as Google Classroom, Schoology, Canvas, and PowerSchool. Students are also supported class by class, with various additional other digital tools to access different course materials, practice digital citizenship, and ultimately submit completed learning opportunity activities through digital learning platforms. If there are any issues with technology access during the school day, students are free to check out a Chromebook to use from the library, while the malfunctioning technology is serviced through technology support summoned by faculty ordered work tickets.

This public high school has also implemented a school-wide policy that supports a School Improvement Plan (SIP) aimed at providing students who are enrolled in core classes a

chance to retake tests in order to achieve an 80% or better success rate in these courses. The fact that the student body ratios at this school demonstrate uncommon level of diversity, students' needs are significantly different within in-person, face-to-face classrooms on the one hand, and digital Google Classroom blended-learning classrooms on the other. Student achievement in core classes is supported through the 80%-or-better on major assessments policy in these respective courses.

Although the equitable access to hardware supports all students in 1-to-1 instruction, this standard does not support students' individual level of proficiency with the district and state selected software for engaging curriculum. Specific barriers that hinder blended classrooms are formidable but not insurmountable. In fact, there exists a current districtwide Diversity, Equity and Inclusion (DEI) standard to support school-wide student outcomes along with pedagogical practices to provide DEI services for *all* students, including those of underrepresented populations.

Participants

As illustrated in Figure 3.5, the total target population of 1729 students comprise the student body of a southeastern high school. The probability sampling method (Privitera & Ahlgrim-delzell, 2019) used for selecting ELA student participants from this population were studied using an explanatory sequential mixed-method research approach. The characteristics of the selected students were transitioning adolescent (ages 14-17) young adult literacy learners, as described in Figure 3.5. As part of the accessible target population for study, the sampling frame encompassed the actual 1037 students enrolled in the SREB (South Regional Education Board) Literacy courses that allow for *visual learning* (Fisher et al., 2016).

Figure 3.5 Contextual Viewpoint
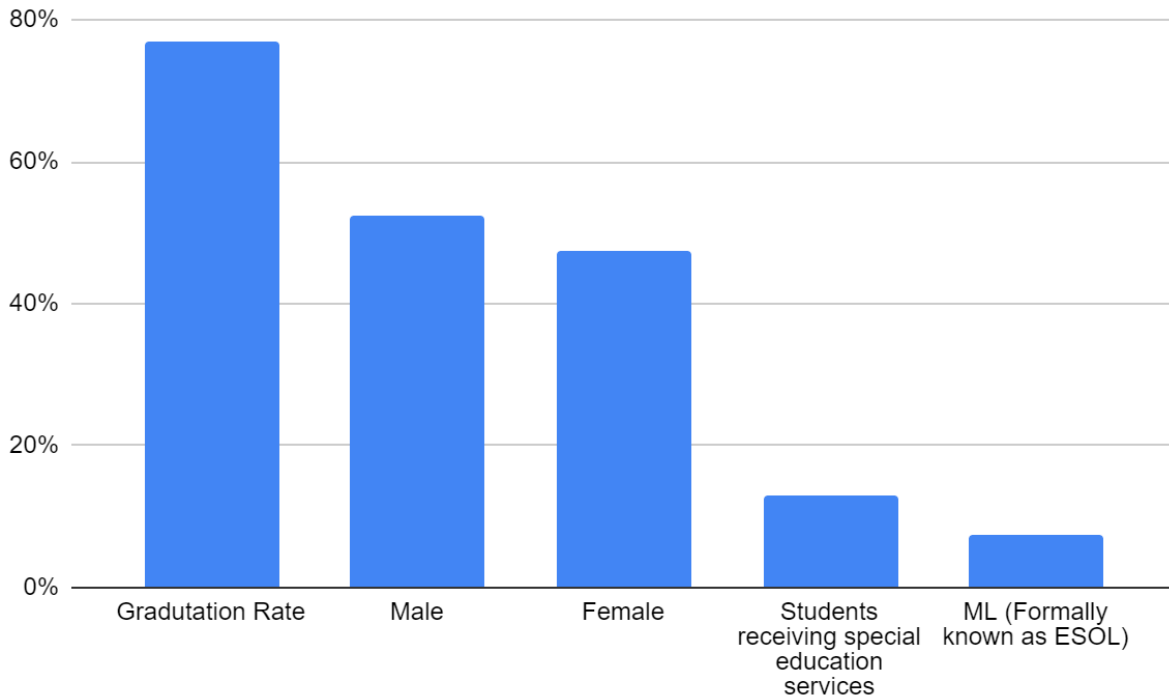
A sample of 100 ELA students was selected from the 1037 student sampling frame, reported in Figure 3.6. These students were designated as representative of the entire student population as a basis for conducting Phase I of the study, given the difficulty of surveying the entire population. To ensure generating the necessary survey data, the sample students chosen from a mixed level of grades were required to be transitional literacy learners. A clearer understanding is needed of student perception of the scope of DSE, and motivation of ELA in high school students.

Figure 3.6 Selection Totals of Study Participants
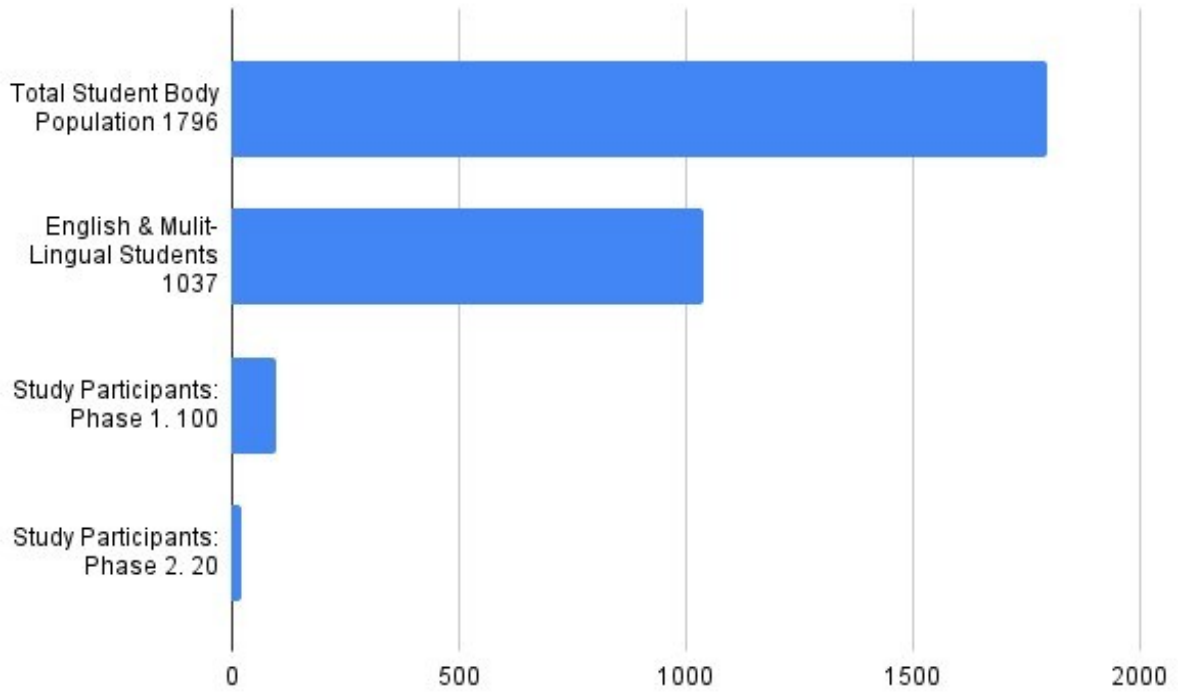
The non-randomized, cluster sampling method was considered the most appropriate of probability sample methods design for the present study. In this context, public school students were selected for ability to voluntarily participate by class cluster. Students who are enrolled into high school courses are distributed by guidance counselors into classes aligned with student needs. This approach involves division of the sample into classification into classed subgroups or clusters of individuals who are identified in a population which represents "a portion of clusters that are representative of the population selected" (Privitera & Ahlgrim-delzell, 2019, p.p. 167). The advantages of the cluster sampling method include the fact that all individuals in the selected

cluster are included in the section of participants, while the sample is not random, but rather can be representative within the mindful selection of clusters (Privitera & Ahlgrim-delzell, 2019).

The sample of 100 students represented the focus group population, in which the Phase 1 quantitative phase data analysis was used to select the participants within the Phase 2 qualitative phase. Additional advantages of the cluster sampling method provide researchers with bias free sampling. Enrolled public high school students are selected from the total student body population and selected into clustered classes by the high school's guidance department that is not in the control of the primary investigator. Correspondingly, as discussed by Privitera and Ahlgrim-delzell (2019), the bifurcation classification coordinates grade level occurring groups of adolescent literacy learners, which achieve the pragmatic objective to narrow participant selections. Benefits of typical case sampling provided investigation of the depth of knowledge, in student perception; whereas limitations exist in typical case sampling that does not provide diverse variations of the topic with opposite ends of a continuum; nor does it adapt to developmental situations (Privitera & Ahlgrim-delzell, 2019). Further advantages of clustering sampling method include providing homogeneity between and within clustered classes. Although the choice of the cluster sampling method, in this aspect, does not increase precision nor provide individual selection of population elements. In short, the Phase 1 cluster sampling method provided for a 100 student volunteers to respond to the SRL-O survey. These 100 student respondents provided the pool for additional volunteer participant selection in Phase 2. Phase 2 ultimately provided revealing student self-report perceptions that evidenced conclusions for the entire population.

Following Phase 1, this explanatory sequential mixed-method research approach design used a specific selection from the 100 Phase 1 participants to determine Phase 2 respondents

(See Table 3.3). Through a true *convenience sampling*, a voluntary selection of 20 voluntary Phase 2 participants was generated from the Phase 1 population. These voluntary participants provided necessary additional perspectives regarding the data collected in Phase 1, in the manner described by Privitera and Ahlgrim -delzell (2019). The purposive selection for Phase 2 used typical case sampling, that participants of the sample as an average or representative of the issue being investigated; using this technique in this explanatory sequential study generated further understanding of the issue under commonplace conditions.

Students participating in this study were enrolled within identified SREB Literacy learning ELA courses that ensured that this sample had been an effective representation of the target population in this public high school. This explanatory sequential mixed-methods research design incorporated the combination of cluster sampling for Phase 1 and convenience sampling method for Phase 2. Voluntary participant selection allowed for mixed-methods data collection, revealing generalizations for high school transitional literacy learners. Conclusions made from this participant sample, can then be generalized for the entire target population.

Procedure: Data Collection and Analysis

Educational research requires specific steps that are vital to the success of the study. Especially in public schools, district approval for social-behavioral research conducted with human subjects is granted through sequential steps. Before formal data collection begins, the data collection plan must include a description of how the mixed-methods design, detailed in the Research Design section.

Data Collection Timeline

The methodology followed a distinct two-step process. This progression was used to collect quantitative data first and then to gather qualitative data second. A determined timeline was necessary for data collection, which is clarified in Figure 3.7.

Figure 3.7 *Approximate Timeline for Data Collection and Analysis*
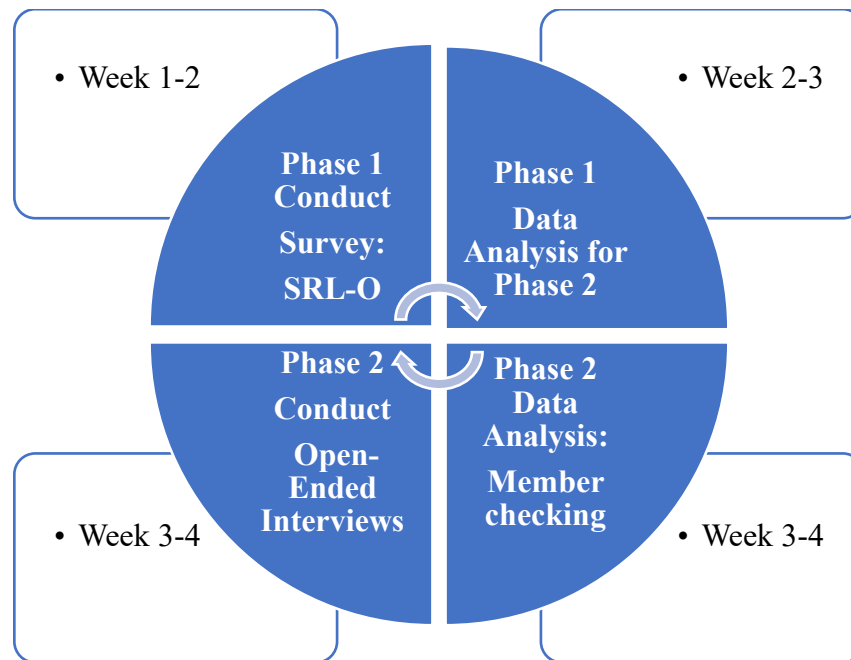
Interval Duration

The current study took place in the course of approximately one month (4 weeks, or 30 days). Weeks 1-2 (7-14 days) were devoted to the first part of Phase 1. During this period a Quantitative SRL-O survey was administered to students in the full sample to study the overarching research question. Namely, what relationship exists between secondary ELA teachers' pedagogical practices in a blended learning environment and student SRL, and DSE?

Phase 1: Quantitative Data. The validated, pre-existing instrument to which students responded,

83

documented in Appendix A, was the published SRL-O questionnaire, for which respondents used a seven-point Likert-type scale that provided summative numeric data (Broadbent et al., 2022, p. 137). The quantitative instrument SRL-O measured how effective students, according to participant self-report, considered the use of educational technology tools and teacher practices, and whether or not functioning efficiently in the digital learning space (a) motivated students to learn, (b) promoted SRL, and (c) increased DSE.

Weeks 1-2 (7-14 days) were devoted to the data collection part of Phase 1. During self-reported administration the significance in the quantitative data collection, over the course of one week had been administration of a quantitative instrument SRL-O. During Phase 1, the quantitative data clarified understanding in research question 2: *What relationship exists between secondary ELA student digital self-efficacy in writing for student motivation in reading comprehension?* The SRL-O questionnaire instrument used a pre-existing Likert-type scale that provided *numeric* data to determine statistical significance of participant perception.

Week 2-3 (7-14 days) allowed for the second part of data analysis of the quantitative data. This quantitative instrument measured how students perceived personal SRL, and DSE. Students responded by responding to the implementation of personal skills affecting motivation that engage in DSE in an ELA classroom setting. This questionnaire instrument measured students' self-reported perceptions of intrinsic and extrinsic motivation, and online self-efficacy, online task strategies, metacognition and academic self-regulation in a blended learning atmosphere and, *providing* numeric data. Data analysis allowed for a true *convenience sampling* in participant selection for Phase 2.

Phase 2: Qualitative Data. Phase 2 qualitative data collection occurred in week 3-4 (7-14 days). The Phase 2 data were intended to help explore the third research question: How do secondary

ELA teacher pedagogical practices influence student digital self-efficacy, and self-regulated learning in a blended classroom environment? With the direction of this study's dissertation chair and committee, the primary researcher of the study developed a Phase 2 Qualitative data collection protocol, as stated in Appendix B, in the form of semi-formal structured interview questions.

The questions were designed to elicit narrative qualitative response data from students, who were asked to discuss the effects of their teachers' pedagogical practices on students' DSE and SRL. This open-ended survey and interview questions instrument protocol provided narrative data where participants might voice opinions of how motivating factors affect DSE while learning reading comprehension in the ELA blended-learning classroom. Respondents could also offer opinions regarding teachers' selection of educational technology tools, and the effectiveness of these tools in motivating DSE. Overall, the qualitative instrument measured which, if any, educational technology tools motivated secondary ELA students to learn with confidence.

Week 3-4 (7-14 days) also permitted for the second part of data analysis of the qualitative data. The analysis of Phase 2 data included open coding with the constant comparative method. Axial coding followed open coding that organized the open codes into interconnected, emergent themes.

Reliability and Validity of Data

Once quantitative data had been collected during Phase 1, the internal consistency of the survey data was calculated. Conversely, during Phase 2, once the quantitative data had been validated, the qualitative data was considered significantly reliable, since responses were similarly consistent, discussed in detail in the *Data Analysis* section below. Instead of relying

upon the quality of reliability, qualitative data's reliability revealed dependability, if another researcher would conduct this study again, and could come to the same conclusion, thus providing the quantitative data dependability with credibility.

Member C**hecking**

Likewise, interview qualitative data would gain trustworthiness when categorizing responses into themes, and subsequently reviewing these findings with member checking to validate if stated themes describe the perceived themed conclusions. In this way, *transferability* would occur if future results can confirm the current study's findings, or transferred to other contexts' validity. Similarly, *triangulation* occurred with calibrating three parts of perspective, especially useful within inquiry studies, such as an explanatory-sequential approach to this current research study. *Member checking* occurred in a step after the qualitative axial coding. Interview participants reviewed the results of the qualitative data and established the authenticity of placing responses into applicable groupings. Respondents confirmed individual statements were placed into appropriate categories.

Data Analysis

Again, this research study used a mixed-methods design in a two-phase explanatory-sequential approach. Phase 1 involved collection and analysis of quantitative survey data. Phase 2 involved collection of qualitative data using semi-structured interviews, followed by further in-depth analysis.

Phase 1

The Phase 1 categorical data explored the perceptions of participants. Quantitative data was collected from 100 respondents. Participants responded to a 44 item questionnaire through ranked ordinal data in a 7-point Likert-type scale.

Phase 1 data analysis comprised descriptive statistics that illustrated data distribution and identified any emergent abnormalities. Statistical analysis of the SRL-O survey results were conducted through in an IBM SPSS Statistics Data Editor Software program. Data distribution defined by mean, median, and range of variables had been clarified through standard deviation data analysis process, determining whether this range in number had been considered typical or not. In this research study, the confounding variable could explore hidden variables that had affected the end result. Specifically, *Alternative* hypothesis testing (H_1) examines if there existed a significant statistical variable difference between DSE for students engaged in blended, and online learning for secondary ELA students. Conversely, a *Null* hypothesis testing (H_0) examined if there is *not* a significant statistical difference between DSE for students engaged in blended, online learning for secondary ELA students.

In particular, data analysis by using Interval ratio had been through a Pearson-Correlation to identify the p-value that reveals significance of the statistic survey results of the test. Study results that provide $p < .05$ would identify a statistic that is statistically significant. Similarly, Comparison statistics using a T-test commonly allows a comparison test with the SRL-O survey instrument. In this research study, a Paired Sample T-Test engaged with the same group tested and surveyed once with the SRL-O questionnaire.

Ultimately, Relationship Statistics use a Correlation Coefficient in the statistical measurement of determining the relationship positive, negative, or zero in the value between the relative movements of two variables. If the explanatory variables are normally and continuous distributed, and the sample size is large enough, then a multiple regression analysis would be effective. Quantitative survey data would also need a reliability measure, in Cronbach's Alpha, to run and establish internal consistency that could be critical to review survey data, which can

be especially useful when used in self-report of self-regulation and DSE in ELA motivation. The resulting quantitative data examined through correlation analysis commonly revealed DSE is correlated with SRL.

Phase 2

During the Phase 2 qualitative data collection, responses from semi-structured interview open-ended questions protocol provided descriptive data when organized (reported in Appendix B. The thematic data analysis of the Phase 2 data provided further relevant analysis through application of the Constant Comparative Method (Glaser & Strauss, 2017). Scholars Glaser and Strauss (2017) originally used Grounded Theory to sort and organize excerpts of raw data into groups according to thematic attributes, whereas investigators seek to organize this raw qualitative data into codes in a structured thematic way to formulate a new theory. This current study engaged mixed-methods research because the data sets generated from Phase 1 and Phase 2 are mixed when the data analysis plan provided Qualitative data into clear open-ended themes that support the Quantitative survey results. Study results of this current study also specifically addressed the process of reliability and internal consistency for internal validity.

<div align="center">

Ethical Considerations

</div>

Specific ethical concerns must be addressed when conducting social-behavioral research on human subjects. Since participants were located at the primary investigator's place of work, and moreover were associated with the primary investigator's employment at a public school, various limitations and potential conflicts of interest were associated with the study. As a certified social-behavioral researcher, the primary investigator took steps to ensure that all ethical and legal concerns were addressed. All students were provided voluntary options to participate in this research study, and obtaining parent permission protects the well-being of

these participants, who were minors without coercion. Refer to the following Non-Coercion section for further information.

The following sequential steps were completed in the current research study. First, any social-behavioral research had been conducted with human subjects is required to follow the correct protocol of completing documentation. Since participants are students, in order to conduct this study, permission is required from the public school principal's official to endorse approval, followed by that of the public school district's superintendent.

Informed Consent

Second, recruited participants must submit AU Informed Consent Minor Participants permission forms signed by parents. This step provided informed consent and ensure the protection of the rights and well-being of the study sample participants, including anonymity, confidentiality, and privacy of all voluntary participants. Participants, parents, and legal guardians must document in writing that they understand that this study ensured the anonymity, confidentiality, and privacy of all participants involved, before, during and after the study's completion. Thirdly, the AU Informed Consent form had been given to participants, and upon completion, and collection of this necessary protection, the study progressed to the next step. The fourth step executed the expanded Data Collection Timeline of Phase 1, for additional details reference the Procedure: Data Collection and Analysis section above. The published, validated measure online questionnaire survey SRL-O digital instrument, recorded in Appendix A, was distributed and administered, allowing sufficient time limit for completion. Personal identifiable information (PII) was stored in an encrypted file behind a password-protected program in a secured computer system. These measured ensured protection of the anonymity, confidentiality,

and privacy of participating students. To prevent any implicit or explicit coercion of students in the Phase 1 sample, participation in the study was fully voluntary.

In step five, letters in support of the study were obtained from public school administration and the district central administration office. These letters served two functions: (1) first, providing further information to any parents/guardians making inquiries and (2) second, evidenced school and district approval provided verification step to gain IRB approval, which also was obtained on December 20, 2023, stated in Appendix C. Step six included Phase 1 data analysis of the collected Phase 1 quantitative data, and development of the Phase 2 interview protocol, and selection of Phase 2 participants. These previous tasks were carried out with the assistance of the dissertation chair and committee. In step seven, recruitment of Phase 2 participants was conducted, reviewing Phase 1 participant data analysis, as well as verified the informed consent on file.

Step eight involved scheduling and interviewing Phase 2 participants to collect qualitative data. Phase 2 interviews were conducted and recorded in consultative sessions held during non-academic time slots, conferences, or lunches so as not obstruct academic learning. Scheduling individual or paired interviews further ensured protection of the anonymity, confidentiality, and privacy of participating students.

Step nine included review of recorded interview responses into transcriptions of replies, open coding of topics, and axial coding identification of emerging themes. In step ten, dependability measures were applied to the Phase 2 data. Specifically, a *member check* step was conducted to validate dependability of the semi-formal, open-ended Phase 2 interview questions and responses.

Non-Coercion

In this way, voluntary participation was not dependent on punitive measures of duress. There had been no penalty for nonparticipation; furthermore, nonparticipation did not in any way affect academic grades. The procedure for obtaining informed consent from the parents or guardians of under-aged participants had been given in paper, and or digital form, which will be kept for a minimum for two years from collection. In addition, for this research study, personally identifiable information (PII) had been limited, and stored in an encrypted file, behind a password protected program in a secured computer system to ensure protection of the anonymity, confidentiality, and privacy of human subjects. To prevent coercion, Phase 1 of the study had been conducted voluntarily in blended, online learning spaces provide operating in a timeline, referred to in Figure 3.4. Accordingly, Phase 2 had been conducted during non-academic time slots in advisory, during tutor sessions, or lunch periods to further protect students and did not interfere with academic development.

CHAPTER 4.   RESULTS

This study investigated the relationship between students' perceptions of ELA teachers' pedagogical practices and elements of secondary students' digital self-efficacy and self-regulated learning in a blended learning classroom. Study findings of this study will be reported in relation to the following research questions:

(Quantitative Phase) What relationship exists between secondary ELA students' digital self-efficacy, and self-regulated learning, in a blended classroom environment?

(Qualitative Phase) How do the pedagogical practices of secondary ELA teachers influence student digital self-efficacy and self-regulated learning in a blended classroom environment?

(Overarching) What relationship exists between (a) the pedagogical practices of secondary ELA teachers in a blended learning environment and (b) student self-regulated learning and digital self-efficacy?

In reporting results relating to these research questions, this chapter will be organized into the following sections: (a) quantitative results, voluntary participant selection for the qualitative component using quantitative results, and (b) qualitative analysis and results.

Phase One: Quantitative Results

Student respondents completed a seven-point Likert-type scale to provide summative and subscale numeric data in this initial quantitative phase: the validated measure, pre-existing instrument was the Self-Regulated Learning-Online (SRL-O) questionnaire (Broadbent et al., 2022). As documented in Appendix A, the quantitative instrument SRL-O instrument measured the following subscales: Online Academic Self-Efficacy, Online Extrinsic Motivation, Planning and Time Management, Study Environment, Online Social Support, Online Intrinsic Motivation,

Online Negative Achievement Emotion, Metacognition, Online Effort Regulation and Online Task Strategies.

Preliminary Data Analysis

Data first were analyzed for the following assumptions: (1) normality (2) linearity and (3) homoscedasticity. Normality was examined by normal probability plots (Q-Q Plot) for scale variables. This assumption was met. Linearity was examined by analyzing scatterplots of each dependent variable with each independent variable and then plotting the fit line and then plotting a loess line. The assumption of linearity was met. Homoscedasticity was examined by running regressions and calculating the Mahalanobis distance. This assumption was also met.

Consent Reliability of Measures

Reliability for scales of the Self-Regulated Learning-Online (SRL-O) Survey are presented in Table 4.1. Reliability statistics for each of the ten SRL-O subscales and the summative SRL-O scale were estimated by computing the Cronbach's Alpha. The reliability coefficients for the SRL-O scales ranged from an acceptable range of .70 to a high reliability of .86, as illustrated in Table 4.1.

Table 4.1 Reliability Coefficients (Cronbach's Alpha) for SRL-O Scales

SRL-O	Reliability Coefficient
Online Academic Self-Efficacy	.70
Online Extrinsic Motivation	.83
Planning and Time Management	.73
Study Environment	.86
Online Social Support	.70
Online Intrinsic Motivation	.83
Online Negative Achievement Emotion	.73
Metacognition	.86
Online Effort Regulation	.70
Online Task Strategies	.83
Overall SRL-0	.70

Descriptive Data

Descriptive statistics, including mean, standard deviation, variance, and range. This quantitative data were calculated for each of the independent and dependent variables. These statistics are presented in Table 4.2.

Table 4.2 Descriptive Statistics for all Variables

Variable	Range	Minimum	Maximum	Mean	Standard Deviation	Variance
Online Academic Self-Efficacy	24.00	4.00	28.00	22.1800	4.66965	21.806
Online Study Environment	14.00	7.00	21.00	16.1500	3.59679	12.937
Online Intrinsic Motivation	28.00	7.00	35.00	26.0000	5.98652	35.838
Online Extrinsic Motivation	18.00	3.00	21.00	15.5900	3.95453	15.638
Online Negative Achievement Emotion	28.00	5.00	33.00	15.8500	6.38713	40.795
Planning and Time Management	29.00	6.00	35.00	24.7800	6.00266	36.032
Metacognition	20.00	15.00	35.00	26.2200	4.89192	23.931
Online Effort Regulation	17.00	11.00	28.00	21.0900	4.34403	18.871
Online Social Support	21.00	14.00	35.00	25.8700	5.35913	28.720
Online Task Strategies	24.00	11.00	35.00	25.6300	5.50602	30.316

Correlation

     Correlations between variables were calculated. These results are presented in Table 4.3. A key for all abbreviations is provided below Table 4.3.

Table 4.3 Correlations between Variables

	OSE	OSTE	OIM	OEM	ONA	PTM	M	OER	OSS	OTS
OSE	1	.651**	.616**	.544**	-.392**	.440**	.628**	.650**	.557**	.523**
OSTE	.651**	1	.569**	.422**	-.429**	.546**	.564**	.638**	.529**	.495*
OIM	.616**	.569**	1	.468**	-.322**	.697**	.646**	.628**	.699**	.743**
OEM	.544**	.422**	.468**	1	-.224*	.443**	.446**	.463**	.569**	.521**
ONA	-.392**	-.429**	-.322**	-.224*	1	-.222*	-.293**	-.361**	-.213*	-.249*
PTM	.440**	.546**	.697**	.443**	-.222*	1	.601**	.545**	.723**	.744**
M.	.628**	.564**	.646**	.446**	-.293**	.601**	1	.750**	.681**	.763**
OER	.650**	.638**	.628**	.463**	-.361**	.545**	.750**	1	.558**	.718**
OSS	.557**	.529**	.699**	.569**	-.213*	.723**	.681**	.558**	1	.727**
OTS	.523**	.495**	.743**	.521**	-.249*	.744**	.763**	.718**	.727**	1

** Correlation is significant at the 0.01 level

* Correlation is significant at the 0.05 level

Key

OSE: Online Academic Self-Efficacy	OSTE: Online Study Environment
OIM: Online Intrinsic Motivation	OEM: Online Extrinsic Motivation
ONAE: Online Negative Achievement Emotion	PTM: Planning and Time Management
M: Metacognition	OER: Online Effort Regulation
OSS: Online Social Support	OTS: Online Task Strategies

Participant Selection for Phase 2

In alignment with a sequential explanatory mixed-methods design, participants for Phase 2 were selected from a pool of 100 participants from Phase 1. The participants during Phase 1 administration of the questionnaire were given an additional item at the conclusion of the survey. All Phase 1 participants were given the choice to voluntarily participate in Phase 2 by providing a contact email. This contact information was collected only from students whom indicated a willingness to participate in and schedule a follow-up, semi-structured interview. Study participants from Phase 1 voluntarily consented to a qualitative, semi-structured interview phase of this study. According to Phase 1, participants completed the SRL-O Survey and then scheduled a following interview to individually speak with the primary investigator. The convenience sample that was used had been derived from the all participants who volunteered to participate in Phase 2.

Qualitative Results

Deliberate choices formed the semi-interview inquiries in Phase 2. Open-ended interview questions were vital to bridge any quantitative data gaps from Phase 1 results. Phase 2 interviews were conducted to address the following qualitative research question: How do the pedagogical practices of secondary ELA teachers influence student DSE and SRL in a blended classroom environment?

Context of Interviews

Semi-structured qualitative interviews were conducted with 20 ninth-twelfth grade English students enrolled within one high school. Interviews were supervised by school district regulations. Accordingly, students were interviewed individually, or when able within matched

pairs, to align with similar perception constructs. In order to provide context, Phase 2 participant

demographics are shown in Figure 4.1.

Figure 4.1 Phase 2 Participant Demographics
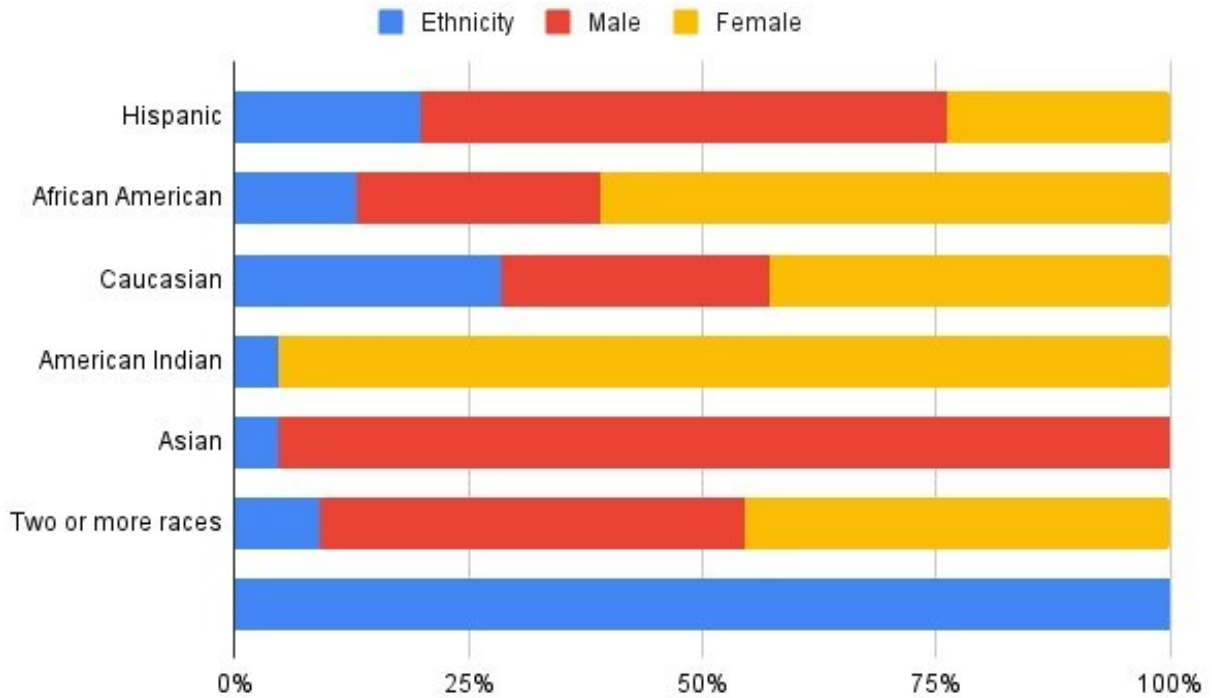
Voluntary interviews were conducted with students selected from a range of English

classrooms that participated in the quantitative Phase 1 of the study, who willingly volunteered

by choice to speak with the primary investigator. In total, the interview participants represented

eight high school ELA classrooms and four English teachers. In accordance with school site

policy, interviews were conducted within a school classroom during non-instructional times.

Accordingly, interviews averaged ten minutes in length and were recorded using a digital voice

recorder. Concurrently, the primary investigator used a digital record transcriber to transcribe the

interview audio recordings into text, where data were then coded to examine themes throughout the study.

Qualitative data collection included a semi-structured interview protocol that had been drafted at the forefront of the study (primarily for IRB, school district and school site approval purposes) in accordance with paradigms represented in the quantitative phase. This original protocol was developed to gain insight into the interactions between teacher practices and students' DSE, SRL in a blended classroom environment. Next, in sequential explanatory fashion (Creswell & Clark, 2017), the protocol was revised to elaborate on quantitative data results, specifically emphasizing the following findings in the quantitative phase. Significant quantitative results, estimated by computing the Cronbach's Alpha, included reliability coefficients of overall SRL-O evidenced within an acceptable range .70. In addition to significant positive correlation exist at the 0.01 level between (1) student online academic self-efficacy, and (2), student online task strategies (.523), intrinsic motivation (.616), extrinsic motivation (.544), metacognition (.628) and online effort regulation (.650). The interview protocol addressed additional elaboration on students' DSE construction in relation to teacher pedagogical practices classroom behaviors. In order to explore concepts of student DSE in blended classrooms in relation to student perceptions of the influence of teachers' behaviors, it is useful to explore student insight through the interview process. The final version of the semi-structured interview protocol is provided in Appendix B.

Qualitative Analysis

By means of quasi-grounded theory procedures as described in Strauss and Corbin (1998), qualitative data were collected and analyzed. The constant comparison method, or the continual comparison of data (Strauss & Corbin, 1998) was used to analyze all qualitative data.

Wherein, the semi-structured interview data analysis included a phase of open coding and comparison to previous data, before analyzing the next interview. Typical open coding procedure was also used to identify emergent key concepts and similar constructs and thus grouped into related categories (Strauss & Corbin, 1998). The discrete dimensions of categories were recognized using *open* coding and with *axial* coding relationships between emergent themes were defined. In the following sections, the process of each stage of qualitative data analysis in categories and subcategories is outlined in detail.

Open Coding

During the process of selecting meaning from qualitative data with open codes into relevant themes, variant aspects were then formulated into distinct categories (Strauss & Corbin, 1998). Allowing construction from key phrase commonalities, this method fashioned themes into categories with emergent constructs, thus in doing so involved refining initial themes. Table 4.4 provides an example of how preliminary open codes were analyzed to generate a category and related subcategories.

Table 4.4 Grouping of Codes to Create a Category and Subcategories

Open Codes	Category	Subcategories
Advice	Pedagogical Practices	(1) Instructional Strategies
Process		(2) SEL Supportive Practices
Focus		(3) Clear Communication/
Attentiveness		Clarification
Perceptive Care		(4) Patience Practices
Emotional Intelligence		
Supportive		
Encouraging		
Availability		
Teacher Presence		

Categories and Subcategories

Table 4.5 exhibits all categories and subcategories. These groupings emerged from the preliminary open codes. After the illustration of Table 4.5 a comprehensive explanation of individual categories provides qualitative responses to elaborate on each subcategory.

Table 4.5 Qualitative Categories and Subcategories

Categories	Subcategories	
Construction of Perceptions of Pedagogical Practices	(1)	Instructional strategies
	(2)	SEL Supportive Practice
	(3)	Clear Communication/Clarification
	(4)	Patience Practices
Construction of Learning Confidence (Self-Efficacy)	(1)	Transitional Learning Ease
	(2)	Referencing Procedures
	(3)	Modeling
	(4)	Accomplishment
Student Motivation for Learning	(1)	Time Management Routines
	(2)	Motivation, Connect
	(3)	Commitment and Confidence
	(4)	Competition
Digital Self-Regulation	(1)	Goal Setting/Routines
	(2)	Organizational Frameworks
	(3)	Determination
	(4)	Handwritten/Digital Notes

Category 1: Construction of Perceptions of Pedagogical Practices. This category emerged to address which pedagogical practices impact students' DSE in SRL. Student perceptions of teacher practices are key, as students described integral understandings of their English teacher's classroom behaviors that also expounds prior pedagogical blended classroom practices research (Alammary et al., 2014; Jeffrey et al., 2014; Rasheed et al., 2020). In this context, *construction of perceptions of pedagogical practices* refer to the teacher behaviors which consistently and routinely influence student engagement in literacy learning in a blended learning environment (De la Varre et al., 2011; Hariri et al., 2021; Lee et al., 2021) that directly addresses the qualitative research question. Students' perceptions of teachers' pedagogical practices were delineated into the following subcategories: instructional strategies, SEL supportive practices, clear communication, and patience practices.

Instructional Strategies. Students reported the benefits of consistency in teacher *pedagogy* to routinely engage clear, explicit instruction. One student voiced the ability to practice digital tools provided by the teacher: "I feel comfortable using digital technology because it always helps me communicate better with my teacher, especially when I don't have the time to speak to them in person." Another student demonstrated the process of engaged learning in a blended classroom when seeking clarification:

> I will usually prefer to ask my teacher for help when I don't understand something in person instead of using digital tools at first, so I can clarify all of my ideas that I have quickly and if the teacher says something again, I ask about that so I can simplify it out and I feel like I'm using the digital tools correctly, that I can't get answered as fast with those tools, especially when the teacher has helped me by communicating better to me about what we're learning in class and making me feel better about asking for help when I am unsure what to do digitally.

These student statements provide examples of how teacher classroom pedagogical practices provide clear communication of expectations for students and support effective learning in a blended learning environment that also supports prior research that described how teacher

behavior provided students with student-centered engagement with learning strategies (Hariri et al., 2021).

      SEL Supportive Practices. SEL support practices were also an important part of teachers' pedagogy from the perspective of the student in building a Community of Inquiry that supports previous studies (Cook-Sather, 2011; Cleveland-Innes & Hawryluk, 2023; Swan et al., 2020). Primarily, students noticed and appreciated teacher pedagogy that routinely supports development with social emotional learning support that connects with social awareness (Kolb & Kolb, 2017; Ornstein & Hunkins, 2017; Rogers, 1969). A student recalls an instance when a teacher exercised the value of emotion: "My teacher helps me keep focused with a sweet voice when I get distracted, when the teacher thinks you need help with learning and showing me on a personal level." A different student noted when teachers show care in the classroom: "My teacher gave me a chance to speak of what I think to the class and share my ideas believing that a positive mind makes a positive day!" Emotionally supporting students often inspire learners' prospects by providing a safe learning climate in the blended classroom environment, where students are not afraid to make mistakes.

      Clear Communication. An integral aspect of students' perception of supportive teacher pedagogical behavior was clear communication by the teacher. Teachers commonly have provided students with clear communication by asking students questions to clarify meaning. A student mentioned a common learning strategy that both legitimize and warrant learning: "My teacher asks me questions in order to make me feel comfortable with what I already know." Another student stated one demonstration of how a teacher used the same learning strategy to engage with students, enhancing clear communication: "[Yes,] I do feel comfortable using online tools to help others because my teacher showed me how the tools worked, now I can explain to

others by making me feel more involved with the activity and asking me questions." In this manner, teachers who use the routine of learning strategies, empower students by allowing them to affirm learning with clear directions, explicit instruction and available answers.

Patience Practices. Students additionally stated that teachers' persistent patience in the classroom made a difference in student outcomes. One student voiced: "My teacher helps me feel committed and confident when I'm confused because she doesn't laugh or judge. She is always so patient with me in explaining it again to me. So the next time is easier and will be easier later." Accordingly, students acknowledged the effectiveness of teachers who practice pedagogical patience and in the classroom boost students' stamina in learning. Another student concurred that patience in teachers' pedagogical practices helps learners to self-regulate learning. "Yeah, she patiently helps me with routines." These student comments stress how import teacher behaviors are in the classroom to help learners self-regulate the learning process.

Category 2: Construction of Perspectives of Learning Confidence (Self-Efficacy). The concept of *construction of perspectives of learning confidence (self-efficacy)* manifested as a category through student reports of how teachers helped build confidence in a blended learning environment. In this manner, teacher behavior had the chance to support student self-efficacy. This confidence inherently enabled student interview responses to articulate a self-confidence for learning in a blended classroom. The following emergent subcategories related to student self-efficacy were generated from student responses: transitional learning ease, referencing procedures, modeling, and accomplishment.

Transitional Learning Ease. Students discussed gaining engagement in class by learning *transitions*. Navigating learning between a face-to-face teacher, alongside a blended classroom is not automatic (Graham et al., 2005; Means et al., 2013; Rasheed et al., 2020). Especially within a

blended learning environment students need teacher guidance to understand the roles, and

expectations of student behavior in a physical digital classroom (Carioli & Peru, 2019; Graham,

2005; Uz & Uzun, 2018). One student voiced a teacher's sensitivity with teacher attentiveness to

assure student expectations to ease transitions in the process of learning: "My teacher made sure

I was always prepared to master the content when the teacher would start the class." Another

student reported a teacher's consideration to build confidence in learning transitions:

> Yes, I feel comfortable with my teacher because [she] had [helped me with] the
> information about the online tools to make sure other people could use them if they need
> help. She motivates me to do better with what I already know, to make sure I have a good
> understanding in my assignment to prepare me for future learning.

Referencing Procedures. Perceiving the importance of procedures, students discussed

how teachers built referencing routines to facilitate learning. In this context, referencing

procedures refers to teacher practices that shape consistency in classroom routines, in order for

students to gain proficiency and ease within transitions. A student stated how a teacher routinely

created confidence by referencing learning processes and operational procedures to gain new

knowledge: "She will usually help me by telling me what pages to see or giving me some tests,

giving me a heads up about referencing things that I can look up, for some concentrating before I

do my work." Separately, another student noted the importance of having confidence in trusting

the learning process: "My teacher will always help me see my work is right by helping

understand the assignment clearly and going step by step in the process." Similarly, student

confidence had been built, through teacher presence while practicing routine referencing

procedures.

Modeling. As an integral aspect of building a perspective of confidence, students

discussed how *modeling*, enabled by teachers in classroom practices, empowered experiential

learning practices in students. *Modeling* refers to how one student's learning outcome may

106

facilitate similar efficacy when students enable each other's progress especially in a blended digital learning environment. One student reported the growth of confidence and how that confidence assisted other peer learning:

> I actually do [feel comfortable using digital tools] cuz I feel really good learning with [digital] tools and like sometimes you don't understand your own [thoughts] like what's [the teacher] trying to [help] you to understand. So yeah, you enjoy very helpful [tools] such as Google and like some other websites that helps you like understand the question and sometimes there's an example or an opinion [to help clarify understanding]. What I'm trying to get other students to also understand so what I have to do is like to show them a website and to get them to understand like an example or an opinion from other persons' [perspective] or like to get a comment from other persons on the website.

Furthermore, another student stated the impact of confidence in negotiating learning within a blended environment: "Yes I feel comfortable, I can see that I can contact my teacher whenever I need help in-person or by the internet, and I can message my classmates about the posted work or they can contact me for help." In the same way, students are greatly impacted by a teacher's modeling that builds learning confidence in student experiential learning outcomes.

 Accomplishment. Specifically students need to recognize *accomplishment* in steps. The more students engage learning opportunities, beyond a single occurrence of building skills, can shape a perception of confidence in learning. One student mentioned how small successes helped foster a sense of accomplishment when a teacher guided the process of learning that aspired independent confidence: "If I don't understand something I will directly ask my teacher because I don't really like to use digital tools on my own [without help]. Then I can use Google Docs and [Google] Forms easily afterward on my own." Another student described how building confidence provides a sense of accomplishment itself: "I do feel comfortable using online tools to help other students because of how much my achievement can help me and others who struggle to understand." Students valued the ability to engage proficient skills to help others in the blended learning classroom.

Category 3: Student Motivation for Learning. The category of *Student Motivation for Learning* became apparent as students' responses spoke to clearly understanding the goals of education and teachers in the blended learning classroom. In this study, student motivation for learning had been defined by engaging students' outcomes with extrinsic and intrinsic interest in student learning. Student perceptions of sparking enthusiasm for motivating learning in a blended learning environment were organized into the following subcategories: time management routines, motivation, confidence, and competition.

Time Management Routines. Students perceived that *time management routines* actively drive motivation in a blended learning classroom. A student affirmed the impact of how to use time for intrinsic self-motivating purposes: "Yes, I think this is important because setting schedules for small actionable steps motivates you to set goals for yourself." Similarly, a student reported how a teacher's emphasis on the importance of managing time impacted student motivation: "He motivates me by always checking if I'm doing if I'm doing my work and understanding and everything whenever I struggle he would always help me understand the topic more by helping me one-on-one." Likewise, students understand time management routines support independent learning through intrinsic and potentially extrinsic motivation. Yet another student stated how creating scheduled goals "helps you organize your day and provides a clear overview of your task appointments and commitments." These student comments voice how the practice of time management help students become self-regulated.

Motivation. Student *motivation* may be increased when teachers make connections to learning through the power of motivating questions. Tapping into students' extrinsic motivation, teacher behavior in classroom provided engaging questioning in order to support student motivation. One student stated how teacher questioning was a source of inspiring extrinsic

incentives, or teacher approval in the form of emotional rewards for validating the process of learning: "My teacher encourages me to explore my own ideas by providing opportunities to express myself [and affirm my own ideas] by asking questions and participating in [class] discussions." Another student mentioned that having the opportunity to ask questions also provoked intrinsic motivation: "Sometimes I do use digital tools to ask my teacher for help because I may remember it but when I don't understand the topic I would like a hands-on [help] for more in depth [knowledge]." The central aspect of questioning in the classroom motivates students to link past knowledge through making learning connections to support extrinsic and intrinsic student outcomes.

Confidence. Additionally, students described appreciation for classroom teacher behavior that prompts *commitment* to the learning process and *confidence* in students' outcomes. As a committed student reported the process of how a teacher's advice motivated learning efficacy:

> My teacher gives me advice, values of learning each lesson. I know she will always be [on] my side when I need help so that I can text and email my friends about the things [the] teacher is teaching. She makes me feel committed and confident in understanding how to use the internet with my own ideas and that she helps me understand the question better and she helps me use tools such as Google Classroom.
> One other confident student summarized how a teacher motivated learning outcomes:

"Teacher has been working with me and answering questions to the best of their ability is what makes me committed and confident in learning." These student voices acknowledge motivating teacher behavior matters. This practice engages students to develop commitment and confidence in student blended classroom learning outcomes.

Competition. Students also discussed how *competition* in the blended classroom can help motivate students with intrinsic motivation. Competition in this study represents students who join classmates in digital components in a blended classroom with digital games that exercise and build knowledge for future learning situations in the blended learning environment. A

109

student voiced the motivating benefit of competing in the classroom: "Sometimes because I like to compete with other students academically because this makes me feel like a good student." Another student also stated the value of academic engagement in competition, "Sometimes I do feel competitive to make myself proud." Students acknowledged engagement with the academic use of competitive digital educational tools as intrinsically motivating.

Category 4: Digital Self-Regulation. This *digital self-regulation* category emerged as students explained the value in and importance of knowing next steps, highlighting the importance of orientation of the learner within a digital learning environment. In the context of this study, digital self-regulation represents when students know how to operate effectively to engage in learning processes within a blended classroom. The following subcategories emerged from student metacognitive perceptions as a vital component of digital self-regulation: goal setting/routines, organizational frameworks, determination, and handwritten/digital notes.

Goal Setting/Routines. Beyond time management skills, students recognize that using digital tools can help regulate the use of time with *routines of setting goals*. One student admitted the value in employing time as a tool for success: "I think setting a schedule, creating smaller goals, and writing digital lists are very important ways to plan my time." Additionally a student mentioned how a teacher engaged in routine practice to help student self-regulate the use of time in a blended classroom:

> I think [the framework my English teacher taught me was] very good to plan things ahead so you have something to look up to within setting goals. This has also have helped me manage time because it's always helpful to be on time for things and have time to do everything that you want to, and schedule it's very helpful for that.

Acknowledging and recognizing the importance of routinely setting goals have helped students engage in self-regulation in the digital aspect of a blended classroom environment.

Organizational Frameworks. Students discussed how English teachers activated student outcomes in engaged digital self-regulation in analytical, nonfiction writing with *organizational frameworks*. A student recalled a self-regulation activity in a blended classroom: "When the teacher would give me a rubric to improve and master the content." Further, a separate student reported how a teacher created lessons to promote self-regulation in a blended classroom to support student learning outcomes for the future as well:

> The way that she taught me to organize my thoughts and my writing in the digital short response organizational framework was very helpful and now that I'm in my next English class it helps me because I have to write an analysis on a story. So it's very helpful and I feel like I can do it, with the framework that she gave me, I use it now so it is all very helpful.

Students explained how a teachers' use of digital organizational frameworks in a blended classroom environment promoted continuous learning.

Determination. Another integral aspect of intrinsic self-regulation, students report as *personal grit*. A student voiced building determination had been inspired by how a teacher created a vigilant connection in a blended classroom:

> She helped me feel confident by making my ideas sound powerful, or that they have something good in them. I can also explore it and like to get help from her to make it sound better or to increase the impact. Yes, it's cool to use digital tools. It makes me feel confident to try hard to learn when using email, Google products, Classroom, etc.

Another student also reported a drive with self-regulated determination to persevere through complications in a digital learning environment:

> Probably yes, cuz I like challenging stuff and I'm a person that I will never give up and it depends on it. I will [succeed]. I don't care whatever it takes but I was still going to try to pass no matter what. I'll take the challenge if it's needed to show my friends and my family who I really am [as a student].

Academic tenacity has engaged students in digital self-regulation by fostering their determination.

Handwritten/digital notes. Students described centered engagement in a blended learning classroom as necessitating a negotiation of both handwritten and digital tools, when needed, to

support student learning outcomes. The use of handwritten notes can support self-regulation in the digital learning environment. One student explained the importance of the confidence in the process within navigating digital realities in a blended classroom to support student learning:

> I do feel comfortable using [digital tools] but I will prefer to use my [handwritten] notes to [offer] help other students more [in-person]. If I know something that could help them and at the same time, I would like to get help from them with my notes that I know usually works.

Students recognize that effective engagement inside the blended classroom requires a level of self-regulation within the blended learning environment. Teachers who foster taking hand-written notes in a blended learning classroom have helped students self-regulate individual learning processes:

> She will usually talk to me about what my notes that I took do for me, my main goal in life is, and also help me think about the future and about things that can actually be helpful for my future decisions and plan ahead.

In these anecdotes students mentioned how note taking had helped learners acquire self-regulation in a blended learning environment.

Summary

This chapter has detailed the quantitative analysis and qualitative analysis of data collected in order to investigate the following key research questions:

- (Overarching) What relationship exists between (a) the pedagogical practices of secondary ELA teachers in a blended learning environment and (b) student self-regulated learning and digital self-efficacy?

- (Quantitative Phase) What relationship exists between secondary ELA students' digital self-efficacy, and self-regulated learning, in a blended classroom environment?

- (Qualitative Phase) How do the pedagogical practices of secondary ELA teachers influence student digital self-efficacy and self-regulated learning in a blended classroom environment?

In the course of quantitative Phase 1 of the study, correlation data demonstrated that students' perceptions of teacher classroom behaviors have a significant positive relationship to students' efficacy and self-regulation for learning English, value for experiential learning, and proficiency orientation. Hence, to investigate further explorations between student perceptions of teacher behavior in a blended classroom, a convenience sample identified the consent of students who had previously completed the Phase 1 Self-Regulated Learning-Online (SRL-O) Survey for completion of the qualitative Phase 2 of this study.

Throughout the qualitative Phase 2 of the study, the following categories emerged as fundamental to students' perception of teacher pedagogical practices and motivational constructs: (1) Construction of Perceptions of Pedagogical Practices, (2) Construction of Learning Confidence (Self-Efficacy), (3) Student Motivation for Learning, and (4) Digital Self-Regulation. In-depth analysis explored these categories in relation of student confidence and engage understandings between students reported perceptions of teacher's influential pedagogical practices behavior and efficacy in self-regulation for learning English, within a blended learning classroom. Conceptualization of students' fundamental awareness of construction of confidence in a blended classroom, along with perceived teacher's impact were also examined. Before reporting interview results, the primary researcher validated findings by employing a *member check*, which referred to asking a portion of interview participants to read these results and provide validation of qualitative analysis by affirming responses being placed into categories and subcategories. In this study *member checking* occurred to support validity of the qualitative interview results.

Subsequently, Chapter Five will provide an in-depth exploration and discussion of the respective quantitative and qualitative results that offer significant implications for secondary literacy educators, English teacher education and professional development. Further research directions will also be discussed.

CHAPTER 5.   DISCUSSION

This study was grounded by the following overarching research question: *What relationship exists between (a) the pedagogical practices of secondary ELA teachers in a blended learning environment and (b) student self-regulated learning and digital self-efficacy?* This sequential explanatory mixed-methods study (Creswell & Clark, 2017) consisted of a quantitative Phase 1 and a qualitative Phase 2. Datasets were mixed between the quantitative and qualitative phases of the study using a convenience sample of voluntary participants and then mixed again at the interpretation analysis level. Subsequent sections present each phase-specific question along with a respective discussion of the relevant findings for each phase of the study. These sections are then followed by a successive exploration of the overarching research question, informed by the phase-specific data interpretation.

Discussion of Quantitative Findings

The quantitative phase of this mixed-methods study was grounded by the following research question: *What relationship exists between secondary ELA students' digital self-efficacy, and self-regulated learning, in a blended classroom environment?* Essentially vital to investigate this question, it was crucial to measure student perceptions of individual self-efficacy and self -regulated learning in a blended classroom. Student respondents completed a seven-point Likert-type scale to provide summative and subscale numeric data in this initial quantitative phase: the validated measure, pre-existing instrument was the Self-Regulated Learning-Online (SRL-O) questionnaire (Broadbent et al., 2022). The quantitative instrument SRL-O, illustrated in Appendix A, measured the following subscales: Online Academic Self-Efficacy, Online Extrinsic Motivation, Planning and Time Management, Study Environment, Online Social Support, Online Intrinsic Motivation, Online Negative Achievement Emotion,

Metacognition, Online Effort Regulation and Online Task Strategies. These subscales inquired participants to consider how effective individual students considered the use of digital educational technology tools, and whether or not functioning efficiently in the digital learning space motivated students' confidence to learn, with statistical data to support student social emotional learning (SEL), a component of SRL. Surveys were completed by 100 ninth-twelfth-grade English students representing eight classes and four teachers.

In order to explore student perceptions of teacher pedagogical practices, correlation coefficients were calculated to investigate the relationships between student SRL, digital self-efficacy and motivation to learn English in a blended classroom. Results were processed through statistical analysis in an IBM SPSS Statistics Data Editor Software program. Data revealed that the results of the quantitative findings demonstrated overall high reliability across all ten subscales of the SRL-O. Descriptive data was reported for all variables. A correlation matrix was developed to examine the relationship between variables. Students' perceptions of teachers' pedagogical practices and behavior had a significant correlation between the two variables of student digital self-efficacy and self-regulated motivation for learning English.

Primary findings revealed that DSE was significantly correlated with all other variables. Nine of the ten scales had positive correlations with Online Self-Efficacy: (1) Online Academic Self-Efficacy, (2) Online Extrinsic Motivation, (3) Planning and Time Management, (4) Study Environment, (5) Online Social Support, (6) Online Intrinsic Motivation, (8) Metacognition, (9) Online Effort Regulation, and (10) Online Task Strategies. Study findings report as one category increases, so do all these constructs. Conversely, only one held a negative correlation with Online Self-Efficacy: scale (7) Online Negative Achievement Emotion (Self-Efficacy). This means as Online Academic Self-Efficacy increases, the scale for Online Negative Achievement

116

Emotion decreases. Similarly, significant positive correlations were also identified between students' perception for teachers' pedagogical classroom behaviors that enhance the blended classroom environments and students' and DSE and motivation for learning English.

Additionally, significant positive correlations were found between Online Academic Efficacy and Online Effort Regulation (See Figure 5.1). These subscales in particular relate specifically to the quantitative research question in regards to establishing a strong relationship between online efficacy and online self-regulation. Positive correlations between these two components have great implications, discussed in-depth in later sections.

Figure 5.1 Online Academic Efficacy and Online Effort Regulation Visual Correlation
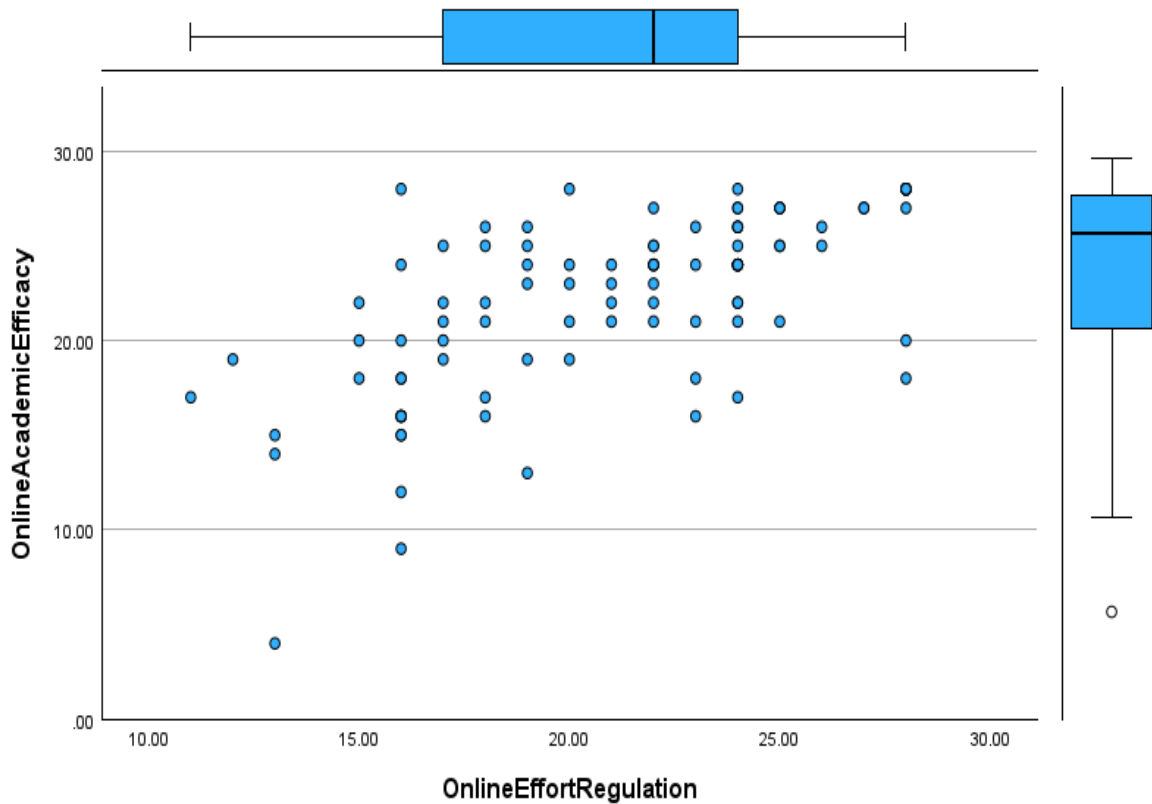
As shown in Figure 5.1, a positive correlation was also found between Online Extrinsic Motivation and Online Academic Efficacy. Students perceived teachers' approval as a highly motivating prospect. Students noted that receiving teachers' attention was especially motivating and even more so when competing to get better grades than student peers. To this end, the positive correlation between these two constructs suggests that supporting the development of students' extrinsic motivation could enhance teachers' impact in the digital environment. This impact would be especially felt when fostering DSE in the blended classroom. Constructing student-centered confidence to learn in the blended classroom has also been related to fostering intrinsic motivation that supported existing research (De la Varre et al., 2011). Respondents reported higher levels of digital online academic efficacy when perceiving a higher intrinsic and extrinsic motivation in challenging course topics or exercising digital tools. Accordingly, results revealed that students' perceptions of teacher practices in the blended classroom were related to students' digital efficacy and motivation for learning English.

These results support previous research that suggests there is an interaction between students' perceptions of teacher classroom behaviors, regulation and motivation (Lajoie, 2008; Rios et al., 2018; Smart & Marshall, 2013). Specifically, findings from this research suggest that teacher behavior in the classroom can increase student confidence, which may also support self-efficacy (De la Varre et al., 2011; Hariri et al., 2021). Confidence in student learning may be positively correlated with self-esteem (Vawter, 2019). Purposefully, Vawter (2019) relates personal experience by bolstering group enthusiasm and motivation, relating to the incredible task required by teachers in every class, every day. In the current study, students who perceived teacher classroom practices as positive recognize such effects. The crucial results of the present study demonstrate that students are noticing and engaging in learning processes that will

intentionally enhance learner outcomes. Additionally, the present study results align with literature on how the employment of positive perceptions engages students into an interconnected relation with many contributing factors influencing academic performance (Broadbent, 2017). This present study also extends the literature on teacher pedagogical practices that directly impacts student SRL, DSE and motivation for learning English; whereas previous studies in blended classrooms have focused more broadly on student perceptions of learning platforms or educational tools and not upon intentional student attitudes (Gambo & Shakir, 2022; Robertson et al., 2021; Zhu & Bonk, 2020).

Mixing the Data: A Discussion

Whereas previous studies have quantitatively studied aspects of students' perceptions of teacher pedagogical practices and related learning motivation (Greene et al., 2015; Hariri et al., 2021; Lee et al., 2021), few have coupled statistical investigations with a qualitative phase. Limitations of existing research suggest the need of exploration focusing on constructs related to students' perceptions of teacher pedagogical practices especially benefiting exposure of emergent relationships to students' digital motivation. The discrepancy in the research literature itself inspired the primary investigator to design the current research design using Creswell and Clark's (2017) sequential explanatory mixed-methods study. In isolation, quantitative data can identify statistical relationships and correlations, but alone cannot foster the depth that personal perception provides qualitative interview data. These two methods in combination champion the strength of survey data, within a large student sample statistical analysis and substantiate the comprehensive, follow up descriptions of student interviews (Edmonds & Kennedy, 2017; Opelt & Schwinger, 2020; Simpson & Linder, 2014). Mixing data may ensure validity between quantitative data and qualitative data collection.

A sequential explanatory design in the present study (Creswell & Clark, 2017), offered the primary researcher a further opportunity to advance a deeper understanding of student perceptions of the blended learning environment. Employing a voluntary selection model, the primary investigator offered students the chance to voice personal opinions on various elements of learning within a blended classroom. This approach provided an opportunity to extend prior lines of research for the examination of positive correlations between student motivation for learning and perceptions of teacher behavior (Carioli & Peru, 2019; Dhillon & Murray, 2021; Wang et al., 2013). Semi-structured interviews offered a context for investigating student's construction of perceptions of teacher pedagogical practices and engaged additional depth of study of self-regulation and efficacy in motivational constructs related to English. The semi-structured interview protocol was also designed and developed to build upon constructs measured in the quantitative phase, according to a typical explanatory model; concepts that were highly correlated between student perceptions and learning motivation (i.e. teacher pedagogical behavior, understanding self-regulated goals, confidence for learning English, and efficacy for learning in a blended classroom), which became pivotal in conducting student interviews.

Interviews offered an additional chance to collect qualitative data from a comprehensive, and representative sample from ninth-twelfth high school students drawn from participants from the quantitative phase. The participant students from the pool of quantitative participants were selected voluntarily in a true convenience sample. In this way, a wide variety of student voices were represented and viewpoints from each ninth-twelfth grade English classroom were included in the interview data. Accordingly, due to scheduling conflicts, to minimize any loss of instructional time, some students were interviewed individually and some were interviewed in pair sets. The paired set student interviews were effective within a safe learning climate, wherein

this social setting helped students to be more at ease and thus engaged an opportunity for students to incorporate and expound on comments from each other (Rios et al., 2018). Benefits of paired setting interviews also provided further engagement that had not been offered within individual interview settings. Comfort levels increased allowing students to feel included and not excluded from a social setting. Ultimately, scheduling conflicts defined the nature of each interview in this study, whether individual or paired, and future research of this type would benefit from the positive social setting as mentioned above. A mix of the two types of interview administrations may offer a representation of actual data for adequate analysis.

Discussion of Qualitative Findings

This sequential explanatory mixed-methods study included the qualitative phase, including 20 student interviews over the course of a sequential five-day period after administration of the SRL-O Survey. Throughout the open coding phase of the semi-structured protocol qualitative data of the study, the following four categories emerged from the interview data, manifesting as fundamental to students' perception of teacher pedagogical practices that impacts student self-regulation in blended learning environments: (1) Construction of Perceptions of Pedagogical Practices, (2) Construction of Learning Confidence (Self-Efficacy), (3) Student Motivation for Learning, and (4) Digital Self-Regulation. Of these four categories, two relate students' construction of the impact of perceptions of teachers' pedagogical behaviors in a blended classroom that affect students' motivation for learning (1,3), and two categories describe students' strategy to support learning confidence with self-regulation in the blended learning environment (2,4).

Typically, a sequential explanatory mixed-methods design, operates with the semi-structured interview protocol, being designed to build upon the results of the quantitative phase

121

of the study. The concepts that were most significant in the quantitative phase of the study were teachers' pedagogical practices, students' SRL, and students' digital efficacy for learning English in a blended environment. The two categories relating to students' construction of digital efficacy in the qualitative phase were named construction of learning confidence and student motivation for learning. The interview protocol focused upon these constructs because quantitative results indicated significant correlations between student perception of teachers' pedagogical practices and students' motivation in a blended classroom. Leadership practices were also included in the interview protocol; while respondents struggled to voice personal perceptions relating to teacher leadership, students commonly explained this construct in terms of teachers' attentiveness, presence, and advice guidance. Accordingly, student statements concerning teacher leadership behavior were merged with categories of teacher pedagogical classroom practices and attentiveness.

The difficulty participants had responding to interview questions were when students were challenged to report objectively on their primary learning intentions and goals in English. Students were inclined more for discussion of common terms of stating the learning purpose in terms of self-regulation and efficacy, not inherently the learning processes. Frequently, students referred to the strengths of competition in blended classroom. However, observations were made not wholly in the context of achieving goals or intrinsic motivation in English class. Some students did not personally endorse competition within the class learning climate. A small number reported this competition in a negative judgment. Comments about student peers who thrived in competitive activities posted in a blended classroom were critically observed by students to need extrinsic motivation to be able to learn successfully. Yet,

theoretically with a different adaptation of the interview protocol, revisions could encourage student reflection on individual learning goals.

Many significant observations can be made within the qualitative analysis that respectively relate to the qualitative research question: *How do the pedagogical practices of secondary ELA teachers influence student digital self-efficacy and self-regulated learning in a blended classroom environment?* Generally, the relevant relationship between students' self-report of learning motivation and related perceptions of teacher classroom behaviors in a digital learning environment were more thought-provoking to examine qualitatively. While young adult students are able to discuss ideas related to both learning motivation and teacher practices perceptions, asking them to make connections between the two was often challenging. Between phases in the current study, the primary investigator debated this complication and appropriateness of adopting the protocol with this issue in depth with a lead educational scholar and researcher in the field of student learning motivation perspectives. The development of the protocol included moving beyond the unrealistic expectations of high school students to imagine overt associations between individual perceptions of teacher pedagogy. Analysis of the interview data would best serve research purposes to ask students to voice personal observations of learning motivations, SRL and teacher classroom practices. The exploration of qualitative responses to build connections, interactions and relationships was the primary investigator's responsibility during data analysis.

Subsequent qualitative interviews revealed the depth of student comments reporting the influence of SRL, DSE in relation to intrinsic motivation to learn English; students described both the utility of goal setting to boost self-regulation and achieve DSE in learning English in a blended classroom. Compellingly, participants who reported a high operational use for SRL also

reported value in DSE, and the converse appears true as well. Namely, students who practiced digital efficacy also respected the value in practicing SRL in the blended classroom. Logic prompts the question: Does the perception of confidence instill the value of intrinsic motivation for learning English with self-regulation, or is it the other way around? For instance, do students validate SRL because the confidence in learning English, in a digital learning environment, with high intrinsic motivation for learning English, inspires learners to engage in digital self-efficacy? The converse is more formidable: Do students dislike English because of insecurity in a blended classroom, anxiety, or do students fail to exercise the utility of SRL because they dislike the subject? Perhaps the relationship between these two digital self-efficacy and SRL influence each other. This relationship between students' SRL and DSE for English could be investigated in future study in other content area domains.

In the current study, during the axial coding of the qualitative analysis connections were made between student perceptions of teacher practices and SRL, DSE and learning motivation for English. Similarly throughout this phase, the primary investigator explored the scope of student learning constructs in self-regulated, efficacy constructs and student perceptions of teacher classroom behavior, drawing connections to the relationship between these two variables. The following description delineated the significant connections which emerged during the axial coding phase.

Discussion of Trends within Sub-Groups: Positive Perceptions

According to the quantitative data analysis of SRL-O, documented in Appendix A, in the current study findings, there was a positive correlation between Online Academic Efficacy and Online Effort regulation; Online Academic Efficacy was also positively correlated with Online Study Environment. A primary distinction in student subgroups who construct confidence in an

ability to self-regulate were able to build grit in commitment to persevere through challenging circumstances in a blended learning environment. As previously reported, there was a negative correlation between self-regulation and Online Negative Achievement Emotion in the present study findings. The possibility exists, revealed through polarized student perceptions that the enhanced reliance upon teacher leadership and guidance could result in the student ability to develop a growth mindset with academic tenacity (Dweck et al., 2014) through teacher self-regulation routine that supports the development of DSE (De la Varre et al., 2011; Dweck et al., 2014; Lee et al., 2021).

From the qualitative phase open coding analysis, classification of three sub groups enabled trends to emerge. The value of analysis expands a clear understanding of interrelationships amid the groupings. The emergent sub groups delineated into three subsets: (a) engaged students, (b) undecided students, and (c) disengaged students.

During the qualitative phase of the present study, engaged respondents who reported high Online Academic Efficacy and Online Self-Regulation, also correlated with positive perceptions of teacher pedagogical classroom practices. Metacognition, a fundamental component of SRL, was also positively correlated with positive student perceptions of teacher pedagogical classroom practices and supports previous studies (Zimmerman, 1989, 2002; Zimmerman & Martínez-Pons, 2012). These thriving students reported that an online learning environment inspired more inquiry-study, experiential learning which also prompted independent SRL processes in students. Perhaps students who responded in these ways were empowered through teacher facilitation of organizational skills necessary to navigate any challenge of managing a digital online learning environment (Rios et al., 2018).

Discussion of Trends within Sub-Groups: Negative Perceptions

In the current study, teacher pedagogical practices referred to student perception of how an English teacher engaged learning within a blended classroom. These included teacher behaviors that encouraged comfort using digital tools, ease in learning new material, goal setting, and confidence in independent practice within a blended learning environment. The semi-structured interview protocol, reported in Appendix B, prompted participants to reflect and respond with individual perceptions of teacher pedagogical practices in a blended classroom. While examining variant levels of student perceptions of teacher's classroom behaviors, some respondents commented from a disengaged learning viewpoint in a blended learning classroom, citing a number of reasons. This viewpoint held respective low perceptions of teacher pedagogical practices. Students' responses in this case were, for example, representative of an opposing hypothesis: teachers' pedagogical classroom behaviors do not automatically predict students' ability to self-regulate, acquire DSE and motivation to learn English in a blended classroom. In this present study, other contributing factors exist in unconventional situations. The benefit of research examination of supportive hypothesis data, merely loses the opportunity to gain further insight from non-examples.

Discussion of Overall Findings

The current study operated through a sequential explanatory mixed-methods design (Creswell & Clark, 2017). The quantitative and qualitative data was examined independently and together. Despite an interpretive data mixing step occurring during the voluntary participant selection model between Phase 1 and Phase 2, the data analysis progression provided insight.

Explanatory Analysis

An additional step was also needed to provide an interpretative analysis of overall findings from the quantitative and qualitative data. Accordingly, Creswell and Clark (2017) provide the following questions to guide this process: "To what extent do the quantitative and qualitative data converge? How and why? To what extent do the same types of data confirm each other? To what extent do the open-ended themes support the survey results? What similarities and differences exist across levels of analyses?" (Creswell & Clark, 2017, p. 137). These questions are discussed below.

To What Extent Do Quantitative and Qualitative Data Converge? Evidence exists strong relational evidence from the quantitative survey data, that the distinct constructs the instrument measured are interrelated, one pivotal construct of which, was DSE. Findings from the current study reveal that when DSE increases, then all other measured categories also increase. Student participants who reported high SRL perceptions during the quantitative phase and also reported high perceptions of motivation for learning English. These participants also responded to attributing success to high DSE during the qualitative phase of the study. Student responses during the qualitative semi-structured interviews aligned distinctively with students' responses on survey items in relation to SRL and DSE perceptions. Participants also responded high in motivation for learning English perceived as a result of impactful teacher classroom behavior. These participants offered exact descriptions, explaining how teachers' classroom behaviors affected SRL and DSE for learning English, consistent with the quantitative results.

Students reported high self-efficacy. Individuals reported that DSE was directly affected by teachers' pedagogy and impacted SRL and motivation for learning English. These qualitative results of the current study align with quantitative results revealing that students' perceptions of

teacher classroom behaviors were correlated of both SRL and DSE that support engaged

motivation for learning English in a blended learning environment.

Conversely, participants who reported low SRL and low DSE during the quantitative

phase also reported low motivation during the qualitative phase of the study. According to the

present study findings, respondents who reported not observing routines in teacher behavior in a

blended learning classroom, resulted in respectively scoring low on self-regulated, DSE and

motivation to learn English in a blended classroom. These participants also scored high on

Online Negative Achievement Emotion, which demonstrated the only negative correlation with

motivational constructs in the quantitative data set analysis. Students who score high on Online

Negative Achievement Emotion respectively scored low on the DSE scale. On the other hand,

these findings show as Online Academic Efficacy increases, then Online Negative Achievement

Emotion decreases.

Qualitative results align with quantitative results suggesting that students' perceptions of

teacher pedagogical classroom behaviors were correlated with student perception of SRL, DSE

perceptions and respective motivation for learning English in a blended environment. Another

substantive finding showed alignment between the quantitative and qualitative data in

consistency within groups of students who did *not* share the same English teacher. In the

quantitative analysis stage, there was no significant difference between students from any one

teacher who differed from the others. In the interview responses, perceptions of teacher routines,

time management and procedural classroom behavior, students were able to align personal

perceptions of the impact of teacher routines with the learning processes of SRL, DSE

perceptions and motivation for learning English. These results indicate and support previous

SRL activation studies that students broadly perceived their teachers' pedagogical practices in

encouragement empowering comfort using digital tools, ease in learning new material, goal setting, and confidence in independent practice within a blended learning environment (Blackmore et al., 2021; Broadbent et al., 2022; Dignath & Veenman, 2021).

During the qualitative student interviews, the majority of participants responded with consistent perceptions of valuing goal setting, routines and teacher presence in a blended learning environment. These findings suggest that there may be standard teacher pedagogical classroom behaviors that are perceived the same by students in blended classrooms. For instance, in the current study respondents reported witnessing teacher-centered behaviors as ineffective. Students perceived teachers' apathy, with busy work, disengagement, as a cause for withdrawal from class. Students' with perceptions of negative teacher behavior were more likely to consistently report low scores for SRL, DSE perceptions causing low motivation for learning English. However, consistent statements from students have reported the benefits of student-centered, positive teacher classroom practices of experiential, within inquiry models of instruction. Students also reported teachers' pedagogical practices that showed attentiveness, patience, and perseverance, as effective classroom behaviors that impacted student intrinsic motivation for learning English. Students spoke about gaining commitment and confidence as a result of a teacher's attentiveness, patience, or perseverance. These findings imply that students require and desire teacher presence and input, especially within teacher behaviors that encouraged comfortable confidence using digital tools, ease in learning new material, goal setting, and confidence in independent practice within a blended classroom.

To What Extent Do the Themes Support the Survey Results? What similarities and differences exist across levels of analyses? There was a significant relationship in the current study, between students' perceptions of teacher pedagogy, SRL, DSE and motivation for learning English. Some

participants did not entirely align with these statistical findings. The primary investigator intentionally selected the Phase 1 instruction to support students, who would be able to navigate the digital tool easily. The *true convenience sample* method enabled volunteers to participate in Phase 2. Students were then able to share expounded explanations to provide depth to the reported perceptions. During the qualitative interviews, students were given the chance to voice the personal accounts of teacher practices directly impacting learning processes and outcomes. Student respondents were also able to discuss a variety of ranging factors that directly affected these learning processes, proposing that other contributing factors also impact student learning. These accounts suggested that teachers can leverage a wide range of family, peer, and cultural contributing factors are also at work to influence student learning processes and learning outcomes in a blended classroom environment.

Contributing Factors

An important conclusion to deduce from the current study is that a range of contributing factors can affect student SRL and DSE processes and outcomes. While the current study indicates that teacher pedagogical practices are a critical part in the development of student SRL, DSE development, and intrinsic motivation for learning English, a wide range of family, peer, and cultural contributing factors are also at work. These influential dynamics could also impact student learning processes and learning outcomes in a blended classroom environment.

Emergent themes developed from Phase 2 qualitative interview data. Themes were broadly in alignment with constructs represented in the Phase 1 scales, statistically derived from the IBM SPSS Statistics Data Editor Software program. Although, several slight differences emerged during qualitative statistical analysis, respective quantitative scales and qualitative themes are compared in Table 5.1.

Table 5.1 Comparison of Quantitative Scales and Qualitative Themes

	Quantitative Scales	Qualitative Themes
SRL-O Scales:	(1) Online Academic Self-Efficacy	(1) Construction of Learning Confidence (Self-Efficacy)
	(2) Online Extrinsic Motivation	(2) Student Motivation for Learning
	(3) Planning and Time Management	(3) Student Motivation for Learning
	(4) Study Environment	(4) Self-Regulated Learning
	(5) Online Social Support	(5) Self-Regulated Learning
	(6) Online Intrinsic Motivation	(6) Student Motivation for Learning
	(7) Online Negative Achievement Emotion (Self-Efficacy)	(7) Construction of Learning Confidence (Self-Efficacy)
	(8) Metacognition	(8) Self-Regulated Learning
	(9) Online Social Support	(9) Self-Regulated Learning
	(10) Online Task Strategies	(10) Construction of Perceptions of Pedagogical Practices

Within the quantitative phase, participants responded to a seven point Likert-type scale defining the individual level of agreement with statements regarding student perception of the effects of teacher encouragement in using digital tools, ease in learning new material, time management in goal setting, and confidence in independent practice. Subsequent qualitative interviews offered students the opportunity to describe these blended classroom behaviors. Students were able to describe the perception of the process of acquiring SRL, DSE and motivation for learning English. Likewise in qualitative data, students explained how individuals could construct skills in personal perceptions of teacher pedagogical practices that encouraged comfort using digital tools, ease in learning new material, goal setting, and confidence in independent practice in a blended learning atmosphere. Additionally during the quantitative phase, students reported an individual level of agreement with statements related to perception of DSE, and intrinsic and extrinsic motivation for learning English in a blended classroom. Within the qualitative phase, interview respondents described factors affecting their DSE for English. These were spoken in terms of self-regulated motivation that supported previous study (Hariri et al., 2021). Discussed in-depth about a personal value for teachers' presence, students reported student-centered classrooms held such effective influence in learning English within a blended classroom setting.

The levels of convenience and intrinsic motivation for learning English were also extrapolated. A category also emerged from the qualitative data that was not represented in the survey instrument: resources selected for students face challenges, or anxiety. This category also contributed to an understanding of how students respond to difficult tasks in learning English in a blended classroom and how this construct relates to understanding the impact of teacher

pedagogical classroom practices in relation to learning English in a blended learning environment.

As detailed earlier, the qualitative data did not represent the theme of learning English in terms of mastery, proficiency, nor performance. Understandably, as these constructs were included in the interview protocol, participants did not respond to these questions in relation to specific individual learning goals for English. Coded appropriately, students' descriptions of the semi-structured protocol were additionally aligned with SRL, DSE for learning English, and student motivation. During the qualitative phase the qualitative interview data revealed an expounded view of student perception and subcategories in relation to SRL, DSE perceptions caused motivation for learning English in a digital environment.

An analysis of results interpreted from the quantitative and qualitative phases of this present study offers the foundation for a hypothetical model of student SRL, DSE perceptions causing motivation for learning English, in relation to teacher classroom behavior. The figure offers a visual model findings from this current study which could function as a dynamic guide for future research on students' SRL, DSE and motivation for learning English. This graphic is presented in Figure 5.2.

Figure 5.2   Visual Model of Teacher Pedagogical Practices and Student ELA Constructs
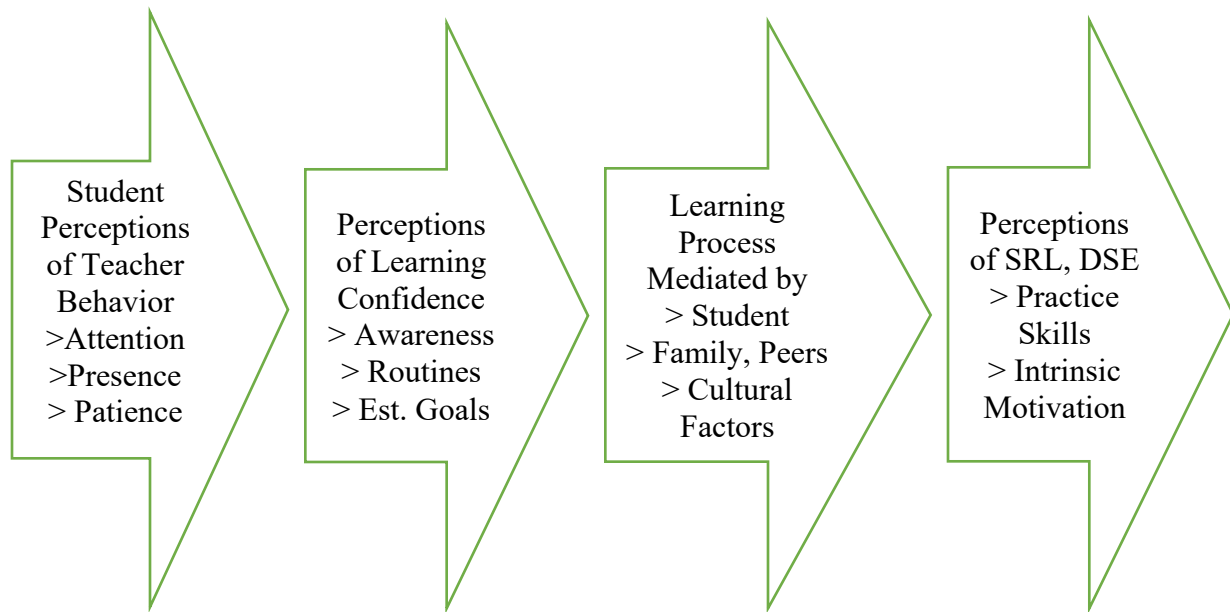
Theoretical Implications

The present study particularly identified a positive relationship between students'
perceptions of teacher pedagogical practices and SRL and DSE for learning English. Bolman and
Deal (2017) specifically remarked the navigation of delineated leadership, could help teacher
leaders develop a range of leadership styles in order to discover how "the right tool makes a job
easier; the wrong one gets in the way" (p. 15). The impacts of the current study focus on the
effect of teacher leadership in blended learning classrooms have upon student learning processes
and outcomes. Effective educational leaders today need direction in each facet of education
(Bolman & Deal, 2017; Rost, 1993; Shafritz et al., 2016). In this context, while implementing a
multilateral viewpoint, educators may discover performance is enhanced when teacher leaders
help learners translate *talent into performance* (Gallup Inc., 1999). The effects of leadership in
the blended classroom is key when considering teacher pedagogical practices upon student

outcomes with multilateral leadership, pedagogical practices, only enhanced by developmentally appropriate student outcomes.

Organization researchers Bolman and Deal (2017) equally collected, reported and fashioned specific, interrelated, and distinctive key ideological leadership characteristics into select frameworks so that leaders may cultivate access to effective stratagems to sufficiently operate change. Practitioners further illustrate research studies conducted in the education field which have found Bolman and Deal's (2017) research into leadership frames supportively helpful when applying respective concepts to educational issues (Al-Omari, 2013; Mullins, 2020; Snyder, 2018). As a result, when theory assumes old establishments, inflexible stagnation will always operate in classrooms, even when the preexisting commonplace research does not report current research studies of leadership in blended secondary ELA classrooms.

Moreover, Zimmerman (2002) conjectured that key learning practices could contribute to a learners' SRL for any given content area or domain (Greene et al., 2015). These areas include metacognition, self-motivation/beliefs, reflection, and performance control (Alammary et al., 2014; Lajoie, 2008). Self-motivation, and perception of motivational beliefs, are especially relevant to the current study, focused upon student perception of teacher pedagogical practices that provide student-centered learning regulation (De la Varre et al., 2011; Hariri et al., 2021). Typically, a driving force of classroom instruction remains in the role of the teacher. Teachers who routinely communicate empowerment with engaging self-motivation in students are pivotal in building self-motivation as a source of SRL. When students may exercise this role with self-motivation, learners may also engage in SRL and respective performance control (An, 2021; Dignath & Veenman, 2021; González Galli et al., 2020). Considering Zimmerman's (2002) model of SRL, the opportunity that teachers could understand the pivotal role facilitating

135

students' SRL English. According to the current study results, some teachers' pedagogical classroom practices are perceived as attentive, encouraging and patient in learning process in blended classrooms. Those students did not report high scores in the Online Negative Achievement Emotion subscale. This difference decreased students' ability, self-regulation when teacher behavior is perceived by students as ineffective.

Research indicated that a students' efficacy, or the ability to believe a task is accomplishable (Bandura, 1982), would be predictive of student outcomes, contemporarily relevant in online environments in modern schools (Akgül & Atalan Ergin, 2022; Fish & Jumper, 2021; Fuchs et al., 2022). In the current study, students' perceptions of teachers' classroom practices were predictive of DSE. Accordingly, students who mentioned positive teacher practices in the blended classroom substantiated previous study findings (Broadbent et al., 2022; Dignath & Veenman, 2021; Rios et al., 2018). Therefore, students who perceived positive teacher practices also reported DSE for learning English. Respondents who reported negative perceptions of teacher classroom practices scored higher in Online Negative Achievement Emotion, which resulted in low DSE.

Implications for Secondary English Education

The most vital implication for secondary English educators from the present study is the prospective that teachers have a pivotal impact on student self-regulation and self-efficacy in empowering inquiry-study, experiential activities that support student motivation for learning English in a blended learning environment. The current study does suggest that teacher's personalities and perspectives of pedagogical supports necessarily impact self-regulation and DSE for all students within blended learning classroom contexts. Study findings validate existing studies that revealed similar results; students reported the skillfulness of the teacher advanced

structures in place that directly improved student outcomes in regards to enhanced self- efficacy (Azizi et al., 2022; Carioli & Peru, 2019; Hariri et al., 2021). Secondary English teachers should consciously develop an awareness of the way in which pedagogical practices with students could model student confidence to shape efficacy for learning ELA and respectively influence practitioner stages and components of facilitating student SRL (Fish & Jumper, 2021; González Galli et al., 2020; Wang et al., 2013) for the subject in blended classrooms. Students in the current study specified an acumen for teachers' attentiveness within pedagogical practices. Regardless of the content, students similarly noted, advice, patience practices, especially when learners needed additional support because the student did not understand content, which thus directly impacted the ability for students to develop DSE.

The implications of this current study are compelling. Curriculum trainers can help school administers recognize the impact that confident educator leaders could have in forming educational organizational change in a blended classroom (Fish & Jumper, 2021; Noel & Shoffner, 2019). Further professional development requires a sensitivity and awareness for teachers of secondary digital English classrooms (An, 2021; Hanimoglu, 2018; Lepp et al., 2021).

Often, teachers find themselves to be ill-equipped in terms of harnessing the power of digital platforms to support student motivation that foster DSE with inadequate training or skills to employ progressing digital realities that are constantly changing (Al-Omari, 2013; Sugarman & Lazarin, 2021). When Bolman and Deal's (2017) stylistic leadership theory frameworks are applied to the field of education, educator leaders may find practical solutions to explore. Mullins (2020) also implied that by bargaining within equal access to Bolman and Deal's frameworks of leadership, while engendering meaningful assessment work, would help

educational leadership leverage strengths by considering colleagues' viewpoints. In order for stakeholders, administrative teams, and teachers to better understand performance in the decision-making process of the digital age, delegated executive roles within schools must foster the capacity in leadership to support teacher agency (Calvert, 2016). Leadership practices must continue to grow alongside contemporary realities.

The present study findings also illustrate the strength of previous study findings in student DSE, or student confidence in using digital tools with, supporting previous studies (Chang et al., 2018; Rios et al., 2018; Wang et al., 2013). Investigators Simpson and Linder (2014) also implemented a two-step procedure of a mixed-methods research approach that gathered components in studying pre-service and in-service teacher professional development designed to enhance efficacy. This design would aid ELA classrooms with distinctive *teacher efficacy* research that prompts select teacher participant to reflect on student SRL in secondary classrooms (Alvi & Gillies, 2020; Fuchs et al., 2022; Simpson & Linder, 2014) which could build student efficacy in the blended classroom. Similar to Buysse's *The Landscape*, both teachers and students will need to be included in my approach to understand the practical issue of teacher self-efficacy that prompts student motivation (Simpson & Linder, 2014) that would prompt building student self-efficacy. Study results revealed that great changes could occur if educators would be offered professional development sessions in a core content area (Simpson & Linder, 2014). This desire also bridges the gap between stages in educational development to enhance student self-efficacy in the blended classroom.

Implications for English Teacher Education

The present study also has additional implications for ELA teacher education, specifically relevant to the instructional impact of the educator role in a blended classroom. Within the

current study, the findings revealed a direct relationship between teacher practices that fostered student-centered classrooms and the development of student SRL and DSE in blended learning environments. Student participants reported appreciating certain teacher pedagogical practices as indicators that eased literacy learning, with needed teacher assistance to navigate digital tools for learning English in a blended classroom. Teachers who exercise professional development will improve student development in self-regulation and confidence in supporting digital efficacy in a blended English class.

In the primary study, discovering the relationship between ELA teachers' pedagogical practices in a blended learning environment and student SRL, DSE would help design professional development for substantiating effective pedagogical tools for teaching English in a blended classroom. The implications for effective professional development extend to facilitating student self-monitoring (Zhu & Bonk, 2020) within reading comprehension in the secondary ELA blended classroom that will improve student learning in a blended landscape, as well as provide avenues for future exploration into SRL with writing instruction. The current study revealed key pedagogical patterns which align with the results of a study of English blended classrooms which illustrated vital teacher factors in making teaching decisions in the classroom for student-centered efficient learning (Lepp et al., 2021). The quantitative data from this current study found significant correlation in a blended classroom environment relationships exist between secondary ELA students' DSE, and SRL. An examination of professional development focused on teacher pedagogical practices in the ELA blended classroom would enhance students' learning to navigate digital spaces in a blended classroom when students' engagement can facilitate this change (Ucok-Sayrak & Brazelton, 2022). During the qualitative phase of the current study, secondary ELA teacher pedagogical practices were revealed that influence student

139

DSE, and SRL in a blended classroom environment. Teachers who encourage students to explore digital literacy in blended learning can facilitate empowered emergent literacy with new understandings of the role of renewed learning interest (Ucok-Sayrak & Brazelton, 2022). In this way, English teachers can also use these pedagogical practices to enhance renewed course delivery and learning content (Stephens & Jones, 2014) with inspired innovations in teacher-student roles within ELA instruction.

Accordingly, professional development for ELA teachers in the blended classroom should focus on teacher practices that support student self-regulation (De la Varre et al., 2011; Hariri et al., 2021). The primary study also aligned with previous studies that suggest activating student metacognition is a key component of SRL (Lajoie, 2008; González Galli et al., 2020; Zimmerman, 2002). Whereas teachers who were specifically trained through a bolstered, supportive, and embedded professional development, designed to evolve standard practice from a teacher-centered pedagogy to transition into implementing enhanced student-centered inquiry instruction (Marshall et al., 2011; Smart & Marshall, 2013) would empower literacy learning in a blended learning environment. When SRL is intentionally engaged in schools, students not only discover new breakthroughs, but also teachers may discover new conceptions of literacy teaching and SRL in the blended classroom (Ucok-Sayrak & Brazelton, 2022). Supportive standard practice transitions teacher-centered pedagogy to into implementing enhanced student-centered instruction self-regulation in a blended learning environment. One such training platform that could be used for professional development training is also referred to as Massive Open Online Courses (MOOCs); MOOCs offer digital innovations to prompt learner motivation while engaging self-regulated learner participants (Zhu & Bonk, 2020). Specifically designed for

secondary ELA literacy instruction in blended classrooms, professional development designed from the current study would enhance student self-regulation and ELA learning outcomes.

The current study also enhances research completed by a group of scholars who developed a comprehensive SRL intervention designed to improve student writing called the Self-Regulated Strategy Development (SRSD) model (Greene et al., 2015). English teacher practitioners who exercise the petrological practices voiced in this study alongside professional development in the SRSD model, encouraging goal setting for students will cause students to monitor and establish personal self-regulation skills (Greene et al., 2015). The primary study results support an additional scholar Jane Shaffer who also prompted independence in learning with a method that engaged self-monitored and self-regulated writing for English students (Roybal, 2012; Schaffer, 1996). The findings from the current study report evidence that a number of avenues for English educators' pedagogical practices may enhance self-regulation for students with pedagogical practices that support student outcomes in a blended learning environment.

Notwithstanding, English educators also benefit from training to become more aware and sensitive to building students' digital efficacy through the crucial factor of building confidence (Azizi et al., 2022) and intentionally supporting self-regulation in a blended learning atmosphere (Khiat & Vogel, 2022). Student SRL can align learners with extrinsic and intrinsic motivations, exercising engagement, with positive educational experiences (De la Varre et al., 2011; Hariri et al., 2021; Opelt & Schwinger, 2020). The current study also offers professional development suggestions for student-centered blended learning instruction classrooms for teachers, especially when developing *works in progress* literacy in both teachers and students alike.

Limitations

In this current study there exists a number of central limitations. Specifically, discovering the interactions and contributing influences in examining the variance of DSE and SRL in different content areas, anxiety in online learning and teacher pedagogy would afford additional understanding. Initially, in the questionnaire survey phase of this study, self-report data could be considered untrustworthy for a range of reasons. Participants who respond in a self-report fashion may not consistently provide objective data; likewise the data might not be considered authentic nor infallible and as such highly influenced by a number of discrediting factors including the content area, moreover inspecting the variance of DSE and SRL in different content areas can further knowledge. Thus, there is a concern that self-report data may not be a true measure of a participant's perception of measured constructs, such as SRL or DSE for learning English. Research has voiced a concern of the validity problem and inaccurate representation of a study participant's true perspective (Veenman, 2011). Conversely, other researchers have debated that "self-report questioning have their own value in educational research and remediation, in the sense that they might give a relatively accurate insight into students' Global level of metacognition, serving as a starting point for precise interventions" (Rovers et al., 2019, p. 16). The administration length of the Phase 1 survey may have also caused unintended fatigue in participants which could also have impacted study results in scrutinizing anxiety in online learning.

From the Phase 1 participant sampling pool, some of the sampled participants were the primary investigator's students. This fact may affect study results as inherent bias since participants would be less likely to face anxiety since there had been a period of time of familiarity through previous teacher-student interaction. Potential study results may have been

affected if the primary investigator had only an acquaintance interaction with participants, with less previous contact with students, apart from the administration of the questionnaire in the Phase 1 of this sequential study. Students would arguably respond in different ways if the primary investigator had no previous familiarity with all participants. Additionally, ranges of students hold variant skills, talents and ability levels (Rios et al., 2018). From the 100 students who completed Phase 1 of the study, 20 students from the total surveyed population volunteered to participate in Phase 2 of the study. These respondents may exhibit certain behaviors and personality traits that inherently display a difference within interview data since these participants may be more inclined to be engaged, independent, and confident self-regulated learners whom already possess self-efficacy traits. Explicitly investigating effective teacher pedagogy can prompt further clarity in the existing research.

Apart from Phase 1 administration limitations, during Phase 2, even though no instructional time had been lost, qualitative data may have been influenced by a substantive factor depending on the nature of the 16 individually interviewed students who demonstrated differences from the four participants who were interviewed in pairs. These differences may inherently influence the data. Due to scheduling conflicts, over the course of five days, the students who the primary investigator interviewed individually, provided self-report perceptions that may not have been influenced by the presence of a peer. Potentially students who were interviewed in pairs were provided peer social support that was missing from the individual interviews.

Future Research Recommendations

This line of research to measure adolescent students' perceptions of teachers' pedagogical practices in the area of SRL, DSE, and English motivation have been few. The

current study included a qualitative phase to support the understanding of the quantitative data that in turn found a significant correlation between student DSE and SRL in a blended learning environment and teacher pedagogical practices. Future research recommendations could include a range of follow up studies. Namely, exploring the relationships and contributing factors in examining the difference of DSE and SRL in different content areas, anxiety in online learning and teacher pedagogy would provide further insight (Azizi et al., 2022; Borekci & Uyangor, 2018).

Different Content Areas

The current study extends the results of the quantitative phase with in-depth qualitative data analysis that expanded understanding of the dynamic relationships impacting student DSE and SRL. This study investigated the core class of ELA in the secondary classroom where the designated participants for the explanatory-sequential approach of the research design offered self–report data. Future research could expand into other core courses taught in blended learning classrooms. Advanced study focusing on distinct contributing factors that impact digital self-efficacy, SRL, and student motivation to learn in different content areas would prompt comparative analysis. For example, does the class of English offer different learning climates than other content areas that impact student motivation for learning? These inquiries could build insight into dimensions of student digital self-efficacy and self-regulated motivation for learning.

Future research into the range of classes offered in a blended learning environment might offer an opportunity to compare other content areas to the current study's results. Additional research and investigation into comparing study results between different content areas (Simpson & Linder, 2014) within blended classrooms in a blended learning environment would broaden

the understanding of the relationship between student DSE, self-regulation, and motivation for learning.

Anxiety in Online Learning

Further research study is needed that continues the exploration to identify effective curriculum leadership in the ELA classroom to explore student DSE as it relates to anxiety in online learning (Azizi et al., 2022; Borekci & Uyangor, 2018). Although regardless of class content, digital learning spaces have improved students' confidence in learning in relation to teacher presence (Rios et al., 2018). Anxiety in online learning in blended classrooms is also a complex issue. Particularly, online learning anxiety may directly affect students' ELA digital classrooms, especially in effective reading comprehension (Lepp et al., 2021; Sugarman & Lazarin, 2021). In fact, McMullan and Sutherland (2020) investigated one class of disadvantaged high school ELA students' motivation in enhancing reading comprehension skills. In addition, researchers McMullan and Sutherland (2020) used interviews, journals and open-survey questions to gather qualitative data; within two guiding themes of action-research structure to support students in constructing a reading self-concept and the impact of action-research pedagogy for students in developing voice (McMullan & Sutherland, 2020). Study findings do indeed demonstrate that within a selected ELA context student in this limited action-project who use interactive collaborative reading, with accountability (able to voice affective responses) were more sensitive to acquire learning processes to gain an awareness of broad educational structures with teachers who use action-research cycles that improved practices in the ELA classroom (McMullan & Sutherland, 2020; Sugarman & Lazarin, 2021). As an extension of research examining core content classes, investigators Linder et al. (2015) selected study of mathematics anxiety could illustrate the impact of a similar goal. The validation of a students' self-reported

perception of SRL instruments in the secondary classroom, would emphasize and provide a framework of measurement in quantitative and qualitative data to develop and then test student self-efficacy theory in relation to anxiety (Linder et al., 2015; Sugarman & Lazarin, 2021). Response rates of participants accordingly would affect the theoretical generalization as well as the empirical generalization, which accordingly would depict the frequency of consistency of results that were also obtained in previous research studies (Privitera & Ahlgrim-delzell, 2019). However few have advanced the current line of research to discover which teacher classroom behaviors impact students' online learning anxiety in the digital classroom (Sugarman & Lazarin, 2021). Further research is needed to advocate invocative practices that promote student efficacy in self-directed learning programs within blended classrooms.

Teacher Pedagogy

Additional research in the issue of teacher pedagogical practices in a blended classroom is needed to provide additional qualitative analysis. Moreover, the question has been posed about whether teacher pedagogical practices have a direct link to student outcomes. Concurrently, researchers Linder et al. (2015) investigated student motivation in regards to teacher impact upon student learning outcomes. Utilizing a similar mixed-methods procedure to understand student perceptions of teacher pedagogy with administering a questionnaire to ELA students, researchers have gained quantitative data and could validate an Instrument-Development Design (Linder et al., 2015). Using quantitative along with qualitative data analysis would regulate and validate student perceptions of teachers' roles (Burnett et al., 2014; Lepp et al., 2021) in building student self-efficacy, within measured academic tenacity, and level the complexities of the mixed-methods design (Rios et al., 2018). Theoretical generalizations could be made from data obtained in this type of research study that aligns with previous research studies to be consistent with

146

predictions and thus establish validity (Privitera & Ahlgrim-delzell, 2019) of student perceptions of teacher pedagogical practices in relation to learning within a blended learning classroom. Additional investigation would contribute to knowledge, identifying which specific teacher practices have been discovered to impact particular student outcomes in blended classrooms.

In short, many variables impact student DSE and motivation for learning. Future study into the effect of learning different content areas in a blended learning atmosphere, anxiety in online learning and teacher pedagogy would contribute to the knowledge of the depth of interrelationships between a ranges of factors affecting student outcomes in a blended learning environment. The current study is one of the few to investigate with an explanatory-sequential mixed-methods design of students' perceptions of teacher pedagogy in self-regulation, DSE, and motivation within a blended high school English classroom. Findings of this study indicate significant correlations in the relationship between student perceptions of teacher pedagogy, and self-regulation, DSE that enhance student learning motivation. Further research into the effect of learning different content areas in a blended learning atmosphere, anxiety in online learning and teacher pedagogy will impact of a range of motivating to develop a more comprehensive understanding of blended learning classroom environments. Future research would enhance knowledge from previous studies (Lepp et al., 2021) that have revealed teachers who provided students a way to cultivate digital capabilities of process predictions with regulation within digital active classroom activities (Uz & Uzun, 2018; Wang et al., 2013), would also provide teachers avenues of forming continual DSE in students (Rios et al., 2018). Albeit, findings from the current study offer compelling evidence that teacher pedagogical practices have a significant effect on student SRL, DSE, and motivation for learning English in a blended classroom environment.

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APPENDIX A. SRL-O QUESTIONAIRE: SUBSCALES

Name
Online Academic Self-efficacy (Response Scale 1-7)
Definition
Online self-efficacy measures the student's perceived abilities and belief of academic success in online courses. This scale contains four items. A high score indicates high confidence in mastering class material.
Recommendation for those that score under 4.
Break tasks into achievable steps so that you can be successful in achieving those steps. Start small, and as you become more successful, make the steps bigger. Look around you at peers and see how they are doing. Can you learn from their approaches? Seek feedback, from yourself and others, as to what you are doing well. Make sure you celebrate your successes.
Questions

- I am confident that I will be able to master the content and assignments in this online class.
- I am confident in my ability to successfully persist in this online class, even if I find the content difficult.
- I am confident I can put in the effort required to get a high grade in this online class.
- I am confident that I can accurately work out what the task is requiring me to do.

Name
Online Extrinsic Motivation (Response Scale 1-7)
Definition
Online extrinsic motivation is a measure of the reasons why a learner wants to engage with their learning. In particular, whether the learner perceives themselves to be participating in a task for reasons such as grades, rewards, performance, evaluation by others, and competition. This scale contains three items. A high score indicates engagement in the task as a means to an end (such as a grade).
Recommendation for those that score under 4.
Intrinsic motivation is thought to be more helpful than extrinsic motivation. However, you can improve your extrinsic motivation through setting an external goal, such as grade or getting into a postgraduate course.
Questions

- I want to do well in this online course so I can show off to my friends and family.
- I want to do well because of others real or perceived expectations of me.
- I want to get a better grade than others in my online class.

Name
Planning and time management (Response Scale 1-7)
Definition
Online planning and time management is about structuring one's efforts and time toward online study. This involves scheduling, planning and setting goals. This scale contains five items. A high score indicates more planning and time management strategies.

Recommendation for those that score under 4

Planning and managing time can be long or short term. Think about what you want to achieve from a study session, what you want to achieve from an assignment, and your course. Consider breaking large goals into smaller actionable goals. Consider using a diary with a timetable for weekly planning. Plan out how you meet assignment deadlines across the semester. At the start of each study session, create and prioritize lists of tasks you want to achieve.

Questions

- I set short-term (daily or weekly) goals.
- I set realistic deadlines for learning.
- I break larger goals into smaller actionable goals.
- I make a list of detailed actions that I need to complete.
- I plan out my schedule each week, so I have the appropriate amount of time available for online study.

 Name

Study Environment (Response Scale 1-7)

Definition

Involves having a study space that is quiet and distraction-free. This scale contains three items. A high score indicates learners can manage their study environment.

Recommendation for those that score under 4.

Make sure you can find a quiet, distraction-free place to study. You may want to change the place where you study, or the times when you study, or who is around you when you study.

Questions

- I am able to study for my online course without distraction.
- I have access to a quiet and distraction-free place to study.
- I know where I can study most efficiently for this online course.

Name

Online Social Support (Response Scale 1-7)

Definition

This scale refers to the learner's willingness to seek help from and collaborate with peers and teachers and through the internet. This scale contains five items. A high score indicates greater seek help-seeking and collaboration with others

Recommendation for those that score under 4.

Consider talking to your teacher, peers in your class, or learning advisors to see how they can help. Connecting with, or learning from, teachers and peers does not have to be synchronous; consider other ways to connect through email, discussion boards and social media. Use online search engines to help you understand the content better.

Questions

- I try to help other students when they ask a question online, I can answer.
- I ask for help from knowledgeable others through online channels when I am not sure what to do in my online class.
- I ask the teacher and/or my peers to clarify information in my online course.

- When I have difficulties with my online class, I seek assistance from others through online means (discussion boards, social media, email, instant messaging etc.).
- I use email, discussion boards, social media, etc. to connect with the teacher and other students when I need help.

Name

Online Intrinsic Motivation (Response Scale 1-7)

Definition

Online intrinsic motivation is a measure of the reasons why a learner wants to engage with their learning. In particular, whether the learner perceives themselves to be participating in a task for reasons such as interest, challenge, curiosity, enjoyment and mastery. This scale contains five items. A high score indicates engagement in the task for the sake of learning and not only as a means to an end (such as a grade)

Recommendation for those that score under 4.

Online Intrinsic motivation does not come from grades but from your own interest. Reflect on the reasons you originally enrolled in the university. Think about your own personal reasons for learning the material. What do you want to achieve, what do you enjoy learning about, why is it important for you to do well and learn the material? Think about what stimulates your curiosity? Lastly, make sure you celebrate your successes.

Questions

- I always find aspects of the content that arouse my curiosity.
- I love learning new things in this online class.
- I find studying for this online class enjoyable.
- I find it very satisfying when I learn new material in this online course.
- I get a sense of achievement when I learn new skills or information.

Name

Online Negative Achievement Emotion (Response Scale 1-7)

Definition

This measure includes both negative activating emotions (such as anxiety and shame), as well as negative deactivating emotions (such as hopelessness and boredom). Negative deactivating emotions can have a detrimental impact on motivation, mental processing and increase worry and mental distraction. Negative activating emotions may prompt effort but may also reduce intrinsic motivation and increase ridged strategy use. This scale contains five items. A high score on this measure indicates a high level of negative achievement emotion.

Recommendation for those that score under 4.

If you are feeling anxious or hopeless, take a deep breath and say 'I can do this', speak to family, friends or a health professional, practice relaxation exercises before studying, and focus on the task, not what others might be thinking, remember times you have performed well in the past. If you are feeling bored, mix up the topics you are studying, reward yourself with regular breaks, or try and make studying fun.

Questions

- I feel so helpless that I cannot dedicate all my effort to my online studies.
- I consider dropping out because I feel overwhelmed by my online studies.
- While studying, I want to distract myself to lower my anxiety level.

- I get so anxious that I don't even want to start studying online.
- When I have to study online I start to feel bad.

Name
Metacognition (Likert scale 1-7)
Definition
Contains metacognitive planning, monitoring, and evaluating. Online metacognitive planning includes goal setting and task analysis, which makes organizing and comprehending material easier. Online metacognitive monitoring includes reflecting, questioning and self-testing as one studies. Online metacognitive evaluating is adjusting and correcting one's cognitive activities and behaviors in response to one's own evaluation of performance during the task. This scale contains five items. A high score means that one is metacognitively aware while studying.
Recommendation for those that score under 4
Before you start a study session, make a plan of the activities you want to do. Look over the readings/instructions, so you get an idea of how it is organized. While looking over the resources, check your understanding of the content or the requirements of the activity. Try to determine which concepts you don't understand well so you can spend more time on them. Ask yourself questions such as, is this task similar to previous tasks? Can I do things differently from last time? Perhaps go back over the old assignment and look at the feedback you have received. How does your performance now compare? Can you adjust your current work based on previous feedback? If available, check your work against the rubric. How does your work compare? Are you meeting the standards you want to achieve?
Questions

- I think about what learning strategies have worked for me in the past when doing similar assignments/types of study.
- I spend time trying to interpret the task to ensure I understand accurately what I need to do.
- I usually self-assess my performance once I finish.
- I look over past feedback I have received and check that I have made improvements in my current learning.
- I think about how I might improve my work by evaluating it against the marking criteria provided by the teacher.

Name
Online Effort Regulation (Response Scale 1-7)
Definition
Online effort regulation is the ability to persist even when the task is uninteresting, there are distractions, or there are more interesting things to do. It requires the learner to be committed to their study goals, control their efforts and implement a range of strategies to do so. This scale contains four items. A high score means that the learner tries hard and exerts effort during online studying
Recommendation for those that score under 4.
Keep a list of the topics that you find yourself procrastinating instead of studying. Try to analyze why you postpone studying these topics. Think about the strategies you could use to help you persist. For example, at the start of a study session, make a list of small achievable goals and

concentrate on just achieving one at a time. Put distractions such as your phone in the other room. Set yourself a timer to study for a period of time (e.g. 30 minutes), before stopping for a break. Give yourself a reward if you reach a planned study goal.

Questions

- I work hard in my online study, even when there are more interesting things to do.
- When my online study gets difficult, I remain committed to reaching my study goals.
- When my mind begins to wander during a learning session for this online course, I make a special effort to keep concentrating.
- No matter how I am feeling, I persevere with my online study.

 Name

Online Task Strategies (Response Scale 1-7)

Definition

Task strategies include strategies that help the learner integrate and connect new information with prior knowledge, select appropriate information and also construct connections among the information to be learned, and apply previous knowledge to new situations. This scale contains five items. A high score on this measure indicates higher task strategy use.

Recommendation for those that score under 4.

When reading or listening to lecture content, spend time thinking about how the material relates to information you already know. Can you create your own examples that are different from the ones given? Try and make summaries of what you have learnt in your own words. Think critically about what the information means and whether you agree with the author's conclusions.

Questions

- When studying online, I create my own examples of the content to make it more meaningful.
- When studying online, I organize my thoughts by making summaries of what I am learning.
- When studying online, I try and relate the content to what I already know.
- When learning the online content, I try and develop my own ideas about it.
- I try and improve my understanding by doing additional work beyond the core content (e.g., doing extra problem-solving activities or extra readings).

APPENDIX B. SEMI-STRUCTURED INTERVIEW PROTOCOL

- Even when there are more interesting things to do, in your opinion, do you think that setting a schedule, creating smaller goals, or writing lists is an important choice to plan your time? Why or why not?
- How does your teacher help you feel committed and confident in learning by exploring your own ideas?
- If you don't understand something, do you feel comfortable using digital tools to ask your teacher for help? Why? Why not?
- How do you use online tools to ask your teacher and/or classmates to clarify or summarize information you are learning in the Google Classroom?
- When other students have questions, or face learning difficulties, do you feel comfortable using online tools to help relate new material to help answer to their questions?
- Can you describe how your ELA teacher motivates you or help set up realistic goals or timelines for learning?
- How does your teacher help you accurately work out what the task is asking you to do that helps you put in enough effort required to get a high grade?
- Can you describe a time when your teacher helped you feel you would be able to master the content in ELA class?
- Do you feel like you need to compete with other students to get a better grade in ELA class, so that you can show off to your family or friends?
- What is something you wish you could change about your ELA teacher to help you with independence, learning strategies, understanding, and/or help process self-assessment with past feed-back? Can you give me an example?
- Do you have a quiet, distraction--free place to study most effectively?
- Do you feel achievement when you learn new things in your Google classroom?

APPENDIX C. IRB APPROVAL FOR RESEARCH STUDY

Human Subjects Committee (HSC)
Institutional Review Board (IRB)

Dear Melissa K Miller,

Proposal Title: The Relationship between Secondary ELA Pedagogical Practices and Student Self-Regulated Learning and Digital Self-Efficacy in a Blended Learning Environment

Submission date: Wednesday, December 6, 2023, 12:01 PM

The Human Subjects Committee (HSC) has received and reviewed the above-titled research proposal. I am happy to inform you that AU's IRB has voted to **APPROVE** your above-mentioned proposal. Your approval number is **AU202348IRB**. Please, whenever you contact us about this proposal, use your IRB approval number.

Also, be reminded that if at any point during the research, the risk level to any human subjects involved changes, either physical harm or loss of anonymity, or should you find it necessary to make any adjustments to the study as approved, please contact the HSC/IRB Chair in advance of implementing such changes. This may require that you submit an IRB Modification form.

We wish you well in your research.

If you need clarification regarding the committee's decision, please contact Dr. Gilbert Eyabi, IRB Chair, at HSC@andersonuniversity.edu.

Sincerely,

12/20/2023

Gilbert Eyabi, PhD
Professor of Mathematics,
Assistant Provost,
IRB Chair, Anderson University.