12-2021

A South Texas Elementary School's Transition to a Constructivist Blended Learning Model of Instruction in Math: Perceptions of Students and Parents

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A SOUTH TEXAS ELEMENTARY SCHOOL'S TRANSITION TO A CONSTRUCTIVIST

BLENDED LEARNING MODEL OF INSTRUCTION IN MATH:

PERCEPTIONS OF STUDENTS AND PARENTS

A Dissertation

by

ANA HOLLAND

Submitted in partial Fulfillment of the

Requirements for the degree of

DOCTOR OF EDUCATION

Major Subject: Educational Leadership

The University of Texas Rio Grande Valley
December 2021

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ABSTRACT

Holland, Ana, <u>A South Texas Elementary School's Transition to a Constructivist Blended Learning Model of Instruction in Math: Perceptions of Students and Parents.</u> Doctor of Education (EdD) December, 2021, 264 pp., 3 tables, references, 110 titles.

This exploratory transcendental phenomenological study delved into the perceptions of selected South Texas public elementary school parents and students as they transitioned from traditional math practices to a personalized pedagogy which incorporated the constructivist model of instruction—blended learning. This study focused on fourth and fifth grade students engaged in the transition to blended learning for a minimum of two years and their parents. The exclusion and inclusion parent and student survey data facilitated the selection and organization of participants into focus group interviews, which aligned with a purposive sampling (Rubin & Rubin, 2012a; Mills & Gay, 2016; Creswell, 2013). Along with the rich descriptions elicited from stakeholders, campus and student demographic data and anecdotal blended learning artifacts were analyzed to develop an accurate campus context and ensure clarity of participants' descriptions and the triangulation of common themes (Creswell, 2013; Mills & Gay, 2016).

Three predominant themes surfaced from the detailed descriptions amongst parents and students about the transition to blended learning and the impact on the school culture: positive perceptions, negative perceptions, recommendations (Guest et al., 2012a). This qualitative study supported many of the positive perceptions described by post-secondary students engaged in a blended learning instructional format such as the development of student

agency, increased student engagement, and the personalization of instruction. In addition, there was alignment with negative concerns including the lack of face-to-face instructional support, preparedness for student ownership of learning, and parents' preparedness and understanding of the expectations for students and parents. While the positive perceptions outweighed the negative concerns about the transition to blended learning, the negative themes related to school culture delineated the valuable role and insight of parents, importance of obtaining buy-in, and the necessity for opens lines of communication. Furthermore, this qualitative data filled a gap in research—the perceptions of elementary students and their parents engaged in the transition to blended learning.

DEDICATION

As I considered who to dedicate this dissertation to, I was torn between the educational stakeholders in the trenches of education and my family members, who inspired me to conduct this study; thus, I dedicated it to both.

First and foremost, I would not have entered the doctoral program, if it had not been for my paternal grandmother, Anita Rivas Vicinaiz and my loving husband, Mark A. Holland. With just a third grade education, my grandmother was the matriarch of our family. She instilled in us the value of education and the belief that anything is within our grasps so long as we work diligently and with the purpose to improve not only our lives but those of others. As I progressed through my educational career, I knew a doctorate was within my grasp. When I considered entering the doctoral program and I discussed it with my husband, he was more than supportive. Throughout the doctoral program he was beyond patient of my studies. He picked up the slack around the house, which afforded me the opportunity to focus on my studies. I would not have completed this dissertation without him.

However, this study transpired in an effort to support the educational stakeholders focused on improving the education and lives of students. This research was meant to provide guidance for educators and a voice to those students and parents often forgotten in the ever-evolving educational system.

ACKNOWLEDGMENTS

The completion of my doctoral studies would not have been possible without the tireless support of my University of Texas Rio Grande Valley (UTRGV) professors and dissertation committee and the stakeholders who assisted and participated in my study.

Each of my professors facilitated the expansion of my knowledge base about educational leadership and the craft of research and writing, which served invaluable during the dissertation process. However, without the unyielding guidance and patience of my Dissertation Committee members, Dr. Karen Watt, Dr. Hilda Silva, Dr. Jesus Abrego, and Dr. Alejandro Garcia, this dissertation would not have come to fruition. They provided extensive feedback and advice throughout the many drafts of my dissertation, which ensured the integrity and quality of my research. Dr. Watt and Dr. Silva served not only as my co-chairs but as coaches and advocates, who pushed me when I thought I could not go on and helped me overcome various obstacles. Dr. Abrego and Dr. Garcia provided me diverse lens by which to reflect upon my study; thus, enriching the process and findings.

I would be remiss if I did not thank the educators, who allowed me to conduct my study in their district and campus, as well as teachers who permitted students to be out of class so they could be interviewed. However, this dissertation would not have been possible without the parents and students who participated in this research. Their willingness to share their detailed experiences will influence students and educational systems nationwide.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

The current instructional framework in the United States (US), termed the "factory model educational system" has been in place since the 1900's (Horne & Staker, 2015; Boone, 2015). According to Boone (2015) this is an ineffective system for the requirements of today's global economy. Due to the heightened needs of the US economy, the academic demands placed on students across the US has increased rapidly (Horn & Staker, 2015; Boone, 2015; Tucker, 2012; Saavedra & Opfer, 2012). Furthermore, educational systems must evolve to develop problem solvers, who can think critically both in collaborative and individual settings, in order to meet the demands of 21st century business world (Rotherham & Willingham, 2009; Tucker, 2012).

Saavedra and Opfer (2012) and Tucker (2012) emphasize the need for students with a 21st century skill base. While the definition of 21st century skills vary, ultimately students require the ability "to communicate, collaborate, and problem solve" and move beyond the "rote skills" remaining from the "transmission model" of instruction (Saavedra & Opfer, 2012, p. 8-9). According to the Organisation of Economic Co-operation and Development (OECD) (2009), transmittal instruction is a system in which teachers disseminate knowledge to students; thus, maintaining a structured teacher-centered instructional system. The "transmission model" of instruction is much like the "banking system" described by Freire (1970), in which teachers are the depositors of knowledge and students are the empty vessels in which the knowledge is deposited; thus, inhibiting the development of 21st century skills.

1

Beyond the discrepancies between the necessity of 21ˢᵗ century skill development and the transmission model of instruction lies the disparity between the "digital natives" (students) and "digital immigrants" (teachers) of today (Prensky, 2001 p. 1-2). According to Prensky (2001) "digital natives" are accustomed to interacting with digital platforms, such as the Internet, social media sites, video games and multiple technical devices; thus, transforming their thinking and learning process. While "digital natives" were born into this society of digital learning, the "digital immigrants" are adapting to the "digital language", which has evolved around them. While the teachers continue to implement a "direct transmission" model of instruction, which has yielded positive results in the past as described by the OECD (2009, p. 89), the "digital natives" require engagement and interaction with the content, in order to develop 21st century skills, which engage the learner in the critical thinking process (Prensky, 2001; Gordon, 2008).

Today's students, "digital natives", are accustomed to constructing knowledge and ultimately transforming themselves along the process (Gordon, 2008; Ng, 2012, Tucker, 2012). Students must become active participants in the learning process rather than passive recipients of knowledge (Gordon, 2008; Tucker, 2012; OECD, 2009). However, this requires genuine learning opportunities to facilitate the active engagement of students and the interpretation of knowledge and meaning, which leads to the construction of knowledge and development of higher order thinking skills (Golding, 2011; Tucker, 2012; OECD, 2009). Kong et al. (2014) explains that the gap between the instructional practices in classrooms today must be bridged with the real life situations which students currently face, as well as the unknown situations to come.

Keenwe, Onchwari and Agamba (2014) and Tucker (2012) emphasize that while technology is often readily available to students, it has not been leveraged to its fullest potential to engage students in the learning process. While post-secondary institutes, charter schools,

homeschool institutes, and alternative schools have leveraged online resources to personalize instruction and been successful across the United States, elementary public schools continue with the factory model of instruction (Horn & Staker, 2015). Furthermore, without shifts in the educational process the frustrations experienced by both students and teachers will remain, as well as the development of ill-prepared graduates for the evolving workforce (Fullan & Langworthy, 2013; Tucker, 2012; Horn & Staker, 2015; Saaverda & Opfer, 2012).

The implementation of a new and innovative pedagogy sounds like a simple solution to a nationwide problem, however, there are a multitude of issues to consider. For example, during the recent Coronavirus Disease 2019 (COVID-19) pandemic, schools across the world were forced to transition to alternative educational structures, which were predominantly linked partially or fully to technological resources (Schleicher, 2020). In the United States, many students participated in remote at-home learning structures, which involved the employment of digital platforms, online learning resources, and virtual learning communication systems (TEA, 2020; Schleicher, 2020). The OECD (2009) noted that many students and educators lacked the technology knowledge necessary to successfully function in a digital learning environment (Schleicher, 2020). While the Texas Education Agency (TEA) provided a multitude of resources for students, parents, and educators at all levels to utilize during the COVID pandemic, there were considerable gaps in instruction, frustration by stakeholders, and an overall decline in education (Schleicher, 2020). The struggles experienced by the disruptive shift to remote learning during COVID amplified the ill-prepared state of educators, parents, and students to implement a fully online and/or virtual learning system layered with various levels of technology (Schleicher, 2020).

Unlike the remote at-home learning experienced during COVID, blended learning leverages both high quality face-to-face instruction and rich online resources (Horn & Staker, 2015; TEA, 2020; Schleicher, 2020). However, Horn et al. (2015) explain that even with the incorporation of face-to-face instruction, there remain various barriers which inhibit attempting the shift to blended learning. For instance, California superintendents highlighted the major obstacle of outdated procedures and policies, which restrict many public schools from redesigning their pedagogical practices and the roles of their teachers (Horn et al., 2015). While policies and procedures create bureaucratic obstacles to impede the shift from the traditional instructional model, facilities and infrastructure limitations further compound the transition process; thus opening the door to funding issues.

In addition to funding and bureaucratic issues inhibiting the transition from a traditional model of instruction, the evolution of assessments across the nation further impede the change process. According to Valencia (2010) in 1937 the Pioneer Fund was established to research the issues related to heredity and ultimately race. These studies were grounded in a norm-referenced assessment process, which facilitated the placement of students across a bell curve in order to highlight the minority groups as lagging behind white students as described by Walker (2017). However, in the 1960s the development of the criterion referenced assessment surfaced, when the focus of assessments shifted from categorizing students into levels of knowledge to determining students' understanding of skills taught (Reiser, 2001b)

In correlation with the nation's evolution of testing, the state of Texas also leveraged the utilization of the criterion referenced assessment. During the past 35 years "the primary purpose of assessment in Texas had evolved from the collection of school-level information to assessment of curriculum-specific minimum skills (TEAMS), to school accountability of student

performance (TAAS, 1990; TEA, 1990, 1994)" (as cited in Cruse & Twing, 2000, p. 329). With the implementation of the State of Texas Assessment of Academic Readiness (STAAR), the accountability system has shifted into a new level of complexity with the focus on assessing "students' academic achievement at all performance levels" (TEA, 2010, p. I-4). While STAAR focuses on the academic preparedness of all students for college, on August 15, 2018 Commissioner Morath further compounded the demands placed on educators with the implementation of an A-F accountability system focused on three domains: "Student Achievement, School Progress, and Closing the Gaps" (Moak et al., 2018, p. 1). Furthermore, the weight of various factors included in this new accountability system move beyond college to career readiness. However, as the state mandates placed on educators and students continue to evolve in Texas, the instruction in the classrooms has remained complacent (Boone, 2015; Horn & Staker, 2015; Tucker, 2012; OECD, 2009). In addition to the outdated model of instruction is the necessity to meet the needs of today's learners and ever evolving society (Prensky, 2001; Ng, 2012; Gordon, 2008; Golding, 2011; Kong et al., 2014; Tucker, 2012; OECD, 2009; Saavedra & Opfer, 2012).

One solution to disrupting the complacency in education is to leverage online resources to promote collaboration and the development of cognitive skills through a constructivist model of instruction known as blended learning. Blended learning leverages the traditional instruction provided by teachers with online resources, in order to develop a student-centered educational setting (Horn & Staker, 2015; Tucker, 2012; Akkoyunlu & Soylu, 2008). Unlike at-home remote learning implemented during COVID, blended learning facilitates the opportunity to personalize instruction to meet the individual needs of students (Thorn, 2003; Horn & Staker, 2015; Hui, Mai, Qian, & Kwok, 2018; Schleicher, 2020).

Another emphasis resides in the students' control of their learning, which translates into student owning their learning or student agency (Horn & Staker, 2015; Akkoyunlu & Soylu, 2008; Hui et al., 2018). Furthermore, Halverson et al. (2014) highlight one of the focus areas of blended learning as "student satisfaction, engagement, independence in learning and motivation and effort" in 28.2% of the 60 articles analyzed in their empirical study (p. 25). For the purposes of this study, the definition of blended learning is "a formal education program in which a student learns at least in part through online learning with some element of student control over time, place, path, and/or pace at least in part at a supervised brick-and-mortar location away from home" (Horn & Staker, 2015, p. 53).

As evidenced by the description of blended learning, the necessity to develop 21st century learners and address the economic and academic demands placed on students and educational systems, this study is grounded in the constructivist learning theory. The constructivist learning model promotes the shift to the students' active role in constructing their knowledge instead of the passive recipients of knowledge; thus expediting a student-centered approach to teaching and learning (Tucker, 2012; OECD, 2009; Freire, 1970; Saaverda & Opfer, 2012; Rotherham & Willingham, 2009; Dole et al., 2016). By becoming engaged in the learning process, students are afforded the opportunity to apply their newly attained knowledge to the development of a product and/or presentation to a real-life relevant problem (OECD, 2009; Freire, 1970; Saavedra & Opfer, 2012; Tucker, 2012; Rotherham & Willingham, 2009). While the constructivist model of instruction involves the process of interpreting and organizing newly learned concepts through experiences, it also facilitates the transformation of prior knowledge into newly constructed knowledge (Krahenbul, 2016).

The constructivist model of instruction also entails a mind and behavioral shift for educators. According to Fosnot (1989) first educators must embrace learning "as something a learner does, not something that is done to a learner" (p. 5). However, in order to be an active participant in their learning, teachers must provide students the opportunities for social interactions to facilitate the thought process (Reynolds, 2016; Moustafa et al., 2013). This shifts the role of the teacher "from the sage on the stage" to the facilitator of instruction (Krahenbuhl, 2016, p. 100; Dole et al., 2016, Alijani et al., 2014). As a facilitator of instruction the teachers must become cognizant of each student's limitations while maximizing the opportunity for learning, which aligns with Vygotsky's scaffolding of instruction and zone of proximal development (Vygotsky, 1978; Wass & Golding, 2014).

According to Wood et al. (1976), Vygotsky's scaffolding is more than a form of assistance, it involves the teacher's support with the component of the learning process, which is "initially beyond the learner's capacity" (p. 90). Wood and Wood (1996) expand upon the definition of scaffolding by emphasizing that the manner in which a student is supported may vary depending on their need or their zone of proximal development. Wood and Wood (1996) define the ZPD as "the gap between what a given child can achieve alone, their 'potential development as determined by independent problem solving', and what they can achieve 'through problem solving under adult guidance or in collaboration with more capable peers'" (p. 5). Vygotsky's (1978) zone of proximal development not only enables teachers the ability to scaffold instruction but to personalize instruction for students.

In addition, Vygotsky's (1978) social constructivist theory permeates the importance of developing new knowledge through social engagement and the instructional support of More Knowledgeable Others (MKO). Cleaver and Ballantyne (2014) also emphasize that "knowledge

is not just created by the individual mind but is a process of social exchange" (p. 229).

Furthermore, Piaget believed that the construction of knowledge occurs in various modalities including in collaboration with others (Keengwe et al., 2014). These collaborative efforts facilitate academic dialogue between students; thus, providing a stage for the application of content learned and problem solving and higher order thinking skills (Kong et al., 2014; Herrington & Kervin, 2007; Cicconi, 2014).

Statement of the Problem

It was during the industrial age that only "17% of all jobs required knowledgeable workers", yet today the percentage has increased to over 60% (Horn & Staker, 2015, p. 6-7). Furthermore, in 2011 the Arnold Group projected that within the next ten years 77% of employment positions would require technological skills, in comparison to the 50% in 2011. These numbers highlight the demand for the postsecondary readiness of students and the incorporation of online learning. This shift in expectations and accountability measures for schools and students is most evident in the State of Texas. In 2017, the STAAR assessment is focused on student performance at the postsecondary level versus the single focus of evaluating the state-mandated curriculum (TEA, 2017). However, in the fall of 2018, the implementation of an A-F accountability system in Texas heightened demands placed on students and educators (Moak et al., 2018, p. 1). While the accountability systems across the nation continue to rise, public leaders fail to take into account the diverse populations served today and the educational gaps amongst students (Lynch et al., 2005; Lee & Krajcik, 2012).

The current problem in South Texas public schools is that elementary students continue to be educated in an outdated model of instruction, which is hindering the global economy (Horn & Staker, 2015; Boone, 2015; Tucker, 2012). While the "factory model educational system" has

been in place since the 1900's, the feasibility of shifting to an innovative model of instruction remains unmanageable due to legislative and financial constraints placed upon public schools, as well as the necessary stakeholder buy-in (Horne & Staker, 2015, Horn et al., 2015). Furthermore, while educational reform remains a priority nationwide, change and scalability have yielded minimal positive results and/or sustainability (Lynch et al., 2005; Lee & Krajcik, 2012). Lynch et al. (2005) also denote the gaps in education are generating a gap in career opportunities for ill-prepared high school graduates. Ultimately, Boone (2015) states that in order to address the gap between US workers and the global mandates, the educational system must focus on the enhancement of instruction.

Need for the Study

While educational leaders have expressed concerns about the limitations of the factory model of instruction for decades, the ability of public schools to disrupt the educational environment has been impeded by not only the legislative and financial constraints but by the uncertainty of what to expect (Freire, 1970; Boone, 2015; Horn & Staker, 2015; Horn et al., 2015; Tucker, 2012). Horn and Staker (2015) highlight several examples of alternative education, charter schools and homeschooling options which leverage blended learning, yet not one example of a public school was provided. Furthermore, while the Knowledge Is Power Program (KIPP) Empower Academy implements a blended rotational model for its 90% low SES students, which are either "Black, Hispanic or identify as more than one race" and has consistently yielded the school top results on their states assessment, KIPP is a charter school not constrained by the mandates of the state (Horn & Staker, 2015, p. 15).

While it is evident that there is significant research about the implementation of a blended learning instructional model, the limited research on transitioning public schools remains the

missing piece to risking a shift into the unknown with the complex state accountability looming overhead. For instance, Akkoyunlu & Soylu (2008), describe the analysis of the learning styles of undergraduate students engaged in a blended learning instructional model with no connection to K-12 education. According to Halverson et al. (2012) there is a need for empirical research on the pedagogical transformation towards blended learning, in order to expand research beyond distance learning and alternative settings to the K-12 educational context. While Hui et al. (2018) conducted research in a Chinese primary school setting which yielded positive academic and social results, there is still a necessity to address stakeholders (teachers, parents and students) and instructional design issues. In addition, Halverson et al. (2014) emphasize the necessity for research on the theoretical framework which supports the implementation of blended learning, in order to facilitate the transition from theory to practice.

Halverson et al. (2014) emphasize the necessity to leverage blended learning empirical research to strengthen "awareness of existing gaps in the knowledge base", "improve the practice of blended learning", and facilitate "future research" (p. 21). Kong et al. (2014) also denote the need for research to close "the existing gap between school curriculum and society situations" through the implementation of blended learning (p. 72). While Halverson et al. (2014) determined extensive research from the educator perspective and the impact on student learning outcomes, there remains a necessity to delve into the support systems necessary to address challenges which arise from the adoption and implementation of blended learning. By delving into the perceptions of the parents and students of a selected South Texas elementary public schools experiencing the transition from traditional to a blended learning instructional model, the readers are provided insight into the role of the parents and students engaged in the transitional process. Furthermore, schools aspiring to transition to a blended learning model of instruction

have textual and structural descriptions of the experiences of parents and students, which provide insight into possible pitfalls and leveraging points (Creswell, 2015). Texas public schools also have another perspective to consider as they plan to disrupt the traditional model of instruction (Christensen et al, 2017).

Statement of the Purpose

The purpose of this study was to explore the perceptions of parents and students engaged in the transition of traditional pedagogical practices to a progressive blended learning model of instruction. An in-depth focus group interview process of selected students and parents provided textual and structural descriptions in this exploratory transcendental phenomenological research design (Creswell, 2015). The study provided perceptions from the students and parents on their role in this transitional process. Through the detailed descriptions from parents and students' common themes surfaced, which will allow other public elementary schools the opportunity to review, reflect and learn from their candid descriptions; thus, delving past the single lens of educators to the recipients of this disruptive blended learning model of instruction (Creswell, 2013; Guest, McQueen & Namey, 2011; Christensen et al., 2017). In addition, this study provided insight into the development of blended learning environments as noted by Akkoyunlu and Soylu (2008). Furthermore, readers will manipulate the newly found knowledge and apply it to their campus and/or district needs as described by Mills and Gay (2016).

Research Questions

The research questions utilized as a guide in the conduct of this study are as follows:

1. What are selected South Texas elementary public school students' perceptions about blended learning as they transition from a traditional model of math instruction?

2. What are selected South Texas elementary public school parents' perceptions about blended learning as their children transition from a traditional model of math instruction?

3. What is the impact of transitioning from a traditional instructional model to a blended learning model of math instruction on a selected South Texas elementary public school's culture?

Methodology

This qualitative exploratory transcendental phenomenological study delved into the perceptions of parents and students about the progressive blended learning model of instruction during the transition from traditional pedagogical practices (Creswell, 2013). This study provided the researcher a clear depiction of the parents and students shared experiences, in order to develop protocols and insight into the transition to blended learning (Creswell, 2013). The population for this study included students and parents from a selected South Texas elementary campus transitioning to a blended learning model of math instruction. Due to the specificity of the required participants' experiences with the phenomenon, participants were selected based on a purposive sampling technique (Mills & Gay, 2016; Creswell, 2013; Moustaka, 1994). The selection of participants could not be a random purposive sampling due to the limited number of fourth and fifth grade classrooms engaged in the phenomenon of transitioning to a blended learning instructional model and the number of parents and students willing to participate (Creswell, 2015; Mills & Gay, 2016). The selection of participants was linked to the results of the Parent and Student Selection Survey results (Appendices C and D: Parent and Student Selection Surveys), in order to ensure a diverse participant group, who have experienced the transition to blended learning (Moustakas, 1994; Creswell, 2013).

Following the approval by the Institution Review Board (IRB) at the University of Texas Rio Grande Valley, the data collection procedures involved narrowing the scope of possible campuses to one elementary campus meeting the instructional criteria of transitioning from traditional pedagogical practices towards a progressive blended learning model of instruction. From the verified selected South Texas elementary public school, the researcher attained the endorsement (Appendix A: Superintendent Outside Facility Letter) of the Superintendent by providing an in-depth explanation and the purpose of the study (Mills & Gay, 2016). After attaining the superintendent's endorsement, the researcher met with the selected school principal (Appendix B: Principal Outside Facility Letter) to explain the research process and possible gains for the campus before determining meeting dates to explain the study to parents.

After providing an overview of the research process and the roles of the participants, parents decided if their child and/or the parent would like to participate in the study. After agreeing to participate, parents completed the Parent and/or Student Selection Survey(s) (Appendices C and D), signed the Parental Consent Form for Participation in Research, (Appendix E), and the Audio and Video Release Form for Children and Parent Participants in either English or Spanish depending on their dominant language (Appendix F). In addition, if their child was participating in the study, the parent also signed the Parental Consent Form for Child Participation in Research in either English or Spanish (Appendix G). The goal was to obtain 25 parent and 25 student participants for the study. The data obtained from the Parent Selection Survey allowed the researcher to attain additional contextual evidence and streamline the selection process prior to establishing focus groups. Based on the contextual evidence, participants for the focus groups were selected and delineated into smaller groups for focus group interviews (Rubin & Rubin, 2012a; Mills & Gay, 2016; Creswell, 2013; Guest et al,

2012a; Krueger & Casey, 2015). After attaining the signed Parental Consent Form for Child Participation in Research (Appendix G), a time and date to survey the students was established and conducted prior to determining participants for the focus group interviews for parents and students.

Focus group interviews were organized into seven groups with three to nine participants based on the Parent and Student Selection Surveys, depending on the number of classes transitioning to blended learning, and willing participants; which aligns with the recommendations of Creswell (2013). The development of interview questions (Appendix H: Focus Group Interview Questions for Parents; Appendix I: Focus Group Interview Questions for Students) for an exploratory transcendental phenomenological study were meant to capture "textual and structural descriptions of experiences", in order to determine "common experiences of the participants" (Creswell, 2013, p. 81). However, this required "two broad, general questions" focused on the participants' experiences and the context, which have influenced their experiences with blended learning (Creswell, 2013, p. 81). Additionally, anecdotal artifacts such as classroom observation notes and blended learning artifacts were analyzed to attain a clear depiction of the experiences of participants (Creswell, 2013; Moustakas, 1994).

The transcriptions of the focus group interviews were shared with participants to conduct a member-check (informant feedback or respondent validation) to ensure the transcriptions were accurate, valid, and provide authentic transference (Mills & Gay, 2016; Creswell, 2013). After the participants verified the transcribed interview data, it was analyzed for common language, which created a clear depiction "of how the participants experienced the phenomenon" (Creswell, 2013, p. 82). The horizontalization of statements and descriptions allowed the researcher to develop "clusters of meaning", which facilitates the development of themes

(Moustakas, 1994 as cited in Creswell, 2013, p. 82). This process was facilitated through utilization of the NVivo, a software program, which assists in the coding of qualitative data for interpretation and organization (Guest et al., 2012b). The coding provided the researcher the opportunity to analyze the collected data to determine common themes across the interviews and open-ended responses, if needed (Guest et al., 2012a).

Significance of the Study

There is a need for empirical research on the pedagogical transformation towards blended learning, in order to expand research beyond distance learning and alternative settings to the K-12 educational context as stated by Halverson, et al. (2012). Kong et al. (2014) also noted the need for research to close "the existing gap between school curriculum and society situations" through the implementation of blended learning (p. 72). Halverson et al. (2012) denoted the need for additional research on the connection between the "specific blended learning design features linked to increased student and faculty satisfaction" (p. 398). Based on the limitations of Truitt and Ku's (2018) third grade case study, a need for additional research in the implementation of blended learning was necessary to provide a more diversified population including multiple grade levels.

Halverson et al. (2014) also emphasized the value of researching support systems and perspectives for possible challenges in the implementation of blended learning. Graham et al. (2019) reiterated the need for "peer-reviewed empirical research" to guide the increasing number of educational institutes implementing blended learning and the preparation of blended learning teachers (p. 252). In addition, Gough et al. (2017) emphasized the limited amount of research related to the transition of traditional instructional practices to a blended approach to instruction, such as the flipped classroom in K-12 educational systems across the nation. For example, Zhai

et al. (2017) study focused on the perceptions of undergraduate students engaged in a flipped learning instructional model; yet, the necessity for additional research remains at the forefront for not only undergraduates but K-12 students instructed through flipped instruction. Furthermore, Truitt and Ku (2018) recommended extending blended learning research to a variety of grade levels with students with different demographics and socio-economic levels, in order to provide "insight around blended learning that is inclusive of all students" (p. 167).

According to Fullan and Langworthy (2013) the reconstruction of educational framework in public schools is necessary to break the rote and mind-numbing model in place (Reynolds, 2016). This exploratory transcendental phenomenological study not only provided perspectives of elementary students and parents engaged in the transition from traditional to a blended learning instructional model but rich descriptions based on common themes from participants (Creswell, 2013). From these themes, textural and structural descriptions provided context for their experiences, which resulted in "an overall essence of the experiences" (Creswell, 2013, 80). It also served as guiding information for educators to utilize in the transition to blended learning to be proactive in addressing implementation and scaling issues.

Limitations of the Study

Limitations of this study included the ability of the researcher to remain subjective due to her own experiences with the phenomenology of blended learning. The use of purposive sampling and the limited data collection from one South Texas public school elementary campuses transitioning from traditional to a blended learning instructional model (Creswell, 2013). A longitudinal study of how the perceptions of students and parents evolved throughout the transitional process specifically after the students' and parents' experiences with the disruptive transition to remote learning during the COVID-19 pandemic. Another mitigating

factor was the age of the students and their ability to articulate their experiences clearly, as well as language barriers for the selected South Texas parents. In addition, the pedagogical and curricular expertise of the teacher also impacted the perspectives of the parents and students. A future study focused on specific student and parent populations to provide a comparison of perceptions, such as: bilingual and regular education students, educated and non-educated parents and special education students and regular education students would also be beneficial.

Summary

In chapter one, the problem statement for this study was described in detail and grounded in research. The outdated factory model of instruction continues to lag behind the demands of an ever-evolving economic society and the digital natives accustomed to constructing knowledge and transforming themselves along the process (Boone, 2015; Horn & Staker, 2015; Ng, 2012). While technology was meant to serve as an educational tool to support students in the learning process, according to Keenwe et al. (2014) the infusion of technology into teaching and learning remains minimal. While Reiser (2001a) emphasized the impact technology can have on students' academic gains when it is a collaborative process aligned with the constructivist approach to learning, such as blended learning, the disruptive implementation of remote instruction during the COVID pandemic highlighted the need to prepare students, parents, and educators for such as shift. According to Horn and Staker (2015) blended learning is most commonly leveraged by charter schools, homeschool students and alternative schools instead of the elementary public school setting. The purpose of this study was to explore the perceptions of parents and students during the transition from traditional pedagogical practices to a progressive blended learning model of instruction in the elementary public school setting, which according to Halverson et al. (2012), Kong et al. (2014) and Gough et al. (2017) will fill the gap in empirical data.

CHAPTER II

REVIEW OF LITERATURE

The following chapter provides a review of selected literature and research concerning the evolution of learners, technology, and education, which align with the development and implementation of blended learning. This study is grounded in the value of social interactions and students as the constructor of knowledge versus the receiver of information, research and literature about the constructivist theory of instruction and learning are embedded into this chapter; thus, conceptualizing the shift from a teacher-centered to student-centered instruction framework (Karhenbuhl, 2016). Additionally, research and literature on Vygotsky's (1978) Zone of Proximal Development (ZPD), More Knowledge Others (MKO), and the integration of scaffolding instruction highlight the personalization of instruction and the teacher's role as a support system to students' development of critical thinking skills and student agency. Much of the research delineated in this chapter relate to post–secondary and secondary campuses and charter schools, as well as educational systems outside the state of Texas, which supports the necessity for this empirical research.

It is evident that today's school leaders are tasked with the job of becoming change agents in order to address the diverse needs of students while adhering to the ever-changing societal demands (Driscoll & Salmon, 2013). While change is difficult to accept and even more difficult to begin, it is evident that in order to improve schools, change must occur. In becoming

agents of change, the role of the teacher has shifted from "the sage on the stage to the guide on the side", thus becoming the facilitator of learning through targeted instructional interventions (King, 1993, p. 30; Krahenbuhl, 2016).

Blended Learning

According to Halverson et al. (2014) blended learning evolved in the higher education setting in the early 2000's, which integrates rich online learning with high quality face-to-face instruction, in an effort to increase student achievement and engagement at all levels. Horn and Staker (2015), blended learning instruction takes "the best of both worlds—the advantages of the traditional classroom, combined with the benefits of online learning"; hence, providing students control of the "time, path, place and/or pace" of instruction (p. 73). Blackburn (2016) further supported the implementation of blended learning because technology is not enough, it is the combination of high quality online learning content with the expertise of a teacher, which makes blended learning successful. For today's digital native population, who are "active experiential learners", online resources and instruction address their need to have instantaneous access to information and visual representations of information instead of the traditional text of textbooks (Ng, 2012, p. 1065). Leveraging rigorous online content enhances classroom instruction, which allowed the teacher to regain valuable time to personalize instruction based on student's individual data (Schechter et al., 2015).

According to Horn and Staker (2015) and Hui et al. (2018) blended learning yields success for diverse student populations through the personalization of instruction and leveraging online resources. The Knowledge Is Power Program (KIPP) Empower Academy implements a successful blended rotational model for its 90% low socio-economic students, which are either "Black, Hispanic or identify as more than one race" (Alijani et al., 2014, p. 15). Moreover, China

primary campuses experienced success implementing flipped instruction, another blended

learning model of instruction and leveraging learning management systems to personalize

instruction for students (Hui et al., 2018).

Schechter et al. (2015) also denoted significant gains in reading comprehension with the

implementation of a blended learning approach to instruction. The study indicated that gains

aligned to the enhanced rigor of instruction, the personalization of learning opportunities,

continuous progress monitoring, adjusted instruction, and personalized pathways available to

students through online content. Furthermore, the rich online content program was integral in the

effectiveness of the instructional model.

While blended learned has demonstrated educational gains due to the personalization of

instruction, Wong et al. (2014) emphasized the value of determining students' readiness to

transition from a traditional model of instruction to blended learning. In the study by Wong et al.

(2014) university students overwhelmingly selected face-to-face instruction over blended

learning and were more successful in comparison to students, who adopted the blended learning

model of instruction. Henrie et al.(2015) concluded that the effectiveness of blended learning

instruction was closely linked to "the clarity of the instructions and relevance of the activity

strongly impacted student satisfaction" (p. 147). Furthermore, Herrington and Kervin (2007)

emphasized the value of an authentic learning environment providing the context in which

students can access a variety of forms of content and experts in the field of study.

Constructivist Learning Theory

Constructivism involves the process of interpreting and organizing newly learned

concepts through experiences, which facilitates the transformation of prior knowledge into newly

constructed knowledge (Krahenbul, 2016). Dole et al. (2016) emphasized that constructivism

shifts the control of learning from the teacher to the student; thus, making the students active in their learning process versus passive recipients of the attainment of knowledge. Due to the shift in ownership of the learning process, the instruction become student-centered instead of teacher-centered (Karhenbuhl, 2016). Moustafa et al. (2013) add that learning is an individual experience, as the new knowledge evolves based on each student's previous knowledge. As per Fosnot (1989) "learning needs to be conceived of as something a learner does, not something that is done to a learner" (p. 5). Furthermore, Keengwe et al. (2014) explain that constructivism provides learners the opportunity to "exhibit their knowledge through demonstration" (p. 888). However, in order to be an active participant in their learning, students must not only be engaged but offered the opportunities for social interactions to facilitate the thought process (Reynolds, 2016; Moustafa et al., 2013).

Woolfolk-Hoy and Hoy (2013) refine the definition of constructivism by delving into the two forms: psychological and social. "Psychological constructivists focus on how individuals use information, resources, and even help from others to build and improve their mental models and problem-solving techniques" (p. 122; Reynolds, 2013). The psychological constructivists focus on the individual learners' needs and knowledge growth links with Dewey's philosophy of individualized learning and instruction to meet each student's diverse abilities (Olson & Hergenhahn, 2016). As per Cleaver and Ballantyne (2014) "each individual constructs personal meaning" based on their own personal reality (p. 229).

Social constructivism, on the other hand, is based on the beliefs of Vygotsky (1978), which focus on the development of new knowledge through social engagement, such as: dialogue and interactions with MKOs, whether it be a peer or teacher (Reynolds, 2016; Woolfolk-Hoy & Hoy, 2013). According to Cleaver and Ballantyne (2014) "knowledge is not

just created by the individual mind but is a process of social exchange" (p. 229). Beckett (2013) explains that Freire believed that "education is dialogue" and "students' views constitute education", which emphasizes the relevance of social interactions in learning (p. 50). According to Lee and Hannafin (2016), Dewey, Piaget, Vygotsky, and Freire all advocated for various components of constructivism, which focuses on the active participation in learning, in order to construct learning that is relevant to the student in a social context.

Social constructivism aligns with the blended learning environment, which supports the social context necessary for learners to engage in academic conversations that exhibit the application of their newly learned skills (Kong et al., 2014). It also provides the platform necessary for students work collaboratively and individually on the problem at hand (Herrington & Kervin, 2007). Piaget believed that "learners have to construct their own knowledge, individually and collectively" (Keengwe et al., 2014, p. 889).

Lev Vygotsky

However, Vygotsky (1978) expanded upon these beliefs by developing the concepts of the zone of proximal development (ZPD), More Knowledgeable Others (MKO), and scaffolding, which work in collaboration to facilitate the learning process. Vygotsky (1978) states that ZPD is "the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (p. 86). Not only does ZPD provide students with support in the attainment of new knowledge, it "complements the learner's cultural background and allows them to function" (Keengwe et al., 2014, p. 889). Furthermore, the attainment of new knowledge is further enhanced by the MKO, which can be provided by teachers, peers, and today integrative technology (Vygotsky, 1978; Cicconi, 2014).

22

Scaffolding instruction requires teachers to be aware of each student's limits, and still maximize the opportunity for learning (Wass & Golding, 2014; Wood & Wood, 1996). As per Krahenbuhl (2016) the incorporation of scaffolding becomes essential to the learner in the construction of knowledge, which according to Vygotsky (1978) makes complicated and/or rigorous tasks feasible. Van de Pol et al (2010) described the three predominant characteristics of scaffolding as (1) contingency support, (2) fading and (3) transferring responsibility. Contingency support involves the customization of the support to the needs of the students (van de Pol et al., 2010; Wood & Wood, 1996). While fading is the withdrawal of the teacher from the situation, as the student gains a better handle of the content/skill, transferring responsibility is the transition of the learning solely to the student (van de Pol et al., 2010). Ultimately, scaffolding and ZPD provide the support necessary to develop real world learning experiences, which integrate with the workshop model of instruction targeting specific student needs found in constructivist and blended learning models of instruction (Keengwe et al., 2014; Horn & Staker, 2015; Tucker, 2012).

Kong et al. (2014) highlights the importance of leveraging the eLearning program tools, which provide instantaneous feedback necessary for teachers to develop targeted interventions for their workshops. According to Guri-Rosenblit (2005) eLearning leverages digital resources to extend learning opportunities both outside and inside learning institutes. Cicconi (2014) extends upon the eLearning opportunities by offering an additional option for MKO, which extends beyond another person in the classroom. In addition, the detailed reports and recorded data provided by eLearning programs also facilitate the teacher's ability to chart students' growth, in order to better scaffold instruction and plot a course for future learning opportunities (Kong et al., 2014). Hui et al. (2018) highlight the utilization of a learning management system to

facilitate the incorporation of eLearning resources and flipped instruction, in order to personalize instruction for students. Furthermore, the charted data creates a reflective platform for teachers to delve into for the development of future learning opportunities for students and themselves (Kong et al., 2014).

Teacher's Role

Through the evolution of constructivism, learning has shifted from the depository method of instruction, to the problem-posing approach, to learning found in constructivism (Freire, 1970). The problem-posing approach of instruction described by Freire (1970) shifted students from compliant participants to collaborative problem solvers engaged in constructing knowledge with their teachers. Constructivism requires the role of the teachers to shift into a facilitator and model for instruction, as they mentor and coach students by scaffolding instruction before fading away and allowing the students to assume the role of self-learners (Alvarez, Salavati, Nussbaum, & Milrad, 2013; Moustafa et al., 2013; Wood & Wood, 1996; Keengwe et al. 2014, Kong et al., 2014). However, in order for teachers to meet the various student knowledge levels, the teacher must practice flexibility and obtain a complete understanding of their role as a facilitator (Cleaver & Ballantyne, 2014; Dole et al., 2016).

While the teachers seem to have been stripped of their leadership role, their role has become more complex. Teachers must provide support by guiding students through the learning and reflection process (Dole et al., 2016; Keengwe et al., 2014; Wood & Wood, 1996). They also must monitor the progress of groups throughout the learning process in order to ensure new knowledge is attained, and students are successful. Hui et al. (2018) highlight the value of analyzing student data through a learning management system to personalize instruction and ensure student academic success. According to Herrington and Kervin (2007) and Blackburn

(2016), the complexity of the teacher's role includes scaffolded support through coaching, as well as the skills to be cognizant of the shift in students' learning in order to remove support systems and allow for student ownership of their learning.

As per Keengwe et al. (2014), this not only requires teachers to change their traditional form of instruction but to redesign their classroom structure to facilitate the establishment of trusting relationships. For the teachers, this also means developing their own communication, listening skills and feedback practices, in order to engage in respectful relationships with students as leaders and researchers (Keengwe et al., 2014). These types of shifts require teachers to facilitate critical thinking, higher order questioning and deep discussions instead of listening for a single correct response. Furthermore, the teacher must not only provide feedback concerning gains and strengths but focal areas of concerns (Herrington & Kervin, 2007; Blackburn, 2016).

Blended learning also transforms the role of the teacher from the distributer of knowledge to the facilitator of learning; thus shifting instruction from teacher-centered to student-centered (Horn & Staker, 2015; Tucker, 2012; Blackburn, 2016). Much like the constructivist learning model of instruction, the blended learning teacher must not only have a firm grasp of their technological skills but more so of their instructional competencies as described by Blackburn (2016). However, this requires the teachers to ensure clarity in the rationale for technology integration in the learning experience; thus, providing deeper learning opportunities for students (Herrington & Kervin, 2007).

Blended learning also offers the opportunity for teachers to leverage technology to develop the necessary 21st century skills aligned with constructivism. Technology provides the venue to make instruction relevant to the learning process by applying critical thinking skills to a

different context; thus offering the opportunity for creativity and the transfer of newly learned skills (Saavedra & Opfer, 2012; Cicconi, 2014). Furthermore, teachers are able to capitalize on technology to assist in the personalization of instruction. Digital platforms and/or tools provide teachers access to online student data in real time, which optimizes the teacher's ability to intervene and provide targeted feedback (Kong et al., 2014; Hui, et al., 2018).

However, this requires the teacher to develop a shared vision of the need to develop 21st century skills in students, in order to facilitate an "active, constructive and interactive learning process among learners" (p. 72). It also requires the teacher to utilize progress monitoring reports on a consistent basis, in order to facilitate personalized learning opportunities during stations as per Schechter et al. (2015) and Hui, et al. (2018). Furthermore, the personalization of stations requires significant investment in the planning process, which Herrington and Kervin (2007) emphasize as vital in order to provide an authentic learning experience. Along with planning, Halverson et al. (2014) necessitates strong support systems and ongoing professional development to address the various levels of students within the classroom walls.

In order for teachers to prepare for the personalization of learning opportunities for students and the development of 21st century skills such as critical thinking, teachers must be afforded the opportunity to collaborate with peers (Rotherham & Willingham, 2009). Teachers also require the strategies and techniques to employ as they leverage technology in authentic learning contexts such as those described by Herrington and Kervin (2007). Halverson et al. (2014) also support the necessity to focus on student engagement, in order to restructure the instructional design to facilitate the implementation of blended learning. Therefore, teachers must remain current with new practices concerning the integration of technology, in order to continue enhancing the learning environment for students instead of a content resource.

Learning Environment.

Another shift in the teachers' roles includes their focus in the preparation of the learning environments, which foster collaboration and in-depth learning opportunities (Keengwe et al., 2014). As the facilitator of student autonomy, the teacher must create a learning environment conducive for social interaction and critical think skills, as well as a platform in which to exhibit their knowledge (Moustafa et al., 2013; Keengwe et al., 2014). As per Loyens and Gijbel (2008) the opportunities for collaboration with peers allows for dialogue, which facilitates the construction of knowledge. It also contributes to the development of deeper learning and understanding. In addition, Halverson et al. (2014) supports the concept of meeting students' diversified needs within the context of their classroom.

According to Moustafa et al. (2013) the teacher also guides the students through learning opportunities aligned with "their level of readiness"; thus emphasizing the importance of scaffolding instruction (p. 419). These learning environments developed by teachers facilitate the development of students' critical thinking skills and the "various aspects of self-regulation", including "goal setting, self-observation, self-assessment, and self-reinforcement", as well as self-reflection (Loyens & Gijbel, 2008, p. 352). Furthermore, Rotherham and Willingham (2009) emphasize the importance of teachers providing feedback throughout the learning process, in order to facilitate the reflective process necessary for students to expand their critical thinking skills.

Along with an environment for collaboration the teacher must provide authentic learning opportunities, which facilitates the application of newly learned skills to a real-life problem; thus, making learning meaningful to the student (Loyens & Gijbel, 2008, Rotherham & Willingham, 2009; Herrington & Kervin, 2007). Additionally, in order for students to be

motivated to learn, the teacher must leverage the appropriate digital resource to create a multi-faceted learning environment, which balances between a supportive learning context and an exploratory and complex learning experience (Herrington & Kervin, 2007; Kong et al, 2014). The incorporation of technology in authentic learning environments allows the students to design a more complex and refined product, which reflects a deeper level of understanding of the newly attained knowledge (Herrington & Kervin, 2007; Herrington et al., 2007). Furthermore, the authentic learning environment promotes the utilization of reflective practices, which increases the level of thinking and productivity aligned with the constructivism.

Much like the teacher role in the constructivist model of instruction, blended learning also "involves an actual 'blend' of whatever formats are within the course of study" (Horn & Staker, 2015, p. 35). This includes utilizing data to provide the appropriate type of instruction. As per Keengwe et al. (2014), when providing various learning environments to develop students' knowledge, the teacher must be cognizant of each student's status on the learning critical thinking continuum, as well as their personal motivation. This level of knowledge about students requires blended learning teachers to delve deeply into the data to personalize instruction, whether it be a personalized online playlist, one-to-one instruction, or a small group workshop (Horn & Staker, 2015).

According to Herrington and Kervin (2007) and Blackburn (2016) the technological resources also expand the possibilities of students to learn from various perspectives instead of the one teacher in the classroom. As the facilitator of learning, the teacher has the capability to create an environment and framework in which genuine learning occurs in the actual context of students' lives (Kong et al., 2014). Furthermore, as the constructor of knowledge the learner

customizes the learning process through reflective practices, which delve beyond the attainment of knowledge in an abstract environment (Herrington et al., 2007; Cicconi, 2014).

Student's Role

While the role of the teachers shifts from the distributer of knowledge, the role of the students also shifts to the constructor of their learning; thus shifting from a teacher-centered to a student-centered environment (Dole, et al., 2016; Woolfolk-Hoy, 2013; Paily, 2013; Kong & Song, 2013; Moustafa et al., 2013; Herrington & Kervin, 2007; Cicconi, 2014). As the constructor of their own knowledge, students gain autonomy also referred to as student agency, which allows students to construct knowledge pertinent to them; thus, developing their self-reflective practices, in order to heighten their cognitive skills (Moustafa et al., 2013; Keengwe et al., 2014; Herrington & Kervin, 2007). This type of student agency prompts the student to filter content, in order to organize the information into a system which facilitates the most appropriate solution for the real-life problem (Herrington & Kervin, 2007). Furthermore, it facilitates the opportunity for students to delve deeply into the authentic task by exploring various resources for research and a deeper understanding (Cicconi, 2014).

Students also become more than active learners when they negotiate their learning and develop consensus, which deepens the learning for students (Cicconi, 2014). Alvarez et al. (2013) emphasize that as active learners, students must not only collaborate with peers in academic discussions surrounding their real-life scenario but to incorporate a structured and respectful platform for collaborations. During the collaborative process, learners must also justify and support their outcomes, in order to ensure a deep understanding of the newly attained knowledge. Additionally, Alvarez et al. (2013) also promote the importance of allowing for multiple solutions to the problem being studied, as well as embracing the diverse thinking

processes. Furthermore, Dole et al. (2016) emphasizes how student-centered instruction aids in the development of 21st century skills, which aligns with the instructional model of blended learning.

According to Horn and Staker (2015), "blended learning is any formal education program in which a student learns at least in part through online learning, with some element of student control over time, place, path and/or pace" (p. 34), which in part translates into the transition of control from the teacher to the student. Student-centered instruction is "learning that is tailored to an individual student's particular needs" (p. 9). Furthermore, student-centered instruction also includes competency-based learning, which allows students to move at their own pace; thus developing student agency (Cicconi, 2014). In addition, student agency surfaced, as students leverage technological resources for the development of their own learning and the possible retention of learning through portfolios (Kong et al., 2014; Saavedra & Opfer, 2012).

Rotherman and Willingham (2009) further expanded upon the necessity of today's learners to develop 21st century skills such as critical thinking and the application of newly attained knowledge, in order to be prepared for the evolving society of the future. However, critical thinking requires students to leverage not only new but old knowledge during the problem solving process. Furthermore, it requires students to collaborate and self-direct their learning process as they engage in solving a real-life problem. In order for students to develop their problem solving skills, students must practice and strategize new solutions and delve past their mistakes; thus, moving past an experience to the application process.

While constructivist instructional practices provide learners the opportunities to engage in complex learning environments, there are mixed reviews about its effectiveness. Moustafa et al. (2013) study denoted that the survey results of junior high students supported the inclusion of a

constructivist learning environment. However, students expressed inconsistent perceptions about the opportunities for social negotiations, which deepen the level of learning; thus emphasizing the importance of the teacher's role in implementing a constructivist model of instruction. Krahenbuhl (2016) emphasized the necessity for a teacher expert to be included in the implementation of constructivist approaches to learning, as the students require support in their development as an expert.

Dole et al. (2016) described several challenges and enlightening beliefs in the shift from a teacher-centered to a student-centered constructivist learning approach based on the results of their study. The teachers explained that the release of control was difficult but was feasible due to their field experience. They also explained how witnessing the students' engagement in self-selection, self-assessment, and developing student agency aided the transition. Teachers expressed additional enthusiasm in the establishment of trusting relationships with students, which stemmed from the collaborative efforts and support systems provided by teachers. While there were many positive outcomes from the teachers' transition in roles, the district and state mandates continue to create obstacles for teachers' transition to a student-centered model of instruction.

Wirkala and Kuhn (2011) shared the positive results from engaging in a constructivist approach to learning with their statement, "Students show better long-term retention and ability to apply new material if the instructional method is one that actively engages them and enables them to put new ideas to use" (p. 1180). Increased motivation by students to learn when provided with an authentic problem to solve; thus, supporting prior and present learning. In addition, the inclusion of higher-order thinking skills evolved from the collaborative discussions and explanations.

31

While there are concerns about the end results, Nariman and Chrispeels (2016) summarized the rationale for the implementation of a constructivist learning models. An elementary teacher from the Nariman and Chrispeels (2016) study explained that "Direct instruction had its time and place…now we want more from kids. We want them to be creative thinkers…to be part of the global solution that's outside the box"; hence, supporting the need for the construction of knowledge rather than the receipt of knowledge. In the end, it is about a balance of allowing "enough room for constructive and creative learning while still providing adequate structure and support to children" (Keengwe et al., 2014, p. 898).

Parent's Role

According to Epstein (1986) while parents had positive perceptions about their children's schools, "parents believed the schools could do more to involve them in learning activities to help their children at home" (p. 290). Nunez's et al. (2015) study supported the concept "that, if educators helped students improve their skills of homework time management and improved parents' understanding of productive involvement behaviors, more students would increase the amount of homework completed and improve their academic achievement" (p. 397). Furthermore, "If teachers want parents to feel confident that they can help, they (and the school administrators) must organize and conduct workshops for parents in how to help in reading, math, and other subjects" (Epstein, 1986, p. 292).

Flipped instruction allows the parents the opportunity to view the instruction received by their children, which provides classroom and instructional transparency for parents (Gough et al., 2017). Aidinopoulou and Sampson (2017) also emphasize the necessity for parents to be more informed about flipped instruction, in order to serve as a resource for flipped instruction. However, Gough et al. (2017) noted that flipped instruction did not increase parent-teacher

conversations about student learning. Furthermore, teachers must leverage parents' willingness to support their children at home by organizing home learning activities with clear objectives and procedures and systematic feedback (Epstein, 1986). By opening the lines of communication and empowering parents, not only will parent-teacher communication be enhanced but essential feedback will be attained to ensure the academic success of parents and students (Epstein, 1986).

School Culture

According to Deal and Peterson (1999) school culture is the "unwritten rules and tradition, norms, and expectations that permeate everything: the way people act, how they dress, what they talk about, whether they seek out colleagues for help or do not, and how teachers feel about their work and their students" (p. 2-3, 17). In essence, "School Culture or Ethos Approach focuses on behavioral patterns and values, beliefs, and norms that define and sustain those patterns" (Deal & Peterson, 1991, p. 17). Moreover, change within a school is greatly influenced by the current school culture and the principal leading the change (Deal & Peterson, 1991).

According to Tezci (2011) teachers' access to technological tools and internet greatly impacted the culture of the school, which aligns with Prescott's et al. (2018) and Truitt and Ku's findings that student access to technology was a determining factor in the successful implementation of blended learning. As noted by Deal and Peterson (1991) a clear vision with common values and goals facilitate a positive school culture; thus aligning with Kotter's (2002) change theory. In addition, "the success of educational reform efforts depends partially on creating a technology-based school culture which provide teachers with both motivational and technical support" (Tezci, 2011, p. 433). Ultimately, Deal and Peterson (1991) "culture is a historically rooted, socially transmitted set of deep patterns of thinking and ways of acting that

give meaning to human experience, that unconsciously dictate how experience is seen, assessed and acted on"; thus, emphasizing the necessity for consistent implementation and practices (p. 8).

Historical Background of Education

During the industrial age, the "factory model" of instruction aligned with the need for workers with specific skills necessary for the assembly line positions predominant across the nation (Owens & Valesky, 2013). According to Skinner (1954), during the 1950 and 1960s there was a shift towards programed instruction, which provided sequential piecemeal instruction to ensure the success of students (as cited in Reiser, 2001b, p. 59). Furthermore, in 1957 due to Sputnik a focus on science and math emerged along with the development of structured instructional materials, which did not yield the results Americans expected. Due to the focus on targeted instruction specifically in science and math, a shift in testing occurred in the 1960s. The transition from norm-referenced testing to criterion-referenced testing refocused the lens of educators from one of determining a student's placement on a Bell Curve to determining a student's understanding of a specific set of skills taught.

In the 1970s the incorporation of media was projected to impact educational institutes, however, it proved to be more effective in the military training settings as per Reiser (2001a). By the 1980s microcomputers were perceived as the next innovative instructional tool in the educational arena (Reiser, 2001b). However, technological resources did not facilitate significant impact on the education of students or gain any momentum until the development of the Internet in the 1990s. According to Reiser (2001a), the ineffectiveness of technology in education could be a by-product of the necessity for educators to plan and coordinate instructional practices, in order to meet the diverse learners' needs.

During 1990 to 2000 the student population evolved to encompass a more diverse student population with various levels of academic needs, such as bilingual education, special education and health impairments according to Driscoll and Salmon (2013). Along this same time according to Reiser (2001a) the constructivist theory of instruction surfaced. According to Woolfolk-Hoy and Hoy (2013) the constructivist theory shifted the control to the student through a collaborative approach for learning and solving a real-life problem in an authentic setting.

However, in most cases the instruction in both the public and higher education settings continued to incorporate the lecture method of instruction, in which learning was one-directional as described by Herrington et al. (2007). This system of learning was much like Freire's (1970) depository method of instruction, in which the learner serves as an empty vessel to be filled with knowledge by the teacher. In contrast, in some fields of study such as nursing, space industry, and military programs, the instructional model employed in post-secondary institutes is an immersive learning model of instruction with situational learning experiences (Herrington et al., 2007).

According to Halverson et al. (2012) blended learning expanded beyond industry training to learning in various contexts over the past decade. Kong et al. (2014) and Hui et al. (2018) supported the shift to blended learning due to the focus on the personalization of instruction through collaborative learning opportunities in which students can construct their own knowledge both inside and outside the context of the school setting. During Halverson et al. (2014) empirical research of 60 articles and chapters on blended learning, an emphasis on learner outcomes surfaced in 28.2% of research studies; thus, linking student engagement and instructional effectiveness of instruction with blended learning. Furthermore, Cleaver and Ballantyne (2014) emphasized the importance of social interaction in the creation of new

knowledge, which requires more than a student's cognitive abilities. This perception of the future

of education aligned with the shift towards a constructivist model of instruction lined with the

integration of digital learning, such as blended learning and authentic learning.

Authentic learning shifted the instruction from the traditional structured format to a

natural environment in which real world problem solving facilitates the development of higher

order thinking skills with the opportunity for a multitude of solutions (Herrington & Kervin,

2007). It also provided the platform for students to engage in reflective practices to reconstruct

their past knowledge with newly attained knowledge instead of memorizing content for an

assessment.

Technological Advances in Education

According to Glazer et al. (2005) the integration of technology has evolved significantly

over the years in kindergarten through 12th grade classrooms across the nation. From the 1920s

to 1930s, there were several forms of audiovisual and radio developments such as radio and films

(Reiser, 2001a). While these technological advancements had a significant impact on the training

of military service men during World War II, they yielded minimal influence on education.

During the 1940s much research and development was conducted on the incorporation of

audiovisual equipment and resources on instruction. In 1950s the development of audiovisual

equipment continued to evolve with the development of instructional programs to be broadcasted

through television stations. While various foundations and organizations developed

programming for various subjects and grade levels, the impact of these programs was minimal

and eventually discontinued by the 1960s.

While computers began evolving since the 1950s, when IBM began the development of

computer-assisted instruction (CAI). By the 1970s there was a terminology shift from

audiovisual to educational or instructional technology (Reiser, 2001a). In the late 1970s there was considerable growth and development in technology for academic purposes and individual use (Kinshuk etal., 2013). However, it was not until the 1980s and the development of microcomputers and calculators that the incorporation of technology in classrooms increased (Reiser, 2001a; Cicconi, 2014). In addition, due to the introduction of the calculators, math However, the impact on instruction continued to remain minimal; primarily due to its limited interactive ability (Cicconi, 2014).

During the 1990s the expansion of internet into classrooms, created a platform for online learning (Kinshuk et al., 2013). Online learning provided students access to a wide range of high quality content resources and various instructional techniques designed to address the needs of diverse student populations (Alijani et al., 2014; Cicconi, 2014). Furthermore, in the late 1990s higher education leverage technology to expand learning opportunities with distance learning (Reiser, 2001a). In 2005 the U.S. Department of Education (2007) denoted that approximately 97% of public schools had Internet connectivity, yet the ratio of students to computers had declined from 12.1 to 1 in 1998 to 3.8 to 1 in 2005. However, the emphasis of Internet use was at the teacher level, such as planning, data analysis, professional development, while student use was limited to access to distance learning opportunities (U.S. Department of Education, 2007). Reiser (2001a) emphasizes the impact which technology can have on the academic gains of students when it is a collaborative process aligned with the constructivist approach to learning.

Herrington and Kervin (2007) and Cicconi (2014) explain that while technology provides a vehicle for enhanced instruction for all students, often times it becomes a mere substitution, another source for content information, and/or form of entertaining content. Cicconi (2014) also explains that prior to Web 2.0, online resources were one dimensional and did not offer the

ability for students "to interact with internet content and internet users" (p. 58). Therefore, making the goal of integrating technology into the 21st century classrooms more than a mean in which to engage students but a tool with a multitude of resources to enhance and extend learning in an authentic context (Herrington & Kervin, 2007; Cicconi, 2014). While online learning addresses the vast range of student needs found in classrooms, the incorporation of rich teacher instruction addresses the social and affective student needs, which face-to-face instruction provides (Alijani et al., 2014). Due to the extensive technological resources available to consumers, the opportunities for educational systems to leverage digital resources in the classroom continue to thrive (Kong et al., 2014).

According to Kinshuk et al. (2013) the premise was that computer would address students' gaps in learning, however, educational systems had not considered the importance of the teacher's role in the process. Furthermore, there was a gap in the research related to the educators' perceptions and needs to facilitate the integration of technology in the classroom (Kinshuk et al., 2013; Herrington & Kervin, 2007). Glazer et al. (2005) emphasize the importance of teachers moving beyond developing their technology skills to the integration of technology into their classrooms. However, in order for teachers to experience the confidence and momentum to progress through the levels of expertise, teachers require more than a one-day training (Sorensen et al., 2013). Teachers, much like their students, require a personalized approach to learning. This scaffold model of support, which includes formal professional development along with one-to-one sessions and content specific follow-up sessions, facilitates the development of teacher's ability to integrate and personalize online instruction for students.

Technology provides the vehicle to promote the development of 21st century skills necessary to expand learning from the transmission model of instruction to one which allows for

"students to transfer skills to different contexts, reflect on their thinking and that of their peers, practice addressing misunderstandings, and collaborate with peers" (Saavedra & Opfer, 2012, p. 9). The development of 21st century skills require students to think critically and apply newly learned skills to other contexts, such as problem or project-based learning opportunities (Rotherham & Willingham, 2009). Cicconi (2014) also emphasize the opportunities to leverage eLearning programs to deepen instruction specifically in math. However, due to the diverse population of levels of economic needs, many students lack access to a technological device and/or the internet (Prescott's et al. 2018; Truitt & Ku, 2018; Driscoll & Salmon, 2013). Moreover, the disruptive shift to remote learning during COVID-19 highlighted the lacking technology skills of students, educators, and parents and the limited pedagogical knowledge necessary to effectively integrate technology into daily instruction; thus, resulting in significant educational gaps for students (Schleicher, 2020).

According to Thompson's (2015) study, digital natives emphasized that while some of the characteristics of digital natives did not always apply to all of them, they were adamant that they understood the role of technology in their lives. They also were able to self-evaluate and articulate that part of their success was their ability to leverage technology to meet their personal aspirations. Furthermore, the development of 21st century skills are a necessity in order for today's learners to be successful in a society in which new concepts and abilities will evolve (Rotherham & Willingham, 2009).

Change and Stakeholders

According to Boone (2015) leading an educational organization through transformative change requires leaders to understand the various processes for change, as well as the purposes for strategies which must be employed prior to engaging in transformative change. According to

Kotter (2002) there are eight steps necessary to ensure the sustainability of change, which include: creating a sense of urgency, building a team to lead the process, developing a shared vision with stakeholders, leveraging communication of the vision to facilitate buy-in from stakeholders, empowering stakeholders to take action with autonomy, providing the opportunity for short-term wins to maintain the momentum, combining the short term wins ensure the fulfillment of the vision, and finally establishing a new culture which sustains the change. By engaging in a systematic process of change, leaders can shift practices to facilitate an enhanced learning environment and the expectations and beliefs of all stakeholders.

The school leader's role as the campus change agent requires a clear understanding of the goals and processes necessary to shift the culture of a campus (Kotter, 2002). According to Lee and Krajcik (2012) and Kotter (2002) sustainable change requires strong leadership and a shared vision. In addition, Lynch et al. (2012) highlights the importance of collaborative efforts among all stakeholders throughout the change process. According to Coburn (2003) and Lee and Krajcik (2012), sustainable change requires leaders to provide clear expectations for implementation with fidelity and ensure continuous support at varying levels to match the needs of teachers. In addition, leaders must provide support in the form of professional development and resources, which facilitates the enhancement of teachers' capacities as instructional leaders (Coburn, 2003; Lee & Krajcik, 2012). Furthermore, Lynch et al. (2012) and Lee & Krajcik (2012) emphasize that leaders must consider all stakeholders and keep challenges at the forefront during the implementation and scaling process.

According to Lynch et al (2012) it is imperative that leaders monitor and evaluate the effectiveness of the scalability of reforms and/or instructional practices. The level of effectiveness will impact the continuation of a reform, especially after funding is depleted and

support systems decrease (Lynch et al., 2012). During the evaluation process, it is imperative for leaders to reflect upon the diverse populations, teacher levels, and school contexts (Lynch et al., 2012; McDonald et al., 2006). Furthermore, stakeholder feedback can also influence program sustainability (Lynch et al., 2012).

According to Gough et al. (2017) teachers' perspectives provide insight, which can inform other teachers engaged in the transformation of their traditional educational setting to a progressive learning environment like blended learning. While kindergarten through twelfth grade teachers denoted gains for students with the flipped classroom model of blended learning, their perceptions also differed depending on the grade level and content of instruction. Specifically, teachers expressed a significant benefit of the flipped classroom instructional model in addressing the needs of struggling students and those missing classroom instruction. Furthermore, the areas which yielded the most significant educational gains for students involved the opportunity for "active learning, personalized learning, student-to-teacher interaction, and time for learning" (Gough et al., 2017, p. 407)

Scaling

McDonald, Keesler, Kauffman, and Schneider (2006), Coburn (2003) and Lynch et al. (2012) express a necessity to delve more deeply into the scale-up theory in respect to the educational setting, in order to ensure deep and sustainable change. However, Lynch et al. (2012) explain that while nationwide educational reforms are supported, they lack the continuity in expectations to facilitate sustainable change. McDonald et al. (2006) also emphasize the necessity for research on best practices to facilitate the scaling process beyond the single classroom or campus. However, scaling instructional practices is not always as simple as the replication of interventions or instructional strategies (McDonald et al., 2006; Coburn, 2003).

Due to the diverse student populations, school contexts, and teacher instructional styles and skills, McDonald et al. (2006), recommend the "context-based approach to scale-up research" (Colburn, 2003, p. 21). This method allows educators to match their school context to the appropriate instructional practices, in order to facilitate its implementation and/or adaptation during the scaling process (Lynch et al., 2012; Coburn, 2003).

Coburn (2003) explains that before research can be conducted so instructional practices can be scaled, the definition of scaling must be refined to address qualitative measures, longitudinal data and change process. Currently, scaling is visualized as the quantitative expansion of reform in various settings (Coburn, 2003; McDonald et al., 2006). Based on these findings, Coburn (2003) expanded the definition of scale-up to include the "four interrelated dimensions: depth, sustainability, spread, and shift in reform ownership", in order to ensure deep change (p. 4). At this first stage, Lynch et al. (2012) and Lee and Krajcik (2012) emphasize the importance of determining the level of effectiveness of the reform, which will determine the scalability. Coburn (2003) adds that change must move "beyond surface structures or procedures" (p. 4). Instead, it must "alter teachers' beliefs, norms of social interaction and pedagogical practices as enacted in the curriculum" (Colburn, 2003, p. 4). According to Coburn (2003) in order for sustainable change to occur and be measured over time, change must move past the "initial implementation" stage (p. 6). In addition, deep sustainable change cannot be diluted during the scaling process (Lynch et al, 2012). Furthermore, scaling requires clear parameters of the implementation process, in order to ensure deep change (Coburn, 2003; Lynch et al., 2012).

While deep change entails significant shifts in the teachers' beliefs and effective implementation, Coburn (2003) considers sustainability the greatest challenge to scaling

instructional practices. Coburn (2003) and McDonald et al. (2006) explain that in order for sustainability to occur continuous multi-faceted support is a requirement. While Coburn (2003) highlights the value of understanding the various stages of change within a school, Lee and Krajcik (2012) recommend that stakeholders "embrace challenges", in order to facilitate sustainability (p. 274).

In order for change to be sustained with fidelity, change must spread beyond the surface level implementation to becoming institutionalized, as the new normal (Coburn, 2003; Lynch et al, 2012). However, the real shift in educational reform occurs with the shift of ownership at all levels (Coburn, 2003; Lynch et al., 2012). The first level of shifts occurs with the internal actors assume ownership of the reform through the development of their instructional, problem solving and leadership skills (Coburn, 2003). The campus leaders must also evolve in their role as prompting the spread of the school reform beyond the school walls (Coburn, 2003).

Summary

In this chapter, an extensive review of selected literature and research on the history of education and technology was provided, as well as the constructivist theory of learning specifically the work of Vygotsky and its alignment with blended learning. In addition, the change theory and scale-up theory were reviewed. In chapter three, the methodology for this study will be discussed at length, including the research design, population and sampling techniques employed, data collection procedures, instrumentation, data analysis processes and ethical considerations.

CHAPTER III

METHODOLOGY

The purpose of this exploratory transcendental phenomenological study was to explore the perceptions of parents and students about the transition from the traditional model of math instruction to a constructivist model of instruction, blended learning (Creswell, 2013). This study provided detailed depictions of the parents and students shared experiences during the transition to blended learning, which provided implications from the traditional pedagogical practices in place from the 1900s and the school context and structures (Moustakas, 1994; Creswell, 2013; Horn & Staker, 2015). The subsections that followed described the research design, participants, data sources, instrumentation, sites, research question, data collection procedures, data analysis procedures and limitations (Mills & Gay, 2016).

The exploratory transcendental phenomenological study included an overview of campus demographics and anecdotal artifacts throughout the transitional process, in order to describe each campus context and current practices. Survey data from parents and students facilitated the selection and organization of participants into the focus group interviews, which aligned with a purposive sampling (Rubin & Rubin, 2012a; Mills & Gay, 2016; Creswell, 2013). Based on focus group interviews, follow-up individual interviews were not conducted. However, the review of additional artifacts ensured clarity of participants' descriptions and the triangulation of common themes (Creswell, 2013; Mills & Gay, 2016).

Research Design

A qualitative exploratory transcendental phenomenological study research design as described by Creswell (2013) was utilized due to its focus "on a phenomenon to be explored", which was lived by the participants (Creswell, 2013, p. 78; Moustakas, 1994; Johnson & Christensen, 2017). It also was selected due to the inclusion of interviews as a primary data source, as well as other documents as described by Creswell (2013). In this phenomenological study, the lived experience is the educational shift to the constructivist model of instruction, blended learning and the participants are the parents and students (Creswell, 2013; Moustakas, 1994; Johnson & Christensen, 2017). In addition, an exploratory transcendental phenomenological study was selected due to its focus on the detailed descriptions of the experience shared by the parents and students at one South Texas elementary school, which will provide a fresh lens of the transitional process (Moustakas, 1994; Creswell, 2013). Furthermore, the detailed descriptions provided the "what" and "how" of the students' and parents' lived experiences during the phenomenon of transitioning to blended learning (Moustakas, 1994; Johnson & Christensen, 2017; Creswell, 2013).

The exploratory transcendental phenomenological study also aligned with the rich descriptions necessary to delve deeply into the textural (what) and structural (how) descriptions of their experiences (Moustakas, 1994; Creswell, 2013). The combination of both descriptions conveyed "an overall essence of the experience", which was retrieved from a variety of students and parents (Creswell, 2013, p. 80; Moustakas, 1994; Johnson & Christensen, 2017). While a phenomenological study allowed the researcher to analyze the detailed descriptions for powerful statements and themes across the participants' shared experiences, in order to remain open to the perspectives of the participants the researcher utilized the *epoche* principle (Creswell, 2013; Moustakas, 1994; Johnson & Christensen, 2017).

The *epoche* principle or bracketing required the researcher to examine "biases and enhances one's openness even if a perfect and pure state is not achieved"; thus, resulting in "the essence of the experience" (Moustakas, 1994, p. 60; Creswell, 2013, p. 79; Bevan, 2014). Bevan (2014) emphasized the value of the *epoche* principle in maintaining the validity of the recipients' responses. However, this required the researcher to engage in deep reflection and "remain self-conscious" of his views, in order to ensure an "attitudinal shift" and allow the phenomenological research to become "original and changing" (Bevan, 2014, p. 139).

Research Question

The research questions utilized as a guide in the conduct of this study were as follows:

1. What are selected South Texas elementary public school students' perceptions about blended learning as they transition from a traditional model of math instruction?

2. What are selected South Texas elementary public school parents' perceptions about blended learning as their children transition from a traditional model of math instruction?

3. What is the impact of transitioning from a traditional instructional model to a blended learning model of math instruction on selected South Texas elementary public school culture?

Site and Participants

Site

As stated in the title, this exploratory transcendental phenomenological study delved into an elementary campus, Seaside Elementary, nestled in the southernmost tip of Texas, also referred to as the Rio Grande Valley and served by the Regional Service Center, Region One (ESC 1). The Regional Service Center serves eight counties, which include 38 school districts and 10 charter schools across the Rio Grande border (Region One, 2020). According to the TEA

(2019) Texas Academic Performance Report (TAPR) the Region One area consists of 435,491

students from underrepresented student populations in comparison to the state of Texas. While

the largest ethnic student population in the Region One area and Texas is Hispanic, there is a

45% disparity between the Hispanic population in the Region One area (97.1%) and the state

(52.6%). Another consideration is the 25% discrepancy between the percentage of economically

disadvantaged students served in the Region One area (85.5%) to that of the state (60.6%) (TEA,

2019). Furthermore, the percentage of English Learner (EL) population served in the Region One

area (37%) is almost double that of the state (19.5%) (TEA, 2019). These underrepresented

populations are not only prevalent in the region but are also aligned to each of the counties

served by the Region One Service Center.

The selected South Texas public school elementary, Seaside Elementary resides in

Cameron County, which borders the Gulf of Mexico and the Mexico/United States border.

According to the United States (U.S.) Census Bureau (2020) of the estimated 423,163 Cameron

County residents 90% are Hispanic. The 2018 poverty level for Cameron County is 27.9%,

which is almost double the state of Texas (14.9%) (U.S. Census Bureau, 2020). In alignment

with the high poverty levels of Cameron County, the median income is $37,132, in comparison

to the $59,570 for the state (U.S. Census Bureau, 2020). Another mitigating factor to the

Cameron County lagging economic and household income levels is the discrepancy between the

percentage of Cameron County (67.2%) and state of Texas (83.2%) residents with a high school

diploma or higher education certification (U.S. Census Bureau, 2020). According to the Public

School Review (2020) Cameron County is home to 175 public schools including Seaside

Elementary.

Seaside Elementary is one of four schools from Bayside Independent School District (ISD), which is one of the districts within Cameron County. Bayside ISD sits approximately 20 miles from the Gulf of Mexico and Mexico/United States border. According to the TAPR (TEA, 2019) Bayside ISD is a 4-A Title I district, which served 2,349 students from early education to 12th grade in 2018-2019. From this student population 92.1% were Hispanic and 37.5% were English Learners (EL) (TEA, 2019). Furthermore, 86.2% of the students were economically disadvantaged and 85.6% were labeled at-risk (TEA, 2019).

While the Bayside ISD TAPR (2019) demographics described a community which is impoverished and serving a high percentage of ELs (TEA, 2019), Bayside ISD is categorized as a Chapter 41 district, often referred to as a "Robin Hood" school district (Texas School Coalition, 2020). Chapter 41 school districts are considered property rich due to the "high property values per-student", which require districts to return approximately half of their tax collection to the state (Texas School Coalition, 2020, p. 1). During the 2019-2020 school year Bayside ISD returned $17,825,339 to the TEA due to the recapture of funds (TEA, 2020).

These contradictory depictions of Bayside ISD aligned with the diverse community which it serves. Bayside ISD serves four towns, which vary in composition. One of the towns served by Bayside ISD includes a resort/tourist community. Silver Lagoon has a population of 2,839 of which 66% are 50 years or older with a median age of 54.2 (Census Reporter, 2020). According to the Census Reporter (2019) 68% of the population is White and 32% Hispanic, which is significantly lower than the Hispanic population (92.1%) of Bayside ISD (TEA, 2020). Silver Lagoon is closely related to the Chapter 41 status, as it has higher per capita ($52,048) and median household ($41, 894) incomes in comparison to Cameron County, as well as a poverty rate (9.9%) almost three times less than Cameron County. Furthermore, the home median for

Silver Lagoon is $304,900 in comparison to the $83,300 median average of Cameron County homes. Aligned with the Census Reporter (2019) data, 92.2% of the Silver Lagoon residents have high school diplomas or higher and 38.6% have a Bachelor's degree or higher. Evidenced by the data, Silver Lagoon does not align with the Cameron County population.

Blue Bayou is also served by Bayside ISD and is approximately 20 miles from Silver Lagoon with similar demographics. For instance, Silver Lagoon has a similar population with 3,171 residents, which are almost evenly distributed between White (52%) and Hispanic (46%) (Census Reporter, 2019). While the Blue Bayou median age (54.5) is similar to Silver Lagoon, the residents who are 50 years or older (40%) is lower than Blue Bayou. In addition, the per capita ($29,113) and median household ($58, 438) incomes are also lower than Silver Lagoon (Census Reporter, 2019). However, these rate are conflicting due to the three low income housing projects and high number of retirees in Blue Bayou. This diverse community aligns with the contradicting 16.5% poverty level and $174,400 median home-owned value (Census Reporter, 2019). Furthermore, according to the Census Reporter (2019), 87.8% of the residents have a high school diploma or higher and 29.8% hold a Bachelor's degree or higher. While both Silver Lagoon and Blue Bayou have higher home and income values, this is not true of the other two towns served by Bayside ISD (Census Reporter, 2019).

Gulf Vista sits between Silver Lagoon and Blue Bayou and has a population of 5,057 with a contrasting ethnic makeup of 24% White and 70% Hispanic (Census Reporter, 2019). However, Gulf Vista is an aging community, which is evidenced by the median age (42.9) and 43% of the population which is 50 years or older (Census Reporter, 2019). Another inconsistency between the other two towns and Gulf Vista is the discrepancy between the per capita ($17,804) and median household ($30,313) incomes, which is lower than both the other

49

communities. In addition, Gulf Vista's poverty level (32.1%) is twice that of Blue Bayou and more than three times that of Silver Lagoon. While the median home value ($132,500) is comparable with the other two towns, it does not take into account the four low income housing projects and the multiple mobile home parks. This is evidenced in the 76.4% of residents with a high school diploma or higher and 15% of residents with a Bachelor's degree or higher, which is lower than the other two towns. While the disparity between Gulf Vista and the other two towns is obvious, the remaining town, Ocean Mist, is also diverse from all three towns.

According to the Census Reporter (2020) Ocean Mist has a population of 3,155 of which 99% are Hispanic; unlike any of the other towns. In addition, the median age of Ocean Mist residents is 27.3 and 77% are less than 50 years of age, which depicts this community is much younger than the other communities. Another discrepancy is the per capita ($11,113) and median household ($24, 351) incomes, which coincide with the high poverty rate of 38.5% (Census Reporter, 2020). According to the Census Reporter (2020) the median home value is $37,100, which significantly lower than the other towns. This is further compounded by the 49% of the 972 homes located in Ocean Mist which are mobile homes (Census Reporter, 2020). In addition, many of the mobile homes house multiple families and share electricity. Furthermore, of the Ocean Vista residents only 43.2% have attained a high school diploma or higher and only 1.9% have attained a Bachelor's degree or higher (Census Reporter, 2020). It is apparent that Bayside ISD is comprised of four diverse towns.

As evidenced by the descriptions of the four towns within Bayside ISD, it is logical that Seaside Elementary would serve an underrepresented student populations similar to the Region One area and a property rich community with elderly residents. Seaside Elementary serves students from Silver Lagoon and Gulf Vista, which ensured a diverse student population.

According to the TEA (2019) 2019 TAPR, Seaside Elementary served 553 students from early education through fifth grade of which 93.7% were Hispanic, 90.4% were economically disadvantaged, and 49% were EL. While the Hispanic and economically disadvantaged populations were within 5% of the Region One area, the percentage of EL students at the Seaside Elementary surpassed the Region One area by more than 10% (TEA, 2019). According to the Texas Student Data System (TSDS) Public Education Information Management System (PEIMS) Disaggregation of Student Data (2020), 7.3% of the student population were categorized as gifted, which was greater than the district's (6.25%). In addition, 4.7% of the student population were homeless. As evidenced by Bayside ISD community descriptions and the Seaside Elementary demographics, Seaside Elementary serves a diverse student population.

The diverse study population aided in obtaining rich descriptions, as well as their experiences as a Raise Your Hand Texas Blended Learner (RYHT-BL) Initiative recipient. The detailed five year RYHT-BL Initiative plan for Seaside Elementary ensured student participants experienced a minimum of one full year of blended learning instruction in math. The focus of the plan also aligned with the content focus, math and recommended age (fourth and fifth grade students) for the focus group interviews (Moustakas, 1994; Johnson & Christensen, 2017; Creswell, 2013; Gibson,2012).

The RYHT-BL Initiative grant facilitated the transition from traditional math instruction to blended learning at Seaside Elementary. Bayside ISD began the RYHT-BL grant process in June 2015 and was announced as one of five grant recipients in April 2016. The five-year implementation plan for Seaside Elementary consisted of a phase-in process beginning school year in 20176-2017 with third through fifth grade math classrooms. Based on the plan teachers

implemented the rotation model in a flipped classroom with station rotation (Horn & Staker, 2015).

Participants

According to Moustakas (1994) participants engaged in the phenomena of study should include a diversified population to capture a variety of detailed descriptions from different perspectives. In an effort to align the participants with those experiencing the phenomenon of transitioning to blended learning in the selected South Texas elementary public schools, Seaside Elementary, the researcher set parameters for participant selection. These parameters ensured the participants had experienced the phenomena of transitioning to blended learning for an extended period of time and were able to describe their experiences.

While students enrolled in Seaside Elementary engaged in the transition from a traditional form of math instruction to blended learning, students were also required to be enrolled in the fourth or fifth grade. The specificity of the grade level enrollment aligned with the recommended age group to ensure student participation during the interview process as described by Gibson (2012). It also ensured a sampling of students, who had experienced at least one full year of math instruction in a blended learning environment; thus, increasing the opportunities to obtain detailed descriptions of their lived experiences during the phenomenon of transitioning to blended learning (Moustakas, 1994; Johnson & Christensen, 2017; Creswell, 2013).

Parent participants were eligible to participate if one or more of their children met the above requirements aligned with experiences with blended learning. However, in addition to student requirements, parents also had to participate in a minimum of one school meeting, campus and/or classroom visit, and/or meeting with the teacher or principal about math and/or blended learning instruction. This requirement ensured the parent were aware of their child's

experiences with the transition to blended learning and had discussed the phenomena of blended learning with a school educator; thus, enhancing the interview process and obtaining textural and structural descriptions (Moustakas, 1994; Creswell, 2013). Furthermore, alignment with the inclusion criteria increased the opportunities to obtain detailed descriptions of their lived experiences during the phenomenon of transitioning to blended learning (Moustakas, 1994; Johnson & Christensen, 2017; Creswell, 2013).

Data Sources

The population included selected Seaside Elementary students and parents. Due to the utilization of an exploratory transcendental phenomenological study research design, the participants were selected based on a purposive sampling technique (Creswell, 2013; Mills & Gay, 2016). The purposive sampling did not evolve into a random purposive sampling, due to the number of classrooms implementing blended learning math instruction, the number of students meeting the criteria set by the researcher, and the number of participants agreeing to participate (Creswell, 2013; Mills & Gay, 2016). After the participants were selected, campus demographics were analyzed to provide a reference of the population being studied and ensure a diversified population (Moustakas, 1994).

The student participants aligned with the diverse student population of Seaside Elementary in most areas. All 24 of the student participants were Hispanic and 22 of the students were economically disadvantaged. In addition, seven of the student participants were categorized as English Learners (EL), six as gifted and talented, and one as special education; thus, diversifying student participants. Based on the analysis of the Student and Parent Selection Survey (Appendices C & D), all of the student participants were enrolled at Seaside Elementary for a minimum of two years and eight of the fifth grade students had engaged in a blended

learning model of math instruction for three years. The inclusion of diverse student populations and extensive years participating in a blended learning model of instruction enhanced the interview process and the opportunity to obtain textural and structural descriptions (Moustakas, 1994; Creswell, 2013).

The parent participants included a variety of backgrounds. While 18 of the19 parents were Hispanic, nine of the parents were between the age of 31 to 40, four were under the age of 31, and six over the age of 41. Moreover, half of the parents were married, one was divorced, and one was single. While the majority of the parents designated English as their primary language for the interviews, three parents were interviewed in Spanish due to their language preference. This demographic data provided contextualization for the detailed descriptions (Moustakas, 1994; Creswell, 2013).

In addition to the diverse student and parent participants, District and campus artifacts related to the transition to blended learning were analyzed. Due to the campus' participation in the RYHT-BL Initiative, the researcher was able to analyze anecdotal records and evaluative reports on the implementation process will be examined to determine the impact on the transition process. The artifact analysis data provided an opportunity to cross-reference the collected data with the essence of the experiences of the participants (Johnson & Christensen, 2017; Creswell, 2013; Gay, & Mills, 2016).

Instrumentation

The instrumentation utilized included the selection survey and interview questions developed by the researcher. The selection survey focused on the demographic data and experiences with blended learning to facilitate the selection of diverse participants, who have experienced the phenomena of transitioning to blended learning math instruction as delineated by

Creswell (2013). The selection survey included less than ten questions to avoid overwhelming the participant, while yielding the necessary information for the selection process (Appendices C & D: Parent and Student Selection Surveys) (Mills & Gay, 2016; Rubin & Rubin, 2012a).

The focus group interview questions were created by the researcher. The development of the questions followed guidelines by Mills and Gay (2016), which included: exclusion of leading verbiage, simple format, definition of ambiguous terms, avoidance of double negatives, short and pointed questions and avoidance of bias formatting. After developing the focus group interview questions, the researcher collected feedback from a trusted colleague with a firm understanding of the study and college, in order to revise, edit and eliminate questions, which did not align with the topic of study (Mills & Gay, 2016). The next phase involved checking for content and face validity by having two groups of three colleagues and professor not involved in the research to rate the questions for content validity and significance to the topic of study (Mills & Gay, 2016).

The focus group interviews included a set of previously developed questions focused on attaining parents' and students' experiences in the transition to blended learning (Appendices H: Focus Group Interview Questions for Parents and I: Focus Group Interview Questions for Students). However, a flexible questioning format was utilized to delve deeply into the experiences of the participants (Guest et al., 2012a; Creswell, 2013; Rubin & Rubin, 2012a, Rubin & Rubin, 2012b; Bevan 2014). A tour question served as the first question to allow for the dialogue to flow and ease the participants into the interview (Rubin & Rubin, 2012b). Questions to prompt reflection upon specific experiences were utilized to enhance the richness of the descriptions provided by participants (Johnson & Christensen, 2017). Follow up questions transpired based on the responses of the participants (Rubin & Rubin, 2012b; Bevan, 2014). As recommended by Bevan (2014) the participants' responses were extended by restating the

portion of the response which required extending and asking the participant to describe or clarify the experience. By utilizing follow up questions the researcher avoided making assumptions or "premature interpretations" (Bevan, 2014, p. 141).

In alignment with the recommendation of Bevan (2014), the researcher incorporated open-ended contextual interview questions, in order to facilitate the participant's ability to "reconstruct and describe his or her own experiences" with the phenomenon (p. 139; Creswell, 2013; Moustakas, 1994). The researcher also followed Moustakas (1994) and Creswell's (2013) clarification that the open-ended questions should be broad and general to facilitate textural and structural descriptions. The researcher also incorporated structural descriptive questions and "imaginative variation" as recommended by Bevan (2014, p. 141). The structural descriptive questions facilitated the detailed descriptions necessary to attain a clear perspective of the participants' interpretations of the phenomenon. The integration of "imaginative variation" prompted the participants to "identify variants by describing how the experience would change"; thus providing clarity to the contextual and structural descriptions (Bevan, 2014, p. 142).

In order to facilitate rich descriptions from the participants, the researcher had the participants reflect on a specific experience before sharing their experiences (Johnson & Christensen, 2017). The culminating goal was to attain rich data and description of the participant's lived experiences, in order to determine common practices (Creswell, 2013; Moustakas, 1994).

Data Collection Procedures

During the approval by the Institution Review Board (IRB) at the University of Texas Rio Grande Valley, the researcher secured a South Texas elementary public school with classrooms meeting the instructional criteria of transitioning from a traditional form of math

instruction to blended learning. After ensuring the criteria was met by Seaside Elementary from Bayside ISD, the researcher met with the Bayside ISD superintendent to obtain her endorsement to conduct the study (Appendix A: Superintendent Outside Facility Use Letter). This meeting included the researcher explaining the purpose and relevance of the study, as well as the benefits to the public elementary institute. The researcher explained that the study would assist in filling the limited research on the transition of elementary public schools to a progressive blended learning model of math instruction as described by Gough et al. (2017). The rich descriptions would provide an alternative perspective for educators to reflect upon as they continue with their transition to blended learning (Moustakas, 1994; Johnson & Christensen, 2017; Creswell, 2013). Following the attainment of the superintendent's approval, the researcher met with the Seaside Elementary principal to ensure her agreement in the campus participating in the study (Appendix B: Campus Outside Facility Use Letter). As part of the IRB application process, the researcher submitted both signed Outside Facility Use Letters (Appendices A and B), which facilitated the data collection process after the IRB application was approved.

After attaining approval from IRB, the researcher shared the Expedited Approval Letter with the Bayside ISD superintendent before meeting with the Seaside Elementary campus principal. During the meeting with the campus principal the researcher shared the Expedited Approval Letter and reviewed an explanation of the study, including the selection process. After the explanation, the principal was reassured of the confidentiality and anonymity of the campus' participation and the opportunity to ask questions before setting dates for parent and teacher meetings to explain the focus of the study, requirements and selection for participation in the study, and the focus group interview process. Study criteria includes students enrolled in fourth

and fifth grade and engaged in the transition to blended learning math instruction for a minimum of one entire school year.

In September and October 2020, the fourth and fifth grade teachers scheduled beginning of year parent meetings with the 165 fourth and fifth grade parents. Teachers provided the researcher the opportunity to speak to the 27 fourth and 32 fifth grade parents who attended the meetings to solicit participants for the study. During the meeting the researcher explained the study including the criteria for the study, the selection process, reassurance of confidentiality and anonymity of participants. Parents also had the opportunity to ask questions. At the conclusion of the meeting parents interested in participating in the study completed the Parent Selection Survey, Parental Consent Form for Participation in Research, Parental Consent Form for Child Participation in Research, and the Audio and Video Release Form for Children and Parent Participants (Appendices C, E, G, & F). To facilitate the survey process, parents all forms were available to parents in a paper format. The researcher was available to assist parent participants in the completion of the documents. At the conclusion of the beginning of year meetings, three fourth and seven fifth grade parents agreed to have their child participate and six parents agreed to participate in the study.

Due to the low parent participation rate in the meeting and the disparity between the number of participants necessary for the study, the researcher collaborated with the fourth and fifth grade teachers to solicit additional student and parent participants. Fourth and fifth grade teachers distributed notices and required forms about the research to students to share with their parents. Teachers also provided a follow-up notification through Class Dojo about additional parent meeting dates. Parents with questions or requesting a one-to-one conference contacted the teacher or researcher directly.

After attaining the completed Parent and Student Selection Surveys, the researcher analyzed the survey results in order to determine the participants for the focus group interviews and notify parent participants. Based on the analysis of the surveys and attainment of the signed parent and student consent forms, the researcher met with the students to explain the study and the role of the researcher. In addition, students without a completed Student Selection Survey completed one during these meetings. The Student Selection Survey data was also collected through a paper format to allow for a simplistic format for the collection of responses to surveys. Students were informed that the focus group interviews would be conducted during the school day, in order to provide a conducive interview environment and provide technical and reading support as needed (Creswell, 2013). In addition, the school setting established a sense of familiarity for students (Gibson, 2012). However, prior to collecting or analyzing data the researcher bracketed out her own experiences with blended learning, in order to attain a fresh perspective of blended learning (Moustakas, 1994; Creswell, 2013).

At the conclusion of the solicitation process, a total of 15 fourth and 12 fifth grade parents agreed to have their child participate and 22 parents agreed to participate in the study. However, due to student absences and/or illnesses and parents' work and college schedules, 24 students (14-fourth graders and 10-fifth graders) and 19 parents (13-fourth and 6-fifth grade parents) participated in the focus group interviews. While the researcher's goal was to include 25 parent and 25 student participants, which aligned with the recommendation of Creswell (2013) and Moustakas (1994), the inclusion of 24 fourth and fifth grade student participants and 19 fourth and fifth grade parent participants resulted in rich descriptions. In order to enhance the development of clear detailed descriptions, the researcher leveraged the input from the 16 parents and students from the same families.

Focus group interviewers aligned with the exploratory transcendental phenomenological study, as it provided participants' perceptions about their experiences with the phenomenon at hand instead of a theoretical emphasis (Bevan, 2014). In addition, focus group interviews were selected by the researcher to provide a social context in which participants have peer support systems to foster in-depth details to their experiences (Marshall & Rossman, 2011). The goal for the focus group interviews was to organize them into six to seven groups with approximately five participants in each group (Creswell, 2013; Moustakas, 1994).

However, in establishing the focus groups, the researcher worked collaboratively with the classroom teachers and addressed the diverse backgrounds and schedules of participants. In an effort to leverage the students' diverse grade level and blended learning experiences, the researcher established three student focus groups with seven to nine students per focus group. The mixture of the diverse fourth and fifth grade student populations facilitated dynamic discussions and rich descriptions (Moustakas, 1994; Creswell, 2013). In coordinating the parent focus group interviews, scheduling the 19 parent participants became complex due to scheduling conflicts with university coursework, work schedules, and family illnesses. Along with the scheduling issues and the necessity to conduct one parent focus group in Spanish, four imbalanced focus groups were established. For example, the Spanish and the first English focus groups each included three parents, while the other two focus groups were more evenly organized with groups of six and seven.

After organizing the focus group interviews, a selected room on the school grounds was organized to promote free flowing discussions facilitated by the sense of trust and ease for the participants (Rubin & Rubin, 2012a; Rubin & Rubin, 2012b; Guest et al., 2012a). In addition, the focus group interviews followed the protocol for recording information delineated in Creswell

(2013) (see Appendices H, I, & F: Focus Group Interview Questions for Parents and Students, Audio and Video Recording Consent Forms). The interview process included the formalities for introductions and closing remarks, and spacing between each question for responses. The researcher documented the interview data through handwritten notes and audio and video recordings of interviews, which were transcribed (Creswell, 2013; Mills & Gay, 2016).

Data Analysis Procedures

After the focus group interviews were completed, the researcher transcribed the recordings and review for accuracy prior to analyzing the transcriptions for preliminary coding (Creswell, 2013; Mills & Gay, 2016; Guest, et al., 2012a). Once the transcription process was completed, the parent participants were informed of the opportunity to participate in a member-check (informant feedback or respondent validation) to ensure the transcriptions were accurate, valid, and provided authentic transference (Mills & Gay, 2016).

The transcribed interview data was imported into NVivo, a software program which assisted in the coding of qualitative data for interpretation and organization (Mills & Gay, 2016: Guest et al., 2012a). In an effort to align interview data with the research questions associated with each group, the focus group interviews were imported into two separate folders in NVivo. This organization allowed the researcher to cross-reference the parent and students' perceptions prior to cross-referencing both the parents and students' perceptions with blended learning artifacts. In accordance with Creswell's (2013) explanation of coding categories were determined from the responses provided by the parent and student interview responses. The preliminary coding was organized and analyzed to develop common codes, which formed "clusters of meaning" and facilitated the development of repetitive themes (Creswell, 2013, p. 80; Moustakas, 1994; Guest et al., 2012a).

In order to ensure the data was grouped accordingly, a code book was developed through the utilization of the Node Properties embedded into NVivo. The code book included the following components for each code: code name, full definition (description), and an abbreviation (Guest et al., 2012a). The codes and text were organized in NVivo to facilitate the analysis of the text for thematic links. The initial codes allowed the researcher to reorganize and tag the collected data for further analysis (Guest et al., 2012a). From this organized collection of data, the researcher analyzed the themes which surfaced by searching for patterns and overlaps; thus, comprising the major themes associated with each research questions (Guest et al., 2012a). Based on the "statements and themes" textural and structural descriptions was crafted by the researcher (Creswell, 2013, p. 82; Moustakas, 1994).

The rich descriptions and common themes from the in-depth analysis of the interviews was cross-referenced with the analysis of archival documents to support the third research question. The artifacts analyzed included anecdotal data from blended learning teachers and leaders, evaluations on the implementation of blended learning, and the findings from the evaluations. The archival analysis was cross-referenced with the in-depth descriptions provided by participants and themes. This analysis process supported findings and determined the impact of transitioning to a blended learning model of instruction on the Seaside Elementary public school contexts and structures (Creswell, 2013; Moustakas, 1994; Johnson & Christensen, 2017; Guest et al., 2012a).

Limitations of the Study

Limitations of this study included the ability to collect data from the different participants that yield overlapping themes. The use of purposive sampling and the limitation of focusing on one South Texas public school elementary campus transitioning from traditional math instruction

to a blended learning instructional model impacted the depth of the study or quality of the data collection. The number of English Learner (EL) and special education parents and students was limited and impeded the diversity of participants' shared experiences. A future study is recommended to focus on specific grade level campuses to obtain a comparable group to study and another study focused on special population students and their parents specifically the English Learners and special education populations.

Another mitigating factor related to the participants in the study. For example, the age of the student participants impeded their able to remain focused on the question and providing extended responses; thus, requiring refocusing students on the question and employing follow-up questions by the researcher. While the selected parents had participated in school meetings, visits, and/or sessions regarding blended learning, they lacked an understanding of blended learning instruction. This was evidenced by their ability to describe the instructional process but unable to connect it with the blended learning terms; hence, necessitating additional collection of parent perceptions about blended learning.

Furthermore, there were research and societal influences, which facilitates the need for additional research. While the researcher bracketed her beliefs and opinions about blended learning, her ability to remain subjective weighs into the research process. In addition, the questions were formatted by the researcher and reviewed by a colleague knowledgeable in blended learning; thus, expediting the need for additional data collection utilizing a different questions set or readily prepared questions. Due to the broad range of blended learning instructional formats employed in the selected South Texas school, conducting studies focused to specific blended learning instructional models would yield more detailed perspectives. Furthermore, the COVID-19 pandemic impeded the collection of additional interviews and

member-check participants. Ultimately, the need for a longitudinal study of how the perceptions of parents and students evolve throughout the transition process and the transition to middle school would also be enlightening.

Summary

Chapter three provided a detailed explanation of the research design utilized in conducting the qualitative exploratory transcendental phenomenological study as described by Creswell (2013), Moustakas (1994), Johnson and Christensen (2017). The purpose of the study was to attain the textural and structural descriptions of students and parents engaged in the phenomenon of transitioning to blended learning, to determine overlapping themes, which provided implications for future stakeholders engaged in the transition process (Moustakas, 1994; Creswell, 2013; Guest et al., 2012a; Johnson & Christensen, 2017). The participants for this study were parents and students from a Seaside Elementary public school, which met the selection criteria; thus, translating into a purposive sampling. The study involved the analysis of surveys, focus group interviews, and blended learning artifacts related to the transition process, which were cross-referenced in order to form common themes which surfaced (Guest et al., 2012a; Mills & Gay, 2016; Creswell, 2013). The study adhered to the IRB guidelines to ensure the confidentiality of participants

CHAPTER IV

FINDINGS

The methodology for this exploratory transcendental phenomenological study was presented in chapter three (Moustakas, 1994; Creswell, 2013). In chapter four, the findings are presented by themes, which emerged from the student and parent focus group interviews and the analyzed blended learning artifacts. Chapter four includes an introduction describing the format of the chapter, the purpose for the study, the assembly of focus groups and field issues, data analysis process, and an explanation of emergent themes, which are organized by the research question and followed by the themes and supporting subthemes.

Purpose of the Study

The purpose of the study was to explore the perceptions of parents and students engaged in the transition of traditional pedagogical practices to a progressive blended learning model of math instruction. Along with the perceptions of the stakeholders, the researcher focused on the impact of these instructional shifts on the school culture through the triangulation of the stakeholders' perceptions and analysis of the blended learning artifacts. The research questions below guided the parent and student focus group interviews conducted.

1. What are selected South Texas elementary public school students' perceptions about blended learning as they transition from a traditional model of math instruction?

2. What are selected South Texas elementary public school parents' perceptions about blended learning as their children transition from a traditional model of math instruction?

3. What is the impact of transitioning from a traditional instructional model to a blended

    learning model of math instruction on a selected South Texas elementary public school's

    culture?

Assembly of Focus Groups and Field Issues

The student participants for this study consisted of Seaside Elementary third and fourth

grade students, who engaged in the transition to blended learning for a minimum of two years.

While 27 students were scheduled to participate in the focus group interviews, due to illnesses

and scheduling issues 24 students (17 regular and seven bilingual) participated in the study.

Through a collaborative process with classroom teachers, three student focus groups were

conducted with seven to nine students per focus group.

The goal of including 25 parent participants for the study also became challenging due to

scheduling conflicts with university coursework, work schedules, and family illnesses. In the

end, only 19 parents (17 mothers and 2 fathers) were able to participate in the study. Along with

these challenges and the necessity to conduct one parent focus group in Spanish, four imbalanced

focus groups were established. For example, the Spanish and the first English focus groups each

included three parents, while the other two focus groups were more evenly organized with

groups of six and seven.

The focus group interviews provided a social context in which participants leveraged peer

support systems to foster in-depth details to their experiences (Marshall & Rossman, 2011). The

parent and student participants were organized into focus groups of diverse backgrounds, varying

experiences with blended learning, and a combination of fourth and fifth grade level students and

parents, which facilitated dynamic discussions and rich descriptions (Moustakas, 1994; Creswell,

2013). Interviews were conducted at Seaside Elementary to ensure a sense of trust and ease for

the participants (Rubin & Rubin, 2012a; Rubin & Rubin, 2012b; Guest et al., 2012a). Prior to collecting or analyzing data, the researcher bracketed out her own experiences with blended learning, in order to attain a fresh perspective of blended learning (Moustakas, 1994; Creswell, 2013).

Data Analysis Process

The focus group interview data were collected through handwritten notes and audio and video recordings of the interviews. The researcher utilized all three formats to review the transcription for accuracy prior to the preliminary coding (Creswell, 2013; Mills & Gay, 2016; Guest, et al., 2012a). Parent participants were notified and offered the opportunity to conduct a member-check (informant feedback or respondent validation) to ensure that the transcriptions were accurate, valid and provided authentic transference (Mills & Gay, 2016). However, due to the Corona Virus (COVID-19) the member-check process was delayed and extended, which resulted in only four parents' participation. Fortunately, each parent participated, who conducted a member-check had participated in a different focus group; thus, providing feedback and validation for each set of interviews.

Transcriptions were imported into NVivo, a software program which assisted in the coding of qualitative data for interpretation and organization (Mills & Gay, 2016: Guest et al., 2012a). The parent and student focus group interviews were imported into separate folders in NVivo, in order to analyze the perceptions of each group individually prior to cross-referencing both groups' perceptions with blended learning artifacts for consistency and misalignments. Coding categories aligned with each research question were determined from the salient responses provided by the parent and student interviews (Creswell, 2013). The preliminary coding was organized and analyzed to develop common codes, which formed "clusters of

meaning" and facilitated the development of repetitive themes (Creswell, 2013, p. 80; Moustakas, 1994; Guest et al., 2012a).

Through the utilization of NVivo (Node Properties), a code book was developed with a code for each major and subtheme. The code book consisted of a code name, full definition (description), and an abbreviation for each code, which the researcher referenced throughout the coding process to ensure accuracy in coding (Guest et al., 2012a). The codes and text were organized in NVivo to display the delineated text by code before analyzing the text for thematic links. The initial codes were utilized to reorganize and tag the collected data for further analysis (Guest et al., 2012a). From this organized collection of data, the themes narrowed down into three major patterns and overlaps for both parent and student focus groups: positive perceptions, negative perceptions, and recommendations (Guest et al., 2012a). Based on the "statements and themes", textural and structural descriptions were crafted by the researcher, which resulted in multiple subthemes to support each of the three major themes (Creswell, 2013, p. 82; Moustakas, 1994).

The rich descriptions and common themes from the in-depth analysis of the parent and student interviews were triangulated with the analysis of archival blended learning documents to address the impact of blended learning on the school culture and cross-reference with the parents' and students' perceptions (Creswell, 2013; Mills & Gay, 2016). The artifacts analyzed delved into the Raise Your Hand Texas-Blended Learners (RYHT-BL) blended learning outcomes and indicators, as well as evaluative measures, tools, and administrative perceptions. Furthermore, the artifact analysis process provided additional insight into the contexts and structure about the transition to blended learning at Seaside Elementary, as well as the expected

transformation of instruction (Creswell, 2013; Moustakas, 1994; Johnson & Christensen, 2017; Guest et al., 2012a).

Emergent Themes

While the viewpoints of the participants and groups varied, their responses and focus on the implementation of blended learning yielded rich descriptions of their positive and negative perceptions about the transitional process. In addition, parents' and students' perceptions provided insight into their lived experiences at school and home while implementing the designated components of blended learning instruction: flipped instruction and the station rotation models. Based on the perceptions of each set of stakeholders, recommendations to enhance the implementation of blended learning and math instruction emerged. The views of the parents and students also provided a lens into the impact on the school culture. Furthermore, through the triangulation of the students' and parents' perceptions with the analysis of blended learning artifacts two additional themes surfaced: congruencies and incongruences.

In an effort to align the presentation of the data in accordance with the analysis process, the emergent themes were organized under each research question. Each of the research questions included three major themes which surfaced (positive perceptions, negative perceptions, and recommendations) followed by supporting subthemes. The first two research questions included the three major themes for each group (parents and students). The third research question combined the results for both groups into the three major themes. The three major themes were described in-detail and then supported with various subthemes, which were indicated by subheadings under the major themes. All themes and subthemes were supported with descriptions and feedback provided by students and parents. Parents' and students' identities were protected with pseudonym in order to ensure anonymity and/or confidentiality.

Research Question 1: What are selected South Texas elementary public school students'
perceptions about blended learning as they transition from a traditional model of math
instruction?

Research question one focused on the perceptions of fourth and fifth grade students

engaged in the transition to a blended learning model of math instruction. After analyzing the

student data, three salient themes surfaced: positive student perceptions, negative student

perceptions, and student recommendations. The positive student perceptions theme included the

following subthemes: instructional support, student motivation, engagement and enjoyment of

instruction "fun", and student agency. The negative student perceptions theme resulted in fewer

subthemes (flipped instruction, stations and online math resources). The student

recommendations theme addressed the two subthemes (flipped instruction and stations), which

surfaced from the themes and subthemes associated with the negative students' perceptions. In

addition to the analysis of student data, the comparison of the students' perceptions with the

analysis of blended learning artifacts facilitated the triangulation of interview data and resulted

into two other themes: congruencies and incongruences with student perceptions.

In an effort to provided clarity in the organization of the major themes and subthemes

which surfaced, the researcher developed a table aligned to the findings for each research

question. Table 1: Emergent Themes and Subthemes Aligned with Research Question 1 (see

Table 1 below) addresses the major themes and subthemes associated with the first research

question. The first row in the table is intended to focus the reader on the research question, which

will be addressed. The table organizes the three salient themes which emerged from the students'

perceptions. Beneath each salient theme, there is a listing of the subthemes for each major theme.

Furthermore, the researcher included the two salient themes which transpired due to the triangulation of the students' perceptions and the analysis of the blended learning artifacts.

Table 1: Emergent Themes and Subthemes Aligned with Research Question 1

Research Question 1: What are selected South Texas elementary public school students' perceptions about blended learning as they transition from a traditional model of math instruction?

	Emergent Themes		
Salient Themes	Positive Student Perceptions	Negative Student Perceptions	Student Recommendations
Subthemes	Instructional Support	Flipped Instruction	Flipped Instruction
	Student Motivation	Stations	Stations
	Student Engagement and Enjoyment of Instruction	Online Math Resources	
	Student Agency		
Additional Themes based on Blended Learning Artifact Analysis Congruence and Incongruence with Student Perceptions			
Salient Themes	Areas of Congruence		Areas of Incongruence
Subthemes	Instructional Support		Time for Peer Collaboration
	Student Engagement and Enjoyment of Instruction		Struggles with New Math Skills
	Technology Integration		Purpose of Flipped Instruction
	Student Agency		Need for Teacher Support
			Limited Amount of Goal Setting

Positive Student Perceptions. During the student focus group interviews, the most prominent perceptions revealed multiple examples of how blended learning instruction attributed to positive instructional experiences and increased student self-esteem and motivation. One of the most prevalent perceptions resulted in the subtheme "instructional support" available to students. Instructional support was not only described as face-to-face instruction from the teacher but the various forms and levels of instructional support available to students both at home

through flipped instruction blended learning model and at school through the implementation of the station rotation blended learning model.

Along with the subtheme instructional support, "student motivation", the "enjoyment and engagement of instruction", and "student agency" were also subthemes which surfaced based on the analysis process. Students cited numerous illustrations in which they were motivated to learn and afforded extended learning opportunities. The subtheme enjoyment and engagement of instruction yielded several examples of activities and instructional experiences, which students perceived as "fun" and attributed to their desire to continue learning. The subtheme student agency disclosed their gratification of retaining control of their learning; whether it be "time, path, place, and/or pace" (Horn & Staker, 2015, p. 73; Akkoyunlu & Soylu, 2008; Hui et al., 2018). The overlapping perceptions of students extended learning opportunities for students.

Instructional Support. During the focus group interviews, a salient subtheme which reinforced students' positive perceptions of blended learning instruction were the various instructional support systems available to students while both in class during stations and at home through their flipped instruction. Students conveyed examples of collaborative peer support systems included during stations. They also described the embedded instructional support available in the online math programs utilized both during stations and at home. However, even more prevalent were the students' repeated praise of the instructional support provided by math teachers during stations conducted at school and flipped instruction lessons completed at home.

According to the students, each night students were assigned a flipped video for homework. Louis explained, "We do the videos and then we do the four questions. If you get one wrong, it's a yellow. If you get two wrong, it's a red." As they watched the video, students were

required to take notes, solve math problems, and either complete a four-question quiz at home that night or at school the following day. The students explained that the quiz results determined which students required additional assistance, as well as their assigned stations for the following day. Marcos clarified the process, "It (quiz) depends on what we get. If we get them all right, we get to go to our stations and have fun. But if we get some wrong we have to go to the teacher station so she'll go over the ones that we missed."

While the students explicitly delineated the flipped instruction process, they clarified that sometimes students struggled with the assignment and required additional support. Melissa shared the different instructional support systems available on the it's learning platform with the flipped instruction videos, "There's like links and that's where…find our videos and tests we could do, and our music videos. If you don't understand it there are extra videos that explain what we have to do."

While students considered all types of support positive components of their math instruction, the face-to-face teacher support was the most commonly articulated by students. Marissa verbalized how she valued the opportunity to obtain instructional support from her teacher during stations. "I like to go to the teacher all the time because when you understand it, you can still go over there and she'll make it fun…and she will teach you different ways to do it, too." Mario agreed with Marissa by adding, "Yes, that's why I like it—to get more help." The students extended upon Mario's statement by explaining that whether students were required to go to the teacher station or not, students had the option to obtain additional support at any time during stations.

Students placed a greater value on the math teachers' instructional support due to their knowledge that teachers wanted them to succeed and learn. Gabriel shared, "Because she's

like… 'it's just for you to understand it'. Because she wants you to learn and make sure that you understand that lesson for you could get it next time." Alan shared how his math teacher provided him a sense of security. "Sometimes I feel like I am alone and then Ms. Juarez (math teacher) comes over here and says, 'Do you need some help?', and I always say yes." While teachers offered a vast range of support to students, they also required them to learn. This was evident when Frank pointed out, "They (teachers) could help you read the question to you and give you like more…explain it more to you. BUT they don't give you the answer. They just explain it to you."

Along with face-to-face instructional support students relayed the importance of the additional support available during the flipped instruction homework, which were optional for students to access depending on their personal needs. Students outlined the flipped instruction support as additional teacher-created videos and links to online videos. Melissa described the supports available in the following manner. "There's like links and that's where…find our videos and tests we could do and our music videos. If you don't understand it, there are extra videos that explain what we have to do." While the students emphasized the extra supports available were optional, they each noted their favorite additional supports.

One of the most prevalent forms of additional support were the online math programs utilized during stations. The online math programs described by students included: Prodigy, Imagine Math Facts, and Imagine Math. Students explained how they moved at their own pace through each program. While moving at their own pace ensured personalized instruction, it often resulted in students working on skills which had not been taught by the teacher; thus, facilitating the need for instructional support. Students explained how the teacher provided one-to-one sessions for students during stations; much like office hours. Mark and Louis explained how

students sign up for additional support even if you passed your quiz, "You could (get) a little more help. You write your name in the sticky".

However, the most commonly utilized support for online math resources were the embedded support systems within each online resource, which included Imagine Math, Imagine Math Facts, and Prodigy. For example, Imagine Math (Imagine Learning, 2020) provides students with personalized math instruction lined with scaffolded support systems aligned to the delineated state math curriculum across all grade levels. Imagine Math Facts (Imagine Learning, 2020) is an online math program focused on developing students' math fluency. Prodigy (2020) is another online math program which develops math fluency and math skills through the employment of game-like structures. All three of these programs offer incentives for students' skill attainment.

Bettina described her experiences with Imagine Math,

> ...I really kind of like about Imagine Math is that if you fail something, it gives you another one but a little bit easier to simplify it…It simplifies it and after you take it and you get it a little bit more, if you take that one that you failed…it actually comes together and makes sense. It's kind of like a good thing.

Another instructional support highlighted by students was peer support. Students shared that due to the games, activities, and problem solving projects at the collaborative station, peer support through the learning process was a common practice. Gabriel described it as, "the group can work together and help each other". In addition, students explained how the stations also created a team support system. For example, Mark shared how students support new students. "The teacher chooses us to help her (a new student) but sometimes when the teacher isn't like around we'll help her ourselves."

Students repeatedly commented "I like the extra help", thus, emphasizing the value of instructional support systems. They appreciate the extra help from the teacher, extra videos, online resources, and their peers. Their words generated a sense of security for students in the knowledge that help was a sticky note, click, friend, or video away.

Student Motivation. In addition to valuing instructional support, students conveyed their motivation to expand their math knowledge. Students provided a dynamic account of how the incentives linked to the online resources motivated them to extend their learning opportunities beyond the school day. Students also attributed their motivation and math academic achievements to goal setting. Furthermore, students depicted how their desire to work ("play") on their online resources inspired students to focus on their flipped lessons, in order to leverage their choice station to extend their online learning opportunities.

The students outlined the three commonly employed online resources with immense animation; thus, exemplifying the impact online resources had on their learning journey. Students described Imagine Math as an online math program, which provided personalized learning opportunities based on the math level of students. Melissa emphasized that Imagine Math "motivates us to learn" and "to work hard". Louis expanded upon Melissa's comments by sharing students' motivation to "do it (Imagine Math) at home…and do it (Imagine Math) at school".

Students then illuminated how Imagine Math motivated them to extend its use beyond school. Alan pointed out how the embedded incentive "to unlock every item in the item store" motivated students to work on Imagine Math at home. Mark clarified that "you get points every time you pass a level", which can unlock items in the store. The students' enthusiasm for Imagine Math points was epitomized by the students' bantering over who had the most Imagine

Math points. In the end, Alan portrayed the students' motivation to learn from Imagine Math with "I am so rich in Imagine Math."

The students also noted that the other online resources, Prodigy and Imagine Math Facts, both focused on the development of students' automaticity with math facts and included an incentive system. However, students' revealed that they are, as Gabriel stated, "…hooked on Prodigy." Linda explained that Prodigy's appeal stemmed from the ability to personalize avatars based on their earned rewards while utilizing Prodigy. Beto described another reward system available through Prodigy, which enticed him because "you could go on adventures." Linda piggybacked upon Beto's comment about the Prodigy adventures with "Prodigy takes you everywhere." Beto clarified, "There is actually a mission…You could go on different quests and defeat different monsters." Another motivator divulged by Beto was that "you could play against your friends." Mark extended upon Beto and Linda's descriptions by sharing, "I remember last year on Prodigy cause I did it at home. I was at a higher level than everyone else. Cause I did that I was able to beat friends easily". Beto summed up the value of Prodigy as it "encourages you to learn math."

In an effort to extend their online math opportunities, students were motivated to perform well on their flipped instruction quiz, in order to leverage their "choice station" for additional time on their online math resources. Marissa described how the quiz from the flipped instruction determined students' opportunities to work ("play") on Prodigy for an additional period of time during stations.

If you have a green (100 on the quiz), you get to do like the few stations and like one or two choice stations, where you can do fun stuff. Yellow (miss one question), you don't

77

get to go to the choice stations, you go to the teacher and then you do the regular stations.

And on red (miss two or more questions) you just go to the teacher; the whole time. Gabriel clarified the value of obtaining a green, "The cool part is that whenever we have stations right? The iPad station…you have like free time sort of…You can do Prodigy….and you like level up." Linda added that "...every level you go it gets like faster…like I'm a Ninja Master in addition and subtraction".

While the students' motivation to learn math through their online resources was evident, students also voiced how goal setting increased their motivation to learn math. Linda recounted how goal setting motivated her to extend her learning. "Like this month's goal for me is to like try to reach 62 (Imagine Math) lessons, but I met 62 so now my goal is to meet 72. But I met that already, so now my goal is 82." Olivia reported why goal setting was important to her learning process. "If you goal set, it helps you achieve more things. Cause like if they (students) don't do it, you don't have a reason to do that. If you do the goal setting, it gives you a reason to achieve." Mark shared how goal setting motivated him. "Cause when I set a goal…I'll…I can do that in my spare time instead of just like sitting around or laying in bed." Bettina encapsulated the motivation of goal setting, "I think it's helpful because it encourages you to do a lot of the goals that you set. It encourages you a lot better in math."

Students continuously verbalized how the sense of motivation attributed to increased learning opportunities. Whether the learning opportunities were through online resources, goal setting, or leveraging their "choice" station, the students' comments referred back to a positive way to learn math. Beto captured the value of motivation with, "So you learn math…and while it's super fun…so that's super cool."

Engagement and Enjoyment of Instruction ("Fun"). The subtheme enjoyment and engagement of instruction surfaced due to the students' perceptions of math instruction and learning as "fun". The students' feedback generated several examples of how instruction and learning opportunities enhanced engagement due to their enjoyment of the instruction and/or the activities. As evidenced from the previous subtheme, student motivation, the online resource, Prodigy was considered "fun". The students described the teachers' instruction and activities as engaging and "fun", which also included the stations.

Students discussed at length how the teachers' instruction was engaging and "fun". Gabriel began the discussion by stating, "The teachers that teach math; I feel like they…it's like…they teach it as a fun way." Marissa depicted that a "fun way" of teaching is "…like she (math teacher) shows us and then we will do it by ourselves with no help." Marissa continued her thoughts to say that the "fun way" of teaching facilitated the learning process. In addition, Alan explained that not only the instruction was engaging but the opportunities to learn in their own way. "It's good when she says if we have finished, we get to like play some games." Melissa pointed out, "Obviously kids would like playing games and other stuff. Kids like to learn the fun way."

In addition to games, Lee emphasized how technology and online resources make learning engaging and "fun". "That (station) is fun…especially when there is internet or WIFI, we…use the computers…we just do Imagine Math Facts." Gabriel contradicted Lee, "It's (Imagine Math Facts) not as fun. Prodigy is awesome." Several students detailed the stations available to students: Imagine Math on the classroom computers, Imagine Math Facts on the iPads, the teacher station for skill reinforcement, collaborative (group activity), and independent (choice station) or another iPad station.

Furthermore, the students described how stations also made learning math engaging and enjoyable. Marissa declared that at stations "sometimes we have fun activities". Beto reiterated how the pretest scores determined whether "we get to go to our stations and have fun." Gabriel and Zoe agreed, "It's (teacher station) fun." However, Beto clarified, "It (teacher station) is fun but it is not as fun as the other stations." Beto explained, "For stations, we have iPad station and we can play Prodigy or Imagine Math…but most of us play Prodigy because it's super fun!" The students also emphasized how the fun activities allowed for the extension of learning. Beto highlighted, "You wanna do good so that you could be…get more funner stations."

Throughout the students' discussion about their blended learning math instruction, the students reiterated how "It's (math) fun." As evidenced by the examples above, math instruction and learning opportunities were engaging and enjoyable, however, they also facilitated the extension of learning opportunities for students.

Student Agency. Another positive component of blended learning described by students was the development of student agency, which facilitated students' ability to control their own learning (Horn & Staker, 2015; Akkoyunlu & Soylu, 2008; Hui et al., 2018). Students defined student agency as their opportunity to be "independent". Students' descriptions of stations, employment of Imagine Math, and completion of flipped instruction lessons were most frequently associated with student agency.

Flipped instruction lessons not only provided students with a variety of learning opportunities, they also facilitated the students' individual control of the learning process. Louis explained how flipped instruction works, "We do the videos, and then we do the four questions." Mark clarified that students also have to "pause the video, and then we (students) work out the questions ourselves." Linda expanded upon how you decide to watch the videos, "It depends if

you understand it. And if you don't understand it the best, you can watch the video again…and the extra video." Bettina remarked, "If you do understand it, you still could watch the extra video." Melissa revealed that the extra videos embedded within the flipped instruction lessons, made her "feel more comfortable doing your own job by yourself." During flipped instruction students determined whether they watched the extra videos based on their needs and preferences, which resulted in increased self-esteem and independence.

Similar to the students' control of their learning during flipped instruction, "choice" or "independent" stations also offered students the opportunity to engage in activities and learning modalities which best aligned with their learning preferences and goals. Gabriel explained,

> Independent (choice) station means you could do whatever you need to catch up on…or you could do homework, if you don't need…to catch up on anything…like independent (choice station) you could go to her (teacher station) and sit there and like she could help you again.

Mario disclosed that during stations he is "always at the back table" with the teacher because it helps him understand. Beto added that at the independent (choice) station, "You also got to do it by yourself"; thus emphasizing how student agency not only built their knowledge base but their independence.

Another manner in which students maintained control of their learning was by leveraging their online resources like Imagine Math to expand their knowledge base. For example, Linda touted, "I finished…I completed 4th (grade) in Imagine Math…and I am in 5th grade already. So I'm still learning." Gabriel explained that in Imagine Math "you could go on and on." Linda detailed her process for addressing skills in Imagine Math she had not been taught. "So that I

could pass something. I could just grab an iPad and search it up"; thus, exemplifying students' control of learning.

Negative Student Perceptions. While the student perceptions were predominantly positive, students also expressed negative interpretations of the implementation of blended learning. One of the most common student descriptions related to the "lack of engagement" (not fun) while learning through a blended learning format. In addition, students divulged their concerns with the videos and quizzes assigned for homework referred to as "flipped instruction" (Horn & Staker, 2015; Kong et al., 2014; Hui et al., 2018). Other dissatisfactions referenced by students were associated with time constraints and the necessity for access to technology and teacher support at home.

Flipped Instruction. While the flipped instruction videos were considered positive instructional support, students aired concerns about the lacking face-to-face teacher support needed at home. In addition, the students were also perturbed about the requirements to complete the flipped instruction. Furthermore, students were bothered about the fairness of completing the flipped instruction, which was compounded by their dismay with students' unethical behavior.

For example, Beto conveyed his feelings about flipped instruction, "I don't like the videos." Bettina expanded upon Beto's feelings by including her own experiences.

> Yes, some days I don't want to do it, but I have to…I don't like that it takes like a really long time because I have a lot of things that I do on certain days…if I have practice for something, I have to do the video straight away just before practice but I can't because it's long…it's really long.

Linda added, "You can't do like half and half. You'll forget everything you learned before you go to practice." While Lee did not struggle with completing the flipped instruction, his

apprehensions related more to the instruction itself. "It's a waste of our time." Marissa agreed and commented, "It feels like you're not even like learning it. It gives you the answers, and you're not learning."

The students' flipped instruction reservations were substantiated by the outcries for teacher support, as depicted by Gabriel.

I always start like asking questions, and then I realize that I have my earphones, right? But I want to ask questions. But I don't understand the question, right? And she can't answer me. So I don't like it.

Zoe's summarized Gabriel's anxieties with "because the teachers aren't on the video and you can't ask any questions."

Another student concern related to technology, which ranged from the needs for technology and internet to technical issues. Marissa stated. "I didn't really like it (flipped instruction) because some kids don't have the technology at the house to do it." Linda and Frank reported that students "need internet" to complete their flipped instruction. Mark shared how he managed this issue. "Some (of) us didn't have technology or internet so she (teacher)…before she came in she would…she would let us go into her room and go do the video there (in classroom)." However, Marissa divulged how her teacher also offered this opportunity "but it's only when…when she got here. When she let us." Gabriel provided an another possible work around, "You could come like at 7:15 (a.m.). That's when they're open, right? Whenever they're open you could go to the computer lab, and you could start doing it there." While these were options for students without technology, the students were distressed by the students who could not get to school early and the teachers who did not arrive to school early, or that these options were not available daily.

While there were options to address students' technology constraints, the technical issues experienced by students were another matter. Gabriel revealed his issues managing the video. "She (teacher) goes too fast, right? And you try to pause it. You pause, right? But you're too high up. You gotta erase it, and you can't always get it." Linda also recounted her technical issues. "You go to pausing, it's worse…you can't like…you have to go to the doctor or something and you can't be doing it in the car because you need internet to do it." Gabriel expanded upon Linda's response, "You have to like have good service and good internet for it won't be lagging."

Another major issue related to completing the flipped instruction at home were the students' concerns about fairness. For example, Zoe disclosed, "You (students) just copy off the video." While Mark clarified, "We work out the questions by ourselves", Mario reported, "But some kids just go ahead" and obtain the answers from the video. Marissa reiterated, "Some kids just go through…they skip through the video, and they skip it and then pause it. Then write all the stuff down." Alan detailed his experience. "Sometimes I accidently pause it…and I am like 'Oh no!' Then it just shows the answers. They (parents) don't even care. They (parents) think I did it on accident." However, Mario confessed that he did "cheat" last year "because I didn't want to do it (flipped instruction).

Another form of "cheating" articulated by the students related to the flipped instruction quizzes. Olivia pointed out, "Kids that do it (flipped instruction quiz) at home, they get help from their parents while other kids don't." Marissa explained how obtaining help from their parents impacted their grades and classroom instruction. "And then…when it comes to testing…when the day we test, they (student who obtained help from parents) fail." While some students received assistance from their parents, other students infiltrated the online system. Olivia stated,

"Some people know other people's (passwords) and they login and check their answers. And Check off their answers with theirs"; thus, inhibiting their ability to learn from the flipped instruction.

Stations. While students expressed their frustrations about the fidelity of flipped instruction, they also recounted concerns about the equity of access to stations for all learners. For example, Mark explained that stations were not "fun" for all students because "Some people didn't do stations that much because they were only on red and yellow." Olivia piggybacked on Mark's statement, "You don't get to do all the fun stuff, if you do not pass the quiz". (Mark and Olivia were referencing the students who did not pass their flipped instruction assessment required daily.)

Other concerns about stations were the online resources and the time constraints. Students detailed how time constraints impeded their ability to complete online instruction during stations. Olivia provided an example, "Every time I login there is a new game (Imagine Math) for me to play, and we only have like fifteen minutes in the station. It's like we don't have enough time to finish it (Imagine Math lesson)." Mario clarified, "We only have eight minutes in a station." Melissa described how flipped instruction also impacts stations.

If you can't do our video at home or our test, we would have to do it at class in centers (stations). It would be kind of 15 minutes or so then we would not have a lot of time to do our video and our pretest.

Alan explained, "You just sit there and try to learn but some people just try to talk", which distracts other students.

Online Math Resources. The students also divulged issues with online resources such as struggling with instruction, which required knowledge on new skills without formal instruction.

Beto provided an example from Imagine Math. "They give you questions that you haven't learned. And you gotta keep on asking the teacher for help or you gotta like press the need help button and go through all those steps and stuff." Gabriel also shared his experience, "So like there's stuff that you don't know, and it gets frustrating cause you always have to get up and ask the teacher. And then again and again. While she's teaching kids." Linda clarified, "It tells you what you did wrong, and they (students) have to correct it."

Student Recommendations. From the students' negative perceptions expounded their recommendations to improve blended learning math instruction. The most prevalent student recommendations were associated with the "enhancement of flipped instruction", which focused on time constraints, the assessment process, completion requirements, and associated discipline. The other students' recommendations related to "station components and structures" including the activities and implementation processes.

Flipped Instruction. Students' first solution was to rid themselves of the homework—flipped instruction, as explained by Marissa, "You're not supposed to go home and do the work." After an in-depth discussion the students concluded eliminating homework—flipped instruction was not an option. Then Louis recommended a possible solution could be, "if the videos were shorter," which all of the students supported. Another recommendation to address the time constraints suggested by Linda was to "do most of the stuff in my head"; thus eliminating the requirements described by Gabriel to "have to write everything down…all our strategies." Mark stated that the students would "just write the answers down." Furthermore, students recommended the quizzes be completed at school, in order to ensure students' understanding of the skills taught.

Students were also distressed by the repercussions of not completing their flipped instruction. Marissa and Mario exclaimed, "The teachers would get mad at them" for not completing their flipped lessons. Olivia elaborated on their claim, "If we didn't do it (flipped lesson), we would get either lunch detention or like no recess." However, the concern was teachers were not taking into consideration the students who lacked technology or internet or had other after school activities. These concerns facilitated the recommendation to complete the flipped instruction at school or ensure consistent daily opportunities in the morning or after school for student access to technology (computer labs or classrooms).

*Stations***.** The second set of addressed issues with stations. First and foremost, Marissa focused on the implementation, "We barely get any stations"; thus, necessitating the need for consistency in scheduling stations. Olivia referenced when students "only have 15 minutes at the station.", it is not enough "time to complete it (online learning lessons)"; thus, recommending more time at stations. Mark suggested, "having more games." Marissa piggybacked on Mark's suggestions with "like make it (activities) a little more fun."

While students provided their perceptions about the manner in which blended learning yielded both positive and negative insights, the analysis of blended learning artifacts facilitated the triangulation of interview data. The blended learning artifacts analyzed included The *Raising Blended Learner (RBL) Indicator and Outcomes Examples* drafted document and *Data Driven Planning (DDP): Where are we? artifact*. Based on the analysis of artifacts and the triangulation with the students' perceptions two major themes surfaced: "congruence between artifacts and students' perceptions" and "incongruence between artifacts and students' perceptions".

Congruence between Artifacts and Students' Perceptions. The analysis of the *RBL Indicators and Outcomes Examples* artifact resulted in specific areas of congruence with the

students' perceptions about the transition to blended learning explicitly in the *Student* and *Teachers, Leaders, and Schools* sections. While there was significant alignment between the students' "increased student engagement", "ownership of learning", "technology integration", "strong relationships", there were also examples of "increased resilience", "increased academic rigor", "increased peer collaboration", and "self-confidence".

Several of the students' perceptions aligned with the academic success experienced by students, which was denoted in the sub-themes: instructional support and motivation to learn. For example, the students adamantly praised their teachers for their continuous instructional support, which made learning fun; thus aligning with strong relationships between students and teachers and increased student engagement. Students also detailed how their strong relationship with the teacher facilitated their trust and open lines of communications, which resulted in increased academic achievement. Other examples of congruence with increased student engagement were the students' anecdotes about their employment of online resources like Imagine Math and Prodigy, which also aligned with technology integration. Imagine Math and Prodigy references also described students' ownership of learning, as students learned through their own path, place, pace, and time (Horn & Staker, 2015). This also highlighted their opportunities for diverse systems of support such as from their teachers, peers, and multiple instructional videos linked to their flipped instruction. Furthermore, technology integration and student ownership of their learning (student agency) was prevalent throughout the students' depictions of flipped instruction and their diverse stations.

While flipped instruction, the variety of stations, and online resources incorporated into their daily learning attributed to the development of student agency, they also facilitated students' resilience to overcome instructional obstacles, prompt peer collaboration, increase

88

academic rigor, and ultimately evolve into increased self-confidence. An example of student agency, resiliency, self-confidence, and increased academic rigor was well documented by Linda, the student who completed her fourth grade Imagine Math curriculum and utilized online sites to teach herself the fifth grade content challenging her. In addition, the stations created multiple opportunities for students to collaborate through the learning process, as well as build their self-confidence to support their fellow learners and request assistance when necessary. Nonetheless, all of these attributes contributed to the increased academic success of students and a shift in control of their learning from the teacher to the student.

Another blended learning artifact analyzed was the *DDP: Where are we?* artifact, which provided feedback from the third and fourth grade math teachers of the students interviewed during the 2018-2019 school year. During the analysis of the *DDP: Where are we?*, there was significant alignment with the student agency component described by teachers. For example, in the *DDP: Where are we?* document teachers conveyed how their students utilized the Imagine Math points to monitor their progress; thus, aligning with students' recounting of their experiences with Imagine Math to create their Avatar or determine their success. The students' perceptions about goal setting also aligned with the teachers' descriptions of goal setting, which emphasized students' ownership of their learning. Furthermore, students' ability to move forward in their learning with Imagine Math was noted by both teachers in the *DDP* document and students during their interviews, as another example of student agency.

Incongruence between Artifacts and Students' Perceptions. While the artifacts analyzed resulted in several areas of congruence with students' perceptions about the transition to blended learning, there was also examples of incongruence. There were a few misalignments denoted in the *Student* section under *Student Mindset and Behavior* section of the *RBL Indicators*

and Outcomes Examples artifact. For example, some students described their frustration with addressing new concepts, which had not been taught; thus, denoting a limited amount of "resilience". While students also detailed their desire for additional time for "peer collaboration" (center and/or stations) due to the limited number of minutes in stations, the artifact referenced the importance of peer collaboration. Furthermore, students expressed concerns about the struggling students' opportunities to participate in the "fun" stations due to their continuous need for teacher support, which misaligned with the concept of student engagement and enjoyment noted in the *RBL Indicators and Outcomes Examples*.

There were also incongruences prevalent in the *Teachers, Leaders, and Schools* section, specifically in the *Classroom Practices and School Climate* section of the *RBL Indicators and Outcomes Examples*. It was evident that students had negative perceptions about the degree which students saw purpose in their assignment, which related to "classroom practices". For example, students disclosed that the videos and assignments were a waste of their time, and they did not believe they were learning.

Another area of incongruence surfaced in the *DDP: Where are we?* artifact, explicitly related to goal setting. In the *DDP* document the 2018-2019 third and fourth grade math teachers touted that their students practiced goal setting bi-monthly. However, during the student interviews the students depicted a different setting, in which goal setting was not as prevalent during the 2019-2020 school year. In fact, students remarked that goal setting was non-existent, inconsistently utilized or only utilized for STAAR. In addition, the 2018-2019 math teachers stated that students not only created goals but were mentored through the goal setting and reflection process. In contrast, students commented that teachers rarely monitored goal setting with them. While students monitored their progress in Imagine Math regularly, the consistency

and importance of goal setting was not as prevalent during the 2019-2020 school year, as in the 2018-2019 school year.

It is evident that there were considerably more areas of congruence between students' perceptions than incongruences. The majority of these alignments were related to the academic achievement and success experienced by students. Moreover, the misalignments aligned with only a minimal amount of the students' responses, which aligned with the cumulative perceptions of students.

While the students' perceptions were predominantly positive, the students also voiced their concerns about blended learning instruction including flipped instruction, stations, and online resources. Negative perceptions about flipped instruction focused on the structures and components including the lack of face-to-face teacher support, technical and internet issues and availability, time constraints, and unfairness in the completion of assignments. While students expressed concerns about the time constraints of stations, they were also preoccupied by the students who have never experienced the enjoyment and enhanced instruction available through stations and access to other rich and engaging online resources. The struggles with online learning most commonly referenced the skills new to students and the lack of support to experience success. Furthermore, the struggles described by students also linked to the areas of incongruence with the blended learning artifact analysis, which were both minimal but impactful to the implementation of blended learning.

The students' negative perceptions facilitated their recommendations to enhance blended learning instruction, specifically for flipped instruction and stations. For both instructional models, students recommended consistent implementation and addressing students' needs. For example, students suggested reformatting the flipped instruction model to ensure fidelity of the

assessment process, eliminate technology and internet needs, and address time constraints. In addition, as they described their longitudinal experiences with flipped instruction, the flipped instruction components implemented varied from year to year. Moreover, the students' focus was on equity for all students and the engagement and enhancement of instruction. Furthermore, the students' perceptions and incongruences with the artifact analysis emphasized the issues with the change process, sustainability, and ensuring the integrity of blended learning.

Research Question 2: What are selected South Texas elementary public school parents' perceptions about blended learning as their children transition from a traditional model of math instruction?

Research question two concentrated on the parents of the fourth and fifth grade students engaged in the transition to a blended learning model of math instruction. After analyzing the parent data, the same three major themes surfaced: positive perceptions, negative perceptions, and recommendations. The triangulation of parents' perceptions with the analysis of blended learning artifacts also resulted into two other themes: congruencies and incongruences with student perceptions.

Table 2: Emergent Themes and Subthemes Aligned with Research Question 2 (see Table 2 below) addresses the major themes and subthemes associated with the second research question. The first row in the table is intended to focus the reader on the research question, which will be addressed. The table organizes the three salient themes which emerged from the parents' perceptions. Beneath each salient theme, there is a listing of the subthemes for each major theme. Furthermore, the same two salient themes which transpired due to the triangulation of the students' perceptions and the analysis of the blended learning artifacts transpired during the triangulation of artifacts with the parents' perceptions.

Table 2 Emergent Themes and Subthemes Aligned with Research Question 2

Research Question 2: What are selected South Texas elementary public school parents' perceptions about blended learning as they transition from a traditional model of math instruction?

	Emergent Themes		
Salient Themes	Positive Parent Perceptions	Negative Parent Perceptions	Parent Recommendations
Subthemes	Instructional Support	Instructional Issues	Instructional Enhancements
	Student Motivation	Overwhelmed	Extended Instructional Opportunities
	Personalization of Instruction	Technology Issues	Enhance Parent-Teacher
	Student Engagement and Enjoyment of Instruction		Communication and Knowledge
			Discontinue Blended Learning
	Student Agency		
	Technology Integration and Preparing for the Future		
	Communication		
	Parental Engagement		

	Additional Themes based on Blended Learning Artifact Analysis Congruence and Incongruence with Student Perceptions	
Salient Themes	Areas of Congruence	Areas of Incongruence
Subthemes	Student Agency	Upholding Blended Learning Norms
	Online Resources	Relevancy of the Assignments
	Technology Integration	Teachers' Confidence and Motivation
	Increased Academic Rigor	Limited Goal Setting
	Increased Student Engagement	Non-Existence of Mentoring
	Increased Resilience	
	Strong Relationships	
	Increased Peer Collaboration	
	Self-Confidence	

Positive Parent Perceptions. Throughout the parent focus group interviews, the most prevalent perceptions revealed various examples of how blended learning instruction attributed to enhanced instructional experiences. These experiences facilitated the personalization of instruction for students and motivated students and teachers. One of the most prominent perceptions resulted in the subtheme "instructional support" available to students. The instructional support systems shared by parents ranged from face-to-face to online playlists with one common denominator—the effectiveness of the teacher.

Closely linked to the subtheme instructional support were the following subthemes: "student motivation", the "personalization of instruction", "student enjoyment and engagement of instruction", and "student agency". Parents cited numerous illustrations in which they not only witnessed their children motivated to learn but the teachers inspired and innovative in their instruction. The subthemes, personalization of instruction and student engagement and enjoyment of instruction yielded several examples of activities and instructional experiences, which their children perceived as "fun" and contributed to their extended learning opportunities. The subtheme student agency conveyed their excitement in observing their children become independent learners; thus, emphasizing students' desire to control the "time, path, place and/or pace" of their learning (Horn & Staker, 2015, p. 73; Akkoyunlu & Soylu, 2008; Hui et al., 2018).

In addition, parents praised the teachers' employment of "technology integration and preparing for the future". Parents highlighted the importance of leveraging technology, which prepares students for the future. However, outside of the instructional components of blended learning, parents accentuated the "increased and effective communication systems" in place. In coordination with effective communication, parents also disclosed a positive impact on "parental engagement". The teachers' ability to extend learning opportunities while leveraging technology

for both instruction and communication created a strong platform for the parents' positive perceptions.

Instructional Support. During the focus group interviews, a salient subtheme which strengthened parents' positive perception of blended learning instruction were the various instructional support systems available to students both in class and at home. Parents provided examples of collaborative peer support systems included during stations. They also described the embedded instructional support available in the online math programs utilized both during stations and at home. However, even more prevalent were the parents' repeated praise of the instructional support provided by math teachers during stations conducted at school and flipped instruction completed at home.

The parents described the instructional effectiveness of the teachers at length and categorized the instructional support provided by teachers into five categories: instructional playlists, teacher-created videos, instructional support embedded into the online resources, peer-student support, and face-to-face instruction from the teacher. While parents stated that all types of instructional support yielded positive results, the face-to-face instructional support provided by teachers was the most acclaimed by parents. For example, Mr. Fernandez described how the teachers supported his child. "They (teachers) break it down. And because they come in and help out as much as they can to make those kids follow and succeed in it." Mrs. Davila detailed a situation in which her child benefitted from her teacher's support. "Next day, I was like, 'How was math?' 'Mrs. Juarez (math teacher) went over the stuff that I was having a hard time with and now I get it.'"

Along with the instructional support, the parents commended the teachers for the personalization of instruction to meet students' needs. Mrs. Valencia shared that each morning,

"They (teachers) have Power Hour." Mrs. Davila expanded upon Power Hour, "So every morning, there is Power Hour, and the students who did get red (failed their flipped learning assessment) come to the table or come to wherever they're at…and they get help." Mrs. Garcia explained, "They're (teachers) trying to teach the children different strategies to come about for the answer." Mrs. Valencia shared the value of personalized instruction. "Sometimes other kids need more help, and they'll get the help they need."

Another form of instructional support depicted by parents were those embedded into the flipped instruction, which included a cultivated instructional playlist, teacher-created videos, instructional activities, and assessments. Mrs. Garcia explained the flipped instruction process.

> The flipped lesson is basically where the student gets to see like the video or hear the video of the teacher. It's just like if the teacher's there with her but as a flipped lesson—it's on the computer and the child can stop, can pause, can work out the problem. You know…can then hit play and the flipped lesson will continue. And it's at their pace. And I like it also because it was pretty cool that the child can hear their teacher's voice.

Mrs. Davila expounded upon flipped instruction, "They literally sit there, and they can see how they do every single step and every single strategy." Mr. Fernandez added, "It's helpful because it breaks it down for you. And like, I would say it breaks it down Barney style for you."

While the parents described flipped instruction as scaffolded, it was also portrayed as diverse by Mrs. Valencia. "It shows them different ways…that maybe if you're not understanding it this way, try it this way." Mrs. Jaramillo praised a math teacher for her flipped instruction videos, "She would show it different ways like three different ways. So whoever would understand." Mrs. Bautista and Ms. Cortez agreed with the diversity of instruction

described by Mrs. Jaramillo. Mrs. Valdez provided an example of her child's experiences with flipped instruction.

> *A mí me gusta porque hay videos que luego te muestran varias estrategias para hacer el mismo problema. Por ejemplo, la otra vez vi que mi hijo/a estaba haciendo el problema. Y yo le dije "¿a ver cómo le hiciste para resolverlo?" "No pues le hice así, así, así." "¿Y esa estrategia de dónde la sacaste?" Pues es que aquí el video que yo vi la maestra explicó que yo podía hacerlo de tres maneras y yo lo hice de este." "Ah okay" O sea yo creo que como fue más fácil para ello/a.* (I like it because there are videos that then show you various strategies to do the same problem. For example, the other time I saw that my child was doing the problem?" "No, I did it like this, like this, like this." "And where did you get that strategy from?" "Well here is the video that I saw the teacher explained that I could do it in three ways, and I did it this way. "Ah! Okay." I mean, I think it was easier for my child.)

Another positive component of flipped instruction described by parents was the students' ability to leverage flipped instruction. Mrs. Martinez divulged how her child manipulated the videos depending on her needs.

> You know she's listening to the teacher. She can stop. She can pause. She can go back and take her time, or…if she's not struggling with it, she can get it done really quickly and then just relax for the rest of the night. You know; so I feel like it's really good.

Mrs. Vera supported Mrs. Martinez, "*Es como decimos verdad. ¿Dependiendo cada niño. ¿verdad? Cómo puede entender la estrategia para poder avanzar."* (It's like we say, you know. Depending on each child. Right? It's how you can understand the strategy to move forward.)

Mrs. Herrera articulated her experiences with flipped instruction, "So they're able to watch the video as many times as until they're able to understand it. 'Oh, okay. This is how my teacher did it, and this is where I went wrong.' So that's a good thing."

While the instructional support available through the flipped instruction was well received by parents, the instructional support provided through online resources like Imagine Math and Imagine Math Facts were also valued. Mr. Fernandez described Imagine Math as "an extra support." Mrs. Vera provided an example of how Imagine Math and Imagine Math Facts contributed to students' math knowledge, as well as data for the teacher to analyze for future instruction.

> *De que no pudieron restar, de que no pudieron multiplicar o nos están sabiendo las divisiones, multiplicaciones. Y hay juegos didácticos que puedas agarrar en esos programas para que ellos puedan avanzar. Y se mira el proceso de cada niño ahí con ustedes como maestros van a ir a identificar, en qué va progresando el niño y si lo está utilizando.* (That they could not subtract, that they could not multiple, or they are not learning divisions, multiplications. And there are didactic games that you can have in those programs so that they can advance. And you look at the process of each child there with you as teachers and are going to identify, what the child is progressing in and if they are using it.)

Mrs. Valencia commented about how Imagine Math ensured students understand a concept before beginning instruction on a new concept. "With Imaginary (Imagine) Math, they (students) need to actually pass it to make sure they understand it before they move."

While parents described the effectiveness of stations with online resources, they also depicted other stations of instructional value. Mrs. Garcia stated,

I think stations are really good for them (students) even at this stage. Because for example, that gives the opportunity for the teacher to work with that small group…that really needs you know and it helps her focus on those children…So they're going at their level. Whether their child is at the station with the teacher and needing a little extra reinforcement or whether they're at the you know at one of the other stations where they're already advancing.

Mrs. Alvarez expounded upon Mrs. Garcia's comments.

I like the stations because…the teacher's able to work with different…students at their different levels or the way they learn. The teachers are very creative and you know I think it's probably a lot of…manipulatives and things they can work with so that's what they do on their stations. So I think that helps…especially for those who learn differently.

Mrs. Bautista proclaimed, "So I love that (teacher station) cause if they need assistance, they get it there. They get their remediation there."

The parents also emphasized the instructional support provided by their peers during stations. For example, Mrs. Jaramillo divulged, "He (her son) prefers to go somewhere like one of the classmates and ask the questions." Ms. Cortez disclosed, "Mine likes to help. So she loves to you know, if she (points to another parent) doesn't understand it, she'll help her classmates out." Mrs. Valdez articulated her enthusiasm about the peers not only tutoring one another but students' confidence to ask for help. "*Yo pienso que eso es bueno para los niños porque a ellos le da seguridad para tener esa confianza de preguntar a sus compañeros o a la maestra.*" (I think this is good for children because it gives them the security to have the confidence to ask their classmates or the teacher (for help).

Parents reiterated their excitement of the instructional support systems, which ensured students' progression of learning and advancement. In addition, parents expounded upon the various forms of instructional support available to students such as the teacher, peers, online resources, and flipped instruction components. Furthermore, parents also pointed out the increased students' self-confidence in the instructional process.

Student Motivation. In addition, to students' elevated academic achievement facilitated by the multiple supports systems provided to students, parents also highlighted the increased student and teacher motivation. The students' increased motivation was closely related to the various learning modalities such as flipped instruction, developing a sense of competition, and leveraging goal setting. Furthermore, parents noted teachers' employment of techniques to elevate students' motivation to learn.

One of the most salient descriptions of increased student motivation articulated by parents were those associated with the flipped instruction. Parents revealed various moments in which their children described their increased motivation to learn and excel. For example, Mrs. Valencia explained her child's motivation to complete his flipped instruction. "I see the difference from even to 'Do you have homework?' 'Oh, I'm done with my math.'" Mrs. Davila reported her child's similar experiences. "She'll come home from daycare, and she's like, 'Oh, I finished my math.' 'So what about your English?' 'UGH!'" Mrs. Valencia also accentuated her child's focus on leveraging every moment to learn math.

> That's the reason he says, "I need my phone. I need my phone cause I need to catch up on my videos or whatever." Sometimes I say, "You don't need your phone cause you could borrow somebody's phone." He goes, "Yeah, but while they're getting ready, I'm doing my videos for I won't fall behind."

Another flipped instruction component in which parents denoted increased motivation related to the students' performance on their daily assessment. Mrs. Alvarez described the assessment component of the flipped instruction process, which served as a strong motivation for her child.

> After they see the lesson, then they have to do a four question problem on their own…The next day the teacher assesses who do I need to have in my groups so I can go into the questions and do the lesson again. You know personally...I think this helps my son when he was doing the flipped class. "Ugh! Oh! I put the wrong answer." He was so mad because he missed one, and he would have a fit because, "Oh! Now, I'm going to have to sit with the teacher, and I already know it."

Mrs. Garcia reinforced Mrs. Alvarez's experiences, "That's my child." Mrs. Chavez expounded upon Mrs. Alvarez's and Mrs. Garcia's children's experiences.

> *Y para mi hijo es una motivación diaria porque me dice, "si yo contesto bien el video, me toca en el centro de verde. Entonces lo tengo que hacer bien." Entonces eso es muy importante también es motivar a sacar verde a sacar todas correctamente.* (And for my son, it is a daily motivation because he says to me, "If I answer the video well, I get a turn in the green center. So I have to do it well." So that is very important. It also a motivation to get green; to get all correct.)

Mrs. Davila added, "At least in our house, if it's not green…It's over. No like…she has a hissy fit. 'I GOT YELLOW!' And it's just the end of the world."

While performing well on the assessment is extremely motivating to students, it also facilitated another motivation factor—competitiveness. For example, Mrs. Davila explained the competitiveness experienced by her child with Imagine Math. "She's like…she'll have to beat

Edgar. 'I have to beat him.' I'm like, 'He's not even in your class.' 'Yeah, but he has more lessons than I do.'" Mrs. Garcia expounded upon the competitiveness of Imagine Math, "We're all competitive. So I love that we do the (Imagine Math) Leader Board…The teacher will post the Imagine Math Leader Board, and I'm like, 'Oh sweetie like, you're on the Leader Board. Okay, that's awesome.'" Mrs. Macias reaffirmed the motivation facilitated by the Imagine Math Leader Board. "Mine is very competitive…So he wanted to be up there in the first place." Mrs. Vera described how her child's competitiveness motivated him. "*Mi niño a veces dice 'Yo le gané a David o le gané a Delinda.' Yo sé que esos niños están tan altos. Son los mejorcitos, verdad.*" ("My child sometimes says, 'I beat David or I beat Delinda.' I know those children's level are high. They are the best, right.")

Parents also conveyed how goal setting has contributed to their increased motivation. Mrs. Cortez detailed her child's experiences with goal setting.

> I feel like it also helps…like a setting goals for them also. Like being able to achieve. And then even if they are competitive, like it helps them be able to set their goal and wanta actually get more out of it. Because they have that…you know that they're competing and that they're trying to do better.

Mrs. Vera added, *"Son las metas, ese tipo de. Verdad...de aprendizaje que están poniendo en la escuela. Son metas para ellos para poder seguir adelante."* ("It's the goals, that kind of…you know…learning that they 're putting into schools. They are goals for them to be able to keep going.") Mrs. Bautista described how her child motivated herself with goal setting. "They also see their own success. You know that they monitor themselves. They're like, 'Man, I'm not doing great, you know I need to step it up.' And they get that motivation."

Besides the students' motivation, parents pointed out how the teachers' motivation attributed to the success of students. For example, Mrs. Fernandez proclaimed, "The motivation is there to get'em up. They (teachers) motivate them, and then they push them." Mrs. Vera shared, *"Ellos (estudiantes) miran dónde está la confianza que el maestro les da para poder desempeñar."* ("They {students} look at the confidence that the teacher gives them to be able to perform.") Mrs. Valencia provided an example of how her child's teacher motivated him to learn his multiplication tables.

> One thing that Mrs. Hernandez did this year that really helped my son…I guess the multiplication. She put them on the board, and they had to say all the multiplications, and they had to put their name. They (the students) would go back the next day to challenge her (the teacher). And if he would miss he would have to start over. They had till a certain time to beat her or to at least catch up to her. And that got my son every day at home writing them and writing them because he needed to beat his teacher.

Mrs. Martinez delineated how her child's teacher fostered not only the love for learning but teaching.

> My daughter will take out the white board. I don't know if she's trying to be the teacher, but she'll do the whole problem. She wants me to watch her. So I'll sit there, and I've recorded her. Because…so it's really cool that she can do that, and she's teaching me because I forget fractions too and so. And I'm like wow. You know it's really impressive, and she'll do the whole problem. And she likes doing it.

Personalization of Instruction. As parents described their positive experiences with blended learning, another reoccurring subtheme was the benefits of personalized instruction. Parents praised teachers for addressing the students' diverse instructional levels, in order to

ensure all students, learn at their own pace. For example, Mrs. Garcia shared her thoughts about personalized instruction.

> It's that every student learns at a different rate. And some students might still be on one lesson and while another student needs to advance already. And I would just explain to the parents that it's (blended learning) beneficial for the child, and it's better for the child because they can go at their pace. Some students might need a little more time in a certain area. Or they might be able…like they said, "Oh, I just got all my lessons done, and I can keep going." And I think that's important to know too because there's 20 students in there, and you can't be…if one student doesn't get it, you want that student to get it. But you don't want all the other students to have to sit there and be retaught something they are already know. So I think it helps.

Mrs. Chavez added her reasons for valuing the personalization of instruction.

> *También creo que eso no detiene a los niños que sí están avanzados a cómo nuestros tiempos. qué teníamos que esperar a que el niño aprendiera la tabla del uno cuando uno ya estaba con la del dos. Ellos avanzan, avanzan y avanzan. Eso es lo más importante para mí. Que no tienen que esperar al niño que no avanzó nivel.* (I also think that does not stop children who are advanced like our time; that we had to wait for the child to learn the times table of one when I was already with the table of two. They advance and advance. That is the most important thing for me. That they do not have to wait for the child who did not advance the level.)

Mrs. Jaramillo pointed out some additional considerations, "Remember in the classrooms, we have high, mediums, and lows, right? For those that are high, they're already understanding the

whole material. If we go to the back style with the teacher teaching them. They're gonna get bored."

Parents' perceptions also included other positive impacts of personalized instruction. Mr. Fernandez explained, "Not only that the teachers know they have to push her (his daughter). They have to push her. She gets to the green level. If you fall behind with her, she won't listen to you anymore. She'll be bored." Mrs. Garcia disclosed how personalized instruction met her child's needs.

> I like that they also have Imagine Math because if she's done with the lesson, or she's okay with the lesson, she can continue and go in Imagine Math. And she go at her level instead of just staying behind.

Mrs. Davila recounted her child's experiences. "It's convenient because like my daughter finished her fourth grade level (on Imagine Math) so she's in fifth grade…but I do like it because she is able to advance without having to wait for others."

Parents' positive reflections upon the effectiveness of personalized instruction was closely linked to their own personal memories such as waiting for other students and boredom in school. In addition, parents' not only valued the opportunities for struggling students to receive additional support but for high achieving students to expand their learning opportunities.

Student Engagement and Enjoyment of Instruction. Personalized instruction not only yielded the opportunity to advance but increased students' enjoyment and engagement—made learning fun. Parents revealed how online resources and stations contributed to students' enjoyment and engagement. Mrs. Valdez summarized the elevated enjoyment and engagement experienced by students. "*Y ahora, aquí los niños ya no, o sea. Ellos están jugando y están aprendiendo.*" (And now, here, the children no longer, you know…they are playing.)

When considering the opportunity to play and learn, parents focused on the online resources available to students. For example, Mrs. Alvarez shared, "He has fun and he likes…sometimes I mean the games (on Imagine Math) are really fun because of course they have to solve." Mrs. Davila described her child's excitement about Imagine Math, "but I think it's cool. My daughter will come home, 'I have to do my Imagine Math," and blah blah…and my younger son is like, 'No, I'm going to do it.' And like…they just fight over the computer." Mrs. Almazán expanded upon why students enjoyed Prodigy, "It's kind of more like that…it's more video gamish; that's why. It's not so much learning. You learn, but it's more gamish." Mrs. Valenica stated it succinctly, "It's fun for them."

In addition to online resources, students discovered great excitement and engagement from stations. Mrs. Garcia shared her child's enthusiasm for stations, "All I hear from my daughter is just with enthusiasm, 'Oh, we get to do stations!' or 'I get to do stations!' or 'I do stations!'" According to Mrs. Valencia, one reason students enjoy stations is the setting. "And not only that. How they fixed the rooms. Where they could have it like kind of cozy. Where they could just chill." Mrs. Cesnes shared her daughters' depiction of stations.

> My daughter mentioned about centers (stations) that sometimes they can lay on the floor and read books, or they can sit on the floor and figure out something like diagrams or something on papers or puzzles…something. And she really has fun with that, but I think because it is more hands-on instead of just sitting there listening. I guess. And in…it's in groups most of the time.

Mrs. Cortez added, 'So if they don't get it, they'll ask their friends or communicate to be able to understand it."

Student Agency. By providing students various stations and online resources to learn at their own pace, parents voiced their satisfaction with student agency. Parents equated student agency with developing independent students responsible for their own learning, as described by Horn and Staker (2015). Mrs. Martinez shared, "I've noticed that in the years, she's (my daughter) become more independent with the recent…the way it's being taught and everything they're doing online." Mrs. Herrera had similar experiences with her daughter.

> My daughter's independent as well. Like I've noted that this new approach to learning math has made her more independent. She's able to do her homework on her own, and she rarely asks for help. Like she actually doesn't want me to helping her cause she thinks that it's bad because she wants to learn it on her own.

Mrs. Alvarez added her son's experience.

> I like that it's also helped them become more independent on the flip side…My husband would get mad like, "You don't have to sit with him to do his homework." "But he needs help. I'm helping him." And so now, he's (my son) at the point where he can…he'll just do it real quick."

While these examples of independence were predominantly related to flipped instruction, parents also conveyed how their children were empowered to be responsible. Mrs. Valdez shared how her daughter has become more responsible.

> *Yo he visto el año pasado a este año, mi niña ha cambiado mucho en sus cosas de hacer la tarea. O sea, el año pasado estaba yo como que...más...si estoy al pendiente...pero ahora yo la miro más responsable a ella en sus cosas. Y eso yo lo note y dije "¡Wow!"* (I have seen last year to this year, my girl has changed a lot in her homework. I mean, last

year I was like…you know…I'm always on the lookout but now I see her being more

responsible in her things. And I noticed that and said, "Wow!")

Mrs. Garcia reiterated how the children are being empowered.

That is empowering that student take that ownership of their learning. Like I mean she's

doing it at home. That's amazing. She's (Mrs. Martinez's daughter) getting the white

board…She's taking ownership of that learning. And they have different ways of

learning. Like the other parent said you know one can be really good when it comes to

like the technology part. One has to draw it. So I think it's giving them that confidence

for math because math has always been thought of as you know. Math is scary because

math is hard. And it's not. I don't think that it's so much that it's hard; it's just that if you

feel like you don't understand it. Then you're just gonna shut down. So I think is helping

them be a little more confident. That they're understanding it. They're getting it.

Mrs. Valdez summarized student agency with, "*Y más que nada, verdad…crecer y madurar ellos*

(los estudiantes) mismos y sentirse seguros de sí mismos porque pues todos queremos lo mejor

para nuestros hijos." (And more than anything, you know… (the students) grow and mature

themselves and feel secure themselves because we all want the best for our children.)

Technology Integration and Preparing for the Future. The student agency and

increased self-confidence described by parents was partially due to technology integration, which

parents linked to preparing their children for their educational future. Parents accentuated the

role technology has in life not only education. They also connected how technology integration

at this grade level prepares students for not only high school but college.

Mrs. Almazan provided perspective on how important technology integration is to the

future of their children.

I think its technology driven as opposed to when we learned it. When we learned it, it was just pencil and paper. You didn't even get a calculator. Now to them (children) technology...it's based on their life. They live on technology. They know everything. We didn't have computers when we were smaller. And to them, it's about tablet, iPad, computer this, phone. They do everything that's on technology these days. It's a lot different. I think it works for them...

Mrs. Davila added,

If you have all the kids just sitting there, and she's (the teacher) just trying to show you on here (points to board) like you're going to lose it. Like kids are just all over the place now. And so long as you're growing with the time, you know.

Mr. Fernandez clarified, "If you stay with technology, and you run with the technology, I think you'll have your kids' focus." Mrs. Cortez also commented, "At the same time, it's preparing them because...technology is only getting more...you know popular. More advanced. More. So you're preparing them for the future."

It is evident that parents perceived technology as a necessary resource in educating and preparing their children for their future. As stated by Mrs. Valencia, "It is good they are starting at this age." Mr. Fernandez supported Mrs. Valencia with "It's good because it's teaching them for the future." Mrs. Alvarez reiterated Mrs. Valencia's and Mr. Fernandez's sentiments, "It also gives them kind of a glimpse of the future because they'll have to learn...know how to take classes online in the future." Mrs. Garcia contributed her thoughts about leveraging technology, "So I think it helps...the technology is a tool that helps everybody—the students, the parents, and especially the students because it helps the students be confident with their learning."

Communication. Parents also shared how teachers and the school leveraged technology to provide open lines of communication. Overall, parents articulated their great satisfaction with Seaside Elementary and their communication. Ms. Valencia provided an example of how communication from the teacher has positively impacted her son.

> He (her son) loves Mrs. Hernandez. He says, "Ms. Hernandez is the best teacher." Why because…I guess she has so much confidence in him that he knows that he's going to do okay because Ms. Hernandez goes, "You already studied this. You're going to do okay. You'll be fine." And she goes over with everything.

Mr. Fernandez summarized their feelings, "Communication is awesome. They (teachers) are very, very positive. That's what we have her at Seaside Elementary. The communication. I mean…we're humble people. We have that positive communication."

One positive form of communication shared by parents was the employment of Class Dojo. Class Dojo is an app utilized by teachers to communicate with parents by sharing information about class events. However, more than the actual app is how teachers utilized it to support students. Mrs. Valencia shared her son's experiences.

> Homework-wise. She puts everything on Class Dojo. Sends us messages of what your child has on homework and exercises…If your son doesn't know it (homework) but then you go into Class Dojo…she did example. I think that is great cause sometimes I don't know how to help him, but then I'll go back into Ms. Hernandez's Dojo, and she has examples of how to help him.

Mrs. Fernandez commented.

Ms. Juarez (math teacher) is…she's amazing. She breaks it down pretty much to where they understand. And if there's an issue, you can easily just use the Class Dojo with her and communicate with her through any little situation we go through.

Parents also expressed their gratitude for teachers' impromptu support. For example, Mrs. Valencia announced.

And if he has a question. She helps. And there are sometimes, I literally cause he does, "Mom, can you go to Class Dojo and ask Ms. Hernandez this." And I tell my son, "Really!" He goes, "Please, please.' So I'll actually message her, and she messages right away on Class Dojo."

The positive communication amongst all stakeholders further enhanced the instruction of students as stated by Ms. Vera, "*Lo más importante que yo aprendí en la escuela es que el niño debe de estar estable en la casa y en la escuela…debe de estar constante en comunicación con la maestra.*" (The most important thing that I learned at school is that the child must be stable at home and at a school…must be constantly in communication with the teacher.)

Parental Engagement Impact. Along with praising teachers for the positive open lines of communication, parents pointed out the positive impact blended learning had upon their understanding and involvement in the education of their children. Parents explained how flipped instruction assisted parents and eased the homework process, as well as allowed them to have firsthand knowledge of what and how their children were learning.

Parents described how flipped instruction benefitted both them and their children. Mrs. Martinez commented, "I feel like it's (flipped instruction) really good. It helps a lot—home." Mrs. Garcia explained how flipped instruction helps at home.

I like that it gives parents that power and especially because we learned certain strategies

a certain way. You know and now we're also seeing the new strategies that their learning.

You know and now we're also seeing the new strategies that they're learning. Like for

example, I like…I really like the flipped classroom because I also see the teacher

working it out. I get to see the new strategy compared to my…the strategy I know.

Mrs. Herrera added, "And we'll be…we're (parents) able to understand it."

Mrs. Davila expanded upon how flipped instruction eased the homework process. "While making dinner or something like that. I don't have to sit there with her." Mr. Fernandez clarified, "We still supervise but at a distance to where we don't want to be on top of her." Mrs. Garcia detailed the flipped instruction (homework) process at her house. "And it helps us a lot because I can cook while she's doing her homework and listen at the same time. It's really helpful at home." Mrs. Almazan divulged, "My son just watches the video, gets through it, and he's done. We don't have conversations unless he doesn't understand. And if he gets it, he's over it. We move on."

Parents highlighted how flipped instruction alleviated their role in the homework process, as well as provided them insight into today's instruction. They also detailed how a sense of trust has evolved between the students and their parents, as evidenced by Mrs. Davila's comment, "We've gotten to the point where I can trust her to do it on her own." Mrs. Garcia summed up the positive feelings towards parental involvement, "I just like that it gives parents the power to be involved."

Negative Parent Perceptions. While parents' perceptions were predominantly positive, parents also expressed concerns about the blended learning implementation. The most salient parent concerns addressed blended learning "instructional issues" such as the flipped instruction,

student agency, instructional strategies, and differentiation of instruction. In addition, parents divulged their personal "overwhelmed" feelings with flipped instruction, as well as "technology issues" impeding instruction.

Instructional Issues. Parents disclosed various instructional issues related to the inclusion of flipped instruction and the strive towards student agency. The two major frustrations were the lack of face-to-face teacher support and the students' lack of preparedness to be independent learners during flipped instruction. In addition, parents conveyed apprehensions about the limited instructional strategies, which did not differentiate instruction to meet the needs of all students; thus, impeding their child's success.

One reoccurring concern reiterated was the frustration students experienced during the flipped instruction videos. According to Mr. Vega, "The only challenging part is when the child is…doesn't get it and so he's frustrated. And they can back up the video 100 times, but if they're not getting it…you know who do they ask the questions to?" Mrs. Bautista added, "They pretty much have to figure it out on their own." Mrs. Cesnes reported her daughter's frustration of having to wait for support, "Where they watch the video first? And if they didn't understand, then the next day they would get the help." Mrs. Cortez provided a different perspective on the frustration experienced by some students.

> I don't think it's as challenging for a student that is I guess gifted—would be able to understand. But with kids that are not at that level, I think it's just hard. Luckily, you know ours do understand it. Imagine those that don't.

Mrs. Valencia summed up the students' frustrations, "Because if they're not understanding the video; they're still gonna need someone to explain."

Parents also made known the need for face-to-face instruction from the teacher when the students struggled with the flipped instruction. Mrs. Cesnes stated, "I just think she (her daughter) would learn more from a teacher because (she) could raise her hand and ask a question." Mrs. Valencia explained students just need "the teacher explaining to him (her son) right there". Mrs. Bautista provided additional details about the importance of the teacher.

> So when you teach them (students) one way on the computer, they don't get that. So the teacher goes…the teacher herself when she's teaching, "Oh, you're not getting. Okay so and so, whoever doesn't get it, this is a different way you can do it."

Mrs. Cesnes summarized her concern with "The teacher teaching; you can't replace that."

Along with the need for the teacher during flipped instruction, parents also expressed a need for differentiated instruction. Mrs. Bautista remarked, 'Again, different kids, learn different ways. Visual learners…whatever it is." Mrs. Davila noted, "There's some kids who need to be more hands-on like they like the blocks like…stuff like that. Every kid is different." Mrs. Jaramillo supported the need for differentiation, "But maybe that one way is not right for everybody." Mr. Vega supported the need for differentiation with, "Just like anything there is not a one size fits all. And so it's important to also develop techniques and methodologies that'll assist the kids that don't do well in flipped classes."

When considering students who did not perform well on flipped instruction, parents verbalized their concerns about students' preparedness to assume responsibility for their learning. For example, Mrs. Garcia aired her experiences.

> They (teachers) give the responsibilities to the child. And I understand some children are just ready to pick up and run with their own responsibility. My daughter is. He (my son)

wasn't ready at that time. You know so I was like well he still needed that little extra

help.

Mrs. Jaramillo shared.

My son would get home like last year, "Oh I need to do my video and my homework."

But yet, I'm like, "What you got to do?" "I don't know. I don't understand." "What you

mean you don't understand? You didn't pay attention to me." "She didn't explain to me."

Mrs. Macias addressed how flipped instruction could be difficult for an immature child. "They

look at a video, and then try to answer the questions that they are given and remember what they

were shown on the process of how to work out a problem." Mrs. Macias depiction aligned with

Mrs. Cesnes' view, "I know that it supposed to be her watching the video and doing the work.

But I still sat with her and explained to her." Mrs. Davila pointed out, "Because this kid is good

at this way. Not every kid is the same."

Overwhelmed. While parents' frustrations about the blended learning instructional

components related to meeting the students' educational needs, the parents second most relevant

issue arose from the overwhelming feelings experienced by parents, students, and teachers.

Parents described their added stress due to meeting their children's needs during flipped

instruction. In addition, parents expressed concerns about their children's and teachers' anxieties

about blended learning. Another concern was their uncertainty about meeting the needs of their

children. In the end, Mrs. Noyola announced, "I feel like everybody might be overwhelmed."

The main focus of frustration was linked to managing parents' busy schedules and

completing the flipped instruction lesson. Mrs. Jaramillo explained.

115

In my opinion, I think as a mom, well most of us, we work. It's a little…be a challenge.

Just the fact that we had to sit next to them or be sure that they actually watching the

video instead of be distracted.

Mrs. Bautista divulged her frustrations.

I had to reteach my daughter everything. I didn't know the topic. I had to go Google

it…So I had to go back, research it, and then teach it to her in strategies she would know.

So I was the teacher. That was frustrating cause I work a little far away. I get home. I

have to make dinner. Then I had to reteach her. So it was difficult.

Mrs. Noyola disclosed her experiences.

It's a lot of homework. I got two little ones, and I'm sitting there by myself. My

husband's at work, and I'm just like okay he's doing this. I'm doing this. I'm doing

homework. You know. And it's just a lot of that. Getting everything together and

checking up on everyone.

The parents' concerns were escalated by their ultimate goal of academic success, as declared by

Mrs. Cesnes, "I'm gonna make sure that you (her daughter) understand."

Parents not only "had to be the tutor" as described by Mrs. Noyola, they also had the

frustration of maintaining their child's focus on video. Mrs. Cesnes recounted her experiences

with her daughter.

I know if I wasn't on my daughter, she would just watch the video, and she would be

watching the video but then start doing something…side tracked or something. So when

it was time to do the test…the questions, she would get it wrong. Or she'd get the first

one right but not the other two. And I would tell her, "No, you're gonna sit there, and do

it again." And that's when either she didn't get it because she wasn't listening or she just

didn't get it period cause she needed somebody to sit and explain.

Mrs. Jaramillo added, "All chores…waiting at home. Plus, having that extra time to sit next to

them just be sure that they (students) are watching it…that they are paying attention to it is a

lot."

Parents were not the only stakeholders focused on ensuring students understand.

According to parents, the students and teachers were also overwhelmed. For example, Mrs.

Cesnes explained how her child felt. "When she didn't understand. And she would get so

anxious and paranoid because she would say, 'The teacher's gonna get mad. You can't be

helping me.'" Mrs. Jaramillo shared what her child experienced after she helped him. "Yes, I

(mother) teach him one way, and then he comes home. 'Aww you teach me the wrong way.'"

In addition to the students' frustration, parents shared concerns for the teachers' stress.

Mrs. Noyola explained, "Because the teachers are so overwhelmed. And you know they got 20

students, and they got so much going on that they do state required." Mrs. Cesnes clarified, "I do

have to say I'm not all dogging on my daughter's teachers. They're just following the

curriculum…It's not that they just decided, 'Let just put on the video.'" Mrs. Davila pointed out,

'I guess nobody was ready for the change. Maybe it was spring too fast." Mrs. Jaramillo added,

"I think that just the school's trying to help the kid, and sometimes it's not working because we

are at home…we don't know what he's struggling with."

As evidenced by the parents' comments, another frustration was their uncertainty of how

to support their children at home. Mr. Vega conveyed his concerns, "We gotta figure out how to

communicate with parents. But it's important to also stay involved with your kids." Mrs. Macias

articulated the needs for parents to "learn what the kids were going to learn", in order for parents

to better support their children. Mrs. Cesnes described her frustrations and how she addressed her child's needs.

> So I taught her the touch points, and she got in trouble with her teacher cause she wasn't showing the work. I would tell her just draw, whatever it is but figure out the answers with the touch points. I think that those diagrams were horrible.

Mrs. Mendez encapsulated the concern, "We don't know what areas they need to be working on. What they're learning."

Technology Issues. Parents provided insight into their frustrations with technology, whether it be their children's concerns with glitches and needs or parents' frustration with the unknown medium. As stated by Mr. Fernandez, "It's amazing how technology has become such a big issue and reality." The reality of implementing blended learning is technology plays an immense role, which can alleviate and create issues.

First and foremost, parents shared the children's tales of tragedy with technology. Mrs. Garcia aired her daughter's concerns, "She gets upset when it (device) glitches. And she's like, 'Oh no. I like pressed this answer and I know it was this one.'" Mrs. Alvarez extended upon Mrs. Garcia's comment with her son's words.

> "But I did the wrong one and instead of being with the teacher I could go into the different stations. I could go into the different stations" and do the fun…you know math, Imagine Math, or whatever else that they have in the different stations.

Mrs. Jaramillo provided another perspective, "What I think that my son's struggle is he would do it right on the paper…show words everything but when it's time to put the right answer I guess miss clicking; I don't know."

In addition to the technical glitches which impacted students, parents also voiced their concerns about technological needs. Mrs. Jaramillo commented, "Some kids maybe they don't have the technology at home." Mrs. Cesnes clarified, "Which is about 80 some percent of our disadvantaged students (do not have devices at home)." Mrs. Martinez provided additional details.

> And fortunately, some of us can (have technology at home), but the ones that can't. I know the school has those things (technology devices), but when it comes to home…you know I've heard of kids that have to do it (flipped instruction) on their phone, as well. Or go to someone else's house to do it.

Mrs. Noyola added, "Or (students) go to the library. You hear those things. It's dangerous."

Parents also divulged their personal concerns about technology integration. Mr. Vega shared his apprehensions with technology.

> I agree with the dependency of the computer. I don't agree that they (students) know everything because it's taking them away from thinking. They put numbers in, and it gives them the answer. And I'm like no. Here's a pen and a paper. Figure it out.

Mr. Martinez added, "Or they (children) can ask Siri?"

Along with the parents' uncertainty about the role of technology in education, they also had concerns with their children's abuse of it. For example, Mrs. Cortez provided an anecdote about her daughter.

> Yes, mine like she would do her math homework. And I would see here like okay she's with her phone. And I'm like, "Oh no! Where are you going with that phone?" She's like, "Mom, I need it for my homework." I'm just like, "I couldn't never use a calculator."

Mrs. Jaramillo shared a similar tale about her son.

I'm not going to lie. I catch my son with Siri, "Give me a sentence with this word." And

I'm like, "Oh no!" So I be taking the phone away. But he's like, "Mom, they're videos."

"No, no, no, no. Give me your phone. Open my laptop. Sit at the table while I'm cooking,

you're watching it. Because there Siri giving the answer.

Mrs. Davila recounted how her daughter leveraged technology to complete her homework.

My kid tries to be a cheater, and she tries to go to the end and just copy it all down

because she does not want do the strategy. "I don't want to do it. I don't want do the

strategy." "Well I don't care. Rewind it."

Mrs. Macias explained how she handled technology with her son. "I really try not to let my son

use the phone unless he wants to check it. Like you can check it, but you gotta work it first and if

you got it wrong you gotta work it again."

Other parent concerns about technology extended beyond the students and more about

too much technology. Mrs. Noyola stated, "I feel like it's very cyber now." Mrs. Almazan added,

"It's a lot different. I think it works for them. But then you don't want your child on a screen

24/7." Mrs. Davila explained how too much technology impacted her daughter. "We got that

app that she had at speech…She had that constant stimulation. Now she has to be constantly

stimulated." Mrs. Cortez expressed her concern that students "not depend on the technology."

Mrs. Bautista announced, "All these options. Where they don't have to think. Where it's just a

click…it's making them lazy, too."

In the end, parents' concerns were linked to as Mr. Fernandez described, "I think we are

going to lose the teacher on that and everything is gonna be through online." Mrs. Valencia

added, "Yes, you still have kids that like more instructional than just electronic." Mrs. Bautista

proclaimed, "We want them to be thinkers!" Mrs. Jaramillo declared, "So we gotta balance it out."

Parent Recommendations. Some of the parents' positive and negative perceptions evolved into recommendations to improve math instruction. The most salient parent recommendations were associated with the "instructional enhancements" and addressed instructional components such as face-to-face instruction, differentiation of instruction, videos, the assessment process, and consistency across grade levels and campuses. Parents also recommended "extended instructional opportunities" beyond the four core subject areas. In addition, parents expressed a need to "enhance parent-teacher communication and knowledge", in order to support children at home. Furthermore, some parents expressed a desire to "discontinue blended learning instruction", in order to, address issues with math instruction.

Instructional Enhancements. As partners in the instruction of their children, parents recommended enhancing the blended learning instructional process. For example, parents articulated the need to extend the blended learning model of instruction to the primary and secondary grade levels. However, parents also emphasized the need to increase face-to-face instruction and the differentiation of instruction. In addition, modifications to flipped instruction requirements were voiced specifically the videos and assessment process. Moreover, parents reported the need for instructional consistency across the grade levels.

Children's academic gains and student agency growth prompted parents' recommendation to extend the blended learning model to primary and secondary grade levels. Extending blended learning to the primary grades was predominantly meant to facilitate the instructional process in the future, as well as develop student agency at a younger age. For example, Mrs. Herrera stated,

I believe it would be a good idea if they would introduce it (blended learning) at an

earlier age like for my son right now; he's in second grade. And if they're going to be

doing that at later grades, I think it would be important to introduce it. Like not at the

same level perhaps. But like just give him that introduction. As opposed to right now,

he's (second grade son) just working like with the worksheet, and he doesn't have the

video. I think if he'd have the video, he'd be able to be more independent like his sister.

And I mean if he's gonna be seeing that in the future I think it'd be beneficial.

In addition, due to children's positive experiences with blended learning instruction, parents

recommended the continued implementation to the secondary grade levels. Mrs. Valdez

commented, "*Este programa que está usted haciendo aquí. Y pues yo estoy contenta, verdad. Y

pues espero seguir contenta. Porque ya voy para otro, otro, otro grado más.*" (This program that

you are doing here...and well, I'm happy, right. And then I hope to continue to be happy because

I'm going to another, and another, and another grade.)

While parents recommended expanding blended learning, they also recommended

refining the instructional process specifically increased face-to-face instruction. For example,

Mrs. Bautista shared how blended learning should work. "So she gets hands-on or you know

face-to-face interaction, then she can go back to technology." In addition to more face-to-face

instruction, parents also expressed the need for more differentiation. For example, Mrs. Jaramillo

declared, "I believe they should teach different ways; not just one way. Maybe three options of

the same answer. Three options, and then let's see which one fits perfect for which kid." Other

examples of differentiation included the incorporation of hands-on instruction. For example,

Mrs. Cesnes noted that students would understand math better "if they had more hands-on math

activities." Mrs. Bautista added her thoughts about hands-on instruction, "It (math) could be a lot easier."

Moreover, parents focused on addressing components of flipped instruction. Parents stated concerns about the instructional videos and recommended the videos be updated. Mrs. Jaramillo explained how the videos are outdated as "the video is from last year." Parents explained that students need to hear their teacher teaching them, in order to personalize the experience and make connections with students. Another recommendation was to have students complete the daily instructional assessment at school. Mrs. Jaramillo provided the rationale for this request.

> My opinion is better for them to do it (assessment) in the class because actually the teacher could see it. I know sometimes we tend to help a little bit. Not to give the answer but to guide it how to get the answer. And that way the teacher could see how they (students) struggle like and to put more attention to those students. In my opinion, so I think it's the way they had that he could just watch the video and then whenever he gets to the classroom he answers all the questions.

Parents also noted the need for consistent strategies within and across grade levels especially due to the parents' role as an instructional support system at home. Mrs. Jaramillo explained, "We just gotta try to adjust as the parent, and you know be there as support." Mrs. Bautista added, "But there has to be consistency in the classroom because these are kids. There has to be consistency in the classroom…You have to start from day one. Get to it. Repetitive. And they'll learn it."

Parents' instructional recommendations aligned with their focus on the academic success of their children. Parents requested aligned and focused instruction for students, as well as

additional face-to-face and hands-on instruction. The suggestions for flipped instruction were meant to ensure assessment accuracy: thus, facilitating appropriate instructional support for students.

Extended Instructional Opportunities. While parents recommended improvements to blended learning math instruction, they also suggested embedding other content instruction into math. Parents provided examples of additional instructional components which could be incorporate into blended learning such as soft skills and art. Mrs. Herrera shared her thoughts about incorporating art into math instruction.

> I believe if arts would be available, she'd (her daughter) be more involved in math. Because that is one of her passions is art. She loves to draw, and she has applications where she draws. I believe that if art was involved somehow, it could be connected to math just like coding.

> Due to the increased employment of technology and diminished face-to-face communication opportunities, parents also emphasized the importance of soft skills like public speaking. Mrs. Almazan declared, "I think it (technology) works for them. But then you don't want your child on a screen 24/7." Mr. Vega added, "Man, I see some millennials that just froze up there (in front of a class). You put them in front of a computer. Man, they'll run circles around me." Mrs. Martinez provided an example how soft skills were vital to students.

> I can relate to that. My son who is 16; he's taking speech in high school and he says, "I can't. I get nervous." You know and everybody's different. But compared to my daughter, she'll get the whiteboard and you know start doing a lesson for everybody.

Parents agreed developing soft skills would not only be important to math but for their future.

The recommended extended instructional opportunities were meant to not only enhance math instruction but the overall student learning experience, which included the integration of art into math to piggyback on students' strengths and passions. Furthermore, parents proclaimed how the incorporation of soft skills into math instruction would prompt the development of lifelong skills necessary for a successful future.

Enhance Parent-Teacher Communication and Knowledge. The need to enhance parent-teacher communication and instructional knowledge was another focus of parents. They conveyed how additional knowledge about blended learning, the instructional status of their children, and methods in which to support their children at home would be beneficial. In addition, parents stated concerns about the continuation of parental communication beyond elementary, in order to maintain instructional excellence.

While parents detailed the success experienced by their children, they also verbalized the need to better understand the blended learning instructional process. Parents shared that communication about math instruction was more prevalent at the beginning of the school year but has sense lagged. For example, Mrs. Cesnes stated, "I think I remember the teacher explaining at the beginning of the year." Mrs. Macias added.

I think that was at the beginning of the year. I think for 5th grade also in the library...They were talking about STAAR testing or what they need to do as far as options. Besides Class Dojo, they had It's Learning and for them go in there if they needed help or what the plan is…objective like that. But other than that nothing really…not how they are learning it.

Mrs. Jaramillo explained how the limited communication about blended learning inhibited her ability to support her son.

I was surprised they were not doing no more the answer cause I saw Dominic watching the video. "Okay Mom, I'm done." I said, "Where's your answer? It's empty. Like where's you answer?" "No, no, we cannot do it." "No, you're going to do it." "No, Mom, I'm gonna get in trouble."

Mrs. Bautista extended upon the other parents' responses, "I just get reminders what they need to do and when to turn it on."

However, in order for communication between parents and teachers to be successful, parents also pointed out the need for parent learning and involvement opportunities. Mrs. Valdez remarked, *"Debe de estar constante en comunicación con la maestra."* ([Parents] must be constantly in communication with the teacher.) Mr. Vega divulged the rationale for his recommendation.

I feel that because we have been more dependent on technology. I feel that there has been less parent involvement and that was extremely evident this last PTO and you get figure out a way to get those parents back involved. We live in a new generation that…younger and their brighter and their trying to live the American dream. And I get all that but it's important to also stay involved with your kids.

Mrs. Macias recommended that parents "learn what the kids are going to learn…definitely some type of review. Cause what do we do? Go Google." Mrs. Mendez commented, "That would be nice." Mrs. Bautista proclaimed, "That's great for people who have time, right? But I don't so if they could email the information" that would help. Mrs. Mendez and Mrs. Jaramillo recommended the teacher send an "answer key" so parents could help check their children's work.

Parents also suggested teachers provide additional information about the academic status of their child, in order to better support their child at home. For example, Mrs. Mendez explained, "We don't know what areas they need to be working on. What they're learning." Mrs. Jaramillo articulated how obtaining additional assessment information would help her and her son.

> Me as a mom; personally I would like to see the results of the practice one so we know…what he (her son) is struggling so I know what I need to do at home to support him…This is the score. If this was the real STAAR, he would get this. This is what he need be working so in the future he could get this to this level.

The key as explained by Mrs. Vera is to "Saber cómo van nuestros hijos." (Know how our children are doing.)

By enhancing parental involvement and knowledge, parents necessitated the information and skills to better support their children. They declared a need to know what and how their children are learning. Furthermore, they requested multiple methods in which to attain this information. However, the unanswered underlying question was as stated by Mr. Vega, "We gotta figure out how to communicate with the parents."

Discontinue Blended Learning Instruction. Along with the recommendations to enhance the current blended learning model of instruction, parents also recommended reinstating the previous instructional designs to meet the diverse needs of learners. A few parents reiterate their concerns about meeting their children's needs and addressing the overwhelmed teachers implementing blended learning.

Parents expressed their concerns about addressing the instructional needs of students. Mrs. Mendez explained, "Now everybody (students) is mixed together like low, medium, and

high, and they're trying to throw one way of teaching. And it's not working." Mrs. Bautista added, "They need to teach different." Mrs. Jaramillo said, "Because one way; I think (is) not (for) everybody."

Mrs. Cesnes proclaimed, "I never liked the math flipped learning. I just don't think anything's gonna replace the one-on-one of the classroom." Mrs. Cortez specified, "the old fashion one-on-one." Mrs. Jaramillo noted, 'Especially for those students that need that they actually need the teacher in there."

Furthermore, parents pointed out that teachers' also wanted to stop the implementation of blended learning, in order to enhance the instructional setting. Mrs. Noyola pointed out,

I feel like at the end of the day teachers may be so overwhelmed with these new

programs being introduced…Perhaps you know this being on the computer doesn't work

for him…Because the teachers are so overwhelmed. And you know they got 20 students,

and they got so much going on that they have to do; state required.

Mr. Vega expanded upon Mrs. Noyola's perceptions,

So I think some of the teachers as she alluded to may feel overwhelmed because they're

trying to learn a new system…they trying to learn a new way of teaching…We're trying

in my opinion way too much to change things from one year to another. And

unfortunately the ones that carry the burden are the teachers and then on the flip side the

students have to you know, "Well that's not how we did it last year." And it's confusing.

It creates a confusing environment. And heavy for the teachers.

Overall, the parents aired their concerns about meeting the individual needs of their children and addressing the frustrations of the teachers. Parents emphasized the need to individualize instruction and address students who struggle with online instruction. In addition,

parents detailed the need for the one-to-one face-to-face instruction; thus reinforcing the essential role of the teacher. Additionally, parents empathized with teachers and noted the impact of teachers' frustrations on their children. Mrs. Mendez summed up their recommendation, "I just wish they would go back—old school. You know they need to learn."

The parents' recommendations ultimately related to the enhancement of students' instruction and success. Whether teachers enhanced their instructional strategies to address their children's needs or adjusted the flipped instructional model to provide additional support, parents detailed the need to reflect upon the blended learning instructional model as they move forward. Parents also divulged the need for additional parental support and knowledge about the instruction of their children, as well as leveraging the parent-teacher partnership. Moreover, some parents proclaimed the need to discontinue blended learning, in order to address all of the above instructional needs.

Parents perceptions of the transition to blended learning yielded both positive and negative insights and recommendations to administration and teachers, which aligned with the analysis of blended learning artifacts facilitated. The blended learning artifacts analyzed included the drafted *Raising Blended Learner (RBL) Indicators and Outcomes Examples* document and *Data Driven Planning (DDP): Where are we? artifact*. Based on the analysis of artifacts and the triangulation with the parents' perceptions two major themes surfaced: "congruence between artifacts and parents' perceptions" and "incongruence between artifacts and parents' perceptions".

Congruence between Artifacts and Parents' Perceptions. The analysis of the *RBL Indicators and Outcomes Examples* artifact resulted in specific areas of congruence with the parents' perceptions about the transition to blended learning specifically in the *Student* and

Teachers, Leaders, and Schools sections. While there was significant alignment between the students' "increased student engagement", "ownership of learning", "technology integration", "strong relationships", there were also examples of "increased resilience", "increased academic rigor", "increased peer collaboration", and "self-confidence".

Based on the parents' perceptions, the most salient areas of congruence were those linked to student agency and the motivation to learn (student engagement), which highlighted the growth of their children's independence and leveraging of online resources. For example, Mrs. Martinez shared her child had not only become a responsible and independent learner but spent her evenings assuming the role of the teacher, as she taught her math skills. In addition, Mrs. Davila shared how her child was self-driven to expand her math knowledge through Imagine Math. Parents also described their children as technology savvy, which increased their motivation and excitement to learn and how learning was described as "fun" by their children especially through online resources like Prodigy and Imagine Math.

While online resources facilitated increased academic rigor through the employment of technology, the stations (centers) described by parents also supported students' opportunities for peer collaboration and technology integration. For example, parents described multiple opportunities for stations with technology integration like activities on iPads and computers, as well as online resources like Imagine Math, Imagine Math Facts, Prodigy, SeeSaw, and Epic. Parents also attributed the collaborative opportunities at stations, as one of the pivotal factors for their children's increased self-confidence; whether it meant asking their peer a question or providing support to a peer. Mrs. Jaramillo explained that her son was more adept to request support form a peer than his teacher, which also aligned with the development of student agency,

the resiliency to overcome instructional obstacles, and the trusting relationships established amongst their classmates.

While trusting and supportive student-to-student relationships were evident, parents also provided a variety of anecdotes demonstrating the support their children received from their math teacher. Parents acknowledged how supportive teacher relationships increased their children's self-esteem and resulted in elevated self-confidence and academic achievement. Furthermore, parents attributed their child's independency and resiliency due to the flipped video instructions which provided multiple online resources for students to leverage as their learned new skills. Overall, there were similar patterns of congruence between the parents' and students' perceptions to the *RBL Outcome and Indicator Examples.*

Based on the analysis of the *DDP: Where are we?* artifact and its comparison with the parents' perceptions, the student agency component described by teachers was reinforced by parents' perceptions about online resources. Parents delineated the various opportunities to monitor and extend learning through online resources, as well as the incorporation of flexible stations. For example, in the *DDP: Where are we?* document teachers conveyed students' utilization of the Imagine Math point system to monitor their progress, which aligned with parents' depictions of their children's utilization of Imagine Math at home. Parents explained that their children's drive to complete Imagine Math lessons at home was predominantly due to their competitive nature and their desire to be recognized on the Imagine Math Leader Board. Parents also highlighted how Imagine Math afforded their children the opportunity to expand their learning beyond their grade level skills, which was also emphasized by both teachers in the *DDP* document. For example, Mrs. Davila touted that her daughter had completed the fourth

grade Imagine Math curriculum and was in process with the fifth grade material by the middle of the school year.

While the online resources facilitated multiple opportunities to extend students' attainment of knowledge, parents also applauded how stations had increased their students' desire to learn. Parents praised the teachers for the employment of flexible seating and inclusion of "choice" stations, which was another component of the student agency section noted in the *DDP: Where are we?* document. An example of this was depicted by Mrs. Valencia when she detailed the inviting environment of the stations. Mrs. Alvarez also commented that her son was motivated to perform well on his flipped instruction lessons in order to participate in the stations of his choice.

Incongruence between Artifacts and Parents' Perceptions. While the analysis of the artifact, *RBL Indicators and Outcomes Examples* aligned with several of the parents' positive perceptions about the transition to blended learning, parents also delineated areas of incongruence specifically in the *Teachers, Leaders, and School* section and *Parents and Community* section. In the *Teachers, Leaders, and Schools* section, parents depicted a diverse view of the "classroom practices" which pertained to teachers' practices of "upholding blended learning norms" and the "relevancy of the assignments". For example, as parents in different grade levels shared their experiences with the transition to blended learning, there were distinct differences in the blended learning practices across grade levels. One such variance was the implementation of flipped instruction, which was a common practice in all blended learning classrooms during the 2018-2019 school year as noted by both the interviewed students and parents. In addition, parents from both grade levels articulated a decline in their children's discussion about goal setting unless related to Imagine Math, which parents previously perceived

as a common practice. Parents also provided diverse descriptions of the implemented online resources and requirements. For example, fifth grade parents commented that their children did not utilize Imagine Math at home as much as when they were in fourth grade. However, fifth grade parents did reference their children's use of Prodigy instead of Imagine Math. When parents described examples of flipped instruction and instructional strategies, there were also concerns divulged about the relevancy of the assignments and strategies. Moreover, some parents disclosed their children's frustration with the flipped instruction lessons and their unwillingness to complete lessons.

Parents also divulged incongruences with "teachers' confidence and motivation" to deepen their blended learning practices, as well as the "teachers' role as facilitators" also described in the *Teachers, Leaders, and School* section. Parents' perceptions of the teachers' role in the implementation of blended learning portrayed teachers as required to implement blending learning versus buying-in to blended learning. Parents also depicted teachers as frustrated and struggling with the required implementation of blended learning. In addition to the concerns about the teachers' confidence and motivation in implementing blended learning, parents' perceptions about teachers as facilitators was not aligned with those represented in the *Teachers, Leaders, and School* section. Some of the parents expressed concerns about their children's frustration with the flipped instruction lessons and the lack of teacher support. Parents also reported that flipped instruction lessons required parents to assume the role of the teacher. Each of the discussed misalignments revealed concerns about the teachers' role in the implementation of blended learning, which according to parents impacted the instruction and academic success of their children.

While parents made known their appreciation of the additional instructional support and learning opportunities provided through blended learning, there were significant incongruences with the *Parents and Community* section. Based on the parent interviews, parents' "understanding of the blended learning goals" and the parents' "support of blended learning" did not align with the indicators and outcomes delineated in the *Parent and Community* section. Throughout the focus group interviews parents' descriptions of blended learning instruction were skeletal and aligned with the information or assignments shared from their children. While a couple of parents were able to provide extensive details about stations, online resources, and the definition of blended learning, the majority of the parents were unaware of blended learning terminology including the definition of blended learning, the term "stations", and goal setting. When parents were asked about the differences between blended learning and traditional instruction, their predominant responses were associated to the employment of technology instead of the opportunities for their students to assume control of their learning (Horn & Staker, 2015). While some parents expressed specific concerns about the implementation of blended learning, a third of the parents proclaimed their dislike of blended learning and desire to return to a traditional instruction format. Moreover, the analysis of the *RBL Indicators and Outcomes Examples* artifact provided a contrasting view of parents' perceptions, as the number of incongruent examples superseded those which aligned.

While the *DDP: Where are we?* document analysis yielded several examples of congruency with parents' perceptions, there were also areas of incongruence specifically with the goal setting component. It was evident that during the 2019-2020 school year goal setting and mentoring was a structured component of blended learning. However, during the parents' focus group interviews, parents' recollection about goal setting for the 2020-2021 school year was

134

minimal. For instance, parents' goal setting descriptions were most commonly recollections of their children meeting or superseding their Imagine Math goals. Furthermore, parents did not mention the incorporation of mentoring nor the use of any other monitoring devices than those incorporated in the online programs.

Research Question 3: What is the impact of transitioning from a traditional instructional model to a blended learning model of math instruction on a selected South Texas elementary public school's culture?

Research question three focused on fourth and fifth grade students' and their parents' perceptions about the impact transitioning to blended learning had on the school culture. After analyzing the students' and parents' candid responses, the same three major themes surfaced: positive perceptions, negative perceptions, and recommendations. In addition to the analysis of student and parent focus group interview data, the analysis of blended learning artifacts facilitated the triangulation of the stakeholders' perceptions associated with school cultural, which resulted into two other themes congruencies and incongruences with students' and parents' school cultural perceptions.

Table 2: Emergent Themes and Subthemes Aligned with Research Question 3 (see Table 3 below) addresses the major themes and subthemes associated with the third research question associated with the impact of transitioning to blended learning on the school culture at Seaside Elementary. The first row in the table is intended to focus the reader on the research question, which will be addressed. The table organizes the three salient themes which emerged from the students' perceptions. Beneath each salient theme, there is a listing of the subthemes for each major theme. Furthermore, the researcher included the two salient themes which transpired due to the triangulation of the students' perceptions and the analysis of the blended learning artifacts.

Table 3 Emergent Themes and Subthemes Aligned with Research Question 3

Research Question 3: What is the impact of transitioning from a traditional instructional model to a blended learning model of math instruction on a selected South Texas elementary public school's culture?

	Emergent Themes		
Salient Themes	Positive Student and Parent Perceptions	Negative Student and Parent Perceptions	Student and Parent Recommendations
Subthemes	Negotiating the Digital Divide	Change Process	Instructional Issues
	Uplifting Ethos, Spirit of Culture	Instructional Focus	Negotiating the Digital Divide
	Future Aspirations	Competitive Environment	Parent-Teacher Partnerships
		Role Reversal	

	Additional Themes based on Blended Learning Artifact Analysis Congruence and Incongruence with Student Perceptions	
Salient Themes	Areas of Congruence	Areas of Incongruence
Subthemes	Collaborative Environment	Culture of Fairness and Respect
	Strong Relationships with Staff	Blended Learning Communication with Parents
	Uplifting Instructional Environment	Supportive Environment for Teachers
	Technology-Rich Environment	Lack of Mentoring
	Increased Confidence and Self-Direction	
	Student Agency	
	Trusting and Safe Environment	

Student and Parent Positive Perceptions. Throughout the focus group interviews, the most prevalent perceptions revealed various examples of how blended learning instruction attributed to an enhanced school culture. One of the most prominent perceptions resulted in the subtheme "negotiating the digital divide", which addressed the impact leveraging technology with digital learners had on the school culture. Due to the focus on school culture, another prevalent theme was an "uplifting ethos, spirit of the cultures", which evolved from the transition

136

to blended learning instruction. In addition to these subthemes, parents and students also depicted the subtheme, "future aspirations". A common thread amongst these subthemes linked to the instructional component of blended learning, as described by both students and parents throughout the interviews.

Negotiating the Digital Divide. According to Prensky (2001) "digital natives" are accustomed to interacting with digital platforms, such as the Internet, social media sites, video games and multiple technical devices; thus, transforming their thinking and learning process. Both parents and students provided multiple examples of how the school culture of Seaside Elementary was intermingled with technology and had met the needs of students.

Mrs. Almazan stated, "I think it's (instruction) technology driven as opposed to when we learned…They do everything that's on technology these days." Mrs. Cesnes added, "I guess that technology has taken over." Mrs. Jaramillo described her surprise by how long technology has been in her son's school. "I was surprised because I didn't remember but my son's like, 'Mom, in kinder we used to use this. In first grade, we used…' I'm like, 'Wait, how do you remember?' 'Cause I do remember.' I'm like, 'Oh, wow.'" Furthermore, students delineated the numerous online resources which were embedded into their daily stations such as Imagine Math, Imagine Math Facts, Prodigy, Epic, and SeeSaw.

Keenwe et al. (2014) and Tucker (2012) emphasized that while technology is often readily available to students, it has not been leveraged to its fullest potential to engage students in the learning process. However, at Seaside Elementary parents' and students' perspectives yielded several examples of how technology enriched the instruction, motivation, and learning opportunities for students, which aligned with Prensky's (2001) depiction of transforming the learning process by leveraging digital platforms. Lee described online instruction as

"fun…especially when there is internet or WIFI, we…use the computers…we just do Imagine Math Facts." Melissa expressed how online resources motivate her to learn, "You could earn it (points) when you pass all of them (tasks). You earn it or if you already have a lot of points, you can go to the store and buy some stuff." Bettina added, "(Imagine Math) feels good. I have gotten to the pass but I've been really getting a lot of lessons with it. It's pretty fun to do."

In addition to creating a school culture integrated with technology and online resources, parents and student described the multitude of flexibility and learning opportunities for students. Gabriel depicted how his teacher leveraged technology for flipped instruction, which allowed him flexibility in the learning process "Cool part about it (It's Learning–learning management system) that you could take…you could be anywhere right for the phone tablet, or laptop, or anything and you sign in with it." Mrs. Chavez described how this was different than when she was in school.

> No existía la computadora tampoco entonces siempre era en el pizarrón. Esperar que la maestra diera la lección y aprender. Y no había centros. Siempre las bancas así, como las acomodaba la maestra. No podías cambiar ni siquiera con el amigo, la amiga en ningún momento del día. Siempre tenías que seguir las instrucciones de la maestra. Siempre esperar a lo que ella te enseñara. Nunca te podías adelantar. No sabías ni adelantarte. No pues no había los recursos que hay ahora, en nada. Creo que ha cambiado 100% para bien. Porque los niños avanzan como quieren. Cómo según su capacidad. Me gusta más ahora. (The computer didn't exist either so it was always on the board. Waiting for the teacher to give the lesson and learn. And there were no centers. The benches were always like this (moved arms up and down), as the teacher accommodated them. You could not change even with a friend at any time of the day. You always had to follow the teacher's

instructions. Always wait for what she will teach you. You could never get ahead. You

didn't even know how to get ahead. Because there were no resources like now, in

nothing. I think it has changed 100% for good because the children advance as they want.

According to their ability. I like it better now.)

Along with providing students the opportunity to advance, Mrs. Valencia detailed how she

leveraged the digital platform, Class Dojo to obtain support for her son.

> And if he has a question. She helps. And there are sometimes, I literally cause he does,
>
> "Mom, can you go to Class Dojo and ask Ms. Hernandez this." And I tell my son,
>
> "Really!" He goes, "Please, please.' So I'll actually message her, and she messages right
>
> away on Class Dojo.

From the student perspective, Linda divulged how she leveraged technology to extend her own

learning when she approached a new skill in Imagine Math, as described by Horn and Staker

(2015) as student agency. "I could pass something (lesson). I could just grab an iPad and search

it up."

The Seaside culture is one littered with diverse opportunities for teachers, students and

parents to leverage technology to facilitate academic success. In addition, digital natives" have

become active participants in the learning process, which requires genuine learning opportunities

to facilitate active engagement (Golding, 2011; Gordon, 2008; Tucker, 2012; OECD, 2009).

Uplifting Ethos, Spirit of the Cultures. According to the experiences detailed by parents

and students during the focus group interviews, Seaside Elementary displayed the attributes of an

uplifting ethos, which aligns with Deal and Peterson's (1991) definition. The school environment

depicted by parents highlighted the welcoming feeling experienced as they entered the school.

Mrs. Valencia shared, "You feel the difference in all the other campus than here. You feel more

welcome here than somewhere else." Mrs. Garcia explained, "It's important for the student

morale, the teacher morale to be you know to be good...to have them feel like that this is a place

where they want to be. So I really like that too." Mrs. Chavez provided additional details about

the supportive school environment.

> I really like this school. They are very strict. They are very punctual; always in the events
>
> that invite us, when class starts. I like that my son is happy. It is the important thing for
>
> me. And I don't know how but, they make children happy.

Mrs. Alvarez added her thoughts about the environment, "I also like the friendliness of the staff

and teachers here at this school."

Another attribute of Seaside's uplifting ethos was the open lines of communication which

provide transparency and support between the school and the home. Mrs. Fernandez proclaimed,

"Communication is awesome. It's very positive communication at the school not just one or two

teachers. It's pretty much everybody. Whatever you need is given to you." Mrs. Garcia conveyed

how communication and utilization of Class Dojo at Seaside Elementary benefited her family.

> I personally like all the parent-teacher communication. I was a student for the last three
>
> years so a lot of the times it was going to and coming and sometimes you know I had
>
> questions because I want to be on top of my kid's education but I wasn't always able to
>
> be you know at all the functions. So I really do love Dojo. I really do love how I can
>
> message the teacher, and they get to me you know as soon as they can. The
>
> communication even if it's over an assignment or if it's over something that happened in
>
> the classroom. I really like that a lot.

Mrs. Cesnes added, "I like that my daughter's teachers use Class Dojo to get information to me because she forgets to give me information." Overall, Mrs. Garcia noted "I feel like the elementaries have amazing communication with the parents."

While parents highlighted on the environment and communication, the students and parents both emphasized the relevance of the supportive instructional staff and environment to Seaside's heartening culture. Mrs. Valencia revealed her child's experiences with his teachers.

> He (her son) loves Ms. Hernandez. He says Ms. Hernandez is the best teacher. Why because…I guess she has so much confidence in him that he knows that he knows that he's going to okay because Ms. Hernandez goes, "You already studied this. You're going to do okay. You'll be fine." And goes over with everything. And on homework-wise she puts everything on Class Dojo, sends us messages of what your child has on homework, and exercises. That if your son doesn't know it but then you go into Class Dojo she did example. I think that is great cause sometimes I don't know how to help my son but then I'll go back into Ms. Hernandez' Class Dojo and she has examples of how to help him.

While Mrs. Valencia stated their instructional experiences with Ms. Hernandez, Mr. Fernandez recounted his family's experiences with Ms. Juarez, his daughter's math teacher.

> Ms. Juarez is…she's amazing. She breaks it down pretty much to where they understand. And if there's an issue you can easily just use the Class Dojo with her and communicate with her through any little situation we go through.

Mrs. Fernandez divulged her rationale for the extended teacher support. "I like that the younger teachers. I don't know if it's just because they're still passionate cause they're fresh out. You know but they do. We're gonna, 'Oh we're going to do this and that.'"

Several children explained that their teachers were understanding and helpful, which created a conducive learning environment. Beto stated, "They're (teachers) nice." Zoe declared, "They're (teachers) helpful." Bettina pointed out, "They (teachers) help you when you don't understand." Gabriel detailed the instructional environment.

She'll be in the middle and all be surrounded. And she would teach us all…It's just for you to understand it because she wants you to learn and make sure that you understand that lesson; for you could get it next time. And so that's (teacher station) there for we could understand so like if you need help with it, you could just remember what she taught you again.

Gabriel summed up the students' perceptions about math.

The teachers that teach math…it's like they teach it as a fun way…They start like more...like understanding you, helping you. They start slowing down. And they like have more fun. Like because…like first grade stuff…you'd be in the desk writing and the teacher's just up there…just teaching the whole class…right like hardly doing any stations. Right? You just want to get up and leave. Now it's just like…it's fun. It's like you wanna learn math now. You wanna learn.

Marissa explained her experiences with the teacher. "I like to go to the teacher all the time because when you understand it you can still go over there and she'll make it fun." Melissa voiced her perceptions, "Kids would be playing the games and other stuff (in stations). Kids likes to learn the fun way that motivates us to learn."

A subsidiary element of instructional support depicted how instruction was heightened by the collaborative atmosphere. Mrs. Cesnes shared how the students "communicate with each other", and Mrs. Cortez added that they "help one another". Mrs. Juarez summed it up by

describing the collaborative efforts as "teamwork". Marissa explained, "You don't have to sit there (in a collaborative station) quietly. She'll let you talk when you are done with the question." Mark elaborated upon how students collaborate and support one another. "The teacher chooses us to help her (new student) but sometimes when the teacher isn't like around, we'll help her ourselves, and we'll tell her like how to get on It's Learning and Imagine Math and how to do it." Gabriel summarized the concept of collaborating with, "You all have to work together."

Future Aspirations. Parents and students also emphasized how Seaside Elementary created a culture of student agency and independence, in order to prepare students for the future. While student agency and independence can facilitate a successful future, they are also attributes of blended learning. Horn and Staker (2015) highlighted how in a blended learning environment a "student learns at least in part through online learning with some element of student control over time, place, path, and/or pace at least in part at a supervised brick-and-mortar location away from home" (p. 53). The flexibility with learning allowed students to expand their learning opportunities along with the challenging learning opportunities to prepare students for the future.

A culture of independence was noted by parents, as they described how their children completed their homework without parent guidance. Mrs. Davila divulged how it took her time to release control of homework time, "We've gotten to the point where I can trust her (daughter) to do it (homework) on her own." Mr. Fernandez detailed how he supports his daughter's independence. "We still supervise but at a distance; to where we don't have to be on top of her (daughter)." Mrs. Herrera shared, "She (daughter) wants to do it (homework) on her own and that's good...so she's more independent." Mrs. Garcia added, "I think it is good because that helps the kids become more independent."

While the school culture contributed to the student agency and independence, there was also an increase in rigorous instruction, which facilitated the preparation for future aspirations. Mr. Vega exclaimed his excitement about the evolution of Seaside Elementary, "I went to Seaside. So I love that we have progressed so much." A portion of this change was attributed to the complexity of Imagine Math. Mark proclaimed, "It (Imagine Math) challenges you." Linda disclosed how Imagine Math extended her learning opportunities from fourth to fifth grade through Imagine Math. "I have learned all the math, and I am in 5th grade already." Bettina and Beto commented that in general school at Seaside Elementary was more "challenging". Mr. Fernandez touted, "It's good because it's teaching them for the future."

The parents and students praised the culture cultivated at Seaside Elementary for its focus on challenging students, while developing independent learners. Both stakeholders attributed the positive school culture to the open lines of communication and collaborative environment, which resulted in an instructionally supportive culture. These attributes described by students and parents supported the shift in the school culture to one focused on student success as stated by Mark. "Before the homework was easy and the kids really didn't want to study at home; but now they do."

Negative Student and Parent Perceptions. While parents and students attributed the positive school culture at Seaside Elementary to the welcoming environment, open lines of communications, and diverse instructional support, they also had concerns about the school culture and shift to blended learning. For instance, parents attributed some of the tension amongst educators about blended learning to the "change process" employed by administration. Parents and students had concerns about the "instructional focus" of Seaside Elementary on the state assessment. In addition, both stakeholders expressed apprehensions about the "competitive

environment" derived from the transition to blended learning. While "negotiating the digital divide" was perceived as a positive perception, there were also worries about balancing the face-to-face instruction and integration of technology to ensure a positive environment. Furthermore, parents divulged their distress about the "role reversal" of parents becoming the instructor at home, which developed a negative perception of the school ethos.

Change Process. As parents provided feedback about the shift to blended learning, they noted concerns about the change process and its impact on Seaside Elementary teachers and students. According to Kotter (2002), there are eight essential steps for change, in order to ensure sustainability. One of the Kotter's (2002) foundational steps is the necessity to develop a shared vision with stakeholders, which ensures all stakeholders are prepared for the change process. However, Mrs. Davila divulged, "I guess nobody was ready for the change; maybe it was spring too fast." This perception was further amplified by Mrs. Cesnes' comment, "They're (teachers) just following the curriculum…It's not that they just decided let's just put on the video." Mrs. Noyola added, "At the end of the day, teachers may be so overwhelmed with these new programs being introduced."

In addition, parents expressed concerns about the lack of communication about the shift to blended learning, which Kotter (2002) specifies as one of the eight steps necessary to facilitate buy-in from stakeholders. For example, Mrs. Mendez disclosed, "I don't think I've heard not a word (about the shift to blended learning)". Mrs. Bautista added, "Maybe at the beginning (of the year)". Mrs. Cesnes provided additional information.

> "I think I remember the teacher explaining at the beginning of the year. I want to say last year…about that blended learning or the way they were learning math. She just said that they were going to watch a video and if they don't pass it tomorrow or the next day, I will

put them in a group. Whoever needs the extra help, and I will go over it with them. And if they understand it, then they can get on the computer…But I think that is the only time." Mrs. Macias clarified, "I think it was at the beginning of the year. I think for fifth grade also in the library. But then that was it." These examples of diminished communication facilitated the strained perceptions about blended learning and the experienced stress by teachers and students.

Instructional Focus. In addition, to the intensified change process, parents and students detailed concerns about the strained instructional environment for students. Parents expressed their concerns about the augmented amount of testing and the lack of support. Mrs. Davila shared "Testing…Man, they test a lot. It's like a lot. To me that's too much." Mr. Fernandez added that there was more testing than "how we were in school". Mrs. Valencia divulged her worries about the instructional support. "They (teachers and administrators) took all the tutoring only to the ones that that feel that they need it…Like my son, he had very good grades but he still needs a lot of tutoring in English."

However, more concerning than testing were perceptions that the quality of instruction had decreased due to the implementation of blended learning; thus, creating a sense of disappointment with the school and staff. Students' perceptions not only included their experiences but those shared by their parents. For example, Mario disclosed his mom's opinions about flipped instruction. "My mom would get mad because she thought we weren't learning anything from the videos." Lee piggybacked on Mario's response and conveyed his mother's beliefs. "My mom would get mad because she thought it (videos) was a waste of time." Mario interjected on Lee's comment, "It (video) is (a waste of time)." Parents' perceptions were similar to students' except for the additional concerns about flipped instruction and its impact on the learning environment. Marissa explained, "Like the teacher, she'll ask us and then we'll try to

146

answer but there it (video) just gives you the answer. It's like you're learning nothing." Olivia reaffirmed, "They (videos) are practically giving you the answer."

In addition to the perception of a diminished learning environment, parents and students described how the instructional environment was tense among students because of the competitive and untrustworthy environment. Marissa depicted one of the situations attributing to the uncomfortable learning environment.

> Kids that do it (video) at home, they get help from their parents while other kids don't. And then they get to go to the green station but when it comes to testing…they fail. And Mrs. Hernandez gets mad at the whole class because they get the answers from their parents.

Olivia conveyed her opinion, "And it's (getting help from parents) kind of not fair". While Zoe stated that, "You just copy off the video", Mario explained how cheating started for him. "I accidently pause it on accident, and I am like 'Oh no.' Then it just shows the answers. They (teachers) don't even care. They think I did it on accident." Mark explained he only copies the answers sometimes. "The reason I rushed that time; it's because I didn't want to miss my cousin's birthday." Mrs. Davila confided, "My kid tries to be a cheater, and she tries to go to the end and just copy it all down because she doesn't want do the strategy".

In addition to copying from the video, students also shared concerns about the security of the system and the lack of trust between the teacher and the student. Marissa described how the flaw in the online system began.

> They (teachers) put our ID number on there (chart) and so everyone saw them. So they were logging into everyone's thing (account), and then they were looking at the answers. Oh, like this one's right and this one's wrong. Don't look at that one.

147

Mario provided additional information.

> Then they changed the passwords. Like everybody had their own passwords. It was so bad because people were finding out that the password was just the first letter of their first name and the last letter of their last name, and then the last three digits of their code. Then, everybody started getting it (passwords).

Marissa provided insight into the lack of trust between the teacher and the student. "She (teacher) think if you don't write it (answer) down…she thinks that you're copying off somebody or somebody else's paper. I could do must of the stuff in my head." Linda stated, "I'm good at math but we still have to write it (strategies) down so she'll know we are not copying." Gabriel revealed his way of dealing with the lack of trust. "They why I do most of my homework in school. That's why I time myself. If I do it fast, right? She can tell that I'm not cheating."

> In addition to manipulating the flipped learning videos, parents shared their concerns about their students leveraging technology to circumvent the learning process. Mrs. Cortez provided an example of how her daughter manipulated technology to complete her assignments.

> Mine, like she would do her math homework, and I would see here like okay she's with her phone. And I'm like, "Oh no. Where are you going with that phone?" She's like, "Mom. I need it. For my homework."

Mrs. Jaramillo divulged that her son utilizes Siri to assist him with work.

> I'm like, "Oh no! So I be taking the phone away. But he's like, "Mom, they're videos." "No, no, no, no. Give me your phone. Open my laptop. Sit at the table while I'm cooking, you're watching it."

Mrs. Macias explained how she addressed her child's use of technology on classwork. "I really try not to let my son use the phone unless he wants to check it (problem). Like you can check it, but you gotta work it first, and if you got it wrong you gotta work it again."

Competitive Environment. Along with concerns about impeded relationships due to trust issues, parents and students also voiced their concerns about the strained environment due to the competitiveness amongst students. Mrs. Davila described how the online resources have facilitated animosity between students.

> I think the videos (online resources) have helped. I don't like though what…at least my kid…it has created more competition for her because at one point one kid came in and told my daughter, "My mom said I have to beat you at Imagine Math." So they're creating competition between the kids. And that's why…the only reason I don't like the Imagine Math. It's just the competition thing. This intensifies her competition within herself and that is intense enough.

In addition, Mr. Fernandez noted that his daughter struggled with losing, "You're gonna have to lose one day. We don't always win." Another type of competition expressed by the students was the competition between the different classes. During the session, Lee exclaimed, "We are more advanced than them (other students in another class). We get harder stuff."

Negotiating the Digital Divide. In addition to the perceptions of strained relationships and tense and limited learning environments, parents and students shared concerns about the impact leveraging technology had on students and the instructional environment. One of the repeated concerns about the technology rich environment was balancing technology with face-to-face instruction, in order to be a true blended learning environment (Horn & Staker, 2015). Mrs. Fernandez explained, "It's amazing how technology has become such a big issue and reality."

Mrs. Almazan shared, "They (students) do everything that's on technology these days. It's a lot different. I think it (technology) works for them (students), but you don't what your child on a screen 24/7." Mrs. Davila added, "Now with all the technology; they're constantly stimulated." Mrs. Cesnes stated, "I guess that technology has taken over."

While technology must be balanced with quality face-to-face instruction as described by Horn and Stalker (2015), access to technology must be balanced, in order to ensure equity amongst students. Mr. Fernandez explained why not all students have equal access to technology. "As long as I think the teachers grow or the district grows with the technology. I mean, I know we're kind of like on a budget with that. It's kind of hard." Mrs. Jaramillo pointed out, "Some kids maybe they don't have the technology at home so we got a balance it out." Mrs. Cesnes clarified that it is "about 80 some percent" of the students who do not have technology because they are "our disadvantaged students". The students also expressed concerns about the fairness for students without technology. Marissa shared her concern, "I didn't really like it (flipped instruction) because some kids don't have the technology at the house to do it. And the teachers would get mad at them." Olivia conveyed her dismay by the repercussions, when students did not have technology at home. "If we didn't do it (flipped learning lesson), we would get either lunch detention or like no recess", which was unfair for students who did not have access to technology at home.

Role Reversal. Another concern about the instruction of their students related to the role reversal experienced by parents, who are now also their child's teacher at home. Mrs. Jaramillo verbalized her anxieties from assuming the instructor role.

I mean in my opinion, I think as a mom, well most of us, we work. It's a little be a

challenge. Just the fact, that we had to sit next to them or be sure that they actually

watching the video instead of be distracting.

Mrs. Noyola revealed why and how she assumed the role as the teacher.

And the education system might not be caught up with the teachers being overwhelmed,

the children being overwhelmed, and the parents you know having full-time jobs and

being overwhelmed. At the point, Seaside Elementary might not be caught up so you

know I gotta step up and figure out what…how teach him…how my son learns different.

Mrs. Cesnes recounted what happened when she retaught her child at home. "I taught my

daughter touch points, and she got in trouble with her teacher cause she wasn't showing her

work. I would tell her just draw whatever it is but figure out the answers with the touch points."

While the parents and students described their negative perceptions about the transition to

blended learning, they were predominantly related to the instructional aspects. For instance,

parents and students expressed concerns about the emphasis on the utilization of online

instruction versus the face-to-face teacher instruction, which focused on the flipped instruction.

While there were issues with negotiating the digital divide, parents expressed issues with the

expectations of parents to become the at-home teachers, role reversals in instructional practices.

Student and Parent Recommendations. Based on parents' and students' negative

perceptions a set of recommendations to enhance the school culture centered upon the necessity

to address "parent-teacher partnerships" and "instructional issues". Parent-teacher partnerships

focused on addressing communication gaps and partnering in the success of their students.

Instructional issues focused on "negotiating the divide" by ensuring equity amongst students.

While students are considered digital natives and are able to construct knowledge, this

151

transformative process requires students to become active participants, thus requiring genuine learning with the teacher (Golding, 2011; Gordon, 2008; Tucker, 2012; OECD, 2009, Ng, 2012).

Instructional Issues. In order for this transformation to occur, parents and students both recommended an increased teacher component in the instructional process. As explained by Mrs. Davila, it is essential that students receive the support necessary to succeed. "Because there are kids that need more. And the kids who get the green like can keep going. And then once they get to the point that they don't get it. Then, they will go to the teacher." In order for this to occur, teacher must maintain a balance between the digital resources and the face-to-face instruction provided by teachers, as described by Horn and Staker (2015) "the best of both worlds—the advantages of the traditional classroom, combined with the benefits of online learning" (p. 73).

In addition to the need to provide instructional support to students through a balance of face-to-face instruction, students also recommended increasing collaborative learning opportunities as described by Horn and Staker (2015). For example, Marissa explained the need for more time in stations because "sometimes we have fun activities, but we don't have them as often…like make it more fun." Mark added the need for "having more math games", which will develop problem solvers, who can think critically both in collaborative and individual settings, in order to meet the demands of 21st century business world (Rotherham & Willingham, 2009; Tucker, 2012). Mr. Vega also shared the need to "take every opportunity to teach the kids why it's important", which aligned with incorporating genuine learning opportunities (Golding, 2011; Gordon, 2008; Tucker, 2012; OECD, 2009, Ng, 2012). From a different perspective, Mrs. Noyola extended upon the necessity for teachers to "just making them confident cause I think that's when my son really took off".

Negotiating the Digital Divide. Parents and students discussed the need to negotiate the digital divide by growing with technology while not allowing it to be the only instruction. Mrs. Davila shared that "classroom's gonna have to transition with the time…growing with the time…utilizing everything". Mr. Fernandez explained it was about "growing with the technology…if you stay with technology, and you run with the technology. I think you'll have your kids focus". Mrs. Almazan added the need to balance the use of technology because "it works for them (students) but then you don't want your child on a screen 24/7". Mrs. Herrera explained that leveraging and balancing technology also required an earlier introduction to online learning.

> I believe it would be a good idea, if they would introduce it (blended learning) an earlier like for my son right now…in second grade…it's important to introduce it like not at the same level perhaps but like just give them that introduction opposed to now he's just working like with the worksheet and he doesn't have the video. I think if he'd have the video he'd be able to do more independent like his sister. If he's gonna be seeing that in the future, I think it'd be beneficial.

However, in order for this to work Mrs. Jaramillo reiterated "some kids maybe they don't have the technology at home…so we gotta balance it out".

Parent-Teacher Partnerships. Parents agreed that no matter what instructional practices were in place in the school, instructional gains would be limited without strong parent-teacher partnerships. According to parents, these partnerships required open lines of communications and a two-way system of support. Mrs. Davila explained the necessity to build the parental voice in the school when she stated, "That's why we're growing the PTO." Mrs. Alvarez elaborated

upon the Parent Teacher Organization need. "We finally had a PTO meeting and so that's part of getting the parents more in the school. I think with the first step in the right direction."

Mr. Vega extended upon the cornerstone to any strong partnership, communication. He proclaimed, "We gotta figure out how to communicate with the parents. You know they have a voice in the system if we allow that." Parents also requested timely communication. Mrs. Herrera explained that "you can get notifications about the grades like if they don't do well or if they're doing well." However, Mrs. Garcia and Mrs. Almazan explained that the parent portal for grades was "too late to intervene". Mrs. Martinez aired her concerns, "Why do we have to say three weeks (for grade notification) where I could have gotten that grade two days ago and known you're having trouble with it now. So let's get on it now." Mrs. Almazan added, "Of if you (teacher) knew…he was having trouble with the homework as opposed to finding out when he doesn't pass."

Parents requested to move beyond the digital notifications to sharing hard copies of assignments in a timely matter. Mrs. Noyola noted that "When those grades go out (on parent portal) …just having hard copies of stuff. And now everything is more cyber, and it's easier. I mean it's got things going but I don't find out til' maybe a couple of days later." Mrs. Alvarez pointed out, "You know you are right because sometimes I see papers in his (son's) folder, and I'm just like, 'Okay. When did you do these?' Like all of a sudden they are there."

Parents also expressed the need to address the teachers' needs in the partnership. Mr. Fernandez explained that "the teachers try to do as much as they can with that they have." Mrs. Davila provided details about Mr. Fernandez's statement. "They (school) don't get the teachers everything. When you see that on Facebook like that they have bought this for their class, and they bought this for their class. It makes you feel bad." Mrs. Noyola revealed that "I'm not

154

blaming the teacher. I know they're overwhelmed, as well" and reiterated that all stakeholders'

needs must be met.

The students' and parents' perceptions about the transition to blended learning yielded

both positive and negative insights and recommendations to administration and teachers.

However, during the blended learning artifact analysis the findings from the triangulation with

the parent and student interview data differed. While students' perceptions were significantly

congruent with the blended learning artifacts, in contrast the parents' perceptions transpired into

multiple examples of incongruences, which emphasized parents' concerns about the

implementation of blended learning.

When considering school culture, the blended learning artifacts analysis provided yet

another facet to the perceptions of blended learning. The blended learning artifact analyzed

included the drafted *Raising Blended Learner (RBL) Indicators and Outcomes Examples* artifact

and *DDP: Where are we?* document. In alignment with the triangulation of the blended learning

artifact analysis with parents' and students' perceptions, the same two themes surfaced in the

triangulation of the blended learning artifacts with school cultural perceptions: "congruencies"

and "incongruences". However, the analysis of the *DDP: Where are we?* document only resulted

in an additional area of misalignment.

Congruence between Artifacts and Students' and Parents' School Cultural

Perceptions. During the comparison between the students' and parents' perceptions related to

school culture and the analysis of the *Raising Blended Learner (RBL) Indicators and Outcomes*

Examples artifact, areas of congruence were identified in the *Student* section and *Teachers,*

Leaders, and Schools section. These sections demonstrated congruency with the "collaborative

environment", "strong relationships with school staff", "uplifting instructional environment", and

155

a "technology-rich environment". For example, both students and parents praised teachers for the multiple collaborative opportunities during stations, which aligned with the peer collaboration outcomes. In addition, parents and students emphasized the manner in which peer collaboration facilitated increased self-esteem and independence; thus, coordinating with the outcomes: increased confidence, self-direction, and student agency. For example, parents shared that their children were more willing to seek help from their peers and were more willing to assist their peers due to these collaborative opportunities.

The increased collaboration also contributed to the extensive relationships between students and their teachers, which contributed to the trusting and safe environment. Parents and students depicted the instructional environment as "fun", which aligned with the strong teacher and student relationships outcome. Furthermore, technology integration in stations facilitated the students' fluidity with technology, as well as the incorporation of flipped videos. During the interviews students highlighted their desire and euphoria when utilizing technology, while parents articulated their amazement at their children's tech savvy abilities. These examples epitomized the outcomes focused on how students and teachers leveraged technology for blended learning with ease.

Incongruence between Artifacts and Students' and Parents' School Cultural Perceptions*.* While the analysis of the artifact, *RBL Indicators and Outcomes Examples* resulted in a sparse areas of congruency with parents' and students' perceptions related to school culture during the transition to blended learning, there were also areas of incongruence. For example, the analysis of the *Teachers, Leaders, and Schools* section resulted in the misalignment with the students' and teachers' perceptions of a "culture of fairness and respect". In addition, there was significant incongruence detected in "blended learning communication with parents" noted in the

156

District section, as well as the "parents' blended learning understanding". Furthermore, there was also incongruences between the *District* section and the parents' and students' school cultural perceptions related to providing a "supportive environment for teachers".

Both students and parents provided multiple descriptions of the lacking culture of fairness. For instance, students divulged diverse strategies employed by their peers to assist in the completion of their flipped instruction or Imagine Learning lessons. Students also described how students viewed the answers to the flipped instruction lesson prior to completing the work, in order to ensure mastery. Other students detailed the manner in which students obtained their peer's passwords to their learning management system and/or online programs, which allowed students to view others' responses. In addition, students and parents articulated their concerns about students receiving additional support in the completion of their flipped instruction videos and assessments at home. Furthermore, parents disclosed their concerns about their children leveraging Siri and Google to complete their flipped learning assignments and assessments.

Along with the opposing students' and parents' perceptions related to the fair and respectful culture described in the *RBL Indicators and Outcomes Examples: Teachers, Leaders, and Schools* section, there were also incongruences in the *District* and *Parent and Community* section related to the blended learning communication specific to parents. Parents referenced the lack of communication about blended learning throughout the interview process. These perceptions opposed the emphasized outcomes under the District Systems and Parents sections related to communication and parents' understanding of blended learning. For example, parents had difficulty recalling a parent meeting in which they discussed blended learning and its instructional components during the current school year. Parents were also unsure about which components of blended learning were currently being implemented. Furthermore, Parents and

students were also unable to provide the term blended learning, as well as other blended learning terminology to describe the instructional practices in place.

The analysis of the *DDP: Where are we?* document also yield additional areas of incongruence related to the learning environment. The *DDP: Where are we?* document noted the incorporation of mentoring as a support system for students. However, the parents' and students' perceptions were void of any references to mentoring or support of goal setting. While students referenced a supportive relationship with their teachers, they also articulated inconsistencies with the reinforcements or monitoring of the goal setting, which reiterate d the non-existence of a mentoring environment. Along with the lacking incorporation of mentoring, parents also requested additional communication with teachers regarding the educational status of their children. Furthermore, according to the *DDP: Where are we?* document mentoring by the teacher was not only a component of blended learning but an area of focus during the previous school year.

Summary

This chapter delved into the perceptions of parents and students transitioning from traditional math instruction to a blended learning pedagogy. The analysis process resulted in three overarching themes for each of the research questions: students' and parents' positive and negative perceptions about blended learning and the recommendations to enhance the blended learning instructional process, as well as the parents' and students' positive and negative perceptions about school culture and recommendations for the improvement of the school culture. Within these themes, subthemes emerged, which detailed the perceptions and recommendations of parents and students. For example, a prevalent subtheme related to positive blended learning experiences described by both parents and students highlighted the various

instructional supports available to students in a blended learning instructional environment. A subtheme related to the parents' and students' negative perceptions about the flipped instruction issues, which resulted in recommendations to address flipped instruction such as shortening videos and adjusting the time and location of the quiz. Furthermore, the analysis of blended learning artifacts and their cross reference with the perceptions of students and parents facilitated two additional themes: congruencies and incongruences.

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

This qualitative exploratory transcendental phenomenological study delved into the perceptions of parents and students about the progressive blended learning model of instruction during the transition from traditional pedagogical practices (Creswell, 2013). Based on the candid depictions of the parents' and students' shared experiences, the researcher attained insight into the transition to blended learning, which resulted in recommendations for school leaders to facilitate this pedagogical transition (Creswell, 2013).

This chapter encapsulates a review of the research questions, which guided the focus group interviews followed by a summary of the findings. In addition, this chapter highlighted parents' and students' promising and adverse experiences during the transition to blended learning. Also highlighted within this chapter were the implications for school leaders as they transition to a blended learning environment specifically in relation to school culture. Moreover, recommendations for researchers and educational leaders to facilitate the transitional process to blended learning were provided.

Research Questions

The researcher utilized the following questions to explore the perceptions of parents and students engaged in the transition of traditional pedagogical practices to a progressive blended learning model of math instruction. The research questions below guided the parent and student focus group interviews conducted.

1. What are selected South Texas elementary public school students' perceptions about blended learning as they transition from a traditional model of math instruction?

2. What are selected South Texas elementary public school parents' perceptions about blended learning as their children transition from a traditional model of math instruction?

3. What is the impact of transitioning from a traditional instructional model to a blended learning model of math instruction on a selected South Texas elementary public school's culture?

Summary of Findings

Throughout the analysis process, the researcher explored the candid perceptions of parents and students as students transitioned from a traditional form of math instruction to blended learning pedagogical practices. The researcher was able to attain rich descriptions, which resulted in common themes from the in-depth analysis of the parent and student focus group interviews and the triangulation with the archival blended learning documents; thus, addressing the three research questions (Creswell, 2013; Guest etal., 2011; Christensen et al., 2017; Mills & Gay, 2016). The researchers' first two questions focused on the exploration of the perceptions of parents and students engaged in the transition from traditional math instruction to a progressive blended learning model in an effort to obtain candid data about the transitional process. The third question addressed how the transition from a traditional pedagogy to a blended learning model of math instruction impacted the public school's culture. The salient themes which surfaced for all three research questions were the positive and negative perceptions and recommendations for educators. Based on the triangulation of the students' and parents' perceptions with the blended learning artifact analysis resulted in two additional themes:

161

congruencies and incongruences. While each research question resulted in three major themes, each of theme was lined with the most prevalent subthemes (Creswell, 2013; Guest et al., 2011).

Positive Perceptions of Students

As students described their lived experiences with blended learning, the most prevalent theme which emerged were examples of how blended learning pedagogical practices yielded positive perceptions of the transitional process. Encompassed within the major theme—positive perceptions were the following salient subthemes: varied instructional support, elevated student motivation, engagement, and enjoyment of instruction, and the development of student agency; thus, aligning with Horn and Staker (2015), Gough et al. (2017), and Manwaring et al. (2017).

Instructional Support. As students described their experiences with blended learning, students depicted the various examples of how instructional support systems were available to them both at school and home. Students highlighted a variety of blended learning modalities such as flipped instruction, stations, and the integration of technology, which were layered with a variety of instructional support systems at their fingertips. However, students were in agreement that the instructional support provided by teachers was invaluable.

According to Gough et al. (2017), flipped instruction results in time "to foster more interactions between teachers and students along with more personalized learning"; thus reiterating students' praise of the teachers' support (p. 407). The employment of flipped instruction "contributed to a more effective use of classroom time since it released time from lecturing to more engaging student-centered learning activities" (Aidinopoulou & Sampson, 2017, p. 245). This is best described by Beto,

162

> We take pretests, and it depends what we get. If we get them all right, we get to go to our
>
> stations and have fun, but if we get some wrong we have to go to the teacher station so
>
> she'll go over the ones that we missed.

The variety of instructional support systems ranged from impactful face-to-face instruction provided by the teacher to the diverse online resources to peer support systems. For example, Mark explained the value of the embedded instructional support in the flipped instruction lesson, "If you don't understand the video, you could just watch the extra video."

Along with the online instructional support embedded into the flipped instruction lessons, students disclosed the significance of the instructional support embedded into their online math programs: Imagine Math, Imagine Math Facts, and Prodigy. According to Prescott's et al. (2018) research, "A blended learning approach can capitalize on the ability of the technology to deliver systematic, intensive practice that pinpoints each students' skill gaps and reduces the amount of time that must be spent in one-to-one instruction" (p. 504). Bettina provided an example of how Imagine Math supported her learning process,

> ...I really kind of like about Imagine Math is that if you fail something, it gives you
>
> another one but a little bit easier to simplify it…It simplifies it and after you take it and
>
> you get it a little bit more, if you take that one that you failed…it actually comes together
>
> and makes sense. It's kind of like a good thing.

The support systems within Imagine Math described by Bettina aligned with the scaffolding of instruction which personalized their instruction to specifically meet their needs (Prescott et al., 2018; Vygotsky, 1978; Herrington & Kervin, 2007; Blackburn, 2016; Horn & Staker, 2015).

Student Engagement and Enjoyment ("fun") and Student Motivation. Due to the diverse instructional supports available, students denoted an increased level of engagement and

enjoyment for learning math, which facilitated students' motivation to learn (Horn & Staker, 2015; Akkoyunlu & Soylu, 2008; Hui et al., 2018). One such example of students enjoying learning and being motivated to learn was described by Gabriel, "You can do Prodigy (online math program) ...and you can level up and it get like more fun and you want to play more and more." Students not only emphasized the incorporation of online resources as engaging ("fun"), but detailed how the teachers' activities, instruction, and stations were also "fun" as depicted by Melissa. "Obviously kids would (like) playing games and other stuff...kids like learning the fun way". In addition, students specified how online resources provided students autonomy to learn at their own pace, which amplified their desire to learn, as described by Linda (fourth grader), "I have learned all the math and I am in 5th grade already. So I'm still learning." Blended learning research at the higher education levels emphasized the necessity for transitioning to a blended learning pedagogy in order to elevate student engagement, which based on the students' perceptions is also evident at the elementary level (Manwarring et al., 2017).

Student Agency. According to Horn and Staker (2015) the successful implementation of blended learning relies heavily upon the school's ability to take "the best of both worlds—the advantages of the traditional classroom, combined with the benefits of online learning", while providing students control of the "time, path, place and/or pace" of instruction (p. 73). It was the control of pace which allowed students to take control of their learning; thus, develop a "student-centered learning system" often referred to as student agency (Horn & Staker, 2015, p. 10; Akkoyunlu & Soylu, 2008; Hui et al., 2018). Furthermore, "technology used for the online learning must shift content and instruction to the control of the student in at least some way for it to qualify as blended learning from the student's perspective"; thus, linking with the constructivist model of instruction (Horn & Staker, 2015, p. 34;). Linda depicted how she

constructs her own knowledge in order to move forward in Imagine Math, "Cause I'm doing prime numbers…So I head to search it up and write in my journal. That's what I've been doing…I could pass something. I could just grab an iPad and search it up." When students leveraged online learning to control their academic growth by learning at their own pace, students not only developed student agency but expanded their subject level competency and heightened their "cognitive engagement" (Manwaring et al., 2017, p. 31; Horn & Staker, 2015).

While flipped instruction facilitated the development of academic discipline, students also provided their perceptions of student agency when describing the opportunity for choice and control during stations. One example was students' depictions of the "choice" or "independent" stations, which allowed students to select the instructional activities and learning modalities to participate in during stations. Mark provided an explanation of how stations allow for choice,

> If I get a green, I can decide I want to go the teacher. If I get a yellow or red, I have to go back to the teacher. After my three stations…or my two stations, I get (to) go to…choice station…two choice stations.

According to Manwaring et al. (2017), "Learning activities that provide learner choices, develop socially, are perceived as important to the student and are seen as relevant or related to existing student knowledge are all associated with higher levels of both cognitive and emotional engagement."

Negative Perceptions of Students

While students' positive insights about blended learning exceeded their negative perceptions, their concerns were valid and pertinent to the implementation of blended learning. The most salient subthemes related to the concerns about flipped instruction. The issues generally related to the instructional requirements at home such as the expectations and

165

frustrations for students and necessity for face-to- face instructional support. While students expressed concerns about the structures of stations, which hindered the implementation of online resources.

Flipped Instruction. The most salient issue depicted by students about flipped instruction related to the instructional requirements at home such as the time constraints and necessity for face-to- face instructional support. Students divulged numerous concerns about completing the flipped instruction videos and assignments at home specifically the need for instructional support, which resulted in a lack of engagement and inability to complete flipped lessons (Horn & Staker, 2015; Kong et al., 2014; Hui et al., 2018). Gabriel illuminated his personal frustrations due to the non-existent teacher, "I always start like asking questions, and then I realize that I have my earphones, right? But I want to ask questions, But I don't understand the question, right? And she can't answer me. So I don't like it." While Gabriel's concerns related to the lacking face-to-face instructional support, Marissa's frustrations with flipped instruction differed, "It feels like you're not even like learning it. It gives you the answers, and you're not learning." Henrie et al. (2015) concluded that the effectiveness of blended learning instruction was closely linked to "the clarity of the instructions and relevance of the activity strongly impacted student satisfaction" (p. 147).

In addition to the concerns about flipped instruction, students divulged negative perceptions about the organizations of stations. Olivia provided an example of how shortened stations affected her, "Every time I login there is a new game (Imagine Math) for me to play, and we only have like fifteen minutes in the station. It's like we don't have enough time to finish it" (Imagine Math lesson). Prescott et al. (2018) echoed the necessity for educators to guarantee

166

students have sufficient access to online resources, in order to expedite an effective transition to a blended learning instructional format.

Recommendations of Students

The negative perceptions articulated by students resulted in recommendations to educational leaders about the implementation of flipped instruction and stations. One of the predominant recommendations related to ensuring all students have access to technology and internet at home, as touted by Marissa, "I didn't really like it because some kids don't have the technology at the house to do it." According to Gough et al., "Teachers agreed that accessibility to technology outside of school could be an issue for some students in a flipped classroom." While access to technology was not an issue for station implementation, Marissa shared, "We don't do it (stations) that much because we are not always in station just cause of our schedule", thus, emphasizing the need to analyze the implementation of blended learning models such as station rotation. Kintu et al. (2017) reinforced the necessity for educational institutes to "be mindful of the interplay between learner characteristics, design features and learning outcomes, which are all indicators of blended learning effectiveness" (p. 18).

Positive Perceptions of Parents

Instructional Support and Personalization of Instruction. One of the most highly regarded results of blended learning according to parents were the multitude instructional supports available to their children. First and foremost, parents applauded the math teachers for the elevated instructional support systems available to students, which Mrs. Garcia reiterated, "They're (teachers) trying to teach the children different strategies to come about for the answer." According to Horn and Staker's (2015) definition of personalized learning— "Learning that is tailored to an individual student's particular needs…it is customized or individualized to

help each individual succeed" (p. 9). Mrs. Valencia expounded on the value of personalized instruction. "Sometimes other kids need more help, and they'll get the help they need."

In addition, parents depicted the various examples of how instructional support systems expanded the students' opportunities for advancement and increased their self-confidence, which parents attributed to the different blended learning modalities such as flipped instruction, stations, and the integration of technology. Mrs. Garcia explained the flipped instruction process.

The flipped lesson is basically where the student gets to see like the video or hear the video of the teacher. It's just like if the teacher's there with her but as a flipped lesson— it's on the computer and the child can stop, can pause, can work out the problem. You know…can then hit play and the flipped lesson will continue. And it's at their pace. And I like it also because it was pretty cool that the child can hear their teacher's voice.

Inadvertently, the parents' descriptions of the scaffolded instruction infused within the online programs and flipped instruction allowed students to continue the learning process and address instructional obstacles, as well as facilitate student ownership of their learning (Herrington & Kervin, 2007; Blackburn, 2016; Prescott et al., 2018; Horn & Staker, 2015).

Student Engagement and Enjoyment of Instruction and Student Motivation.
According to Manwarring, Larsen, Graham, Henrie, and Halverson's (2017) research findings,

Increasing student engagement is a primary objective for those who advocate for blended learning adoption in higher education settings in every region of the world. Student engagement is theorized to be multi-faceted, including cognitive and an emotional component, and to be malleable by instructor interventions (p. 35).

For example, Mrs. Valencia shared,

I seen a lot of videos that Mrs. Hernandez (teacher) posts on Class DoJo where she's

actually with kids, and then some kids are with their iPads…She's really good…I think

that's why my son's actually being on top of it because she makes it fun.

While leveraging online resources and digital tools amplified their children's excitement and

engagement, the structure and format of stations created a conducive learning environment for

cognitive and emotional development (Manwarring et al., 2017).

Learning activities that provide learner choices, develop sociality, are perceived as

important to the student and are seen as relevant or related to existing student knowledge

are all associated with higher levels of both cognitive and emotional engagement.

Mrs. Alvarez provided not only her son's enjoyment of learning but his motivation to learn.

He has fun and he likes…sometimes I mean the games are really fun because of course

they have to solve…'I need to finish my Imagine Math, Mom!'…So then he gets his

dad's tablet and he's doing it in the car.

Student Agency. Horn and Staker (2015) stated that "an important part of student-

centered learning is that students develop a sense of agency and ownership for their progress and

a subsequent ability to guide their learning"—student agency (p. 10). It was this ownership of

learning and control of the pace of online learning, which parents and students depicted as a

positive aspect of the implementation of blended learning, as well as the catalyst for academic

independence. In alignment with Horn and Staker (2015), parents associated students' academic

independence, student agency with the employment of stations, online math resources like

Imagine Math, and the flipped instruction lessons. For example, Mrs. Martinez credited her

daughter's academic independence to blended learning. "I've noticed that in the years. She's (my

daughter) become more independent with the recent…the way it's being taught and everything, they're doing online."

While online math resources were conveyed as integral components in the development of student agency, parents disclosed several examples of how the flipped lessons attributed to students' control of their learning (Gonzalez-Gomez et al., 2016; Horn and Staker, 2015; Aidinopoulou & Sampson, 2017). These perceptions aligned with high school science students' experiences, "Generally, all the students agreed that the flipped instruction method provided them the possibility to work autonomously and in their own place, and the possibility of re-watching the multimedia material was of great help" (Gonzalez-Gomez et al., 2016, p. 459). Even more impactful was how parents like Mrs. Martinez were also aware of how their children manipulated the flipped videos depending on her needs. "You know she's listening to the teacher. She can stop. She can pause. She can go back and take her time, or…if she's not struggling with it, she can get it done really quickly and then just relax." These anecdotal references of how students utilized the flipped videos aligned with Horn and Staker's (2015) description of students' "control of pace—the ability for students to pause, go back, or skip forward through online content as free agents" (p. 34; Gonzalez-Gomez et al., 2016).

In addition, parents articulated the confidence their children experiences, which expedited their abilities to self-advocate for themselves. Mrs. Valdez proclaimed with enthusiasm that during stations peers not only tutored one another but developed students' confidence to ask for help. "*Yo pienso que eso es bueno para los niños porque a ellos le da seguridad para tener esa confianza de preguntar a sus compañeros o a la maestra.*" (I think this is good for children because it gives them the security to have the confidence to ask their classmates or the teacher (for help).

Technology Integration and Preparing for the Future. While parents had concerns about their students over-relying on technology, they also conveyed how blended learning was preparing students not only for their educational future but for their careers. According to the OECD (2009) many students and educators lack the technology knowledge necessary to successfully function in a digital learning environment, which aligns with Mrs. Almazan's comments about technology (Schleicher, 2020).

> I think its technology driven as opposed to when we learned it. When we learned it, it was just pencil and paper. You didn't even get a calculator. Now to them (children) technology…it's based on their life. They live on technology. They know everything. We didn't have computers when we were smaller. And to them, it's about tablet, iPad, computer this, phone. They do everything that's on technology these days. It's a lot different. I think it works for them…

Furthermore, parents shared that blended learning is also preparing their children for their future educational endeavors, similar to Mrs. Alvarez, "It also gives them kind of a glimpse of the future because they'll have to learn…know how to take classes online in the future."

Communication. Parents' perceptions about Seaside Elementary continually referenced the positive communication displayed throughout the school; thus aligning with Deal and Peterson's (1999) definition of school culture. For example, Ms. Valencia shared how her son's relationship with his teacher was based on the positive communication.

> He (her son) loves Mrs. Hernandez. He says, "Ms. Hernandez is the best teacher." Why because…I guess she has so much confidence in him that he knows that he's going to do okay because Ms. Hernandez goes, "You already studied this. You're going to do okay. You'll be fine." And she goes over with everything.

171

According to Deal and Peterson (1999) the description of Mrs. Valencia's son's teacher align with the component of school culture which relates to "how teachers feel about their work and their students" (p. 2-3; 17). Mr. Fernandez summarized their feelings about Seaside Elementary, "Communication is awesome. They (teachers) are very, very positive. That's what we have her at Seaside Elementary. The communication. I mean…we're humble people. We have that positive communication"; thus, their school culture as described by Deal and Peterson (p. 2-3; 17)

Parental Engagement. Parents also highlighted how the blended learning components have enhanced their understanding of their children's instruction; thus, enriching their parental engagement experiences. According to Gough et al. (2017) "Involving parents in the education of their children is an important consideration for all educators, and this study indicated that the flipped classroom does help make the classroom more transparent", which aligns with Mrs. Garcia's perceptions of flipped instruction (p. 408).

> I like that it gives parents that power and especially because we learned certain strategies a certain way. You know and now we're also seeing the new strategies that their learning. You know and now we're also seeing the new strategies that they're learning. Like for example, I like…I really like the flipped classroom because I also see the teacher working it out. I get to see the new strategy compared to my…the strategy I know.

Mrs. Garcia's acknowledgement of how flipped instruction videos allow her to learn alongside her child and understand how to support her child aligns with Esptein's (1986) finding that "Parents say they could help more if shown how" (p. 292). Ultimately, as proclaimed by Mrs. Garcia, "I just like that it gives parents the power to be involved."

Negative Perceptions of Parents

While parents' perceptions were predominantly positive, they did express concerns about the implementation of blended learning. The most salient concerns which surfaced about blended learning related to the instructional issues, being overwhelmed by the transition and implementation process, and technology issues experienced by students. According to Lynch et al. (2012) and Lee & Krajcik (2012) leaders must consider all stakeholders and keep challenges at the forefront during the implementation and scaling process of transformational change.

Instructional Issues. The most common pitfall related to instructional issues were associated with the implementation of flipped instruction; thus, aligning with the students' readiness to transition from a traditional model of instruction to blended learning as delineated by Wong et al. (2014). Mr. Vega reiterated his concerns about the students' strive during the flipped instruction lessons, "The only challenging part is when the child is…doesn't get it and so he's frustrated. And they can back up the video 100 times, but if they're not getting it…you know who they ask the question to?" Moreover, research supported the necessity for student training on flipped instruction processes and expectations; thus, addressing the instructional concerns noted by parents (Aidinopoulou & Sampson, 2017; Zhai et al., 2017).

Overwhelmed. While both parents and students described the instructional strive experienced by students, parents also amplified their sense of frustration due to the instructional expectations placed upon them. Mrs. Noyola announced, "I feel like everybody might be overwhelmed." Several parents reiterated these feelings by explaining their own personal schedules, becoming the teacher at home, and lack of knowledge about the math skill being taught. For example, Mrs. Noyola described her experiences with flipped instruction.

> It's a lot of homework. I got two little ones, and I'm sitting there by myself. My
> husband's at work, and I'm just like okay he's doing this. I'm doing this. I'm doing

homework. You know. And it's just a lot of that. Getting everything together and

checking up on everyone.

Mrs. Jaramillo added, "I think that just the school's trying to help the kid, and sometimes it's not

working because we are at home…we don't know what he's struggling with." According to

Aidinopoulou & Sampson (2017) and Zhai et al. (2017) students and parents would benefit from

training prior to transitioning to a flipped instruction model; thus, addressing the concerns

articulated by parents and teachers. Furthermore, these trainings would ensure a full

understanding of the expectations and processes involved in the flipped instruction model.

Technology Issues. While parents described the integration of technology as a positive

aspect of the transition to blended learning they also experienced frustrations with technology

integration. While all of the parents who participated in the study had access to technology

devices at home, they did express concerns about the students who did not, as depicted by Mrs.

Martinez.

And fortunately, some of us can (have technology at home), but the ones that can't. I

know the school has those things (technology devices), but when it comes to home…you

know I've heard of kids that have to do it (flipped instruction) on their phone, as well. Or

go to someone else's house to do it.

According to Prescott's et al. (2018) and Truitt and Ku's (2018) findings student access to

technology was a determining factor in the successful implementation of blended learning.

As per Saavedra & Opfer (2012), technology facilitates the development of 21st century

skills necessary to expand learning by allowing "students to transfer skills to different contexts,

reflect on their thinking and that of their peers, practice addressing misunderstandings, and

174

collaborate with peers" (p. 9). However, parents like Mr. Vega shared his apprehensions about technology.

> I agree with the dependency of the computer. I don't agree that they (students) know everything because it's taking them away from thinking. They put numbers in, and it gives them the answer. And I'm like no. Here's a pen and a paper. Figure it out.

The key to developing 21st century skills requires students to think critically and apply newly learned skills to other contexts, such as problem or project-based learning opportunities, which would address the parents' concerns (Rotherham & Willingham, 2009).

Parent Recommendations

Based on the parents' positive and negative perceptions, parents formulated some recommendations to enhance the implementation of blended learning. Their recommendations focused on instructional enhancements, extending instructional opportunities, and enhancing parent-teacher communication and knowledge.

Instructional Enhancements. The most prevalent reiterated recommendations focused on flipped instruction. One such recommendation related to the flipped instruction assessment (quiz) to address students' needs for instructional support and ensure teachers' understanding of the progress of each student, as described by Mrs. Jaramillo

> My opinion is better for them to do it (assessment) in the class because actually the teacher could see it. I know sometimes we tend to help a little bit. Not to give the answer but to guide it how to get the answer. And that way the teacher could see how they (students) struggle like and to put more attention to those students. In my opinion, so I think it's the way they had that he could just watch the video and then whenever he gets to the classroom he answers all the questions.

175

Mrs. Jaramillo's recommendations aligns with the transformative role of the teachers as they shift to the constructivist model of instruction like flipped instruction. As the facilitator and model for instruction, the teacher must mentor and coach students by scaffolding instruction before fading away and allowing the students to assume the role of self-learners (Alvarez et al., 2013; Moustafa et al., 2013; Wood & Wood, 1996; Keengwe et al. 2014, Kong et al., 2014).

According to parents addressing flipped instruction issues was a necessity. However, maintaining balance between incorporating rigorous online resources and providing the students with high quality face-to-face instruction also remains at the forefront. In addition, Mrs. Valencia added that "You still have kids that like more instructional than just electronic". According to Keengwe et al. (2014) it is about a balance of allowing "enough room for constructive and creative learning while still providing adequate structure and support to children", which aligns with Mrs. Jaramillo's comment, "We gotta balance it out." (p. 898).

Extended Instructional Opportunities. As per Fosnot (1989) constructivist "learning needs to be conceived of as something a learner does, not something that is done to a learner", which aligns with the parents' recommendations to extend learning opportunities for soft skills development (p. 5). Mr. Vega elaborated, "Man, I see some millennials that just froze up there (in front of a class). You put them in front of a computer. Man, they'll run circles around me." According to Keengwe et al. (2014) constructivism provides learners the opportunity to "exhibit their knowledge through demonstration", which means students must be active participants in their learning and offered the opportunities for social interactions to facilitate the thought process (p. 88; Reynolds, 2016; Moustafa et al., 2013). Therefore, the inclusion of soft skill development aligns with the components of constructivism like that found in blended learning environments.

176

Enhance Parent-Teacher Communication and Knowledge. According to Epstein (1986) opening the lines of communication and empowering parents will enhance parent-teacher communication and provide essential feedback to ensure the academic success of parents and students. Mrs. Valdez also emphasized the importance of parent-teacher communication, *"Debe de estar constante en comunicación con la maestra."* ([Parents] must be constantly in communication with the teacher.) However, it was more than just communicating. Parents also requested training on how to support their children at home to which Mrs. Macias shared her experiences in another district, "They actually had a class for the parents. Maybe once a month that they would go over a subject to kind of help the parents." According Epstein (1986), "If teachers want parents to feel confident that they can help, they (and the school administrators) must organize and conduct workshops for parents in how to help in reading, math, and other subjects" (p. 292).

Discontinue Blended Learning. While parents applauded a variety of the blended learning components and the positive impact they have had on their children, there were a group of parents whose concerns about the expectations placed on parents, the instructional needs of students, the well-being of teachers, and the lack of communication between parents and educators. Furthermore, parents pointed out that teachers' also wanted to stop the implementation of blended learning, in order to enhance the instructional setting. According to Deal and Peterson (1991), "Principals know from experience that piecemeal reforms, reforms which ignore the inner realities of school will have limited effect. They understand by instinct that to build a successful school one must work simultaneously on staff needs and skills, the organization's goals and roles, and the dynamics of political power and conflict." Mr. Vega's perceptions about blended learning aligned with Deal and Peterson's views.

So I think some of the teachers as she alluded to may feel overwhelmed because they're

trying to learn a new system…they trying to learn a new way of teaching…We're trying

in my opinion way too much to change things from one year to another. And

unfortunately the ones that carry the burden are the teachers and then on the flip side the

students have to you know, "Well that's not how we did it last year." And it's confusing.

It creates a confusing environment. And heavy for the teachers.

In order for effective implementation and sustainable change to occur, collaborative efforts

amongst all stakeholders throughout the change process are vital (Lynch et al., 2012).

Positive Student and Parent Perceptions about School Culture

The combined analysis of student and parent interviews yielded three salient themes

related to the school culture of Seaside Elementary, positive and negative student and parent

perceptions and recommendations.

Negotiating the Digital Divide. According to Reiser (2001a), the impact technology can

have on students' academic gains when it is a collaborative process aligned with the

constructivist approach to learning. While Keenwe et al. (2014) and Tucker (2012) emphasize

that technology is often readily available to students, it has not been leveraged to its fullest

potential to engage students in the learning process. However, according to parents and students

Seaside Elementary is littered with technological resources and integrated online resources to

address the "digital natives" accustomed to leveraging digital platforms to extend their learning

and communication (Prensky, 2001). Lee described online instruction as "fun…especially when

there is internet or WIFI, we…use the computers…we just do Imagine Math Facts." In addition,

parents were shocked that the integration of technology did not just occur within the past couple

of years of blended learning but had been in place for years. Mrs. Jaramillo shared her son's

experiences at Seaside Elementary, "'Mom, in kinder we used to use this. In first grade, we used…'" According to Freire (1970) the "transmission model" of instruction is much like the "banking system", in which teachers are the depositors of knowledge and students are the empty vessels in which the knowledge is deposited; thus, inhibiting the development of 21st century skills. According to Mrs. Chavez depicted Seaside Elementary debunked her school experiences, which aligned with the "banking system" described by Freire (1970).

No existía la computadora tampoco entonces siempre era en el pizarrón. Esperar que la maestra diera la lección y aprender. Y no había centros. Siempre las bancas así, como las acomodaba la maestra. No podías cambiar ni siquiera con el amigo, la amiga en ningún momento del día. Siempre tenías que seguir las instrucciones de la maestra. Siempre esperar a lo que ella te enseñara. Nunca te podías adelantar. No sabías ni adelantarte. No pues no había los recursos que hay ahora, en nada. Creo que ha cambiado 100% para bien. Porque los niños avanzan como quieren. Cómo según su capacidad. Me gusta más ahora. (The computer didn't exist either so it was always on the board. Waiting for the teacher to give the lesson and learn. And there were no centers. The benches were always like this (moved arms up and down), as the teacher accommodated them. You could not change even with a friend at any time of the day. You always had to follow the teacher's instructions. Always wait for what she will teach you. You could never get ahead. You didn't even know how to get ahead. Because there were no resources like now, in nothing. I think it has changed 100% for good because the children advance as they want. According to their ability. I like it better now.)

Uplifting Ethos, Spirit of Culture. Parents and students depicted Seaside Elementary as an uplifting ethos, as described by Deal and Peterson (19991) as a school culture which,

focuses on behavioral patterns, and the values, beliefs, and norms that define and sustain

those patterns. Assumes that teachers and students are strongly influenced by the moral,

mores, routines, and conscious and unconscious conventions about things are done in

their school (p. 6).

Mrs. Chavez provided additional details about the supportive school environment.

I really like this school. They are very strict. They are very punctual; always in the events

that invite us, when class starts. I like that my son is happy. It is the important thing for

me. And I don't know how but, they make children happy.

Mrs. Valencia shared, "You feel the difference in all the other campus than here. You feel more

welcome here than somewhere else." Mrs. Fernandez provided another example of how Seaside

Elementary promotes an uplifting ethos, "Communication is awesome. It's very positive

communication at the school not just one or two teachers. It's pretty much everybody. Whatever

you need is given to you."

While parents highlighted on the environment and communication, the students and parents also

attributed the uplifting ethos to the teachers' positive rapport to which Gabriel painted a detailed

picture of his teacher and classroom.

She'll be in the middle and all be surrounded. And she would teach us all…It's just for

you to understand it because she wants you to learn and make sure that you understand

that lesson; for you could get it next time. And so that's (teacher station) there for we

could understand so like if you need help with it, you could just remember what she

taught you again.

Future Aspirations. Along with the uplifting ethos, parents and students described the

flexible learning environment which afforded students to attain control of their learning,

allowing for individual advancement, and delving into challenging learning opportunities; thus, preparing students for the future. In constructivist learning models, teacher must practice flexibility and obtain a complete understanding of their role as a facilitator, in order to meet the needs of all students within the classroom (Cleaver & Ballantyne, 2014; Dole et al., 2016).

According to Horn and Staker (2015) blended learning instruction takes "the best of both worlds—the advantages of the traditional classroom, combined with the benefits of online learning"; hence, providing students control of the "time, path, place and/or pace" of instruction; thus, fostering student agency (p. 73). The online resources made available to students at Seaside Elementary attributed to the culture of rigor and advancing their learning. For example, Mark proclaimed, "It (Imagine Math) challenges you." Linda disclosed how Imagine Math extended her learning opportunities from fourth to fifth grade through Imagine Math. "I have learned all the math, and I am in 5th grade already." Moreover, Mr. Fernandez touted, "It's good because it's teaching them for the future."

Negative Student and Parent Perceptions about School Culture

The positive components of the school culture at Seaside Elementary described by parents and students related to the extended learning opportunities and the welcoming environment. However, the parents and students also depicted Seaside Elementary as a campus lined with tension due to the transition to blended learning. The most prevalent tension associated with blended learning linked to the issues with the shift to blended learning, the issues with instruction, the competitive environment, and the parents' struggle with role reversals.

Change Process. According to the parents the transition to blended learning resulted in a strained school environment, which was due to issues with communication and buy-in (Kotter (2002). According to Kotter (2002) in order for all stakeholders to be prepared for a change, the

foundational step of developing a shared vision must be addressed. In the minds of the parents, not only were they not ready for the change but nor were the teachers. Mrs. Cesnes' articulated her beliefs about the teachers' role in the transition to blended learning as, "They're (teachers) just following the curriculum…It's not that they just decided let's just put on the video." Mrs. Noyola added, "At the end of the day, teachers may be so overwhelmed with these new programs being introduced."

Another component which expounded the parents' perceptions of a stressful learning environment was the lack of communication related to the shift to blended learning, which Kotter (2002) aligns with Jotter's (2002) step to change buy-in from stakeholders. For example, Mrs. Mendez disclosed, "I don't think I've heard not a word (about the shift to blended learning)". Mrs. Bautista added, "Maybe at the beginning (of the year)". Mrs. Cesnes provided additional information.

> "I think I remember the teacher explaining at the beginning of the year. I want to say last year…about that blended learning or the way they were learning math. She just said that they were going to watch a video and if they don't pass it tomorrow or the next day, I will put them in a group. Whoever needs the extra help, and I will go over it with them. And if they understand it, then they can get on the computer…But I think that is the only time."

Mrs. Macias clarified, "I think it was at the beginning of the year. I think for fifth grade also in the library. But then that was it." These examples of diminished communication facilitated the strained perceptions about blended learning and the experienced stress by teachers and students. Mrs. Davila divulged, "I guess nobody was ready for the change; maybe it was spring too fast."

Instructional Focus. Along with concerns related to the change process, students and parents detailed concerns about the instructional issues impeding the learning process for

182

students. While parents expressed concerns about the amount of testing and lack of tutoring, the most predominant concern related to the quality of instruction had decreased since the implementation of blended learning; thus, creating a sense of disappointment with the school and staff. For example, Mario disclosed his mom's opinions about flipped instruction. "My mom would get mad because she thought we weren't learning anything from the videos". Lee's mother's beliefs aligned with Mario's, "My mom would get mad because she thought it (videos) was a waste of time." Parents' perceptions were similar to students' except for the additional concerns about flipped instruction and its impact on the learning environment. According to Aidinopoulou and Sampson (2017) and Zhai et al. (2017) students and parents would benefit from training prior to transitioning to a flipped instruction model, in order to ensure a full understanding of the expectations and processes involved in the flipped instruction model.

In addition to the concerns about the quality of instructions provided by flipped learning videos, parents shared their concerns about their children leveraging digital platforms to expedite the flipped instruction assessments. Mrs. Jaramillo divulged that her son utilizes Siri to assist him with work.

> I'm like, "Oh no! So I be taking the phone away. But he's like, "Mom, they're videos."
> "No, no, no, no. Give me your phone. Open my laptop. Sit at the table while I'm cooking,
> you're watching it."

According to Prensky (2001) "digital natives" are accustomed to interacting with digital platforms, such as the Internet, social media sites, video games and multiple technical devices; thus, transforming their thinking and learning process.

Competitive Environment. Another strained environment was linked to the competitiveness amongst students due to the online resources and the campus incentives. Mrs. Davila described how the online resources have facilitated animosity between students.

> I think the videos (online resources) have helped. I don't like though what…at least my kid…it has created more competition for her because at one point one kid came in and told my daughter, "My mom said I have to beat you at Imagine Math." So they're creating competition between the kids. And that's why…the only reason I don't like the Imagine Math. It's just the competition thing. This intensifies her competition within herself and that is intense enough.

Another type of competition expressed by the students was the competition between the different classes. During the session, Lee exclaimed, "We are more advanced than them (other students in another class). We get harder stuff." According to Deal and Peterson (1991), "Problems arise when undesirable or ineffective practices become conventionalized within a school" (p. 6).

Role Reversal. With the incorporation of flipped instruction, parents soon experienced a role reversal with teacher, as they became their child's teacher at home. Mrs. Jaramillo verbalized her anxieties from assuming the instructor role.

> I mean in my opinion, I think as a mom, well most of us, we work. It's a little be a challenge. Just the fact, that we had to sit next to them or be sure that they actually watching the video instead of be distracting.

Mrs. Cesnes recounted what happened when she retaught her child at home. "I taught my daughter touch points, and she got in trouble with her teacher cause she wasn't showing her work. I would tell her just draw whatever it is but figure out the answers with the touch points."

This is another example of how parents would have benefitted from training prior to transitioning to a flipped instruction model (Aidinopoulou & Sampson, 2017; Zhai et al., 2017).

Student and Parent School Culture Recommendations

Instructional Issues. According to Horn and Staker (2015), teacher must maintain a balance between the digital resources and the face-to-face instruction provided by teachers, as blended learning is "the best of both worlds—the advantages of the traditional classroom, combined with the benefits of online learning" (p. 73). Parents and students emphasized the need to maintain balance and ensure students have the instructional support necessary to excel. Mrs. Davila conveyed her concerns for students, "Because there are kids that need more. And the kids who get the green like can keep going. And then once they get to the point that they don't get it. Then, they will go to the teacher." However, it was more than just instructional support, it was about implementing blended learning with fidelity, for blended learning requires an increased opportunity for collaborative learning, as found in the station rotation blended learning model (Horn & Staker, 2015). Mark highlighted the need for "having more math games", which will develop problem solvers, who can think critically both in collaborative and individual settings, in order to meet the demands of 21st century business world (Rotherham & Willingham, 2009; Tucker, 2012). Furthermore, Mr. Vega also shared the need to "take every opportunity to teach the kids why it's important", which aligned with incorporating genuine learning opportunities (Golding, 2011; Gordon, 2008; Tucker, 2012; OECD, 2009, Ng, 2012).

Negotiating the Digital Divide. While parents agreed that the school and students must continue to grow with technology, it necessary for there to be a balance between rich online resources and the high quality face-to-face instruction provided by teachers. Mr. Fernandez explained it was about "growing with the technology…if you stay with technology, and you run

with the technology. I think you'll have your kids focus". However, Mrs. Almazan emphasized that "you don't want your child on a screen 24/7".

Parent-Teacher Relationships. According to Aidinopoulou and Sampson (2017), "There is a need for parents to be familiarized with the FC (Flipped Classroom) model especially in primary schools where the family has an important role in students' learning and can contribute or obstruct the model's efficiency" (p. 246). However, this would require open lines of communications and a two-way system of support. For as Mr. Vega proclaimed, "We gotta figure out how to communicate with the parents. You know they have a voice in the system if we allow that." Furthermore, the lack of communication created a stressful environment for parents working with their children at home, as well as uncertainties about their support of blended learning.

While parents were overwhelmed by the lack of communication and their concerns about their children's instruction, they were also adamant that teachers were overwhelmed by the extensive amount of work linked to blended learning; thus, adding to a stressful learning environment. It is not just about enhancing the communication between parents and educators is about timely communication. For example, Mrs. Almazan aired her concerns about how timely communication could impact students' academics, "If you (teacher) knew…he was having trouble with the homework as opposed to finding out when he doesn't pass."

While parents emphasized the importance of communication for the success of their children, but also for the teachers. Mr. Fernandez explained that "the teachers try to do as much as they can with that they have." Mrs. Noyola added that "I'm not blaming the teacher. I know they're overwhelmed, as well" and reiterated that all stakeholders' needs must be met. According to Rotherham and Willingham (2009), teachers must have the opportunity to collaborate with

peers, in order to prepare for the personalization of learning opportunities for students and the development of 21ˢᵗ century skills such as critical thinking.

Congruencies and Incongruences Aligned to School Culture

The overarching perception of students and predominantly parents focused on the need to create a conducive school culture. Overall, the findings aligned with the value of transitioning to a blended learning pedagogy—the personalization of instruction by leveraging high quality face-to-face instruction with online resources, which facilitated the admiration of teachers (Horn & Staker, 2015; Gough et al., 2017). However, the school culture was lined with a disparity between the instructional practices and negotiating the digital divide. In addition, parent and student perceptions and the blended learning artifact analysis reinforced the need for opening the lines of communications between parents and the school in order to successfully implement blended learning (Gough, et al., 2017). In addition, Zhai et al. (2017) amplified the need for clear expectations and preparedness for flipped instruction, in order to ensure a clear understanding of the expectations and blended learning practices; thus, aligning with parents' focus on open lines of communication. Ultimately, leveraging the positive school culture components to enhance the areas of concerns required addressing communication between the school leaders and parents and the teachers and leaders. Ultimately, it was about parental engagement transparency to address the learning environment laced with anxiety and distrust due to the transition to blended learning (Gough, et al., 2017).

Parents and students also elaborated upon developing a school environment lined with a variety of learning opportunities for students with a strong collaborative component, which also surfaced as an area of congruence with the blended learning artifacts. The inconsistency related to the implementation of stations during the blended learning rotation model impeded students'

abilities to collaborate with their peers and attain additional support from the teacher, which evolved into disappoint and frustration by both students and parents and attributed to the diminishing relationships between the educational institute and parents and students. Furthermore, the inconsistently across and within the classrooms engaged in the transition to blended learning created a lack of trust within the educational setting.

The incongruences highlighted the diminished culture of fairness and respect was greatly related to the lack of clear expectations and understanding of flipped instruction (Zhai, et al., 2017). However, the obstacles experienced by parents and students aligned with those described in the blended learning literature, such as those related to the employment of flipped instruction and online resources. Students and parents expressed concerns about the equity of flipped instruction when taking into consideration those students who did not have access to internet and an electronic device at home (Prescott's et al. 2018; Truitt & Ku, 2018; Driscoll & Salmon, 2013; Gough et al., 2017).

While the stakeholders' descriptions of the trusting learning environment aligned with blended learning literature, there was not literature available to address the concerns about fairness and respect related to blended learning. Furthermore, the apprehensions experienced by parents far superseded those of their children, which was not addressed in any of the blended learning literature; thus, mandating in further research on parents' perceptions.

Conclusions

Public education leaders have begun to address the demands of an ever-evolving economic society and the digital natives accustomed to constructing knowledge and transforming themselves along the process by implementing a constructivist instructional model, blended learning (Boone, 2015; Horn & Staker, 2015; Ng, 2012). According to Dole et al. (2016)

constructivism shifts the control of learning from the teacher to the student, which transitions the learners from passive to active in their learning process. Blended learning not only affords students control of the "time, path, place, and/or pace" of their learning, it also allows teachers to analyze individual student data and address their specific needs through the personalization of instruction (Horn & Staker, p.73; Scherter et al., 2015). While blended learning has yielded extensive success in higher education programs and charter school settings, there continues to be a gap in literature available for K-12 public education leaders, specifically elementary leaders to reference as they transition to a blended learning model of instruction (Rotherham & Willingham, 2009; Tucker, 2012; Horn & Staker, 2015). In addition, the majority of the K-12 public arena findings encompass the perspectives of educational leaders, educators, and secondary students; thus, widening the gap of knowledgebase available for elementary public school leaders to leverage. This study provides not only rich candid descriptions from elementary students engaged in the transition to blended learning but the perceptions of their parents as both stakeholders release the outdated factory model of instruction (Creswell, 2013; Guest et al., 2011; Horn & Staker, 2015; Freire, 1970).

Piaget, Vygotsky, and Freire all advocated for various components of constructivism, which focuses on the active participation in learning, in order to construct learning that is relevant to the student in a social context (Lee & Hannafin, 2016). The transition from traditional math instruction to a blended learning pedagogy was predominantly perceived by both students and parents as a positive influential force on the academic success of students. The experiences and perceptions shared by parents and students yielded various examples of students' abilities to manage and construct their own learning and become independent learners by leveraging online

189

resources to extend their learning opportunities; thus, developing their student agency (Horn &

Staker, 2015; Akkoyunlu & Soylu, 2008; Hui et al., 2018; Karhenbul, 2016).

In addition, both stakeholders provided detailed depictions of the multiple layers of

instructional support available to students, which extended from face-to-face instruction to

embedded online support systems, which aligns with Vygotsky's (1978) concepts of the

necessity for instructing students at their zone of proximal development (ZPD), More

Knowledgeable Others (MKO), and scaffolding instruction. Not only does the ZPD provide

students with support in the attainment of new knowledge, but the MKO allows for the extension

of learning to be provided by teachers, peers, and high quality online instruction (Vygotsky,

1978, Cicconi, 2014). Furthermore, the scaffolded embedded instructional supports described

allowed students to continue the learning process and address instructional obstacles, which also

facilitated student ownership of their learning (Herrington & Kervin, 2007, & Blackburn, 2016).

Parents and students also detailed the impactful influence of online resources on the

extended learning opportunities. The significant gains described by parents and students aligned

with Schechter's et al. (2015) research, which emphasized the value of rigorous online and face-

to-face instruction, the available online personalized pathways, continuous progress monitoring,

and the teacher's ability to personalize learning for individual students.

While parents attributed the development of student agency amongst their children to the

transition to blended learning, parents and students denoted specific concerns about the

implementation of blended learning. The most articulated concern related to the flipped

instruction blended learning model, which students' and parents' perceived as ineffective and a

role parents were ill-equipped to fulfill (Epstein, 1986). The apprehensions about the flipped

instruction lessons were predominantly associated with the need for face-to-face instructional

support from the teacher. According to Wong et al. (2014) the effective implementation of blended learning was closely linked to the students' readiness to transition to a blended learning instructional model, which also aligns with the scaffolding instruction, as it requires teachers to be aware of each student's limits and still maximize the opportunity for learning (Wass & Golding, 2014; Wood & Wood, 1996). In addition, Henrie et al. (2015) concluded that "the clarity of instruction and relevance of activity strongly impacted students' satisfaction", which also aligned with the students' and parents' concerns (p. 147). Based on the findings, the researcher concluded that not only must elementary students be ready for the transition to blended learning but parents must be prepared for the transition. Furthermore, not only must students understand the purpose and expectations of blended learning activities and instruction, but parents must also have a firm grasp of the expectations of their children and how they must support them.

In addition to the parents' and students' positive and negative perceptions about the transition to blended learning, there were also school cultural trepidations, which were support by both the perceptions of students and parents and the analysis of blended learning artifacts. The most prevalent school cultural issues encompassed the lack of communication between all stakeholders and the inconsistency of the blended learning implementation, which aligns with the Deal and Peterson's (1991) emphasis on "coherent ethos with agreed-upon ways of doing things; agreement on instructional goals" (p. 11). While parents described Seaside Elementary as a positive learning environment, they also divulged their lack of knowledge about the status of their children and blended learning implementation, which aligns with the difficulties in changing an accepted existing school culture (Deal & Peterson, 1991). Furthermore, the issues with flipped instruction resulted in a lack of trust amongst the students and the perceptions of

unethical behavior in the completion of flipped instruction lessons; thus, creating a negative shared vision amongst students (Deal & Peterson, 1991).

According to Keengwe et al. (2014) the establishment of trusting relationships with students was a necessity to the successful implementation of blended learning, which meant educators must develop their own communication and listening skills and feedback practices with students. However, due to the age of elementary students and the vital role parents play in the instruction and learning at home process, more than one directional communication between parents and teachers must occur; in order to ensure the successful implementation of blended learning (Epstein, 1986). Essentially, parents and students require training on the blended learning processes prior to transitioning and ongoing throughout the transitional process, in order for parents to support their children and students to complete their flipped lessons (Zhai et al, 2017; Esptein, 1986)

Ultimately, piece of information attained from this study was the invaluable perceptions of the parents, who are the silent partners in the educational process but with a plethora of insight to the needs of not only the students but other stakeholders engaged in the transition to blended learning. Parents' foresight about the need for all stakeholders' buy-in and the importance of supporting teachers in this innovative and demanding transitional process were inspiring (Kotter, 2002; Deal & Peterson, 1991). Moreover, the necessity to ensure that students and parents are both prepared for the transition to blended learning was another must, articulated by parents (Kintu et al., 2017). According to Lynch et al (2012) collaborative efforts amongst all stakeholders throughout the change process are vital, in order for effective implementation and sustainable change to occur. In addition, sustainable change requires leaders to provide clear expectations for implementation with fidelity and support for the varying levels of teachers

(Coburn, 2003; Lee & Krajcik, 2012; Aidinopoulou & Sampson, 2017). While supporting students is a continual focus for educators and sustainable change requires teachers to have support, at the elementary level the wide range of parents must be engaged in continual collaboration and opportunities for support, in order to ensure a successful transition and education of their children.

In an effort to meet the demands of the ever-evolving society, educational systems must evolve to develop problem solvers, who can think critically both in collaborative and individual settings, in order to meet the demands of 21st century, constructivist instructional model (Rotherham & Willingham, 2009; Tucker, 2012; Horn & Staker, 2015). Although, this study provided a wealth of candid descriptions of the transitional process to blended learning models of instruction, in order to debunk the depository method of instruction described by Freire (1970) which still exists today, additional research specific to elementary education settings and all stakeholders is a must.

Implications

Based on the findings from the parents' and students' perceptions, it was evident that both stakeholders valued the academic and personal gains achieved by students during the transition to blended learning (Horn & Staker, 2015). However, the transition to blended learning was not completely fluid, as both stakeholders articulated issues with different components of blended learning. Ultimately, the majority of the issues could be resolved by opening the lines of communication, leveraging family engagement components, and addressing issues with the change process and practices in the fragmented school culture transition to a new instructional model.

Family Engagement and Open Lines of Communication

According to Fullan (2007), "The closer the parent is to the education of the child, the greater the impact on child development and educational achievement" (p. 189). The school culture at Seaside Elementary was painted as welcoming and positive; thus, aligning with Deal and Peterson's (1991) uplifting ethos and portions of Mapp's (2003) "joining process" (p. 12; Mapp et al., 2008, 342). However, Seaside Elementary was void of one essential component of the "joining process"— "connecting" (Mapp, 2003, p. 12; Mapp et al., 2008, p. 342). According to Mapp (2003) "the joining process is the strengthening of parents' capacity to help their children, thereby strengthening the school's educational capacity" (p. 13). Seaside Elementary parents reiterated needs for training on how to support their children with their flipped instruction videos was the missing "connection", which was necessary to keep "the children's educational development at the center of the partnership" (Mapp et al., 2008, p. 342; Mapp, 2003).

Seaside Elementary parents expressed a need to obtain a firm grasp of not only the children's expectations but those of the parents. While parents described sparse remembrances of parent-teacher meetings, in which the blended learning process was reviewed, the sessions did not provide the necessary information for parents to be able to support their children at home or gain an understanding of the parameters in which they could support their children. In an effort to provide a seamless system of support and open lines of communication, the school would be remiss if they did not develop a family center within their school to localize a staff member and the resources available to develop parents' abilities to enhance their children's education.

According to Mapp et al. (2008), "family centers were zones of community", in which all stakeholders felt "welcomed, respected, comfortable, encouraged, and safe" (p. 358). Because Seaside Elementary staff was depicted by parents and students as "humble", "amazing",

"positive", and "helpful", enlisting staff with the traits necessary to bring all stakeholders to the family center would be feasible (Mapp et al., 2008). According to Mapp et al. (2008), an effective family center musts have

> a solid infrastructure at both the school and district level, skilled staff to run the center, and programming that is responsive to the needs of all stakeholders—especially the families and students—are the levers needed to implement a successful family center (p. 357).

The family center would also provide all stakeholders a safe forum in which to "communicate and hear each other's perspectives" (Mapp et al., 2008, 359). In addition, the continuity of communication and the consistently delineated blended learning and content area "workshops, classes, and activities" would facilitate the development of parents' knowledge and abilities to support their children (Mapp et al., 2008, p. 354; Zhai et al., 2017; Gough et al., 2017). According to Hargreaves (2000), "Teaching parents as well as students about new developments in learning is one way of developing new professionalism to promote partnerships between home and school" (p. 203). The implementation of the "joining process" and family centers would provide the necessary educational support systems for parents and students to navigate the ever-evolving educational minefield in a trusting environment designated to foster open lines of communication and educational transparency (Mapp, 2003, p. 12; Map et al., 2008, p. 342; Gough et al., 2017).

Change Processes and Practices and Open Lines of Communication

The development of a family center addresses students' and parents' academic needs, while leveraging high quality staff to build trusting relationships lined with open lines of communication for parental engagement transparency (Mapp, 2003; Mapp et al., 2008, Gough et

al., 2017). Family centers would address the lack of trust within the educational setting and open the lines of communication. However, there remains the lingering change processes and practices which must be addressed (Mapp, 2003; Mapp et al., 2008).

While all stakeholders have an aligned end moral purpose for the transition to blended learning, which is to enhance the education of their students/children, it is the processes in which the end goal is attained that must be scrutinized (Fullan, 2001). One issue impeding the transition to blended learning is the complexity of the change, as it is not just a new curriculum but a shift from teacher-centered to student-centered instruction (Fullan, 2007; Horn & Staker, 2015). While the instructional shift maybe a heavy load, it is imperative to "connect peers with purpose" (Fullan, 2008, p. 41). The "peers" would need to extend beyond the educators within the educational system but the parents and students engaged in the transition to blended learning.

This would require leaders "to provide direction, create the conditions for effective peer interaction, and intervene along the way when things are not working as well as they could" (Fullan, 2008, p. 49; Kotter, 2002). In addition, educational leaders and teachers must practice transparency, as parents voiced their concerns about the lack of knowledge about the status of their children (Fullan, 2008; Kotter 2002; Gough et al., 2017). Transparency promotes "credibility and long-term survival" for change because transparency facilitates "public confidence", which in the transition to a disruptive instructional model requires students and parents to have confidence in blended learning and the institution (Fullan 2008, p. 102; Horn & Staker, 2015; Gough et al., 2017). Fullan (2001) noted that

> The single factor common to every successful change initiative is that a relationships improve. If relationships improve, things get better. If they remain the same or get worse, ground it lost. Thus leaders must be consummate relationship builders with diverse

196

people and groups—especially with people different than themselves. Effective leaders

constantly foster purposeful interaction and problem solving, and are wary of easy

consensus (p. 5).

According to Hargreaves (2000), "silent partnerships are no longer sustainable when the goals of

learning and strategies of teaching take dramatically new directions"; thus emphasizing the need

for open lines of communication and connecting with the silent partners—parents and students

(p. 203; Gough et al., 2017).

Contributions to the Literature

While there is a plethora of research on post-secondary students' perceptions as they

participated in a blended learning environment, there is limited literature related to the

perceptions of K-12 public school students (Gough et al., 2017; Kintu et al., 2017; Graham, et

al., 2019; Manwaring et al., 2017; Zhai et al., 2017; Halverson et al., 2014; Akkoyumlu & Soylu,

2008; Halverson et al., 2012; Wong, et al., 2014; Henrie et al., 2015). The blended learning

research in the public education arena often focused on secondary students and educators with

only a sprinkling of literature based on elementary students (Truitt & Ku, 2018; Prescott, at el.,

2018; Halverson, et al., 2012; Aidinopoulou & Sampson, 2017; Alijani et al., 2014; Gonzalez-

Gomez et al., 2016). This study addressed the gap in the existing research encompassing

elementary public school students, as well as the parents' perceptions about blended learning,

which to date has been non-existent (Truitt & Ku, 2018; Graham, et al., 2019; Prescott, at el.,

2018; Halverson, et al., 2012; Hui, et al., 2018; Kong et al., 2014).

Due to the utilization of focus group interviews with fourth and fifth grade students from

a South Texas public school, this study delved into students' perceptions; thus, expanding the

limited literature to include elementary-aged students' detailed candid descriptions. While there

is extensive qualitative research based on post-secondary level students' experiences as they transitioned to a blended learning instructional format, the limited public education research was primarily based on instruction and assessment analysis, as well as feedback elicited through surveys. Furthermore, a wide-range of public educators have provided their perceptions about the transition and implementation of blended learning. However, the inclusion of elementary level teachers was minimal; thus, limiting the scope of the view. By focusing on fourth and fifth grade students' and their parents' perceptions, this study provides a multi-faceted lens from which to gain pertinent guidance for educators and leaders transitioning and implementing blended learning (Lynch et al., 2012; Lee & Krajcik, 2012).

While this study focused on elementary-aged students' and their parents' perceptions about the transition to blended learning, this study aligned with the positive attributes and the challenges delineated in post-secondary and secondary literature. For example, similar to post-secondary and secondary research, students and parents noted an increased level of engagement and enjoyment for learning math, which facilitated students' motivation to learn (Horn & Staker, 2015; Akkoyunlu & Soylu, 2008; Hui et al., 2018). The students' and parents' perceptions also supported the idea from blended learning literature that the successful implementation of blended learning contributed to the transition to a student-centered learning approach and the development of student agency; thus, allowing students to take control of their learning (Horn & Staker, 2015; Akkoyunlu & Soylu, 2008; Hui et al., 2018). Furthermore, the challenges emphasized by post-secondary students and educators surfaced in this study, such as the necessity for educational institutes to "be mindful of the interplay between the learner characteristics, design features and learning outcomes, which are all indicators of blended learning effectiveness" (Kintu et al., 2017, p. 18).

The inclusion of parents in this study yielded the most pertinent contribution to literature, as it begins to fill this gap in blended learning literature. As one of the primary stakeholders in the elementary public education arena, parents' perceptions about the transition to blended learning are vital to a successful instructional transition. While Henrie et al. (2015) concluded that the effectiveness of blended learning instruction was closely linked to "the clarity of the instructions and relevance of the activity strongly impacted student satisfaction", these same factors related to parents' abilities to support their children (p. 147). The necessity for student and parent training on flipped instruction processes and expectations was a reiterated recommendation by parents (Aidinopoulou & Sampson, 2017; Zhai et al., 2017). Furthermore, this study prompted clarity about the parents' personal struggles with the transition to blended learning, such as: scheduling conflicts, assuming the teacher at home, and lack of knowledge about the math skill being taught; thus, providing educator leaders a proactive stance when transitioning and scaling blended learning in their educational institutes (Lynch et al., 2012; Lee & Krajcik, 2012).

Recommendations

Recommendations for Educational Leaders

During the analysis of focus group interviews and blended learning artifacts, parents and students disclosed a variety of recommendations to enhance the instructional process both at school and home. The most prevalent recommendation for educators was the necessity for opening the lines of communications between parents and the school about the implementation of blended learning (Gough, et al., 2017). Parents articulated their frustrations about the inconsistent implementation of blended learning, which reinforced the need for regular updates and clear expectations for all stakeholders. Parents also recommended instructional sessions for

upcoming math skills, in order for parents to able to support their children at home. The need for clear expectations and preparedness for flipped instruction aligns with Zhai's, et al. (2017) recommendation to provide training for collegiate learners prior to engaging in flipped instruction, in order to ensure a clear understanding of the expectations and practices. Ultimately, parents were unsure of the expectations for their children and themselves due to the lack of communication, which supports the recommendation for a detailed plan of action for the implementation of blended learning, simple definitions of the different components of blended learning, and quarterly status updates including the progress and needs of students, the upcoming skills, and shifts in the implementation of blended learning—parental involvement transparency (Gough, et al., 2017).

Parents and students also elaborated upon developing a school environment lined with a variety of learning opportunities for students with a strong collaborative component. Students emphasized the need for more time at stations, in order to complete online assignments and the opportunity to collaborate with their peers. Parents reiterated this need by explaining that stations also provided students the flexibility to attain additional support from the teacher. In addition, the opportunity to collaborate with teachers about goal setting and the students' progress towards attaining their goals (Horn & Staker, 2015). In the end, the recommendation is to have a consistent implementation of blended learning, which expands upon the inclusion of a plan of action. However, this recommendation aligns with the necessity to ensure implementation is occurring consistently across all classrooms and for all students engaged in the transition to blended learning.

In addition to the consistent implementation of blended learning, parents and students both made recommendations to address the implementation of flipped instruction. First and

foremost, students and parents recommended that prior to implementing flipped instruction, educational leaders must ensure students have access to an electronic device and internet, in order to allow for equitable learning opportunities (Prescott's et al. 2018; Truitt & Ku, 2018; Driscoll & Salmon, 2013; Gough et al., 2017). Another parent and student recommendation to support the implementation of flipped instruction is to provide computer lab access in the morning before and after school on a daily basis. The key to the computer lab recommendation is the necessity to ensure access is provided consistently, as parents and students described the access to technology before and after school as dependent on teachers' availability. While the embedded instructional videos offer students a layer of support at home, additional instructional support at school was highly recommended for struggling students. While flipped instruction assessments provide pertinent data to address students' needs, in an effort to ensure accurate data both parents and students recommended the assessment be completed in the morning at school, as it avoids additional assistance from parents and inaccurate results. At the core, the recommendation is to ensure that the needs of students are met when implementing any program but with the amount of student ownership and at home instruction it is essential to ensure the integrity and consistency of the instruction and implementation.

While the previous recommendations related to the instruction and needs of students, parents also expressed the need for all stakeholders to be included in the decision-making process when transitioning to a different instructional program, which aligns with two of Kotter's (2002) steps towards ensuring a sustainable change process— building a team to lead the process and developing a shared vision with stakeholders and connecting parents and students with the purpose (Fullan, 2008, p. 41). In addition, parents divulged the need for buy-in from all stakeholders, which would require transparency (Kotter, 2002; Fullan, 2008). Furthermore,

parents proclaimed their concerns for the educators in the trenches, who lacked the support from leaders and the time needed to implement blended learning with fidelity; thus, aligning with Kotter's steps: empowering stakeholders to take action with autonomy, providing the opportunity for short-term wins to maintain the momentum, combining the short term wins ensure the fulfillment of the vision. Ultimately, parents were requesting educational leaders practice transparency about the status of their children's education, in order to better support not only their children but the transition to blended learning (Fullan 2008, p. 102). Without knowing it, parents recommended a systematic process of change, in order for leaders to establish a new culture which sustains the change (Kotter, 2002; Fullan, 2008).

Recommendations for Future Research

While the rich descriptions and in-depth analysis of parents' and students' perceptions and blended learning artifacts enhanced the limited research currently available for elementary public schools and provided the additional lens of the parents, there still remains a need for further research. Due to the limited number of parent participants, it would be essential to conduct a study specifically focused on the perceptions of elementary parents. In addition, this study only included two bilingual parents, whom perceived similar positive perceptions as the regular education parents but had minimal concerns; thus, necessitating a study on the perceptions of bilingual parents.

Since this study focused on the transition of traditional math instruction to blended learning, conducting a study in different subject areas would also provide data to determine which subjects facilitated the smoothest transition process and greatest academic success as prevalent in the post-secondary studies. While the majority of the student participants in this study had engaged in more than two years of blended learning math instruction, it would be

worthwhile to conduct a longitudinal study of these students as they progress into secondary grade levels to determine the long term impact of the student agency. In this study, students and parents detailed the implementation of the blended learning models: station rotation and flipped instruction, in an effort to expand the knowledgebase about elementary students' perceptions of blended learning, it would be beneficial to conduct studies of students employing other types of blended learning models such as lab rotation, individual rotation, flex model, and enriched virtual model (Horn & Staker, 2015).

In addition, due to the recent influx of at-home or virtual instruction due to COVID, it would be pertinent to conduct studies about the distinguishing features between at-home or virtual instruction and blended learning models like station rotation and flipped instruction implemented by Seaside Elementary (TEA, 2020; Horn & Staker, 2015). Moreover, a study obtaining parents' perceptions about blended learning after experiencing at-home or virtual learning during the pandemic would provide a diverse lens from which to determine the most effective features of both instructional models (TEA, 2020). Ultimately, the goal is to fill the minimal literature available to support all stakeholders transitioning to a blended learning environment.

Summary

Chapter five provided an interpretation of the findings based on the rich descriptions which transpired during the student and focus group interviews and the triangulation of the two stakeholders and the analysis of blended learning artifacts. The research was able to corroborate the findings from elementary students and their parents about the transition to blended learning with those of higher education and secondary student studies. Along with areas of alignment, the researcher was able to address gaps in literature specific to elementary students which was

extremely limited and the non-existent research with parents' perceptions. The researcher was also able to address implications of faulty communication between educational leaders and parents, the importance of being cognizant of the change and scaling theory in the transition to a new and innovative model of instruction, and the inconsistent implementation of blended learning. These findings also allowed to the researcher to provide recommendations for educational leaders engaged in the transition to a blended learning model of instruction and possible future studies to close the extensive gap in blended learning research for elementary public schools.

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APPENDIX A

APPENDIX A

SUPERINTENDENT OUTSIDE FACILITY LETTER

Date

Ana Holland
PO Box 5
Port Isabel, Texas
ana.holland01@utrgv.edu

RE: A South Texas Elementary School's Transition to a Constructivist Blended Learning Model
     of Instruction in Math: Perceptions of Students and Parents

Dear Ana Holland,

I am writing regarding the research study titled, "A South Texas Elementary School's Transition
to a Constructivist Blended Learning Model of Instruction in Math: Perceptions of Students and
Parents, to acknowledge that research will be conducted at _____ Elementary at
_____ Independent School District. I understand that this data will be owned by
UTRGV and will be used in professional presentations and publications.

More specifically, our facility will facilitate this research in the following ways:

□ Allow project staff to be on-site to recruit Participants	□ Provide space for participants to complete the research activities on site.
□ Hand-out flyers about the study.	□ Consent participants
□ Provide data from records or access to records for the collection of study data.	□ Conduct study assessments and/or collect study samples.
□ Implement study manipulation/intervention	□ Other:
□ I/we want to be recognized by name in publications or presentations. (If checking this box, please indicate the names of people or the organization as you would expect it to appear in publications.)	

Sincerely,
[*Signature*]

Insert Superintendent's Name
[*District Name*]
Superintendent of School

APPENDIX B

APPENDIX B

CAMPUS PRINCIPAL OUTSIDE FACILITY LETTER

Date

Ana Holland
PO Box 5
Port Isabel, Texas 78578
ana.holland01@utrgv.edu

RE: A South Texas Elementary School's Transition to a Constructivist Blended Learning Model of Instruction in Math: Perceptions of Students and Parents

Dear Ana Holland,

I am writing regarding the research study titled, "A South Texas Elementary School's Transition to a Constructivist Blended Learning Model of Instruction in Math: Perceptions of Students and Parents", to acknowledge that research will be conducted with parents and students at _____ Elementary at _____ Independent School District. I understand that this data will be owned by UTRGV and will be used in professional presentations and publications.

More specifically, our facility will facilitate this research in the following ways:

☐ Allow project staff to be on-site to recruit participants.	☐ Provide space for participants to complete the research activities on site.
☐ Hand-out flyers about the study.	☐ Consent participants
☐ Provide data from records or access to records for the collection of study data.	☐ Conduct study assessments and/or collect study samples.
☐ Implement study manipulation/intervention	☐ Other:
☐ I/we want to be recognized by name in publications or presentations. (If checking this box, please indicate the names of people or the organization as you would expect it to appear in publications.)	

Sincerely,
[*Signature*]

Insert Principal's Name
Insert Campus Name
Principal

APPENDIX C

APPENDIX C

PARENT SELECTION (EXCLUSION/INCLUSION) SURVEY IN ENGLISH AND SPANISH

PARENT SELECTION (EXCLUSION/INCLUSION) SURVEY

1. Do you have a child in 4th grade?
   A. Yes
   B. No

2. If yes, what grades did your child attend *Insert the Name of the Elementary*? Mark all that apply.
   A. Pre-kindergarten
   B. Kindergarten
   C. 1st Grade
   D. 2nd Grade
   E. 3rd Grade

3. What is the name of your child's math teacher?
   A. *Insert Math Teacher's Name*
   B. *Insert Math Teacher's Name*
   C. *Insert Math Teacher's Name*
      [Include all of the students' math teachers]

4. Do you have a child in 5th grade?
   A. Yes
   B. No

5. If yes, what grades did your child attend *Insert the Name of the Elementary*? Mark all that apply.
   A. Pre-kindergarten
   B. Kindergarten
   C. 1st Grade

    D. 2nd Grade
    E. 3rd Grade
    F. 4th Grade

6. What is the name of your child's math teacher?
    A. *Insert Math Teacher's Name*
    B. *Insert Math Teacher's Name*
    C. *Insert Math Teacher's Name*
      [Include all of the students' math teachers]

7. What is your relationship to your child?
    A. Mother
    B. Father
    C. Legal Guardian

8. What is your ethnicity?
    A. White
    B. Hispanic/Latino
    C. African American
    D. Asian
    E. Pacific Islander
    F. Two or More Races

9. What is your marital status?
    A. Single
    B. Married
    C. Divorced

10. What age range best matches your age?
    A. 18-30
    B. 31-40
    C. 41-50
    D. 50 and over

11. Which language would you prefer to have your interview in?
    A. English
    B. Spanish
    C. Other _____

12. Read the list of school meetings below and check all meetings about math you have attended for your child in grade 4 or 5 within the past two school years.

__ Meet the Teacher Meetings
__ Parent-Teacher Conference
__ Blended Learning Meeting
__ Classroom Visit
__ Principal Conference

Nombre: _____

Número de Teléfono: _____

ENCUESTA DE SELECCIÓN DE PADRES (EXCLUSIÓN / INCLUSIÓN) de 4to o 5to GRADO

1. ¿Tiene un hijo/a en el 4to grado?
   A. Si
   B. No

2. Si es así, ¿en qué grado(s) asistió su hijo a la *Insert School's Name*? Marque todo lo corresponda.
   ___ Pre-kínder
   ___ Kínder
   ___ 1er Grado
   ___ 2do Grado
   ___ 3er Grado

3. ¿Cuál es el nombre del maestro de matemáticas de su hijo?
   A. *Insert Math Teacher's Name*
   B. *Insert Math Teacher's Name*
   C. *Insert Math Teacher's Name*
      [Include all of the students' math teachers]

4. ¿Tiene un hijo/a en quinto grado?
   A. Si
   B. No

5. Si es así, ¿en qué grado(s) asistió su hijo a la *Insert School's Name*?Marque todo lo que corresponda.
   ___ Pre-kínder
   ___ Kínder
   ___ 1er Grado
   ___ 2do Grado
   ___ 3er Grado
   ___ 4to Grado

6. ¿Cuál es el nombre del maestro de matemáticas de su hijo?
   A. *Insert Math teacher's name*
   B. *Insert Math teacher's name*

C. Insert Math teacher's name
   [Include all of the students' math teachers]

7. ¿Cuál es su relación con su hijo/a?
    A. Madre
    B. Padre
    C. Tutor Legal

8. ¿Cuál es su etnicidad?
    A. Blanco
    B. Hispano/Latino
    C. Afroamericano
    D. Asiático
    E. Isleño del Pacífico
    F. Dos o más Razas

9. ¿Cuál es su estado civil?
    A. Soltero
    B. Casado
    C. Divorciado

10. ¿Qué rango de edad se ajusta mejor a su edad?
    A. 18-30
    B. 31-40
    C. 41-50
    D. Más de 50

11. ¿En qué idioma preferiría tener su entrevista?
    A. Inglés
    B. Español
    C. Otro _____

12. Lea la lista de reuniones escolares. Por favor marque todas las reuniones sobre matemáticas a las que asistió para su hijo en los grados 4to o 5to en los últimos dos años escolares.
    __ Reunión de Conocer a los Profesores
    __ Conferencia de Padres y Maestros
    __ Reunión de Aprendizaje Combinado
    __ Visitas al Aula/Clase
    __ Conferencia con el Principal

13. ¿Cuándo sería el mejor día y hora para su entrevista? Marque todo lo que corresponda.

    __   Antes de la escuela entre 7:30 – 8:30 a.m.

    __   Durante el día escolar entre 9:00 and 11:00 a.m.

    __   Durante el día escolar entre 1:00 – 2:30 p.m.

    __   Después de la escuela entre 3:30 – 5:00 p.m.

    __   En cualquier momento

APPENDIX D

STUDENT SELECTION (EXCLUSION/INCLUSION) SURVEY

Student Name: _____

STDUENT SELECTION (EXCLUSION/INCLUSION) SURVEY

1. What is your gender?
   A. Male (boy)
   B. Female (girl)

2. What grade are you in?
   A. 4th
   B. 5th

3. How old are you?
   A. 8
   B. 9
   C. 10
   D. 11
   E. 12

4. What grade level(s) did you go to (attend) *Insert Name of Elementary* (including this year)?
   A. Pre-kindergarten
   B. Kindergarten
   C. 1st Grade
   D. 2nd Grade
   E. 3rd Grade

F. 4th Grade

G. 5th Grade

5. Which teacher provides you math instruction?
6. *Insert Name of Math Teacher*
7. *Insert Name of Math Teacher*
8. *Insert Name of Math Teacher*
   [For as many math teachers included in research]

9. Which ways does your teacher teach math? (If your teacher using more than one way check all the ways that she uses.)
   __ Small Groups
   __ Whole Class
   __ Stations
   __ Flipped Lessons
   __ Workshops
   __ Other: _____

10. How many years (including this year) have you been taught math in a "new" way (blended learning and/or personalized learning)?
    A. 0
    B. 1
    C. 2
    D. 3
    E. 4 or more

11. Which language do you prefer to speak?
    A. English
    B. Spanish

APPENDIX E

APPENDIX E

PARENTAL CONSENT FORM FOR PARTICIPATION IN RESEARCH IN ENGLISH AND SPANISH

The University of Texas Rio Grande Valley

Parental Consent Form for Participation in Research

Study Title: A South Texas Elementary School's Transition to a Constructivist Blended Learning Model of Instruction in Math: Perceptions of Students and Parents

Principal Investigator: Ana M. Holland, Interdisciplinary Studies B. A., Reading Specialist M. Ed., University of Texas Rio Grande Valley Doctoral Candidate

Faculty Advisor: Karen Watt, Doctor of Philosophy Degree, Educational Leadership, University of Texas Rio Grande Valley Dissertation Chair

You are being asked to take part in a research study. This form has important information about the reason for doing this study, what I will ask you to do, and the way I would like to use the information you share, if you choose to participate in the study.

Purpose

You are being asked to participate in a research study about your child's transition from a traditional form of math instruction to the new form (blended learning) of math instruction. The purpose of the study is to obtain detailed descriptions about how math instruction is received in blended learning and different from past math instruction. From your descriptions, the researcher will determine findings about the thoughts and feelings of the new (blended learning) math instruction.

Procedure

You will be asked to complete a short survey in paper format, which will include questions about your child's age, grade level, language of instruction, the types of math instruction he/she has received, meetings, classroom visits you have participated in at your child's school, and the

language you prefer to speak. Participation in the survey should take about five to ten minutes to complete. Based on the survey results, parents will be invited to participate in a focus group interview with other parents of students participating in the transition to blended learning math instruction. Parents will share their experiences and thoughts about their child's past math instruction and their transition to a blended learning model of math instruction. The focus group interview will be held in a classroom at your child's campus. Participation in the focus group interview should take about 45 minutes. If needed, you may be asked to participate in a follow-up interview to learn more about your responses from the focus group interview. Participation in the follow-up individual interviews should last between 30 to 45 minutes.

I would like to audio and video record your participation in the focus group and/or individual interviews, to make sure that I remember and record all the information accurately. The researcher will keep these tapes in a locked storage area, and they will only be used by the researcher. I will only audio and/or video record you if you give me permission. You will be provided a separate release form to sign for consent to record your participation and use the recording for research purposes and/or for the presentation of the research.

Possible Risks and/or Discomforts Associated with Participation in the Study

To the best of my knowledge, the things you would be doing in this study have no more risk of harm than the risks of everyday life.

Benefits of Participation

Taking part in this research study may not benefit you personally, but I may learn new things that will help others. This study is designed to learn more about you and your child's experiences transitioning from traditional math instruction to a blended learning model of instruction. The study results may be used to help other people in the future.

Voluntary Participation

Participation in this study is voluntary; you may withdraw from this study at any time -- you and your child will not be penalized in any way or lose any sort of benefits for deciding to stop participation.

If you decide not to be in this study, this will not affect the relationship you and your child have with your child's school in any way. Your child's grades will not be affected if you choose not to let your child be in this study.

If for any reason you or your child decide to discontinue your child's participation, simply tell the researcher that you wish to stop or return the incomplete surveys to the researcher.

Anonymity and/or Confidentiality

While the surveys will be administered in paper format, all survey responses that I receive will be treated with confidentiality, written out (transcribed), and stored on a secure server and retained for a minimum of three years.

The audio and video recordings will be kept for approximately six months and will be securely stored. No one other than the researcher will have access to the data. After the six months, the audio and video recordings will be destroyed. The interviews will be transcribed and coded with pseudonyms. The researcher will code data and be the only ones with access to the coded data (pseudonyms), code books, official names, and informed consent forms, and will be stored separately to link participants with their coded data for a minimum of three years.

De-identified data may be shared with other researchers in the future, but will not contain information about your individual identity.

Results of this study may be used in publications and presentations without any identifying information.

Who to Contact for Research Related Questions

For questions about the research itself, or to report any adverse effects during or following participation, contact the researcher, Ana Holland at (956) 778-9996, anaholland01@utrgv.edu, and 411 Longoria Street, Port Isabel, Texas. In addition, you may also contact the Dissertation Chair of the researcher, Dr. Karen M. Watt at Karen.watt@utrgv.edu or 956-665-7072.

Who to Contact Regarding Your Rights as a Participant

This research has been reviewed and approved by the Institutional Review Board for Human Subjects Protection (IRB). If you have any questions about your rights as a participant, or if you feel that your rights as a participant were not adequately met by the researcher, please contact the IRB at (956) 665-2093 or irb@utrgv.edu.

Signatures

By signing below, you indicate that you are voluntarily agreeing to participate in this study and that the procedures involved have been described to your satisfaction. The researcher will provide you with a copy of this form your own reference. In order to participate, you must be at least 18 years of age. If you are under 18, please inform the researcher.

_____

Parent/Legal Guardian's Name (printed)

_____   _____/_____/_____

Participant's Signature   Date

Please keep a copy of this form for your records.

The University of Texas Rio Grande Valley
Formulario de Consentimiento de los Padres Para Participar en la Investigación

Título del Estudio: Transición de una escuela primaria del sur de Texas a un modelo constructivo de aprendizaje mixto de instrucción en matemáticas: percepciones de estudiantes y padres

Investigador Principal: Ana M. Holland, Estudios Interdisciplinarios B. A., Especialista en Lectura M. Ed., Candidato a Doctorado de la Universidad de Texas Rio Grande Valley

Asesora del Profesorado: Karen Watt, Doctora en Filosofía, Liderazgo Educativo, Catedrática de Disertación de la Universidad de Texas Río Grande

Se le pide que participe en un estudio de investigación. Este formulario contiene información importante sobre los motivos para realizar este estudio, lo qué se le pedirá que haga, y cómo me gustaría usar la información que comparte, si decide participar en el estudio..

Propósito

Se le pide que participe en un estudio de investigación sobre la transición de su hijo de una forma tradicional de instrucción de matemática a la nueva forma (aprendizaje combinado) de instrucción de matemática. El propósito del estudio es obtener descripciones detalladas sobre cómo se recibe la instrucción de matemáticas en el aprendizaje combinado y lo diferente de la instrucción de matemáticas anterior. A partir de sus descripciones, el investigador determinará los hallazgos sobre los pensamientos y sentimientos de la nueva instrucción de matemáticas (aprendizaje combinado).

Procedimiento

Se le pedirá que complete una breve encuesta en formato de papel, que incluirá preguntas sobre la edad de su hijo, el nivel de grado, el idioma de instrucción, los tipos de instrucción de matemáticas que ha recibido, las reuniones, las visitas al aula en las que ha participado en la escuela del niño, y el idioma que prefieras hablar. La participación en la encuesta debe tomar entre cinco y diez minutos en completarse. Basado en los resultados de la encuesta, se le invitará a los padres a participar en una entrevista de grupo focal con otros padres de estudiantes que participan en la transición a la instrucción de matemáticas de aprendizaje combinado. Los padres compartirán sus experiencias y pensamientos sobre la instrucción de matemáticas pasada de sus hijos y su transición a un modelo de aprendizaje combinado de instrucción de matemáticas. La entrevista del grupo focal se llevará a cabo en un aula en el campus de su hijo. La participación en la entrevista del grupo focal debe tomar aproximadamente 45 minutos. Si es necesario, se le puede pedir que participe en una entrevista de seguimiento para obtener más información sobre sus respuestas en la entrevista del grupo focal. La participación en las entrevistas individuales de seguimiento debe durar entre 30 y 45 minutos.

Me gustaría grabar en audio y video su participación en el grupo de enfoque y / o entrevistas individuales, para asegurarme de que recuerdo y registré toda la información con precisión. El investigador mantendrá estas cintas en un área de almacenamiento bajo llave, y solo las utilizará el investigador. Solo se grabara en audio y / o video si me da permiso. Se le proporcionará un formulario de autorización por separado para firmar el consentimiento para registrar su participación y utilizar la grabación para fines de investigación y / o para la presentación de la investigación.

Posibles Riesgos y / o Molestias Asociadas con la Participación en el Estudio

A lo mejor de mi conocimiento, las cosas que estaría haciendo en este estudio no tienen más riesgo de daño que los riesgos de la vida cotidiana.

Beneficios de la Participación

Tomar parte en este estudio de investigación puede no beneficiarlo personalmente, pero puedo aprender cosas nuevas que ayudarán a otros. Este estudio está diseñado para aprender más sobre usted y las experiencias de su hijo en la transición de la instrucción tradicional de matemáticas a un modelo de instrucción de aprendizaje combinado. Los resultados del estudio pueden usarse para ayudar a otras personas en el futuro.

Participación Voluntaria

La participación en este estudio es voluntaria; Puede retirarse de este estudio en cualquier momento: usted y su hijo no serán penalizados de ninguna manera ni perderán ningún tipo de beneficio por decidir dejar de participar.

Si decide no participar en este estudio, esto no afectará de ninguna manera la relación que usted y su hijo tengan con la escuela de su hijo. Las calificaciones de su hijo no se verán afectadas si decide no permitir que su hijo participe en este estudio.

Si por alguna razón usted o su hijo deciden suspender la participación de su hijo, simplemente dígale al investigador que desea detener o devolver las encuestas incompletas al investigador.

Anonimato y / o Confidencialidad

Si bien las encuestas se administrarán en formato de papel, todas las respuestas de las encuestas que reciba se tratarán con confidencialidad, se escribirán (transcribirán), se almacenarán en un servidor seguro y se conservarán durante un mínimo de tres años.

Las grabaciones de audio y video se mantendrán durante aproximadamente seis meses y se almacenarán de forma segura. Nadie más que el investigador tendrá acceso a los datos. Después de los seis meses, las grabaciones de audio y video serán destruidas. Las entrevistas serán transcritas y codificadas con seudónimos. El investigador codificará los datos y será el único que tendrá acceso a los datos codificados (seudónimos), libros de códigos, nombres oficiales y

formularios de consentimiento informado, y se almacenará por separado para vincular a los participantes con sus datos codificados durante un mínimo de tres años.

Los datos no identificados pueden compartirse con otros investigadores en el futuro, pero no contendrán información sobre su identidad individual.

Los resultados de este estudio pueden usarse en publicaciones y presentaciones sin ninguna información de identificación.

A Quién Contactar Para Preguntas Relacionadas Con La Investigación

Para preguntas sobre la investigación en sí, o para informar sobre cualquier efecto adverso durante o después de la participación, comuníquese con la investigadora Ana Holland al (956) 778-9996, anaholland01@utrgv.edu, y 411 Longoria Street, Port Isabel, Texas. Además, también puede comunicarse con la Cátedra de Disertación de la investigadora, la Dra. Karen M. Watt en Karen.watt@utrgv.edu o 956-665-7072.

A Quién Contactar Con Respecto A Sus Derechos Como Participante

Esta investigación ha sido revisada y aprobada por la Junta de Revisión Institucional para la Protección de Sujetos Humanos (IRB). Si tiene alguna pregunta sobre sus derechos como participante, o si considera que el investigador no los cumplió adecuadamente, comuníquese con el IRB al (956) 665-2093 o irb@utrgv.edu.

Firmas

Al firmar a continuación, indica que acepta voluntariamente participar en este estudio y que los procedimientos involucrados se han descrito a su entera satisfacción. El investigador le proporcionará una copia de este formulario con su propia referencia. Para poder participar, debes tener al menos 18 años de edad. Si es menor de 18 años, por favor informe al investigador.

_____   _____/_____/_____

Firma del participante   Fecha

Conserve una copia de este formulario para sus registros.

APPENDIX F

AUDIO AND VIDEO RELEASE FORM FOR CHILDREN AND PARENTS IN RESEARCH
IN ENGLISH AND SPANISH

The University of Texas Rio Grande Valley

Audio and Video Release Form For Children and Parent Participants

Study Title: A South Texas Elementary School's Transition to a Constructivist Blended Learning Model of Instruction in Math: Perceptions of Students and Parents

Principal Investigator: Ana M. Holland, Interdisciplinary Studies B. A., Reading Specialist M. Ed., University of Texas Rio Grande Valley Doctoral Candidate

Faculty Advisor: Karen Watt, Doctor of Philosophy Degree, Educational Leadership, University of Texas Rio Grande Valley Dissertation Chair

As part of this research study, I would like to audio and video record you and your child as each of you participates in the focus group and/or individual interviews, to make sure that I remember all the information accurately. The researcher will keep these tapes in a locked storage area, and they will only be used by the researcher. I will only audio and/or video record you and your child if you and your child give us permission. You will also need to sign the release form to consent to record your participation and use the recording for research purposes and/or for the presentation of the research.

Audio and video recording is completely voluntary.

If for any reason you or your child decide to discontinue with the audio or video recording, simply tell the researcher that you wish to stop.

The audio and video recordings will be kept for approximately six months and will be securely stored. No one other than the researcher will have access to the data. After the six months, the audio and video recordings will be destroyed. The audio and video recordings will be used to transcribe the data and be coded with pseudonyms. The researcher will code data and be the only ones with access to the code

data (pseudonyms), code books, official names, and informed consent forms, and will be stored separately to link participants with their coded data. Results of this study may be used in publications and presentations without any identifying information.

Who to Contact for Research Related Questions

For questions about the research itself, or to report any adverse effects during or following participation, contact the researcher, Ana Holland at (956) 778-9996, anaholland01@utrgv.edu, and 411 Longoria Street, Port Isabel, Texas. In addition, you may also contact the Dissertation Chair of the researcher, Dr. Karen M. Watt at Karen.watt@utrgv.edu or 956-665-7072.

Who to Contact Regarding Your Rights as a Participant

This research has been reviewed and approved by the Institutional Review Board for Human Subjects Protection (IRB). If you have any questions about your rights as a participant, or if you feel that your rights as a participant were not adequately met by the researcher, please contact the IRB at (956) 665-2093 or irb@utrgv.edu.

Parental Permission for Child's Audio and Video Recording

(*You must be 18 years or older to consent to your child's participation in the study.*)

I have read this form and the research study has been explained to me. I have been given the opportunity to ask questions and my questions have been answered. If I have additional questions, I have been told whom to contact. I give permission for my child to be audio and video recorded in the research study described above.

_____

Name of Child (printed)

_____

Parent/Legal Guardian's Name (printed)

_____   _____

Parent/Legal Guardian's Signature   Date

Parent Participation Permission for Audio and Video Recording

I have read this form and the research study has been explained to me. I have been given the opportunity to ask questions and my questions have been answered. If I have additional questions, I

have been told whom to contact. I give permission for be audio and video recorded in the research study described above.

_____

Parent/Legal Guardian's Name (printed)

_____   _____

Parent/Legal Guardian's Signature   Date

Please keep a copy of this form for your records.

The University of Texas Rio Grande Valley

Formulario De Consentimiento De Los Padres Para La Participación Infantil En La Investigación

Título del estudio: Transición de una escuela primaria del sur de Texas a un modelo constructivo de aprendizaje mixto de instrucción en matemáticas: percepciones de estudiantes y padres

Investigadora Principal: Ana M. Holland, Estudios Interdisciplinarios B. A., Especialista en Lectura M. Ed., Candidato a Doctorado de la Universidad de Texas Rio Grande Valley

Asesora del Profesorado: Karen Watt, Doctora en Filosofía, Liderazgo Educativo, Catedrática de Disertación de la Universidad de Texas Río Grande

Se le está pidiendo a su hijo que participe en un estudio de investigación. Este formulario contiene información importante sobre la razón para realizar este estudio, qué le pediré a su hijo que haga y la forma en que me gustaría usar la información sobre su hijo si decide permitir que su hijo participe en el estudio.

Propósito

Se le pide a su hijo que participe en un estudio de investigación sobre su transición de una forma tradicional de instrucción matemática a un aprendizaje combinado. El propósito del estudio es obtener descripciones detalladas sobre cómo se recibe la instrucción matemática de una manera nueva y diferente (aprendizaje combinado) de la instrucción matemática anterior. A partir de las descripciones de su hijo, el investigador determinará los hallazgos sobre los pensamientos y sentimientos de la nueva instrucción de matemáticas (aprendizaje combinado).

Procedimiento

Se le pedirá a su hijo que complete una breve encuesta, que incluirá preguntas sobre la edad de su hijo, el nivel de grado y los tipos de instrucción matemática que ha recibido, incluido el aprendizaje combinado. La participación en la encuesta debe tomar entre cinco y diez minutos en completarse. Basado de los resultados de la encuesta, se les invitará a los estudiantes a participar en una entrevista de grupo focal con otros estudiantes. Los estudiantes compartirán sus experiencias y pensamientos sobre su instrucción matemática pasada y su transición a un modelo de aprendizaje combinado de instrucción matemática. La entrevista del grupo focal se llevará a cabo en un aula en el campus de su hijo. La participación en la entrevista del grupo focal debe tomar unos 45 minutos. Si es necesario, se le puede pedir a su hijo que participe en una entrevista de seguimiento para aprender más sobre sus respuestas en la entrevista del grupo focal. La participación en las entrevistas individuales de seguimiento debe durar entre 30 y 45 minutos.

Me gustaría grabar en audio y video a su hijo mientras él / ella participa en el grupo de enfoque y / o entrevistas individuales, para asegurarme de que recuerdo y registré toda la información con precisión. El investigador mantendrá estas cintas en un área de almacenamiento bajo llave, y solo las utilizará el investigador. Solo grabaré en audio y / o video a su hijo si usted y su hijo nos dan permiso. Se le proporcionará un formulario de autorización por separado para firmar el consentimiento para registrar su participación y utilizar la grabación para fines de investigación y / o para la presentación de la investigación.

Posibles Riesgos y / o Molestias Asociadas con la Participación en el Estudio

A lo mejor de mi conocimiento, las cosas que su hijo/a estaría haciendo en este estudio no tienen más riesgo de daño que los riesgos de la vida cotidiana.

Beneficios de la Participación

Participar en este estudio de investigación puede no beneficiar a su hijo personalmente, pero puedo aprender cosas nuevas que ayudarán a otros. Este estudio está diseñado para aprender más sobre las experiencias de su hijo en la transición de la instrucción tradicional de matemáticas a un modelo de instrucción de aprendizaje combinado. Los resultados del estudio pueden usarse para ayudar a otras personas en el futuro.

Participación Voluntaria

La participación en este estudio es voluntaria; su hijo puede retirarse de este estudio en cualquier momento; usted y su hijo no serán penalizados de ninguna manera ni perderán ningún tipo de beneficio por decidir dejar de participar.

Si su hijo decide no participar en este estudio, esto no afectará de ninguna manera la relación que usted y su hijo tengan con la escuela de su hijo. Las calificaciones de su hijo no se verán afectadas si decide no permitir que su hijo participe en este estudio.

Si por alguna razón usted o su hijo deciden interrumpir la participación de su hijo, simplemente informe a los investigadores que desea detener o devolver las encuestas incompletas a los investigadores.

Anonimato y / o Confidencialidad

Si bien las encuestas se administrarán en formato de papel, todas las respuestas de las encuestas que reciba se tratarán con confidencialidad, se escribirán (transcribirán) y se almacenarán en un servidor seguro durante un mínimo de tres años.

Las grabaciones de audio y video se mantendrán durante aproximadamente seis meses y se almacenarán de forma segura. Nadie más que el investigador tendrá acceso a los datos. Después de los seis meses, las grabaciones de audio y video serán destruidas. Las entrevistas serán transcritas y codificadas con seudónimos. Los investigadores codificarán los datos y serán los únicos con acceso a los datos codificados (seudónimos), libros de códigos, nombres oficiales y formularios de consentimiento

informado, y se almacenarán por separado para vincular a los participantes con sus datos codificados durante un mínimo de tres años.

Se puede acceder a los registros educativos de su hijo durante el proceso de investigación, para hacer una referencia cruzada de los resultados de las entrevistas y obtener una visión más profunda de las experiencias de su hijo durante la transición al aprendizaje mixto. El investigador mantendrá la confidencialidad de toda la información del estudiante mediante la codificación de registros con seudónimos como se describe anteriormente. Todos los registros se almacenarán durante seis meses y se almacenarán de forma segura. Nadie más que el investigador tendrá acceso a estos registros educativos.

Los datos no identificados pueden compartirse con otros investigadores en el futuro, pero no contendrán información sobre su identidad individual.

Los resultados de este estudio se pueden utilizar en publicaciones y presentaciones sin información de identificación.

A Quién Contactar Para Preguntas Relacionadas Con La Investigación

Para preguntas sobre la investigación en sí, o para informar sobre cualquier efecto adverso durante o después de la participación, comuníquese con la investigadora Ana Holland al (956) 778-9996, anaholland01@utrgv.edu, y 411 Longoria Street, Port Isabel, Texas. Además, también puede comunicarse con la Cátedra de Disertación de la investigadora, la Dra. Karen M. Watt en Karen.watt@utrgv.edu o 956-665-7072.

A Quién Contactar Con Respecto A Sus Derechos Como Participante

Esta investigación ha sido revisada y aprobada por la Junta de Revisión Institucional para la Protección de Sujetos Humanos (IRB). Si tiene alguna pregunta sobre sus derechos como participante, o si considera que el investigador no los cumplió adecuadamente, comuníquese con el IRB al (956) 665-2093 o irb@utrgv.edu

Permiso de los Padres Para la Participación del Niño en la Investigación

 (*Debe tener 18 años o más para consentir la participación de su hijo en el estudio.*)
He leído este formulario y el estudio de investigación me ha sido explicado. Se me ha dado la oportunidad de hacer preguntas y mis preguntas han sido respondidas. Si tengo preguntas adicionales, me dijeron a quién contactar. Doy permiso para que mi hijo participe en el estudio de investigación descrito anteriormente.

_____

Nombre del Niño (Impreso)

_____

Nombre del Padre / Tutor Legal (Impreso)

_____   _____

Firma del Padre / Tutor Legal   Fecha

Conserve una copia de este formulario para sus registros.

APPENDIX G

APPENDIX G

PARENTAL CONSENT FORM FOR CHILD PARTICIPATION IN RESEARCH

The University of Texas Rio Grande Valley

Parental Consent Form for Child Participation in Research

Study Title: A South Texas Elementary School's Transition to a Constructivist Blended Learning Model of Instruction in Math: Perceptions of Students and Parents

Principal Investigator: Ana M. Holland, Interdisciplinary Studies B. A., Reading Specialist M. Ed., University of Texas Rio Grande Valley Doctoral Candidate

Faculty Advisor: Karen Watt, Doctor of Philosophy Degree, Educational Leadership, University of Texas Rio Grande Valley Dissertation Chair

Your child is being asked to take part in a research study. This form has important information about the reason for doing this study, what I will ask your child to do, and the way I would like to use information about your child if you choose to allow your child to be in the study.

Purpose

Your child is being asked to participate in a research study about his/her transition from a traditional form of math instruction to blended learning. The purpose of the study is to obtain detailed descriptions about how math instruction is received in the new and different way (blended learning) from past math instruction. From your child's descriptions, the researcher will determine findings about the thoughts and feelings of the new (blended learning) math instruction.

Procedure

Your child will be asked to complete a short survey, which will include questions about your child's age, grade level, and the types of math instruction he/she has received including blended learning. Participation in the survey should take about five to ten minutes to complete. Based on the survey results, students will be invited to participate in a focus group interview with other students. The students will share their experiences and thoughts about their past math instruction and their transition to a blended learning model of math instruction. The focus group interview will be held in a classroom at your child's campus. Participation in the focus group interview should take about 45 minutes. If needed, your child may be asked to participate in a follow-up interview to learn more about his/her responses

from the focus group interview. Participation in the follow-up individual interviews should last between 30 to 45 minutes.

I would like to audio and video record your child as he/she participates in the focus group and/or individual interviews, to make sure that I remember and record all the information accurately. I will keep these tapes in a locked storage area, and they will only be used by the researcher. I will only audio and/or video record your child if you and your child give us permission. You will be provided a separate release form to sign for consent to record your participation and use the recording for research purposes and/or presentations of the research.

Possible Risks and/or Discomforts Associated with Participation in the Study

To the best of my knowledge, the things your child would be doing in this study have no more risk of harm than the risks of everyday life.

Benefits of Participation

Taking part in this research study may not benefit your child personally, but I may learn new things that will help others. This study is designed to learn more about your child's experiences transitioning from traditional math instruction to a blended learning model of instruction. The study results may be used to help other people in the future.

Voluntary Participation

Participation in this study is voluntary; your child may withdraw from this study at any time -- you and your child will not be penalized in any way or lose any sort of benefits for deciding to stop participation.

If your child decides not to be in this study, this will not affect the relationship you and your child have with your child's school in any way. Your child's grades will not be affected if you choose not to let your child be in this study.

If for any reason you or your child decide to discontinue your child's participation, simply tell the researchers that you wish to stop or return the incomplete surveys to the researchers.

Anonymity and/or Confidentiality

While the surveys will be administered in paper format, all survey responses that I receive will be treated with confidentiality, written out (transcribed), and stored on a secure server for a minimum of three years.

The audio and video recordings will be kept for approximately six months and will be securely stored. No one other than the researchers will have access to the data. After the six months, the audio and video recordings will be destroyed. The interviews will be transcribed and coded with pseudonyms. The researchers will code data and be the only ones with access to the coded data (pseudonyms), code

books, official names, and informed consent forms, and will be stored separately to link participants with their coded data for a minimum of three years.

Your child's educational records may be accessed during the research process, in order to cross-reference findings from the interviews and gain a deeper insight into the experiences of your child during the transition to blended learning. The researcher will maintain the confidentiality of all student information by coding records with pseudonyms as described above. All records will be stored for six months and will be securely stored. No one other than the researcher will have access to these educational records.

De-identified data may be shared with other researcher in the future, but will not contain information about your individual identity.

Results of this study may be used in publications and presentations without any identifying information.

Who to Contact for Research Related Questions

For questions about the research itself, or to report any adverse effects during or following participation, contact the researcher, Ana Holland at (956) 778-9996, anaholland01@utrgv.edu, and 411 Longoria Street, Port Isabel, Texas. In addition, you may also contact the Dissertation Chair of the researcher, Dr. Karen M. Watt at Karen.watt@utrgv.edu or 956-665-7072.

Who to Contact Regarding Your Rights as a Participant

This research has been reviewed and approved by the Institutional Review Board for Human Subjects Protection (IRB). If you have any questions about your rights as a participant, or if you feel that your rights as a participant were not adequately met by the researcher, please contact the IRB at (956) 665-2093 or irb@utrgv.edu.

Parental Permission for Child's Participation in Research

 (***You must be 18 years or older to consent to your child's participation in the study.***)

I have read this form and the research study has been explained to me. I have been given the opportunity to ask questions and my questions have been answered. If I have additional questions, I have been told whom to contact. I give permission for my child to participate in the research study described above.

_____

Name of Child (printed)

_____

Parent/Legal Guardian's Name (printed)

_____   _____

Parent/Legal Guardian's Signature   Date

Please keep a copy of this form for your records.

The University of Texas Rio Grande Valley

Formulario De Consentimiento De Los Padres Para La Participación Infantil En La Investigación

Título del estudio: Transición de una escuela primaria del sur de Texas a un modelo constructivo de aprendizaje mixto de instrucción en matemáticas: percepciones de estudiantes y padres

Investigadora Principal: Ana M. Holland, Estudios Interdisciplinarios B. A., Especialista en Lectura M. Ed., Candidato a Doctorado de la Universidad de Texas Rio Grande Valley

Asesora del Profesorado: Karen Watt, Doctora en Filosofía, Liderazgo Educativo, Catedrática de Disertación de la Universidad de Texas Río Grande

Se le está pidiendo a su hijo que participe en un estudio de investigación. Este formulario contiene información importante sobre la razón para realizar este estudio, qué le pediré a su hijo que haga y la forma en que me gustaría usar la información sobre su hijo si decide permitir que su hijo participe en el estudio.

Propósito

Se le pide a su hijo que participe en un estudio de investigación sobre su transición de una forma tradicional de instrucción matemática a un aprendizaje combinado. El propósito del estudio es obtener descripciones detalladas sobre cómo se recibe la instrucción matemática de una manera nueva y diferente (aprendizaje combinado) de la instrucción matemática anterior. A partir de las descripciones de su hijo, el investigador determinará los hallazgos sobre los pensamientos y sentimientos de la nueva instrucción de matemáticas (aprendizaje combinado).

Procedimiento

Se le pedirá a su hijo que complete una breve encuesta, que incluirá preguntas sobre la edad de su hijo, el nivel de grado y los tipos de instrucción matemática que ha recibido, incluido el aprendizaje combinado. La participación en la encuesta debe tomar entre cinco y diez minutos en completarse. Basado de los resultados de la encuesta, se le invitará a los estudiantes a participar en una entrevista de grupo focal con otros estudiantes. Los estudiantes compartirán sus experiencias y pensamientos sobre su instrucción matemática pasada y su transición a un modelo de aprendizaje combinado de instrucción matemática. La entrevista del grupo focal se llevará a cabo en un aula en el campus de su hijo. La participación en la entrevista del grupo focal debe tomar unos 45 minutos. Si es necesario, se le puede pedir a su hijo que participe en una entrevista de seguimiento para aprender más sobre sus respuestas en la entrevista del grupo focal. La participación en las entrevistas individuales de seguimiento debe durar entre 30 y 45 minutos.

Me gustaría grabar en audio y video a su hijo mientras él / ella participa en el grupo de enfoque y / o entrevistas individuales, para asegurarme de que recuerdo y registré toda la información con precisión.

El investigador mantendrá estas cintas en un área de almacenamiento bajo llave, y solo las utilizará el investigador. Solo grabaré en audio y / o video a su hijo si usted y su hijo nos dan permiso. Se le proporcionará un formulario de autorización por separado para firmar el consentimiento para registrar su participación y utilizar la grabación para fines de investigación y / o para la presentación de la investigación.

Posibles Riesgos y / o Molestias Asociadas con la Participación en el Estudio

A lo mejor de mi conocimiento, las cosas que su hijo/a estaría haciendo en este estudio no tienen más riesgo de daño que los riesgos de la vida cotidiana.

Beneficios de la Participación

Participar en este estudio de investigación puede no beneficiar a su hijo personalmente, pero puedo aprender cosas nuevas que ayudarán a otros. Este estudio está diseñado para aprender más sobre las experiencias de su hijo en la transición de la instrucción tradicional de matemáticas a un modelo de instrucción de aprendizaje combinado. Los resultados del estudio pueden usarse para ayudar a otras personas en el futuro.

Participación Voluntaria

La participación en este estudio es voluntario; su hijo puede retirarse de este estudio en cualquier momento; usted y su hijo no serán penalizados de ninguna manera ni perderán ningún tipo de beneficio por decidir dejar de participar.

Si su hijo decide no participar en este estudio, esto no afectará de ninguna manera la relación que usted y su hijo tengan con la escuela de su hijo. Las calificaciones de su hijo no se verán afectadas si decide no permitir que su hijo participe en este estudio.

Si por alguna razón usted o su hijo deciden interrumpir la participación de su hijo, simplemente informe a los investigadores que desea detener o devolver las encuestas incompletas a los investigadores.

Anonimato y / o Confidencialidad

Si bien las encuestas se administrarán en formato de papel, todas las respuestas de las encuestas que reciba se tratarán con confidencialidad, se escribirán (transcribirán) y se almacenarán en un servidor seguro durante un mínimo de tres años.

Las grabaciones de audio y video se mantendrán durante aproximadamente seis meses y se almacenarán de forma segura. Nadie más que el investigador tendrá acceso a los datos. Después de los seis meses, las grabaciones de audio y video serán destruidas. Las entrevistas serán transcritas y codificadas con seudónimos. Los investigadores codificarán los datos y serán los únicos con acceso a los datos codificados (seudónimos), libros de códigos, nombres oficiales y formularios de consentimiento informado, y se almacenarán por separado para vincular a los participantes con sus datos codificados durante un mínimo de tres años.

Se puede acceder a los registros educativos de su hijo durante el proceso de investigación, para hacer una referencia cruzada de los resultados de las entrevistas y obtener una visión más profunda de las experiencias de su hijo durante la transición al aprendizaje mixto. El investigador mantendrá la confidencialidad de toda la información del estudiante mediante la codificación de registros con seudónimos como se describe anteriormente. Todos los registros se almacenarán durante seis meses y se almacenarán de forma segura. Nadie más que el investigador tendrá acceso a estos registros educativos.

Los datos no identificados pueden compartirse con otros investigadores en el futuro, pero no contendrán información sobre su identidad individual.

Los resultados de este estudio se pueden utilizar en publicaciones y presentaciones sin información de identificación.

A Quién Contactar Para Preguntas Relacionadas Con La Investigación

Para preguntas sobre la investigación en sí, o para informar sobre cualquier efecto adverso durante o después de la participación, comuníquese con la investigadora Ana Holland al (956) 778-9996, anaholland01@utrgv.edu, y 411 Longoria Street, Port Isabel, Texas. Además, también puede comunicarse con la Cátedra de Disertación de la investigadora, la Dra. Karen M. Watt en Karen.watt@utrgv.edu o 956-665-7072.

A Quién Contactar Con Respecto A Sus Derechos Como Participante

Esta investigación ha sido revisada y aprobada por la Junta de Revisión Institucional para la Protección de Sujetos Humanos (IRB). Si tiene alguna pregunta sobre sus derechos como participante, o si considera que el investigador no los cumplió adecuadamente, comuníquese con el IRB al (956) 665-2093 o irb@utrgv.edu

Permiso de los Padres Para la Participación del Niño en la Investigación

(*Debe tener 18 años o más para consentir la participación de su hijo en el estudio.*)

He leído este formulario y el estudio de investigación me ha sido explicado. Se me ha dado la oportunidad de hacer preguntas y mis preguntas han sido respondidas. Si tengo preguntas adicionales, me dijeron a quién contactar. Doy permiso para que mi hijo participe en el estudio de investigación descrito anteriormente.

_____

Nombre del Niño (Impreso)

_____

Nombre del Padre / Tutor Legal (Impreso)

_____   _____

Firma del Padre / Tutor Legal   Fecha

Conserve una copia de este formulario para sus registros.

APPENDIX H

APPENDIX H

FOCUS GROUP INTERVIEW QUESTIONS FOR PARENTS IN ENGLISH AND SPANISH

FOCUS GROUP INTERVIEW QUESTIONS FOR PARENTS IN ENGLISH

Participant Introduction: Thank you for joining us today. My name is Ana Holland and I am doctoral student at UTRGV. Today, you will be participating in a focus group interview, where you will share about how your child learns math. We will begin by having you introduce yourself and tell us a little about yourself and your children.

1. Describe (Tell me about) your child's school.

    a. What do you like about it (your child's school)?

    b. What do you not like about it (your child's school)?

2. What does your child share about his or her math class or how he or she learns math this year?

3. Describe (Tell me about) your child's math class.

    a. What does your child do in his/her math class?

    b. Tell me more about…

4. Describe (Tell me about) your experiences with flipped lessons, stations, goal setting, Imagine Math Facts and/or Imagine Math (blended learning) in your math class?

    a. How has _____ helped your child learn math?

    b. Tell me more about…

5. What does your child or his/her teacher call this new way of learning math?

    a. Why do you think they call it…?

6. Does your child practice math at home? If yes, how?

    a. If yes, how is this different than when he or she was in first or second grade?

7. Describe how math class is different than the "old" way your child learned math (in first or second grade).

8. What have you learned from your child's teacher and/or administrators about how your child learns math now?

9. Based on your child's experiences with the "new" way of learning math and your conversations with teachers and school leaders, do you support the continuing with this way of learning math instruction at your child's school? Why or why not?

10. What would you tell a parent interested about how your child learns math?

11. Do you think your child's school has changed since your child started learning math this way?

12. How has learning math changed for your child?

13. Is there anything else you would like to share about how you learn math in your class?

FOCUS GROUP INTERVIEW QUESTIONS FOR PARENTS IN SPANISH

Introducción del participante: Gracias por acompañarnos hoy. Mi nombre es Ana Holland y soy estudiante de doctorado en UTRGV. Hoy, participará en una entrevista de grupo focal, donde compartirá sobre cómo su hijo aprende matemáticas. Comenzaremos con pedirle que se presente y contarnos un poco sobre usted y sus hijos.

1. Describa (cuénteme sobre) la escuela de su hijo.

    a. ¿Que le gusta de esto (la escuela de su hijo)?

    b. ¿Que no le gusta de eso (la escuela de su hijo)?

2. ¿Que comparte su hijo sobre su clase de matemáticas o como aprende matemáticas este año?

3. Describa (cuénteme sobre) la clase de matemáticas de su hijo.

    a. ¿Qué hace su hijo en su clase de matemáticas?

    b. Dígame mas acerca de esto…

4. Describa (cuénteme) sus experiencias con lecciones invertidas, estaciones, establecimiento de metas, hechos de Imagine Math y/o Imagine Math (aprendizaje combinado) en su clase de matemáticas?

    a. ¿Cómo ha ayudado _____ a su hijo a aprender matemáticas?

    b. Dígame mas sobre esto…

5. ¿Cómo llama su hijo o su maestro a esta nueva forma de aprender matemáticas?

    a. ¿Por qué crees que lo llaman…?

6. ¿Su hijo practica matemáticas en casa? ¿Si su respuesta es sí, cómo?

    a. En caso afirmativo, ¿en qué se diferencia esto de cuando él o ella estaban en primer o segundo grado?

7. Describa como la clase de matemáticas es diferente a la forma "antigua" en que su hijo aprendió matemáticas (en primer o segundo grado).

8. ¿Qué ha aprendido del maestro y / o administradores de su hijo sobre cómo su hijo aprende matemáticas ahora?

9. Basándose en las experiencias de su hijo con la "nueva" forma de aprender matemáticas y sus conversaciones con los maestros y los líderes de la escuela, ¿Apoya usted con el continuar con esta forma de enseñanza de matemáticas en la escuela de su hijo? ¿Por qué o por qué no?

10. ¿Qué le diría a un padre interesado sobre cómo su hijo aprende matemáticas?

11. ¿Cree que la escuela de su hijo ha cambiado desde que su hijo comenzó a aprender matemáticas de esta manera?

12. ¿Cómo ha cambiado el aprendizaje de las matemáticas para su hijo?

13. ¿Hay algo más que le gustaría compartir sobre cómo aprende matemáticas en su clase?

APPENDIX I

FOCUS GROUP INTERVIEW QUESTIONS FOR STUDENTS

Participant Introduction: Thank you for joining me today. My name is Ana Holland and I am a doctoral student at UTRGV. Please tell me your name, grade level, your math teacher's name, and a little about your school.

1. Describe (Tell me about) your school.

    a. What do you like about it (your school)?

    b. What do you not like about it (your school)?

2. Describe (Tell me about) your math class.

    a. What do you do in your math class?

    b. Tell me more about…

3. Describe (Tell me about) your experiences with flipped lessons, stations, goal setting, Imagine Math Facts and/or Imagine Math (blended learning) in your math class?

    a. How has _____ helped you learn math? Tell me more about…

4. What do your teachers call this new way of learning math?

    a. Why do you think they call it…?

5. Describe how math class is different than the "old" way you learned math (in first or second grade).

6. Do you talk to your parents about your math class? If yes, what do you share with your parents?

7. Do you practice math at home? If yes, how?

      a. If yes, how is this different than when you were in first or second grade?

8. What would you tell a new student about how you learn math in your class?

9. Do you think your school has changed since students started learning math this way?

10. How has learning math changed?

11. Is there anything else you would like to share about how you learn math in your class?

BIOGRAPHICAL SKETCH

Ana Holland is the daughter of Jesus and Maria Socorro Vicinaiz of Los Fresnos, Texas. After graduating from Los Fresnos High School in the spring of 1986, she attained a Bachelor's of Science with a Major in Education and a Minor in Reading from Southwest Texas State University in San Marcos, Texas in May 1990. Upon graduation Ana Holland worked as an elementary teacher in the Rio Grande Valley for ten years during which time she attained a Master's in Education as a Reading Specialist (December 2000) and a certified Master Reading Teacher (June 2000) through the University of Texas at Brownsville. In July 2003, she received her certificate of Administration and Mid-Management, and in May 2011 attained her Superintendent's certificate from the University of Texas at Brownsville. For the remaining 20 years of her educational career, Ana Holland served her district as an administrator at a variety of levels including an educational facilitator, elementary school principal, and assistant superintendent for curriculum and instruction. Ana Holland attained her Doctorate of Education from the University of Texas at the Rio Grande Valley in December 2021. Ana Holland can be reached via email anaholland35@gmail.com.