The Impact of Technology on Parental Involvement: Perceptions of teachers and guidance counselors regarding the impact of a parent portal component of a student information system on parental involvement at the high school level

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Dissertation submitted to the Faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of

Doctor of Education in

Educational Leadership and Policy Studies

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February 26, 2013
Blacksburg, Virginia

Key Words: Parental Involvement, Parent Participation, Parent-teacher Communication, Student Information Systems, Secondary Schools and Technology
The Impact of Technology on Parental Involvement: Perceptions of teachers and guidance counselors regarding the impact of a parent portal component of a student information system on parental involvement at the high school level

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Abstract

With just a click of a button, individuals from across the world can communicate and share information with ease and efficiency through the internet. Employing similar technology, schools are implementing student information systems with a parent portal component to provide parents, students, teachers and guidance counselors with anytime, real-time avenues of communication regarding attendance, grades and standardized test scores in an effort to increase parental involvement and student achievement. Schools must collect and review data to make sound decisions to guide practice (Mann & Shakeshaft, 2003). Therefore, utilization of parent portals should be evaluated along with the strategies employed to increase parental use. This study is an investigation of the perceptions of high school teachers and guidance counselors on the impact of a parent portal on parental involvement and strategies used to increase parental use. Through descriptive and inferential analyses of survey data, key findings were revealed. Overall, guidance counselors perceived the impact of the parent portal to be positive and indicated more strategies were used in their schools differing from the teachers’ perception. However, both indicated a need to partner with the community to improve parental use of the parent portal. Publishing an annual user guide on the parent portal for all stakeholders (teachers, guidance counselors, administrators, students, parents and the community) was one major implication. Centralizing information distributed regarding the parent portal will strengthen the overall intent of the program and the division’s goal of providing opportunities for all to actively engage in student achievement (Longfellow, 2004).
Dedication

I dedicate this work to my mother, Eleanor N. B. Johnson, for all her love, support and prayers. She is truly the wind beneath my wings. I love and appreciate her.
Acknowledgements

It is by His grace that I have made it to the end of this journey. To God be the glory. I could not have arrived to my destination without the love, prayers, support and encouragement of my family, church family, friends, colleagues and cohort members. Thank you all!

I would have never been able to start this journey without Dr. Travis Twiford. He remembered me and provided an opportunity. He has been my advisor and coach since my days in the VT Principal Preparation program. He gave me the courage to continue on to the next level. It was through the Principal Preparation program that Dr. Cathy Rogers became my mentor and friend. I am forever grateful for all the wisdom she shared. She gave me the confidence to try when I was afraid. I am truly appreciative of Dr. Glen Earthman’s willingness to join my committee. I thank him for his feedback. I am forever grateful for my committee chair and counselor, Dr. Carol Cash. Her continuous support and encouragement throughout this journey was priceless. She gave me the courage to overcome every obstacle and hurdle along this fruitful journey.

Brianna, Devon, and mother, thank you for enduring to the end; what is coming is much better than what has been. Brianna and Devon, I want you to take this same journey. You can do it. All things are possible when you are led by God.

Finally, I must thank my father, the late Glenn M. Johnson Sr., for instilling in me the passion to make the ordinary, extraordinary.
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Chapter 1
Introduction

Context of the Study

Communication is a key to keeping a relationship vital and healthy (Constantino, 2002). The relationships between parent and teacher, home and school, are such relationships that require ongoing exchange of information, updates, and feedback to maintain strong, rich partnerships. When schools use a planned comprehensive approach to building healthy partnerships between home and school, student achievement increases because parents are more involved (Merkley, Schmidt, Dirksen, & Fulher, 2006). According to research completed by Epstein in 1995, 2001, and 2008, communication is a major component of parental involvement. Parental involvement enhances student achievement and increases parental satisfaction (Epstein, 2008; Liu, Black, Algina, Cavanaugh, & Dawson, 2010; Wanat, 2010). The No Child Left Behind Act of 2001 (NCLB) considers parental involvement such a vital component of student success that it mandates schools implement methods to involve parents.

Background of the Study

Establishing and maintaining a vital and healthy partnership between home and school is a requirement for schools under the No Child Left Behind Act of 2001 (NCLB). Schools are charged with the responsibility of creating, maintaining, and evaluating programs that build home and school partnerships. Schools are mandated by NCLB to involve parents throughout the entire process yet parental involvement is still a nationwide concern (Halsey, 2005). Each family is different and has its own unique dynamic resulting in many factors from time constraints to lack of knowledge that hinder parental involvement. Results from the National Household Education Surveys Program (Herrold & Donnell, 2008) reported that only 61% of high school parents attend a regularly scheduled parent-teacher conference as opposed to 92% of third through fifth grade parents. Unfortunately, as students progress through grade levels, parental involvement decreases (Deslandes & Bertrand, 2005; Halsey, 2005; Hill, Bromell, Tyson, & Flint, 2007, Hill & Tyson, 2009).

Secondary students are often pleased when their parents take a less active role on campus than they do at home (Hill et al., 2007). Middle and high school days are filled with events of
indecision and change for most students. These are the crucial years when students work on developing their own identities while dealing with the day-to-day issues of the social arenas in the secondary grades (Hill et al., 2007). For secondary-aged students, having parental involvement at home is desired and sought for major aspects of their lives. Students want and need the support of their parents regardless of their grade level (Epstein, 2008). So then, a question raised by Beghetto in 2001 best articulated the dilemma, how can parents get involved with their children’s education while providing enough room for them to grow as individuals?

A research report completed by Halsey (2005) revealed parents want to get involved but most do not know how. Herrold and O’Donnell (2008) reported in a national study that only 51% of high school parents received a school-initiated note or email regarding their student; an even lower percentage (46%) received a telephone call. However, in this same study, 88% of the high school parents received newsletters, memos, or notices generally addressed to all parents. Educators along with parents share in the responsibility of providing ways for parents to meet their goals of actively participating in their children’s education through school involvement whether at home or on campus. In a report prepared by WestEd for the United States Department of Education on engaging parents (2007), research supported the claim that schools play a large role in the lack of parental involvement at the secondary level by not providing enough guidance and opportunities for parents to get involved and stay involved. According to Sheldon and Epstein (2004), schools have a responsibility to help parents become actively involved with their children’s education.

For decades, memorandums, notes, and telephone calls were the most common methods used by schools to communicate with parents in an effort to keep them informed of their children’s academic progress and to increase parental involvement. Since entering the Information Age, the world-wide-web has opened many avenues of communication between home and school. Email and the internet joined the ranks of being one of the most used methods employed by teachers to build rich partnerships between home and school (Fuchs, 2004). Through the use of email and web-based communication such as teacher websites, blogs, and wikis, most parents and teachers are freed from the obstacles of communicating like scheduling and time (Merkley, Schmidt, Dirksen, & Fuhler, 2006). Each method provides viable options to increasing parental involvement and enhancing the lines of communications between home and school.
Capitalizing on the resources technology offers while armed with research to support that web-based resources have the potential to be effective communication tools between the partnership of home and school (Bouffard, 2008), school divisions have implemented student information systems (SIS) in an effort to increase parental involvement, student achievement, and attendance rates. Student information systems are designed to enhance the parent-teacher partnership by providing real-time ongoing, two-way communication between home and school.

Student information management systems (SIMS), student management systems (SMS), campus management systems (CMS), student records systems (SRS), and school management systems (SMS) are a few of the names used for software programs that enable teachers, guidance counselors, and administrators to manage student demographics, scheduling, course selections, grades, test history, attendance, course history, as well as discipline. The majority of student information systems are web-based applications which allow users to access the data straight from their web browser and from any computer. No longer are users restricted to accessing student data during normal school hours or to a specific computer.

Student information systems are often equipped with an online gradebook for the teachers and a parent portal for parents to view the data. These web-based systems provide parents with twenty-four hours and seven days a week access to vital information such as their students’ grades, attendance, and assessment history data without communication barriers. For the secondary level, student information systems enable parents to take action sooner without having to physically go to their children’s schools. The parent portal component of student information systems empowers parents to take action much earlier and with swiftness (Kokoszka, 2009).

**Problem of the Study**

Schools are not only charged with seeking methods of improving parental involvement in an effort to increase student achievement and attendance rates, their methods, especially costly ones, must produce results that justify continuous use and support. School divisions utilizing student information systems must examine the results produced by these systems to determine if the intended results are accomplished. Steps to take to evaluate strategies employed by teachers, guidance counselors and school administrators to ensure the desired results are met in the future should also be established. Creighton (2007) summarized the need succinctly when he stated, “the challenges we face in schools today are increasing, and never before has the importance of
using data and evidence to make decisions about school improvement and increasing student achievement been so crucial” (p. xiii).

Theoretical Framework

Joyce Epstein’s, a key researcher in the area of parental involvement, Framework of Six Types of Involvement was the theoretical framework of this study. The framework developed by Epstein focused on the partnership of school, family, and community. It is Epstein’s theory illustrated by overlapping spheres that school, family, and community are the “three major contexts in which students learn and grow” (Epstein et al., 2002). As demonstrated in Figure 1, the researcher illustrated her Overlapping Spheres of Influence Theory through two structures, external and internal. The external structure utilizes three circles that overlap, each representing each major context which are moved closer together or pushed away by four forces. Three of the forces are the actions and beliefs of the three partners: school, family and community.

The fourth force represents the physical and mental status of the child including life experiences highlighting the importance of knowing how each can play a vital role in the manner in which a student will react to the other forces. The internal structure illustrates the flow of communication between and among the family, child, school, parent, and teacher. Epstein categorized the communication into two levels, institutional and individual. The institutional level refers to communication that is sent out to groups or everyone unlike the individual level where communication is conducted on one to one bases.
Utilizing a mixture of the different types of involvement, schools can implement programs and activities to meet the goal of strong partnerships between home and school; Epstein (2008) provided these examples of activities and programs schools can use that correspond with her six types of involvement:

Type 1: Parenting. Parenting activities help families understand adolescent development, strengthen parenting skills and set home conditions for learning. Type 1 activities also help schools understand families' cultures and goals for their children. Some examples include workshops for parents on health, peer pressure, drug use, and premature sexual behavior.

Type 2: Communicating. Two-way communicating activities keep families informed about and involved in school programs and students' progress. Some examples include student-led parent-teacher-student conferences and principals' breakfasts on key topics, such as graduation requirements and college and career planning.

Type 3: Volunteering. Activities that facilitate volunteerism improve the recruitment, training, and schedules of volunteer stakeholders to support student activities and school programs. Some activities include scheduling time for parents to talk to students about their careers and talents; training parents and other volunteers as mentors and coaches; and identifying parents to serve as neighborhood representatives and interpreters.

Type 4: Learning at home. Learning-at-home activities, designed for students and their families, are coordinated with the students' classwork and curricula. Some examples include goal setting for report cards and guidelines for parents for providing home support for students who need extra help to pass courses.

Type 5: Decision making. Decision-making activities include families' voices in developing mission statements and in designing, reviewing, and improving school policies that affect students and families. Some examples include parent representatives on the school's action team for partnerships; an active parent organization and parent and student representatives on school improvement committees.

Type 6: Collaborating with the community. Collaborating-with-the-community activities draw upon and coordinate the resources of businesses; cultural, civic, and religious organizations; senior citizen groups; colleges and universities; government agencies; and
other associations to strengthen school programs, family practices, and student learning and development. Other activities in this category enable students, staff members, and families to become engaged in community service or projects that contribute to the community. Some examples include creating directories that help identify after-school recreation, tutorial programs, health services, cultural events, service opportunities, summer programs, and part-time jobs (Epstein, 2008, pp. 11-12).

According to Epstein (2008), the research-based guidelines and activities are being used by many schools in an effort to develop programs that will establish the much needed parental component of the school-home partnership. The utilization of technology along with the research-based activities could assist in the goal of establishing sustainable parental involvement (Epstein, 2008). As a result, schools will discover solutions to many challenges related to parental involvement. A look into what secondary schools have done to implement sustainable programs or activities that will (1) provide parents with options for a vital and healthy line of communication between home and school, (2) maintain a comfortable distance for parents to stay involved with their children’s education while students establish their own identities in the secondary grades, and (3) support student achievement while increasing student attendance rates will identify viable options for educators and policymakers.

Significance of the Study

Research has proven parental involvement plays an essential role in the educational process of any student regardless of the grade level (Epstein, 1995, 2001, 2008; Hill et al., 2007). Parental involvement is so essential that it is federally mandated (Public Law 107, Section 1118 – 110th Congress) that schools take the initiative in providing methods and avenues for parents to take that active role. When parents are involved, student achievement and attendance increases (Sheldon & Epstein, 2004). To assist parents in becoming and remaining actively involved, schools have used a variety of methods from sending traditional paper progress reports home by students to utilizing student information systems which provide current achievement data without the constraints of time and location.

Student information systems have the potential to be one of the most effective tools introduced to the world of education to increase parental involvement (Bouffard, 2008). Therefore, it is the responsibility of a school division utilizing these systems to perform a review
of the results produced in an effort to monitor its effectiveness. Although, these systems have great potential, it is important for schools to develop their own strategies to increase parental involvement according to the needs of their parents and students. “Though several parental involvement strategies can work, there is no magic bullet. Each school, armed with results from action research, should design its own plan” (Brough & Irvin, 2001 p.59).

The results of this study can provide the school division with data specific to their schools, students, parents, and teachers. From the results of this study, the school division will be provided with baseline data to review and build upon. In order to determine how to get parents involved, schools must first establish what they are looking for parents to do at home, on campus, and in the community. Individual schools can apply the findings of this study to their specific areas of need regarding parental involvement.

**Purpose of the Study**

The purpose of this study is to investigate the perceptions of teachers and guidance counselors on the impact of a parent portal component of a student information system on parental involvement at the high school level and the strategies used to increase parental use. This study took place in a school division located in a suburban region of Virginia where parents have access twenty-four hours a day and seven days a week to their students’ grades, attendance, and test history data.

**Research Questions**

The overarching research question of this study, what do teachers and guidance counselors perceive is the impact of the parent portal on parental involvement to support student progress at the high school level, was used in developing the following research questions that guided this study:

1. What do teachers and guidance counselors perceive is the percentage of parents who access the parent portal?
2. What do teachers and guidance counselors perceive is the frequency of parental access to the parent portal?
3. What are the differences between perceptions of teachers and guidance counselors regarding parental use of the parent portal?
4. What do teachers and guidance counselors perceive is the impact of the parent portal on student attendance, grades and parental involvement?

5. What are the differences in the overall perceptions, teachers and guidance counselors, at each high school regarding the impact of the parent portal on student attendance, grades and parental involvement?

6. What strategies do teachers and guidance counselors indicate are used in their school to encourage parental use of the parent portal?

**Limitations and Delimitations**

The results of this study may not be generalizable beyond the school division in which the participants surveyed are employed, thereby creating a limitation. Additionally, it is assumed that all responses from each participant will be provided with integrity and impartiality.

Teachers and guidance counselors at the high school level in a school division located in a suburban region of Virginia will be surveyed on the parental use of student information systems in their respective schools. The school division was selected for its division-wide use of a student information system that provides parents with around-the-clock access to student achievement data that includes grades, attendance, and test history. Therefore, the selected participants and school division are delimitations of this study.

**Definition of Terms**

*Academic Progress:* For the purpose of this study, academic progress is defined as the forward movement of student performance in their secondary classes that is measured by assessments, participation, projects, and homework.

*Parent:* For the purpose of this study, parent is defined as any person taking care of a student by providing shelter, food, clothing, and both physical and mental support; this person can be a mother, father, grandparent, sibling, aunt, uncle or friend.

*Parental Efficacy:* the self-guided belief of parents on how much they can cause desired effect in a student’s academic achievement (Georgiou & Tourva, 2007).

*Parental Involvement:* any act or action taken by a parent or guardian in an effort to assist, monitor, or improve his/her student in academic achievement (Epstein et al., 2002; McCoach et al., 2010).
**Parent Portal:** a secure, password protected online student information system portal for parents and guardians to access student data such as grades, attendance, standardized test results and course history (Koch, 2010).

**Parental Use:** the act of a parent or guardian accessing a student information system (SIS) to view student data such as grades and attendance (Koch, 2010).

**Student Achievement:** the process in which students arrive at an academic goal established by the teachers, parents, school division, and/or students (Hill & Tyson, 2009).

**Student Information Systems:** a web-based (online) software application utilized by teachers, guidance counselors and school administrators to manage student data such as grades, attendance, historical test results and course history which contains an electronic gradebook component (Koch, 2010).

**Organization of the Study**

A five-chapter format is the organizational design of this study. The study is introduced in Chapter 1, a review of relevant literature to the study is presented in Chapter 2 and Chapter 3 details the methodology to be used in conducting the study. Chapter 4 reports the detailed results of the data analysis and Chapter 5 unveils the summary of findings, implications and conclusions along with recommendations for future studies.
Chapter 2
Review of Related Literature

Introduction

Literature related to parental involvement and communication between schools and parents are examined in this chapter. The review of relevant literature presented focuses on the following areas: Parental Involvement, Home and School Communication and Parental Involvement and Technology. Parental involvement, parent participation, student information systems, technology, secondary schools and parent-teacher communication were key words used to search computerized databases for research articles through EBSCOhost, an Elton Bryson Stephens Company, and dissertations through ETD@VT, Electronic Theses and Dissertations.

Parental Involvement

It is important to the success of student achievement that parents are involved in their students’ education at all levels (Gonzalez, 2002). Parental involvement has been identified as an essential component of students’ successful progression from elementary to high school (Deslandes & Bertrand, 2005; Epstein, 1995, 2001, 2008; Hill et al., 2007). “Involvement can take different forms, including discussions about school, help with homework, or volunteering at school. Parent involvement appears to have lasting benefits even through high school” (Deslandes & Bertrand, 2005, p. 164). Consequently, empirical findings also document the need for schools to define their interpretation of parental involvement, establish a plan for involving parents, communicate the plan with parents and provide parents with the necessary support to ensure their expectations are understood (Epstein et al., 2002 Hoover-Dempsey et al., 2005).

Defining Parental Involvement

The task of defining parental involvement has been undertaken by many researchers (Fisher, 2009). From this research, the definition of parental involvement has been expanded to include more parental activities than what some educators and parents viewed as traditional actions of a parent involved in their child’s education (Brough & Irvin, 2001; Epstein, 2008, 2001; Harris & Goodall, 2008; Wanat, 2010). “Parental involvement could be defined as participation at school or involvement in the student’s academic and social lives” (McCoach et
In 2004, under the No Child Left Behind Act, a statutory definition of parental involvement was established. In this law, parental involvement is defined as follows:

The participation of parents in regular, two-way, and meaningful communication involving student academic learning and other school activities, including ensuring—

- that parents play an integral role in assisting their child’s learning;
- that parents are encouraged to be actively involved in their child’s education at school;
- that parents are full partners in their child’s education and are included, as appropriate, in decision-making and on advisory committees to assist in the education of their child; and
- that other activities are carried out, such as those described in section 1118 of the ESEA (Parental Involvement). [Section 9101(32), ESEA.]

Depending on the individual defining the term, a researcher, teacher, administrator, student, or parent, the definition of parental involvement can be vague leaving room for individual discretion or layered with details to include specific examples. According to researchers Hill and Taylor (2004):

parental school involvement is largely defined as consisting of the following activities: volunteering at school, communicating with teachers and other school personnel, assisting in academic activities at home, and attending school events, meetings of parent-teacher associations (PTA’s), and parent-teacher conferences (pg. 161).

Note the researchers’ point to distinguish general parental involvement from that of parental school involvement. To add to the layers of defining parental involvement, some researchers will use the terms parental involvement and parental engagement interchangeably, which then varies the interpretation of the term (Harris & Goodall, 2008). From research supporting a need to focus on involving not just the parent and student but the entire family, the term family involvement is used in place of parental involvement (Bouffard, 2008; Epstein et al., 2008).

In 1995 Epstein completed research that broadened the spectrum of the term parental involvement to include partnerships among the school, family, and community. Armed with years of research to support that it is the strong partnerships created among schools, families, and communities that provide children with the needed guidance to succeed, did Epstein’s terminology shift to include the term partnerships. “If educators view students as children, they
are likely to see both the family and the community as partners with the school in children’s education and development” (Epstein, 1995, “School/Family/Community Partnerships”, para. 1).

**Benefits of Parental Involvement**

Regardless of how parental involvement is defined or which term is used, involvement or engagement from parents, family, community or their partnerships in a child’s educational journey can provide a range of benefits (Bryan & Griffin, 2010; Epstein, 1995, 2001, 2008; Epstein et al., 2008; Hill et al., 2007, Hoover-Dempsey et al., 2005). The benefits of parental involvement in educating children can be shared amongst all stakeholders: the student, the parent, the family, the school and the community (Sheldon & Epstein, 2004; Halsey, 2005, Hoover-Dempsey et al., 2005). According to the findings of a synthesis study completed by Henderson and Mapp (2002) on 51 research studies on the topic of parental involvement:

One overarching conclusion has emerged: Taken as a whole, these studies found a positive and convincing relationship between family involvement and benefits for students, including improved academic achievement. This relationship holds across families of all economic, racial/ethnic, and educational backgrounds and for students at all ages. Although there is less research on the effects of community involvement, it also suggests benefits for schools, families and students, including improved achievement and behavior (p.24).

The school, family, and community partners work together in order for students to succeed resulting in everyone benefitting from the collaboration and cooperation. “Partners recognize their shared interests in and responsibilities for children, and they work together to create better programs and opportunities for students” (Epstein & Voorhis, 2010, p. 7).

Parental involvement has vast and long-lasting benefits for students (Georgiou & Tourva, 2007). Studies reveal that student behavior improves (Harris & Goodall, 2008), student attendance improves (Sheldon & Epstein, 2004), and student achievement improves (Hill & Tyson, 2009) when parents are engaged in their children’s education. Henderson and Mapp (2002) supplied the following list of possible student benefits from their research findings:

- higher grade point averages and scores on standardized tests or rating scales,
- enrollment in more challenging academic programs,
- more classes passed and credits earned,
• better attendance,
• improved behavior at home and at school, and
• better social skills and adaptation to school (p. 24)

Research reveals a range of beneficial outcomes from parental involvement for parents and families (Astwood, 2009). Hill and Taylor (2004) suggest there are two sources, social capital and social control, at the origin of benefits received by parents and families as a result of parental involvement. According to the researchers, it is through social capital and social control that parents are informed of the school climate, school culture, school expectations, and available resources from their interaction with schools and other parents. Parents then become more knowledgeable and better equipped to help their students succeed on and off campus.

Epstein et al. in 2002 reported in their study on the results of well-designed and well-implemented national parental involvement practices based on Epstein’s Six Types of Involvement. The following are parent and teacher benefits:

For Parents

1. Confident regarding parenting skills
2. Supported by school and other parents
3. Knowledgeable of the challenges involving parenting
4. Knowledgeable of the policies and procedures governing schools
5. Prepared to address the needs of their students
6. Knowledgeable of students’ academic progress
7. Aware of the school’s need for parental involvement

For Teachers

1. Knowledgeable of the culture and dynamics of the school community
2. Knowledgeable of the diversity amongst students
3. Equipped to provide parental-interactive homework assignment
4. Aware of the resources and skills available
5. Aware of the diversity amongst families
6. Prepared to utilize volunteers
7. Appreciation for family time (pp. 184 – 189)
Parental Efficacy

Successful academic student outcomes are not the only motive for parental involvement. Parental efficacy, the self-guided belief of parents on how much they can cause desired effect in a student’s academic achievement, is another contributor to the level of parental involvement (Georgiou & Tourva, 2007). Parents will increase their involvement when they believe their engagement in their children’s education is meaningful and needed (Georgiou & Tourva, 2007; Hoover-Dempsey et al, 2005; Wanat, 2010). Georgiou and Tourva (2007) completed a study utilizing confirmatory factor analysis on parental attributions, belief in involvement and parental involvement. “Parents who think that they can make a difference are motivated to get involved, while those who think that other factors and not them have the determining power prefer to keep their distance” (Georgiou & Tourva, 2007, p.480). As a result, the researchers recommend schools center their parental involvement activities on the finding that parents who believe their involvement in their students’ education is significant will develop and discover methods to get involved.

In 1995 Hoover-Dempsey and Sandler developed a theoretical model of the parental involvement process that several investigators have employed in their research to help schools increase parental involvement and identify motives of parental involvement (Hoover-Dempsey et al., 2005). Below are the strategies crafted from the review of research findings and implication by Hoover-Dempsey et al. (2005) to assist schools in increasing parental involvement with a focus on parental efficacy:

- Communicate clearly that all parents have an important role to play in children’s school success
- Give parents specific information about what they can do to be involved
- Give parents specific information about the general effects of involvement on student learning
- Give parents specific information on how their involvement activities influences learning
- Give parents specific information about curriculum and learning goals
- Offer parents positive feedback on the effects of their involvement
- Create and support parent and parent-teacher networks in the school (p. 120)
“All parents have something to offer. Schools must value and discover talents that are unique to the parents it serves to create successful home-school collaboration” (Wanat, 2010, p.184).

**Parental Involvement in Secondary Schools**

Although it has been well documented that parental involvement decreases as students progress from elementary to middle and high schools (Bouffard, 2008; Brough & Irvin, 2001; Epstein & Sanders, 2006; Hoover-Dempsey et al., 2005; Merkley et al., 2006), parents want to get involved but most do not know how (Halsey, 2005; Epstein, 2008). Epstein (2008) reported that “parents want more and better information to guide their students through middle level and high school.” (p.9). While schools may find the task difficult and parents struggle to understand their roles in the process (Brough & Irvin, 2001; Wanat, 2010), educators at the secondary level must invest time and energy to get parents involved (Epstein, 2008; Epstein & Sanders, 2006, Strom & Strom, 2002) while providing needed guidance for parents on how to engage in their children’s education (Epstein, 2008; Hill & Tyson, 2009). “Effective parental engagement will not happen without concerted effort, time and commitment from both parents and schools. It will not happen unless parents know the difference that they make, and unless schools actively reinforce that ‘all parents matter’” (Harris & Goodall, 2008, p. 287).

At the secondary level, parental involvement may be more visible at home than on campus due to students’ need for autonomy (Deslandes & Bertrand, 2005; Hill et al., 2007, Hill & Tyson, 2009). Hill and Tyson (2009) reported that parental involvement at the secondary level may appear to decrease due to the transformation of the parent-adolescent relationship. Deslandes & Bertrand (2005) refer to the parental involvement activities as “invitations” from students to get involved. Utilizing data gathered from a longitudinal study, Hill et al. (2004) concluded it is the type of parental involvement at the secondary level that matters. Aside from helping with homework, parents can provide guidance on their expectations of appropriate school behavior, academic achievement and post-high school goals (Gonzalez, 2002). Harris and Goodall (2008) concluded from their case-study that the involvement in students’ academics at home by parents had the greatest impact on achievement.

Therefore, secondary schools were faced with a challenge, get parents involved in order to increase student achievement but leave room for students to grow as individuals. A part of the challenge of increasing parental involvement for both schools and parents is establishing a
common understanding of what is parental involvement at the secondary level (Brough & Irvin, 2001). Epstein (2008) reported the following conclusion: “educators in middle level and high schools must take responsibility for developing goal-linked partnership programs that reach all families and that help students succeed” (p. 9). Researchers Hill and Tyson (2009), best summarized the plight of secondary educators, “as parental influence becomes more indirect and promotes the use of adolescents’ developing decision-making skills, strategies for involvement in education should change as well” (p.742).

**Home and School Communication**

Communication between home and school is an essential component of parental involvement and the ultimate goal of increased student achievement (Akmal & Larsen, 2004; Bouffard, 2008; Epstein, 2001 & 2008; Simon, 2004) “Communication is at the heart of family-school relationships.” (Bouffard, 2008, p. 11). When continuous, two-way communication is used in the partnership of home and school, parents get involved, student achievement increases, and student attendance rates improve (Sheldon & Epstein, 2004). Frequent, rich communication between home and school builds partnerships that produce benefits for children (Simon, 2004).

During the secondary years, the need for beneficial information sharing between home and school is fundamental. Epstein et al. in 2006 provided this finding for secondary schools trying to find a solution to the challenges of home and school communication:

If communications are clear and useful, and if two-way channels are easily accessed, then school-to-home and home-to-school interactions will increase; more families will understand middle and high school programs, follow their children’s progress, guide students to maintain or improve their grades, and attend parent-teacher conferences (p. 223).

Although students, parents, and schools are faced at the secondary levels with inherit challenges and decreased parental involvement, all schools are charged by state and local requirements under the No Child Left Behind (NCLB) Act of 2001 with the responsibility of working with parents to keep them involved and informed of their students’ progress. However, despite research that supports parental involvement and student achievement as being positively related (Redding, 2008; McCoach et al., 2010;) in addition to federal, state, and local regulations governing schools to involve parents, there is still a lack of parental involvement programs and
interventions in most secondary schools. Schools need to develop innovative methods to involve parents that will require a paradigm shift in their strategies (Wanat, 2010). “Opening the lines of communication would result in new, creative ways to make parents feel more welcome and to provide them an opportunity to contribute to their children’s school experience” (Wanat, 2010, p.184). Since culture, socioeconomic status and parental educational background have been empirically proven to play a role in the amount of time and methods used by parents to get involved in their children’s education (Harris & Goodall, 2008; Henderson and Mapp, 2002, McCoach et al., 2010, Redding, 2008, and Wanat 2010), schools must know the demographics and needs of their parent population in order to develop programs and interventions that would get parents involved and keep them involved. Henderson and Mapp (2002) identified this strategy as one of its key findings: “Parental involvement programs that are effective in engaging diverse families recognize, respect and address culture and class differences” (p. 48).

**Barriers to Communication**

In the process of developing ways to engage parents in their children’s learning to increase student achievement, identifying barriers that hinder parent-teacher communication are essential in ensuring the programs and interventions employed by schools are appropriate for their target population (Halsey, 2005; Harris & Goodall, 2008; Henderson & Mapp, 2002; Hornby & Lafaele, 2011). The undertaking of these proactive and reactive steps by schools is directly in line with the directive from the U.S. Department of Education as stated in the No Child Left Behind Act:

Such practices shall—(1) be based on the most current research that meets the highest professional and technical standards, on effective parental involvement that fosters achievement to high standards for all children; and (2) be geared toward lowering barriers to greater participation by parents in school planning, review, and improvement experienced (Section 1118 - Parental Involvement, 2002).

Unfortunately, there are several barriers schools encounter that hinder parental involvement such as culture, language, and environment (Agronick et al., 2009; Hill & Taylor, 2004; McCoach et al, 2010; Ramiez, 2003). Hornby and Lafaele (2011) utilized Epstein’s *Overlapping Spheres of Influence* as the framework in developing an explanatory model of factors that act as barriers to parental involvement. The researchers concluded that their
explanatory model provided guidance for schools in developing effective parental involvement programs while acknowledging that “the issue of parental involvement in education is a complex matter which requires educators to move beyond simplistic notions about the underlying factors which affect the effectiveness of parental involvement” (Hornby & Lafaele, 2011, p. 50). Below are the four areas of focus in Hornby and Lafaele’s model along with subgroup factors:

Individual Parent and Family Factors
- parents’ beliefs about parental involvement
- perceptions of invitations for parental involvement
- current life contexts
- class, ethnicity and gender

Parent-Teacher Factors
- differing goals and agendas
- differing attitudes
- differing language used

Child Factors
- age
- learning difficulties and disabilities
- gifts and talents
- behavioral problems

Societal Factors
- historical and demographic
- political
- economics (Hornby & Lafaele, 2011, p. 39)

Perceptions

Parents and schools may have different perceptions regarding how each regards parental involvement. As a result, the perceptions of parents and schools play a major role in parental involvement (Hill & Taylor, 2004; McCoach et al, 2010; Sheldon & Epstein, 2004; Wanat, 2010). Perception has been identified as a factor of parental involvement that can be a help or hindrance when it comes to parent-teacher communication (McCoach et al., 2010). Halsey in 2005 researched the perceptions of teachers and parents regarding educational parent
involvement at the secondary level in an effort to identify the relationship between perceptions of parents and teachers regarding parental involvement and the actual engagement of parental involvement. Halsey separated the definition of interactions of parents and teachers into two different types, institutional and individual. For institutional interactions, parents would be informed by teachers and school through general practices such as newsletters and parent organizations. Parent-teacher conferences and personal notes parents received from teachers are examples of individual interactions. Halsey (2005) identified three obstacles listed below as barriers to parental involvement:

1. Defining parental involvement from the academic and extracurricular perspective: a clear definition of parental involvement in both academic and extracurricular events was needed. Parents feel teachers do not want them in the classrooms but will meet to discuss academic concerns. Parents expect direct invitations from teachers to be involved inside the classroom. Teachers, on the other hand, feel like parents are not interested in getting involved in the classroom especially since they made a general statement welcoming them to visit their classrooms during open houses (p. 59).

2. Effective communication: an effective method of communication between parents and teachers must be established. Parents want a personal (individual interaction) with teachers where teachers feel general announcements such as flyers and newsletters (institutional interactions) are parents’ personal invitations to get involved (p. 61).

3. Misperceptions among students, parents, and teachers: in order to improve parental involvement to enhance students’ education, all misperceptions must be overcome. Teachers should know that parents want to get involved but must be personally invited and told specifically how they can help. Parents should know teachers want them to get involved and what they consider their institutional interactions invitations are what the teachers’ perceive as personal invitations (p. 62).

The barriers of parental involvement should not hinder schools from creating, nurturing, and maintaining rich, two-way communication between home and school; the benefits as a result of involved parents for students, their parents, schools and the community are too great. At the secondary level, this task can be a challenge (Epstein et al., 2002). Agronick et al. (2009) in a report prepared for the Institute of Education Sciences stressed the importance of schools not
only acknowledging the barriers encountered when trying to engage parents in student learning but to also evaluate their parental involvement programs in an effort to remain in a level of continuous improvement.

**A New Way to Communicate**

Since entering the Information Age, global communication has increased as well as improved (Bouffard, 2008). The internet has been the primary vehicle used to navigate individuals through global networking. With just a click of a button, individuals from across the world can communicate, share information, and exchange documents with ease and efficiency through the internet. Teachers and parents could utilize the same technology to communicate attendance and academic progress of students as well provide information on extra-curricular activities and events to get parents involved and keep them informed (Bouffard, 2008; Strom & Strom, 2002). In 2010, 85% of the 153 parents participating in a study conducted by Koch regarding communication between home and school through the use of electronic devices indicate the use of technology as the “most convenient way to communicate with the school” (Koch, 2010, p. 89). Internet communication between home and school has the potential to improve parental involvement and is associated with academic benefits (Bouffard, 2008).

Halsey (2005) suggested technology be used to address concerns of both individual and institutional interactions allowing schools to make use of the methods of communicating anytime and anywhere through web-based programs, emails, and list-serves. Strom and Strom (2002) recommended based on findings from a field test study on the utilization of personal digital assistant (PDA) device where teachers, students, and parents communicated through the use of a coding system inputted into the device that schools find ways to utilize technology to advance communication between home and school in an effort to “enhance student success” (p. 20). Epstein et al. in 2006 recommended the use of “email, voice mail, and websites to encourage two-way communications between families, teachers, counselors, and administrators” (Epstein et al., 2006, p. 223) as viable practices that were successfully implemented in secondary schools based on Type 2 – Communicating from Epstein’s Framework of Six Types of Involvement.

Parents would be able to access vital information anytime and from anywhere. Halsey (2005) recommended schools develop a plan for communicating with parents and utilize technology to improve the communication process. Similarly, from a survey research design study completed
by Koch in 2010 where parents were asked to identify their preferred method of communicating with schools, the following recommendations were made:

1. Schools should support parental involvement with the use of email, web sites, and student information systems.
2. While recognizing parental limitations and barriers to using electronic communications, schools should make an intensive effort to create fitting and meaningful avenues for electronic communication to occur between school-to-home and home-to-school.
3. Principals and teacher should continue to provide activities that promote and enhance parental communication and involvement in the areas of volunteering, learning, at home, school governance, and collaboration.
4. School leaders should continue to show support for the use of electronic communication devices of email, web sites, and student information systems as opportunities to enhance parental communication and involvement (p. 94).

Beghetto in 2001 provided a glimpse into an environment called virtual communities where parents and teachers communicate through “a web-based communication forum that is an interactive electronic space on the internet in which diverse individuals can raise questions, share ideas, plan activities, congregate, and learn” (p. 22). These virtual communities provide parents and teachers with a forum to share information regarding grades, upcoming events, or have a discussion on a topic determined by either party without the limits of time. Parents, students, and teachers could post information, questions, or responses in a virtual community at any time. Users of virtual communities will have more time to construct and develop their responses, questions, and announcements in a somewhat de-stressed environment. According to Strom and Strom (2002), parents must understand they too have a responsibility when they receive communication from the school by taking time out of their busy schedules to take appropriate action in a timely manner.

After investigating how web-based technology is utilized by schools to communicate with parents through the use of two waves of data from the National Center for Education Statistics’ Education Longitudinal Study of 2002 (ELS) where 14,387 tenth graders participated in the first wave and two years later 13,236 participated in the second wave as twelfth graders, Bouffard (2008) found that regardless of the ethnicity, native language, or income of the
families in the study, their students benefited equally from the communication via the internet. This is poignant given the established fact that parental involvement decreases during the secondary grades (Deslandes & Bertrand, 2005; Halsey, 2005; Hill et al., 2007, Hill & Tyson, 2009).

To successfully utilize the “largely untapped opportunity for prompting family-school communication” (Bouffard, 2008, Conclusion section, para. 1), Bouffard suggested schools should invest time in researching best practices along with the challenges of internet-based communication programs before employing them. For example, Beghetto (2001) cautioned school administrators to take careful steps in implementing virtual communities in their schools. Schools must determine the type of virtual community that best fits the needs of their families and community while ensuring that those parents without access to the internet will not be left behind. Beghetto (2001) recommended schools create empirical data before implementing a program in their school divisions, pilot the selected program then follow up with periodic evaluations. The responsibility of successfully educating children relies on partnerships that require all stakeholders to do their part.

Student Information Systems

In an effort to answer the charge of engaging families in the process of educating their children while capitalizing on the resources technology offers, school divisions have turned to the parent portal component of student information systems (SIS). Student information systems are software programs utilized by schools to manage student data and a tool of communication between the partnership of home and school (Kokoszka, 2009). A few other names used for these systems that enable teachers, guidance counselors, and administrators to manage student demographics, scheduling, course selections, grades, test history, attendance, course history, as well as discipline are student information management systems (SIMS), student management systems (SMS), campus management systems (CMS), student records systems (SRS), and school management systems (SMS). Since these management systems are web-based applications, users may access data straight from their web browser while using any computer. Student information systems provide tools for teachers to track grades and attendance, create customized standards-based assessments, and analyze grade data confidently and accurately. Teachers have anytime, anywhere access to their web gradebook to input grades, attendance, and comments while
providing anytime, real-time access to parents through the parent portal feature. Teachers are empowered to make insightful, data-driven decisions to increase student learning (Garrow, 2009; Kokoszka, 2009; Mann, 2003; Wilson, 2005).

The parent portal component of a student information system provides parents twenty-four hours a day and seven days a week access to vital information such as their students’ grades, attendance, and assessment history data without communication barriers. Parents and students are able to view real-time grades and attendance. No longer do parents have to rely on students to bring home a copy of their progress report or report cards or concern themselves with making sure the proper software was installed on their computers to download an electronic copy of their student’s report obtained as an attachment in an email. Some student information systems provide an option for parents to set email alerts when their child receives specific grades and/or attendance codes. Parents will finally be enabled to take action sooner and get involved earlier through real-time data that enhances the partnerships of home and school. Student information systems can play an essential role in assisting parents with increasing their involvement without having to physically show up at school which at the secondary level supports research that identified parental involvement at the home as a greater need (Harris & Goodall, 2008).

In the study completed by Koch (2010) to evaluate the impact of email, web sites, and system information systems on parental involvement, parents identified student information systems as their preferred electronic method of receiving information from the school regarding the academic progress of their students. The parents surveyed utilized a parent portal to access data: check assignments, view grades and communicate with the school. Koch (2010) recommended further research be conducted by surveying administrators to determine how student information systems and other electronic devices are used to enhance the home-school partnership and communication.

PowerSchool®, a student information system, was implemented in a middle school as a part of an action research study completed by Wilson in 2005. For the study, Wilson focused on the effects of the parent portal feature of PowerSchool® on parental involvement. Before access to PowerSchool® and the parent portal were granted, mandatory training sessions were provided to the teachers on the web gradebook and parents were invited to attend one of several training sessions on the parent portal feature. The researcher used descriptive analysis to compare the results from pre-survey with the results of the post-survey which were the same. The results
revealed little to no effect on teachers in regards to perceptions of parent-teacher communication, use of email as a general method of communication, parent-teacher telephone calls or any face-to-face communication. However, there was a positive effect on the use of email to communicate specifically with parents regarding student progress. For the parents, there was a positive indication on their feelings toward communication after the four-week study. The results showed parents were more satisfied with their involvement in their students’ academics. Parents’ responses indicated that their involvement increased and perceived that they were more informed of their students’ attendance, grades, and progress. Wilson (2005) concluded that PowerSchool® can be an asset to schools and is worth at least investigating the possible outcomes in an effort to increase communication between home and school. Wilson (2005) also recommended further investigation into the impact of technology designed to increase parental involvement in an effort to provide continuous improvement in enhancing methods to link homes and schools.

Kokoszka (2009) investigated the effectiveness of a student information system, Edline™, to improve communication between home and school at the high school level. Since the student information system had already been implemented, the researcher focused on Edline™ users’ perceptions on the impact of technology on instruction and achievement.

Any paradigm shift renders the plausibility of the researcher uncovering a latent truth. The installation of Edline™ program not only delves into the sphere of parental involvement and home-to-school communication but also envelops the paradigm for technology, pedagogy, curricula, and the method by which schools educate children (Kokoszka, 2009, p. 103).

Utilizing a mix-methods case study design to gather qualitative data, Kokoszka interviewed administrators, held focus groups with teachers and parents and surveyed the students through questionnaires. To triangulate the collected data, thematic analysis was employed by the researcher along with coding descriptive statistics. As a result, the data were “imprecise” (Kokoszka, 2009, p.107) to determine the impact of Edline™ on instruction and achievement, For example, only 46% of the students surveyed agreed that Edline™ helped improve their grades and performance in class but more than half of the students logged in once a day or once a week to view their grades. These results aligned with the data collected on parental use of Edline™. However, Kokoszka was able to conclude that parental involvement did increase and that the teachers and administrators considered Edline™ an effective communication tool due to
its ability to supply parents with a single place to gather all necessary information on their students. Kokoszka provided several recommendations but highlighted the implementation of a school-wide policies and procedures on how teachers must maintain their online gradebooks since it was identified as a major concern. The inconsistency manifested itself in the form of infrequent grade updates, the lack of assessments given and whether or not Edline™ was used by some teachers at all. Kokoszka also called for administrators to assist by offering professional development sessions for teachers, parents, and students. “In order for Edline™ to meet its goals more successfully, there needs to be a more focused and consistent vision on the part of teachers and administrators to see it through” (Kokoszka, 2009, p 114).

Promote and train all stakeholders about the student information system, Pentatmation, being implemented in the Christina School District were two actions identified by Longfellow (2004) in an executive position paper on improving parent-teacher communication through the use of technology in the Delaware school division. According to Longfellow (2004), promoting and training must take place in order to successfully implement the student system information since Pentatmation offered a parent portal access. Longfellow recommended the district take special steps to ensure parents were aware of this new vehicle of communication based on responses to the questionnaire that they “are open to technology-based communication” (Longfellow, 2004, p. 92) and provide the necessary training for parents, teachers, and administrators to ensure successful implementation.

The recommendations from Garrow (2009), Kokoszka (2009), Longfellow (2004) Wilson (2005) and Yares (2010) echo the significance of this study – it is the responsibility of the school division utilizing student information systems to perform a review of the results produced in an effort to monitor their effectiveness. Although, these systems have great potential, it is important for schools to develop their own strategies to increase parental involvement according to the needs of their parents and students. “Though several parental involvement strategies can work, there is no magic bullet. Each school, armed with results from action research, should design its own plan” (Brough & Irvin, 2001 p.59).

Long gone are the days when implementing the latest educational fad in our schools and classrooms without data and empirical research to support (Mann & Shakeshaft, 2003). School divisions utilizing student information systems must examine the results produced by these systems to determine if the intended results are accomplished. An evaluation of the strategies
employed by teachers and guidance counselors to ensure the desired results are met in the future can also be established. Schools are not only charged with seeking methods of improving parental involvement in an effort to increase student achievement and attendance rates, their methods, especially costly ones, must produce results that justify continuous use and support. As a result, schools must collect and review data on their programs, instruments, and strategies employed to make sound decisions to guide practice (Mann & Shakeshaft, 2003).

**Literature Review Summary**

The literature reviewed in this chapter supports the concept that parental involvement, whether on campus or off campus and at all levels, has an essential component in educating children. Communication between home and school has been clearly identified as the lifeline for partnerships created by teachers and parents, schools and families, and schools and communities. Schools are charged, federally for some, with seeking methods of improving parental involvement. Therefore, benefits and barriers to communication must be addressed by all stakeholders in order to remain in a state of continuous improvement. Several research studies completed on parental involvement and communication recommended the use of technology as a vital tool to enhance communication between school and home partnerships (Bouffard, 2008; Halsey, 2005; Koch, 2010; Strom & Strom, 2002). As a result, school divisions have implemented the use of student information systems in an effort to improve parental involvement while increasing student achievement and attendance. However, as supported by the literature reviewed, there is a need to evaluate strategies employed by teachers and guidance counselors to ensure the desired results are met. As one researcher put it, “we must discontinue the practice of making decisions based upon intuition and gut feelings. And we must guard against looking only at existing data – and look more closely at related evidence below the surface” (Creighton, 2007, p.178).
Chapter 3
Methodology

Introduction

In an effort to address the communication challenges faced by home-school partnerships, schools are implementing student information systems to improve parental involvement. Student information systems can provide parents access to vital information such as grades, attendance, and standardized test scores without communication barriers (Wilson, 2005). Historically, lack of time and convenience has been the greatest hindrance to parental involvement. Unfortunately, at the secondary level, much of the information supplied to parents through traditional methods of notes and announcement flyers home never make it into the hands of the parents. Student information systems have supplied schools with tools to address their communication challenges and barriers with schools. Schools are utilizing the student information systems to keep parents informed regarding current information and through a method that does not involve the student nor is it filtered by the student. It is the goal of schools that the information supplied by the student information systems will provide parents with an early awareness of student progress or the lack therefore so that, if necessary, corrective action can be taken with swiftness on their end.

Purpose of the Study

An overview of relevant literature supports the philosophy that student information systems can be one of the most effective tools introduced to the world of education to increase parental involvement and improve communication between teachers and parents (Bouffard, 2008). However, very little information was available on strategies or suggestions for schools on how to encourage parents to utilize this powerful method of communication. As a result, the purpose of this study is to investigate the perceptions of teachers and guidance counselors on the impact of a parent portal component of a student information system on parental involvement at the high school level and the strategies used to increase parental use.

Research Questions

The overarching research question of this study, what do teachers and guidance counselors perceive is the impact of the parent portal on parental involvement to support student
progress at the high school level, was used in developing the following research questions that guided this study:

1. What do teachers and guidance counselors perceive is the percentage of parents who access the parent portal?
2. What do teachers and guidance counselors perceive is the frequency of parental access to the parent portal?
3. What are the differences between perceptions of teachers and guidance counselors regarding parental use of the parent portal?
4. What do teachers and guidance counselors perceive is the impact of the parent portal on student attendance, grades and parental involvement?
5. What are the differences in the overall perceptions, teachers and guidance counselors, at each high school regarding the impact of the parent portal on student attendance, grades and parental involvement?
6. What strategies do teachers and guidance counselors indicate are used in their school to encourage parental use of the parent portal?

Research Design and Site

This study utilized a quantitative research design. The study was conducted in a public school division in a suburban region of Virginia. Since the purpose of this study is to investigate the perceptions of teachers and guidance counselors on the impact of a parent portal component of a student information system on parental involvement at the high school level and the strategies used to increase parental use, the quantitative research will be descriptive. Teachers and guidance counselors will provide data collected through surveys.

Study Participants and Sampling Procedures

A school division utilizing a student information system for the past four years that provide parents with any time access to their students’ grades, assignments and attendance in a suburban region of Virginia was selected by the researcher. Conditional approval was granted by the school division to survey teachers and guidance counselors in all eleven comprehensive high schools with the understanding that the principals would make the final decision to allow the survey link to be emailed to their guidance counselors and teachers. After contacting each
principal, approval was granted from ten of the eleven comprehensive high school principals. As a result, a total of 1,274 teachers and guidance counselors were asked to participate in the study through an email containing a description and purpose of the study, a copy of the approval letter from the school division, and a link to the electronic survey.

**Instrumentation**

An electronic survey was used to gather data from the survey participants in this study. The electronic survey provided participants with easy access through the convenience of their official school email system requiring no more than twenty minutes to complete. From the review of literature, no existing survey contained all the components needed to fulfill the purpose of this study. As a result, a survey was developed by the researcher with *Epstein’s Six Types of Parental Involvement* as the foundation framework. The survey questions were designed around the three components of *Epstein’s Overlapping Spheres of Influence: The Family, The School, and The Community*. The thirty-two question survey was designed to answer the overarching research question, what do teachers and guidance counselors perceive is the impact of the parent portal on parental involvement to support student progress at the high school level? The first six questions of the survey focus on the demographic information of the survey participant. To determine what teachers and guidance counselors perceive are the frequency and percentage of parental access to the data provided through the parent portal, two questions, seven and eight, were included in the survey. Survey questions, nine through thirteen, were crafted to gather data on the perceptions of teachers and guidance counselors on the reasons why parents access the parent portal and its impact on student attendance, grades and parental involvement. The remaining questions of the survey were designed to determine the strategies teachers and guidance counselors at the high school level are utilizing to get parents to use parent portal of their student information system. Five of the 32-question survey focused on demographic information of the survey participant. To further the focus on each survey question within the three components of *Epstein’s Overlapping Spheres of Influence: The Family, The School, and The Community*, the survey questions were placed into subgroups. Seventeen survey questions were grouped under *the school* focus and were divided into three subgroups: policies and procedures, training, and communication. Nine of the survey questions were grouped under *the family* focus and were divided into three subgroups: decision making, learning at home, and
parenting. The three survey questions grouped under the *community* focus have only one subtitle: collaboration with community.

The survey contained a rating system adapted from the rating systems utilized in the questionnaires created by Epstein et al. (1993) in the *High School And Family Partnerships: Questionnaires for Teachers, Parents, and Students* to assist educators in gathering data on parental involvement. The Likert scale used required participants to provide their level of agreement to each survey question while also providing numerical data for descriptive and inferential statistics. The survey participants used the following four-point Likert scale rating system to answer each question in the survey based on the strategies and/or programs used in their schools to promote parental use of their student information system:

1. Not used in school/division and Should Not be
2. Not used in school/division and Should be
3. Used in school/division but Needs Strengthening
4. Used in school/division and is Strong

**Validity and Reliability**

From the review of relevant literature on parental involvement and home-school communication, the survey for this study was crafted from questionnaires developed from extensive research completed by Epstein, expert researcher in the area of parental involvement, and her colleagues at Johns Hopkins University through the Center on School, Family, and Community Partnerships. The questionnaires published in the *High School And Family Partnerships: Questionnaires for Teachers, Parents, and Students* have been used in several schools throughout the country with success (Epstein et al., 2006) and have been tested several times for validity and reliability (Bradley, 2010) Additionally, Epstein’s *Six Types of Parental Involvement and her Overlapping Spheres of Influence: The Family, The School, and The Community* which the survey questions for this study have as its framework foundation and design focus have been used in numerous research studies (Astwood, 2009), and studied by several key parental involvement researchers (Koch, 2010).

To establish content validity for the survey instrument proposed for this study, the survey questions went through two validation examinations. As suggested by Ary et al. (1990):
the most obvious type of validity evidence needed is content-related, which may be
gathered by having some competent colleagues who are familiar with the purpose of the
survey examine the items to judge whether they are adequate for measuring what they are
supposed to measure and whether they are a representative sample of the behavior
domain under investigation (p. 434).

A group of school administrators enrolled in the same doctoral program who are experienced in
their field and extensively trained in research completed the initial examination of the survey
questions. Four of the administrators, each from a different school division, are parents of
school-aged children and had access to their children’s grades through a student information
system. For each validation examination, the survey was reviewed for clarity and association to
the research question. From the initial validation examination feedback, modifications were
made to some questions; five questions were removed due to redundancy and all survey
questions containing the words parent/guardian were revised and the word guardian was
removed to simplify the survey questions. A select group of experienced educators, each with at
least two years of research training, completed the second examination of the survey questions.
As a result of both validation examinations, each survey question yielded a percentage of 82% or
greater to establish content validity.

Data Collection

After receiving approval from (1) the Institutional Review Board (IRB) of Virginia
Polytechnic Institute and State University (see Appendix A), (2) the school division’s research
department through their application process to conduct research and distribute surveys within
the division (see Appendix B) and (3) ten of the eleven comprehensive high school principals to
allow the survey to be sent to their teachers and guidance counselors, the link to the electronic
survey was emailed to 1,274 individuals. The email contained the purpose of the study, a copy of
the approval letter from the school division and a request to participate by completing an online
survey. The researcher utilized Survey.vt.edu, a program supplied by Virginia Polytechnic
Institute and State University, to administer the online survey and collect responses. The link to
the survey was included at the bottom of the email. The participants’ responses to the survey
questions are anonymous and only provide identifying information from the demographic
questions on the survey regarding positions, years in the identified position, gender, and highest
level of education. In order to have an adequate sample with a .05 statistical significance level, 294 of the 1,274 participants needed to complete the survey (Krejcie & Morgan, 1970). Of the 1,274 potential participants, 304 returned their surveys.

Assurance of Confidentiality

The researcher administered the online survey in accordance with the established guidelines from the IRB to ensure confidentiality of all participants. Prior to completing the survey, each participant viewed a message from the researcher assuring confidentiality. The results have been electronically stored on a USB flash drive in the researcher’s home in a secured file cabinet until successful defense of this study in accordance to the IRB procedures. They will be destroyed upon successful defense of the study.

Data Analysis

Descriptive and inferential statistics were used in this study to identify strategies used by teachers and guidance counselors at the high school level to promote parental use of student information systems to monitor student academic progress and attendance. The data collected from the survey were organized in a Microsoft Excel worksheet then inputted into the Statistical Package for the Social Sciences (SPSS) software program to perform calculations for descriptive and inferential statistics. For descriptive analysis, frequency distribution and cross tabulation tables utilizing frequencies and percentages were created to display the data in an organized format while identifying trends (Creighton, 2007). For analysis of the open-ended survey question, a thematic coding strategy was utilized to identify emerging themes. For inferential statistics, Independent-Sample \textit{t-Tests} and chi-square ($\chi^2$) tests were utilized. Independent-Sample \textit{t-Tests} were employed to determine if the responses supplied by the teachers statistically differed from the responses provided by the guidance counselors. The chi-square ($\chi^2$) tests were employed to compare the “data (observed frequencies) and the theory (expected frequencies)” (Howell, 2007, p. 140).

As recommended by Creswell (2009), the following steps detailing how the collected data were analyzed is presented in a series “so that a reader can see how one step leads to another for a complete discussion of the data analysis” (p. 151):
1. After collecting the data from the survey, “report information about the number of members of the sample who did and did not return the survey” (Creswell, 2009, p.151).

2. Complete a wave analysis in an effort to determine response bias. This process will analyze the survey results in the beginning and end of the collection period to determine if there was a change in the responses given.

3. Complete descriptive analysis of the survey data in an effort to identify trends through the utilization of frequency distribution and cross tabulation tables on gender, position, years in position, level of education and school.

4. Complete a reliability check through the use of Cronbach’s alpha which is a measure (coefficient) of internal consistency. “When using Likert-type scales it is imperative to calculate and report Cronbach’s alpha coefficient for internal consistency reliability for any scales or subscales one may be using” (Gliem & Gliem, 2003, p. 88).

5. Complete inferential analysis of the data by conducting Independent-Sample t-Tests to compare the responses of the teachers and guidance counselors and chi-square tests to examine the differences in the responses received and expected responses. The statistical technique, Independent Samples t-Test, is used to draw conclusions about two independent groups (teachers and guidance counselors) responses (means) to determine statistical differences (Creighton, 2007). Chi-square, another statistical technique, is used to compare observed data with data one would expect to receive according to specific hypothesis (Howell, 2007). To determine if there is a significant difference between the perceptions of teachers and guidance counselors at each high school regarding the impact of the parent portal on student attendance, grades and parental involvement, the statistical technique, an One-Way Analysis of Variance (ANOVA) was used to compare the means of each school.

Summary

This chapter presented the methodology employed in an effort to identify the strategies used by teachers and guidance counselors to encourage parental use of student information systems to monitor their students’ progress. The data generated through the research methodology described in this chapter are reported in Chapter 4.
Chapter 4
Results

Introduction

The purpose of this chapter is to present detailed analysis and results of the data gathered from the data collection process of this study. The data collection process included a survey developed by the researcher utilizing Epstein’s Six Types of Parental Involvement as the foundation framework and designed around the three components of Epstein’s Overlapping Spheres of Influence: The Family, The School, and The Community.

Purpose of the Study

Student information systems can be one of the most effective tools introduced to the world of education to increase parental involvement and improve communication between teachers and parents (Bouffard, 2008). However, little information regarding strategies or suggestions for schools on how to encourage parents to utilize this powerful method of communication was found from a review of relevant literature. As a result, the purpose of this study is to investigate the perceptions of teachers and guidance counselors on the impact of a parent portal component of a student information system on parental involvement at the high school level and the strategies used to increase parental use.

The overarching research question of this study, what do teachers and guidance counselors perceive is the impact of the parent portal on parental involvement to support student progress at the high school level is supported by the following research questions for this study:

1. What do teachers and guidance counselors perceive is the percentage of parents who access the parent portal?

2. What do teachers and guidance counselors perceive is the frequency of parental access to the parent portal?

3. What are the differences between perceptions of teachers and guidance counselors regarding parental use of the parent portal?

4. What do teachers and guidance counselors perceive is the impact of the parent portal on student attendance, grades and parental involvement?
5. What are the differences in the overall perceptions, teachers and guidance counselors, at each high school regarding the impact of the parent portal on student attendance, grades and parental involvement?

6. What strategies do teachers and guidance counselors indicate are used in their school to encourage parental use of the parent portal?

Presentation of the Data

The data analysis presented includes a component of descriptive analysis through the use of frequency distribution and cross tabulation tables created to display the data in an organized format while identifying trends (Creighton, 2007). For analysis of the open-ended survey question, a thematic coding strategy was utilized to identify emerging themes. For the inferential analysis component of the data presentation, Independent-Sample *t*-Tests and chi-square (x²) tests were utilized.

Sample Population and Study Participants

Teachers and guidance counselors in ten comprehensive high schools in a suburban school division utilizing a student information system for the past four years that provide parents with any time access to their students’ grades, assignments and attendance were asked to participate in the study. A link to an electronic parent portal survey crafted in Survey.vt.edu was emailed to 1,274 teachers and guidance counselors. A total of 304 guidance counselors and teachers responded to the survey.

Descriptive Data

The total number of participants from each school is presented in Table 1 and the percentage of each school’s overall participation in the study. Six of the schools had a response rate of 21% or greater. The response rate was calculated using the number of emails received per school divided by the number of emails sent per school.
Table 1

Percentages of Participants’ Schools

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Overall Study %</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School A</td>
<td>33</td>
<td>10.9</td>
</tr>
<tr>
<td>High School B</td>
<td>26</td>
<td>8.6</td>
</tr>
<tr>
<td>High School C</td>
<td>23</td>
<td>7.6</td>
</tr>
<tr>
<td>High School D</td>
<td>28</td>
<td>9.2</td>
</tr>
<tr>
<td>High School F</td>
<td>9</td>
<td>3.0</td>
</tr>
<tr>
<td>High School G</td>
<td>90</td>
<td>29.6</td>
</tr>
<tr>
<td>High School H</td>
<td>36</td>
<td>11.8</td>
</tr>
<tr>
<td>High School I</td>
<td>18</td>
<td>5.9</td>
</tr>
<tr>
<td>High School J</td>
<td>27</td>
<td>9.0</td>
</tr>
<tr>
<td>High School K</td>
<td>13</td>
<td>4.3</td>
</tr>
</tbody>
</table>

Note. One participant did not identify a school

The data included in Tables 2-5 presents the demographic characteristics of the 304 participants regarding their position, gender, number of years in the current positions and their highest level of education. Teachers (282) and females (218) were the largest respondent groups presented in this study, 92.8% and 71.7% respectively. Two respondents did not identify their position and four respondents did not identify their gender. Presented in Table 3 is a cross tabulation of the data on gender and position. The males make up 28.3% of the teacher participants and 10.5% of the guidance counselor participants. Four respondents identified their position but did not identify their gender.
Table 2

Demographics of Participants (N=304)

<table>
<thead>
<tr>
<th>Position</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>282</td>
<td>92.8</td>
</tr>
<tr>
<td>Guidance Counselor</td>
<td>20</td>
<td>6.6</td>
</tr>
<tr>
<td>No Answer</td>
<td>2</td>
<td>0.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>218</td>
<td>71.7</td>
</tr>
<tr>
<td>Male</td>
<td>82</td>
<td>27</td>
</tr>
<tr>
<td>No Answer</td>
<td>4</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Table 3

Position and Gender of Sample Population

<table>
<thead>
<tr>
<th>Position</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>P</td>
</tr>
<tr>
<td>Teacher</td>
<td>200</td>
<td>71.7</td>
</tr>
<tr>
<td>Guidance Counselor</td>
<td>17</td>
<td>89.5</td>
</tr>
</tbody>
</table>

Note. Six participants did not identify their gender

Table 4 present the summary of the participants’ positions and the number of years in those positions. Additionally, cross tabulation of positions and years in the position revealed 199 teachers, 70.6%, of the total teacher participants have been a teacher for seven years or more. The percentages for guidance counselor were slightly uneven with 45% having held their positions for fewer than seven years. Overall, 65% of the respondents hold a master’s degree or higher.
Table 4
Demographics of Participants (N=304)

<table>
<thead>
<tr>
<th>Years in Current Position</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 3 years</td>
<td>29</td>
<td>10</td>
</tr>
<tr>
<td>4 – 6 years</td>
<td>65</td>
<td>21</td>
</tr>
<tr>
<td>7 – 10 years</td>
<td>64</td>
<td>21</td>
</tr>
<tr>
<td>More than 10 years</td>
<td>146</td>
<td>48</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Highest Level of Education</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor’s Degree</td>
<td>105</td>
<td>35</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>158</td>
<td>52</td>
</tr>
<tr>
<td>Master’s Degree +30 hrs</td>
<td>33</td>
<td>11</td>
</tr>
<tr>
<td>Doctorate Degree</td>
<td>7</td>
<td>2</td>
</tr>
</tbody>
</table>

Note. One participant did not provide a level of education

Table 5 presents the subjects taught by the teacher survey participants. Of the 282 survey teacher survey participants, 59 (21%), did not identify the subject(s) they taught. Due to the variety of courses taught at the high school level, the subjects identified were placed into one of eight different categories. Electives (13%), the four core subjects (English (14%), mathematics (14%), science (12%), and social studies (12%), foreign language (4%), special education (8%) and technology (2%) made up the categories. Physical education, culinary arts and band are examples of the subjects grouped under the elective category.
Table 5
*Subjects Taught by Survey Participants*

<table>
<thead>
<tr>
<th>Subject</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td>37</td>
</tr>
<tr>
<td>English</td>
<td>40</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>11</td>
</tr>
<tr>
<td>Mathematics</td>
<td>39</td>
</tr>
<tr>
<td>Science</td>
<td>33</td>
</tr>
<tr>
<td>Social Studies</td>
<td>35</td>
</tr>
<tr>
<td>Special Education</td>
<td>23</td>
</tr>
<tr>
<td>Technology</td>
<td>5</td>
</tr>
</tbody>
</table>

Note. 59 teachers did not identify a subject taught.

**Descriptive Analysis**

Descriptive statistics in the form of frequency distributions were utilized to summarize the overall responses, combining responses from both teachers and guidance counselors, of the remaining survey questions. Tables 6 through 28 summarize the overall responses for the survey questions focused on the respondent’s perceptive on the impact of the parent portal on grades, attendance and parental involvement. They also include how often and why the parents access the portal. Of the teachers (55%) and guidance counselors (60%) participating in the study, half of the overall respondents (n=153) indicated between 30 – 50% of their parents utilized the parental portal (see Table 6). Ninety-seven respondents or 32% indicated a range of 60 – 80%. The majority of the respondents, 56%, indicated weekly as the frequency of how often their parents accessed the parent portal (see Table 7).
Table 6

Perceptions on Percentage of Parents Utilizing the Parent Portal Totals

<table>
<thead>
<tr>
<th>Range</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 20%</td>
<td>8</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>30 – 50%</td>
<td>50</td>
<td>55</td>
<td>60</td>
</tr>
<tr>
<td>60 – 80%</td>
<td>32</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>90 – 100%</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Note. Nine percent of the participants did not answer.

Table 7

Perceptions on the Frequency Parents Access Parent Portal Totals

<table>
<thead>
<tr>
<th>Range</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>7</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Weekly</td>
<td>55</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>Every other week</td>
<td>16</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>Monthly</td>
<td>6</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Only after a report is issued</td>
<td>7</td>
<td>7</td>
<td>20</td>
</tr>
</tbody>
</table>

Note. Nine percent of the participants did not answer.

The respondents selected grades (99%) as the primary reason and attendance (79%) as the secondary reason parents access the portal. For the impact of the parent portal on student attendance, 47% of the respondents indicated it was neither negative nor positive and 48% selected positive (see Table 8). The teacher responses were very similar with 51% indicating the portal had no impact on student attendance and 48% indicating the impact was positive. Among
the participants, 69% indicated the parent portal had a positive impact on grades (see Table 9) and 55% indicated the impact of parental involvement was positive (see Table 10).

Table 8

*Impact of the Parent Portal on Student Attendance*

<table>
<thead>
<tr>
<th>Impact</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Neither Negative nor Positive</td>
<td>47</td>
<td>51</td>
<td>25</td>
</tr>
<tr>
<td>Positive</td>
<td>48</td>
<td>48</td>
<td>75</td>
</tr>
</tbody>
</table>

Note. Four percent of the participants did not answer.

Table 9

*Impact of the Parent Portal on Grades*

<table>
<thead>
<tr>
<th>Impact</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Neither Negative nor Positive</td>
<td>25</td>
<td>28</td>
<td>5</td>
</tr>
<tr>
<td>Positive</td>
<td>69</td>
<td>71</td>
<td>95</td>
</tr>
</tbody>
</table>

Note. Five percent of the participants did not answer.
Table 10  
*Impact of the Parent Portal on Parental Involvement*

<table>
<thead>
<tr>
<th>Impact</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Neither Negative nor Positive</td>
<td>39</td>
<td>42</td>
<td>20</td>
</tr>
<tr>
<td>Positive</td>
<td>55</td>
<td>56</td>
<td>80</td>
</tr>
</tbody>
</table>

Note. Four percent of the participants did not answer.

To answer questions in the survey based on the strategies and/or programs used in their schools and/or school division to promote parental use of their student information system, the survey participants used the following four-point Likert scale rating system:

1. Not used in school/division and Should Not be
2. Not used in school/division and Should be
3. Used in school/division but Needs Strengthening
4. Used in school/division and is Strong

The corresponding number for each rating of the four-point Likert scale was used as a score. The response, *Not used in school/division and Should Not be*, receives a score of one which is a low score compared to the score of four for the response, *Used in school/division and is Strong*.

Tables 11 through 19 present the overall totals for the nine survey questions grouped under Epstein’s *The School Sphere of Influence*. Of the nine strategies, the following six had results that approached an even division between the strategy being not used and used:

18. Received training on how to use the parent portal to help parents (see Table 12)
20. Established suggestions for parents on alternative ways to access the parent portal (see Table 14)
21. Parents are reminded regularly to check their students’ progress through the parent portal (see Table 15)
22. Teachers utilize the parent portal to make announcements and upcoming assignments, homework and projects (see Table 16)
24. PTSA encourages parents to use the parent portal by making announcements at meetings and in newsletters (see Table 18)

31. Parents given alternative strategies on utilizing the parent portal if they do not have internet access at home (see Table 19)

The majority, 51%, indicated that the strategy of teachers and guidance counselors communicating with parents frequently on utilizing the parent portal to monitor student progress was used but needed strengthening (see Table 11). A total of 82% of the respondents, 47% indicated their policy was strong and 35% indicated their policy needed strengthening, indicated there was a school-wide policy in place at their school on how often teachers should update grades (see Table 13). The strategy requiring the teachers and guidance counselors contact parents who are not utilizing the parent portal had a response rate of 55% for the rating, not used and should not (see Table 17).

Table 11
(17) Communicate with Parents Frequently on Utilizing Parent Portal to Monitor Student Progress

<table>
<thead>
<tr>
<th>Rating</th>
<th>Total (%)</th>
<th>Teacher (%)</th>
<th>Guidance Counselor (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>11</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>51</td>
<td>54</td>
<td>60</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>30</td>
<td>31</td>
<td>40</td>
</tr>
</tbody>
</table>

Note. Six percent of the participants did not answer.
Table 12  
(18) Received Training on how to use the Parent Portal to Help Parents

<table>
<thead>
<tr>
<th>Rating</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>7</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>42</td>
<td>45</td>
<td>30</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>34</td>
<td>36</td>
<td>40</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>12</td>
<td>12</td>
<td>25</td>
</tr>
</tbody>
</table>

Note. Four percent of the participants did not answer.

Table 13  
(19) School-Wide Policy on how often Teachers Update Grades

<table>
<thead>
<tr>
<th>Rating</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>9</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>7</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>35</td>
<td>34</td>
<td>50</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>47</td>
<td>49</td>
<td>40</td>
</tr>
</tbody>
</table>

Note. Two percent of the participants did not answer.
### Table 14

*(20) Established Suggestions for Parents on Alternative Ways to Access the Parent Portal*

<table>
<thead>
<tr>
<th>Rating</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>7</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>42</td>
<td>46</td>
<td>30</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>34</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>12</td>
<td>11</td>
<td>35</td>
</tr>
</tbody>
</table>

Note. Four percent of the participants did not answer.

### Table 15

*(21) Parents are Reminded Regularly to Check Their Students’ Progress Through the Parent Portal*

<table>
<thead>
<tr>
<th>Rating</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>10</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>30</td>
<td>34</td>
<td>5</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>33</td>
<td>35</td>
<td>25</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>23</td>
<td>21</td>
<td>65</td>
</tr>
</tbody>
</table>

Note. Four percent of the participants did not answer.
Table 16
(22) Teachers Utilize Parent Portal to Make Announcements, Assignments, Homework & Projects

<table>
<thead>
<tr>
<th>Rating</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>16</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>24</td>
<td>26</td>
<td>15</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>42</td>
<td>43</td>
<td>50</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>13</td>
<td>12</td>
<td>35</td>
</tr>
</tbody>
</table>

Note. Five percent of the participants did not answer.

Table 17
(23) Required to Contact Parents who are not Utilizing the Parent Portal

<table>
<thead>
<tr>
<th>Rating</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>55</td>
<td>59</td>
<td>40</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>17</td>
<td>18</td>
<td>10</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>17</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>7</td>
<td>6</td>
<td>30</td>
</tr>
</tbody>
</table>

Note. Five percent of the participants did not answer.
Table 18
(24) PTSA Encourages Parent Portal by Making Announcements at Meetings and in Newsletters

<table>
<thead>
<tr>
<th>Rating</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>6</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>28</td>
<td>32</td>
<td>16</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>37</td>
<td>42</td>
<td>53</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>17</td>
<td>19</td>
<td>21</td>
</tr>
</tbody>
</table>

Note. Thirteen percent of the participants did not answer.

Table 19
(31) Parents Given Alternative Strategies on Utilizing the Parent Portal if They do not have Internet Access at Home

<table>
<thead>
<tr>
<th>Rating</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>17</td>
<td>22</td>
<td>11</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>22</td>
<td>22</td>
<td>26</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>34</td>
<td>38</td>
<td>42</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>16</td>
<td>18</td>
<td>21</td>
</tr>
</tbody>
</table>

Note. Eleven percent of the participants did not answer.

Tables 20-25 present the overall totals for the nine survey questions grouped under Epstein’s The Family Sphere of Influence. The majority, 61%, of the respondents indicated the strategy of the school providing parents with information on how to monitor and effectively use the information provided by the parent portal is used in their schools but need strengthening, while another 25% indicated it was used and strong (see Table 20). For the strategy, parents receive assistance in understanding the data available in the parent portal through workshops and/or training sessions (see Table 21), 40% indicated the strategy was not used and 56%
indicated the strategy is used. For the video tutorials are available online to assist parents in navigating through the parent portal strategy (see Table 22), 48% indicated the strategy was not used and 41% indicated the strategy is used. More than half, 62% indicated the strategy, annual surveys are conducted on users of the parent portal to gather their concerns, suggestions, and/or satisfaction of the program (see Table 23), was not being used with 50% indicating it should be. Both strategies, our school reminds parents to sign up for our parent portal through general messages on progress reports (see Table 24) and report cards and parents may stop by the guidance office at any time to request copies of current grades and/or attendance reports from parent portal (see Table 25), have 67% of the respondents indicating the strategies are used in their schools.

Table 20

(14) Provide Parents Information on How to Effectively Monitor and Utilize the Information Provided by the Parent Portal

<table>
<thead>
<tr>
<th>Rating</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>0</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>11</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>61</td>
<td>29</td>
<td>30</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>25</td>
<td>46</td>
<td>50</td>
</tr>
</tbody>
</table>

Note. Three percent of the participants did not answer.
Table 21

(15) Parents Receive Assistance in Understanding the Data Through Workshops and/or Training

<table>
<thead>
<tr>
<th>Rating</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>4</td>
<td>42</td>
<td>30</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>36</td>
<td>48</td>
<td>60</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>46</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>10</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Note. Four percent of the participants did not answer.

Table 22

(16) Video Tutorials are Available Online to Assist Parents in Navigating Through the Parent Portal

<table>
<thead>
<tr>
<th>Rating</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>4</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>44</td>
<td>54</td>
<td>40</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>30</td>
<td>21</td>
<td>25</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>11</td>
<td>8</td>
<td>15</td>
</tr>
</tbody>
</table>

Note. Twelve percent of the participants did not answer.
Table 23

(25) Annual Surveys are Conducted on Users of the Parent Portal to Gather their Concerns, Suggestions, and/or Satisfaction of the Program

<table>
<thead>
<tr>
<th>Rating</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>12</td>
<td>13</td>
<td>32</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>50</td>
<td>58</td>
<td>47</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>20</td>
<td>25</td>
<td>11</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>5</td>
<td>5</td>
<td>11</td>
</tr>
</tbody>
</table>

Note. Thirteen percent of the participants did not answer.

Table 24

(26) Remind Parents to Sign up for Parent Portal Through Messages on Progress Reports and Report Cards

<table>
<thead>
<tr>
<th>Rating</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>21</td>
<td>23</td>
<td>16</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>35</td>
<td>37</td>
<td>32</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>32</td>
<td>35</td>
<td>42</td>
</tr>
</tbody>
</table>

Note. Seven percent of the participants did not answer.
Table 25

(27) *Parents May Stop by Guidance at any Time to Request Copies of Current Grades and/or Attendance Reports from Parent Portal.*

<table>
<thead>
<tr>
<th>Rating</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>13</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>9</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>26</td>
<td>29</td>
<td>30</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>41</td>
<td>46</td>
<td>50</td>
</tr>
</tbody>
</table>

Note. Ten percent of the participants did not answer.

Tables 26-28 present the overall totals for the three survey questions grouped under Epstein’s *The Community Sphere of Influence.* For all three questions, the majority of the respondents indicate that the strategies are not used in their schools. Thirty-six percent of the respondents indicated the strategy of holding meetings in the neighborhood where laptops are used to train or sign parents up for the parent portal is not used at their schools and should not, while 43% felt it was not used but should be (see Table 26). Creating a resource directory for parents with information on community services, programs, and agencies that will help them gain internet access without cost was a strategy 46% indicated should be started in their schools (see Table 27). Table 28 indicates that 43% felt *schools are encouraged to work with local business, libraries and other organizations or programs to help parents gain internet access* was not used but should be.
Table 26

(28) Neighborhood Meetings are Conducted Where Laptops are Taken into the Community so Parents Can Sign Up to Receive Access or Be Trained

<table>
<thead>
<tr>
<th>Rating</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>36</td>
<td>42</td>
<td>30</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>43</td>
<td>48</td>
<td>60</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>7</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Note. Twelve percent of the participants did not answer.

Table 27

(29) Provide a Resource Directory for Parents with Information on Community Services, Programs, and Agencies to Gain Internet Access

<table>
<thead>
<tr>
<th>Rating</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>15</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>46</td>
<td>54</td>
<td>40</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>18</td>
<td>21</td>
<td>25</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>8</td>
<td>8</td>
<td>15</td>
</tr>
</tbody>
</table>

Note. Thirteen percent of the participants did not answer.
Table 28

(30) Schools are Encouraged to Work with Local Businesses, Libraries and Other Organization
or Programs to Help Parents Gain Internet Access

<table>
<thead>
<tr>
<th>Rating</th>
<th>Total (%)</th>
<th>Teachers (%)</th>
<th>Guidance Counselors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>21</td>
<td>25</td>
<td>21</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>43</td>
<td>47</td>
<td>53</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>18</td>
<td>21</td>
<td>16</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>7</td>
<td>7</td>
<td>10</td>
</tr>
</tbody>
</table>

Note. Twelve percent of the participants did not answer.

Response Bias

As recommended by Creswell in 2009, a wave analysis was completed on the data collected to investigate response bias. “Wave analysis consists of examining the returns in intervals to determine whether the answers to a few select questions vary from the first day of the survey administration to the final day of the survey administration. If there are noticeable variations in the answers, response bias might be present” (McGovern, 2009, p.70). To complete the wave analysis for this study, survey responses to four selected questions were examined to determine changes in the responses. The responses for each of the four questions during both wave analyses are presented in Tables 29-30.
Table 29

*Percentage of Perceptions Regarding Impact of the Parent Portal*

<table>
<thead>
<tr>
<th>Impact on Student Attendance</th>
<th>Wave 1 (n=175)</th>
<th>Wave 2 (n=129)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>1.1</td>
<td>0</td>
</tr>
<tr>
<td>Neither negative nor positive</td>
<td>46.2</td>
<td>50.3</td>
</tr>
<tr>
<td>Positive</td>
<td>49.7</td>
<td>42.6</td>
</tr>
<tr>
<td>No Answer</td>
<td>2.8</td>
<td>7.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Impact on Parental Involvement</th>
<th>Wave 1 (n=175)</th>
<th>Wave 2 (n=129)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>2.9</td>
<td>0.7</td>
</tr>
<tr>
<td>Neither negative nor positive</td>
<td>41.1</td>
<td>60.5</td>
</tr>
<tr>
<td>Positive</td>
<td>51.4</td>
<td>35.7</td>
</tr>
<tr>
<td>No Answer</td>
<td>4.6</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Notes: $n$ represents the number of responses.
Table 30

*Percentages on Strategies Used to Increase Use of Parent Portal*

<table>
<thead>
<tr>
<th>Video Tutorials for Parents</th>
<th>Wave 1 (n=175)</th>
<th>Wave 2 (n=129)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>3.4</td>
<td>4.7</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>45.1</td>
<td>42.6</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>34.9</td>
<td>23.3</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>7.4</td>
<td>14.7</td>
</tr>
<tr>
<td>No Answer</td>
<td>9.1</td>
<td>14.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resource Directory for Parents</th>
<th>Wave 1 (n=175)</th>
<th>Wave 2 (n=129)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>18.8</td>
<td>9.3</td>
</tr>
<tr>
<td>Not used but Should</td>
<td>50.8</td>
<td>38.8</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>12.6</td>
<td>25.6</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>5.7</td>
<td>9.3</td>
</tr>
<tr>
<td>No Answer</td>
<td>12</td>
<td>17.1</td>
</tr>
</tbody>
</table>

Notes: *n* represents the number of responses.

Two of the selected questions asked for the respondents’ perceptions on the impact of the parent portal on student attendance and parental involvement. The other questions selected for the wave analysis focused on the perceptions of strategies, video tutorials and resource directories, used by their school or division to increase the use of the parent portal. Seven days after the survey link was emailed to 1,274 teachers and guidance counselors, data for the first wave analysis were collected. There were 175 responses for the first wave analysis which yielded a response rate of 13.7%. The data for the second wave analysis collected on the last day the survey was opened yielded a response rate of 10.1%. A total of 129 responded after the first wave analysis. A total gross response rate of the survey was 23.9%. The differences between
each wave were analyzed using cross-tabulations and chi-squared tests to determine statistical significance. The comparison of the differences in responses displayed in Table 29 and Table 30, p value of 0.231 and 0.241 respectively, showed no significant differences for all four questions. A p value ≤ 0.05 was considered significant.

**Reliability**

Reliability is important when using a scale such as the one used in this study to provide validity of the data obtained. According to Cronbach in 1951 and is still widely followed to date, “a reliability coefficient demonstrates whether the test designer was correct in expecting a certain collection of items to yield interpretable statements about individual differences” (Cronbach, 1951, p. 297). Therefore, a reliability check through the use of Cronbach’s alpha which is a measure (coefficient) of internal consistency was completed and the results are presented in Tables 31-32. An acceptable Cronbach’s alpha of .787 (see Table 31) was derived from twenty-five questions from the survey regarding use of the parental portal and the strategies employed to increase the use of the parent portal. Cronbach’s alpha range is between 0 and 1.0 and the closer it is to 1.0, the greater the internal consistency of the items in the scale. George & Mallery (2003) provided the following guide when determining the adequacy of a Cronbach’s alpha: excellent if greater than 0.9, good if greater than 0.8, acceptable if greater than 0.7, questionable if greater than 0.6, poor if greater than 0.5 and unacceptable if less than 0.5. Table 32 presents the internal consistency reliability, the Cronbach’s alpha, on the survey statements by the three components of Epstein’s Overlapping Spheres of Influence: The Family, The School, and The Community from which the survey questions were designed.

**Table 31**

*Survey Questions on use of Parental Portal and Strategies to Increase use of Parent Portal*

<table>
<thead>
<tr>
<th>Survey Questions</th>
<th>N</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>#7 – 31</td>
<td>25</td>
<td>.787</td>
</tr>
</tbody>
</table>
Table 32

*Epstein’s Overlapping Spheres of Influence focused Survey Questions*

<table>
<thead>
<tr>
<th>Survey Questions</th>
<th>N</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>School (#17-24, 31)</td>
<td>9</td>
<td>.706</td>
</tr>
<tr>
<td>Family (#14-16, 25-27)</td>
<td>6</td>
<td>.630</td>
</tr>
<tr>
<td>Community (#28-30)</td>
<td>3</td>
<td>.686</td>
</tr>
</tbody>
</table>

The survey questions focused on Epstein’s *The School* Sphere of Influence had an acceptable Cronbach’s alpha of 0.706. Both Epstein’s *The Family* and *The Community* spheres of influence survey questions produced a questionable Cronbach’s alpha, .630 and .686 respectively. As a result, an investigation of Corrected Item-Total Correlation of each set of survey questions was completed to determine reliability of internal consistency. Each Corrected Item-Total Correlation was greater than .275 presenting a positive correlations and the Cronbach’s alpha would not increase if a survey question was eliminated.

**Inferential Analysis**

To draw conclusions regarding the two independent groups (teachers and guidance counselors) responses (means) to determine statistical differences (Creighton, 2007), the statistical technique, Independent Samples *t*-Test was used. The results of the Independent Sample *t*-Tests were performed at a confidence interval percentage of 95 on survey questions grouped by *Epstein’s Overlapping Spheres of Influence: The Family, The School, and The Community*. Additionally, a chi-square ($x^2$), another statistical technique, was conducted to examine the differences between the responses received and the expected responses according to specific hypothesis (Howell, 2007).

**Independent Samples *t*-Tests.** The results presented in Table 33 are from the Independent Samples *t*-Tests completed on the survey questions grouped under Epstein’s *The School* Sphere of Influence utilizing an alpha level of .05. An examination of five of the nine Epstein’s *The School* survey questions required an acceptance of the null hypothesis, there is no statistically significant difference between the responses of the teachers and guidance counselors. For survey question 17, communicate with parents frequently on utilizing parent portal to
monitor student progress, the responses of the teachers (M = 3.1, SD = .72) and guidance counselors (M = 3.4, SD = .50) were found to be statistically non-significant $t(283) = -1.62$, $p = .11$. The responses of the teachers (M = 2.5, SD = .80) and guidance counselors (M = 2.9, SD = .88) were found to be statistically non-significant, $t(288) = -1.78$, $p = .08$ for survey question 18, **received training on how to use the parent portal to help parents.** There was no statistical significance difference, $t(295) = -0.10$, $p = .92$, in the responses of survey question 19, **school-wide policy on how often teachers update grades**, from the teachers (M = 3.2, SD = .95) and guidance counselors (M = 3.3, SD = .79).

For survey question 24, **PTSA encourages parents to utilize the parent portal by making announcements at meetings and in newsletters,** the responses of teachers (M = 2.7, SD = .84) and guidance counselors (M = 2.8, SD = .90) were found to be statistically non-significant, $t(262) = -0.51$, $p = .61$. Survey question 31, **parents given alternative strategies on utilizing the parent portal if they do not have internet access at home,** with responses from teachers (M = 2.5, SD = 1.03) and guidance counselors (M = 2.7, SD = .93) that were found to not have statistically significant differences $t(227) = -0.93$, $p = .35$.

Survey question 20, **Established suggestions for parents on alternative ways to access the parent portal,** results revealed a statistically significant difference between the responses of the teachers and guidance counselors $t(282) = -2.53$, ($p<.05$). More teachers, 46.2%, responded to the question with **Not used but Should be as** an answer whereas 35% of the guidance counselors selected **Used & Strong** as their response to the question. The mean of teachers (M = 2.5, SD = .79) was lower than the means of the guidance counselors (M = 3.0, SD = .94).

A statistically significant difference between the teachers and guidance counselors responses was determined for survey question 21, **Parents are reminded regularly to check their students’ progress through the parent portal**, $t(287) = -3.93$, ($p<.05$).

The guidance counselors, 65%, responded with **Used & Strong** compared to 20.8% of the teachers selecting the same answer. The mean of teachers (M = 2.7, SD = .92) was lower than the mean of the guidance counselors (M = 3.5, SD = .83).
Table 33

*Differences between Teachers and Guidance Counselors on the School Sphere of Influence*

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Teachers</th>
<th>Guidance Counselors</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. Communicate with parents frequently on utilizing parent portal to monitor student progress</td>
<td>3.1</td>
<td>3.4</td>
<td>283</td>
<td>-1.62</td>
<td>.11</td>
</tr>
<tr>
<td>18. Received training on how to use the parent portal to help parents</td>
<td>2.5</td>
<td>2.9</td>
<td>288</td>
<td>-1.78</td>
<td>.08</td>
</tr>
<tr>
<td>19. School-wide policy on how often teachers update grades</td>
<td>3.2</td>
<td>3.3</td>
<td>295</td>
<td>-0.10</td>
<td>.92</td>
</tr>
<tr>
<td>20. Established suggestions for parents on alternative ways to access the parent portal</td>
<td>2.5</td>
<td>3.0</td>
<td>282</td>
<td>-2.53</td>
<td>.01*</td>
</tr>
<tr>
<td>21. Parents are reminded regularly to check their students’ progress through the parent portal</td>
<td>2.7</td>
<td>3.5</td>
<td>287</td>
<td>-3.93</td>
<td>.00*</td>
</tr>
<tr>
<td>22. Teachers utilize the parent portal to make announcements and upcoming assignments, homework and projects</td>
<td>2.5</td>
<td>3.2</td>
<td>286</td>
<td>-3.37</td>
<td>.01*</td>
</tr>
<tr>
<td>23. Required to contact parents who are not utilizing the parent portal</td>
<td>1.7</td>
<td>2.4</td>
<td>286</td>
<td>-3.14</td>
<td>.00*</td>
</tr>
<tr>
<td>24. PTSA encourages parents to utilize the parent portal by making announcements at meetings and in newsletters</td>
<td>2.7</td>
<td>2.8</td>
<td>262</td>
<td>-0.51</td>
<td>.61</td>
</tr>
<tr>
<td>31. Parents given alternative strategies on utilizing the parent portal if they do not have internet access at home</td>
<td>2.5</td>
<td>2.7</td>
<td>227</td>
<td>-0.93</td>
<td>.35</td>
</tr>
</tbody>
</table>

*p<.05*
Teachers, 44.8%, responded to survey question 22, Teachers utilize the parent portal to make announcements and upcoming assignments, homework and projects, with Not Used compared to 15% of the guidance counselors with the same responses. The results indicated a statistically significant difference in the responses, $t(286) = -3.37$, (p<.05). The mean of the teachers ($M = 2.5$, $SD = .93$) compared to the mean of the guidance counselors ($M=3.2$, $SD = .70$) was lower.

Survey question 23, Required to contact parents who are not utilizing the parent portal, had a response rate of 30% from guidance counselors for the answer Used & Strong compared with 5.6% of the teachers responding the same. The mean of the guidance counselors ($M = 2.4$, $SD = 1.31$) was greater than the mean of the teachers ($M = 1.7$, $SD = .95$) indicating there was a statistically significant difference between the each group’s responses, $t(286) = -3.14$, (p<.05).

The analysis completed on the six survey questions grouped under Epstein’s The Family Sphere of Influence is displayed in Table 34. The null hypothesis was accepted for all six questions. There was no statistically significant difference when comparing the responses of the teachers to the guidance counselors. The statistics for each question were similar. Survey question 14, Provide parents with information on how to effectively monitor and utilize the information provided by the parent portal, with 46.2% of the teachers ($M = 3.1$, $SD = .60$) selecting Not used but should along with 50% of the guidance counselors ($M = 3.2$, $SD = .70$) is an example of how the statistics on each question produced similar results for both teachers and guidance counselors. For survey question 25, Annual surveys are conducted on users of the parent portal to gather their concerns, suggestions, and/or satisfaction of the program, the mean of the teachers ($M = 2.2$, $SD = .72$) was higher than the principals ($M = 2.0$, $SD = .94$). With 12.7% of the teachers selected the answer, Not used and Should not be, as compared to 31.6% of the guidance counselors selected the same.
Table 34

*Difference between Teachers and Guidance Counselors on the Family Sphere of Influence*

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Teachers</th>
<th>Guidance Counselors</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Provide parents with information on how to effectively monitor and utilize</td>
<td>3.1</td>
<td>3.2</td>
</tr>
<tr>
<td>the information provided by the parent portal</td>
<td>.60</td>
<td>.70</td>
</tr>
<tr>
<td>15. Parents receive assistance in understanding the data through workshops and/or training</td>
<td>2.6</td>
<td>2.9</td>
</tr>
<tr>
<td>and/or training</td>
<td>.74</td>
<td>.64</td>
</tr>
<tr>
<td>16. Video tutorials are available online to assist parents in navigating through the parent portal</td>
<td>2.5</td>
<td>2.6</td>
</tr>
<tr>
<td>and/or satisfaction of the program</td>
<td>.74</td>
<td>1.00</td>
</tr>
<tr>
<td>1. Annual surveys are conducted on users of the parent portal to gather their concerns, suggestions, and/or satisfaction of the program</td>
<td>2.2</td>
<td>2.0</td>
</tr>
<tr>
<td>and/or satisfaction of the program</td>
<td>.72</td>
<td>.94</td>
</tr>
<tr>
<td>2. Remind parents to sign up for parent portal through messages on progress reports and report cards</td>
<td>3.0</td>
<td>3.1</td>
</tr>
<tr>
<td>and/or satisfaction of the program</td>
<td>.89</td>
<td>1.03</td>
</tr>
<tr>
<td>3. Parents may stop by guidance at any time to request copies of current grades and/or attendance reports from parent portal.</td>
<td>3.1</td>
<td>3.2</td>
</tr>
<tr>
<td>and/or satisfaction of the program</td>
<td>1.08</td>
<td>1.01</td>
</tr>
</tbody>
</table>

Presented in Table 35 are the results of the analysis on survey questions grouped under Epstein’s *The Community* Sphere of Influence. The Independent Sample *t*-Tests concluded the differences in the responses from the teachers and guidance counselors on the survey questions involving the community were not statistically significant. Therefore, the null hypothesis was accepted. Guidance counselors (90%) and teachers (89.4%) agreed that the strategy,
Neighborhood meetings are conducted where laptops are taken into the community so parents can sign up to receive access or be trained (survey question 28), was not used. The mean of the teachers (M = 1.7, SD = .72) was 0.1 less than the mean of the guidance counselors (M = 1.8, SD = .62). For the strategy, *Provide a resource directory for parents with information on community services, programs, and agencies to gain internet access* (survey question 29), 54.4% of the teachers and 40% of the guidance counselors selected, *Not used but Should be*. The majority of teachers (46.8%) and guidance counselors (52.6%) responding to the strategy, *Schools are encouraged to work with local businesses, libraries and other organization or programs to help parents gain internet access* (survey question 30), selected the answer *Not used but Should be* resulting in $p$ equaling .82.

Table 35

*Differences between Teachers and Guidance Counselors on the Community Sphere of Influence*

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Teachers</th>
<th></th>
<th>Guidance Counselors</th>
<th></th>
<th>Df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>28. Neighborhood meetings are conducted where laptops are taken into the community so parents can sign up to receive access or be trained</td>
<td>1.7</td>
<td>.72</td>
<td>1.8</td>
<td>.62</td>
<td>263</td>
<td>-.52</td>
<td>.61</td>
</tr>
<tr>
<td>29. Provide a resource directory for parents with information on community services, programs, and agencies to gain internet access</td>
<td>2.2</td>
<td>.81</td>
<td>2.4</td>
<td>.99</td>
<td>257</td>
<td>-.78</td>
<td>.44</td>
</tr>
<tr>
<td>30. Schools are encouraged to work with local businesses, libraries and other organization or programs to help parents gain internet access</td>
<td>2.1</td>
<td>.86</td>
<td>2.2</td>
<td>.90</td>
<td>252</td>
<td>-.23</td>
<td>.82</td>
</tr>
</tbody>
</table>
The analysis completed on teachers’ and guidance counselors’ perceptions regarding the impact of the parent portal on attendance, grades and parental involvement as well as parental use of the parent portal is presented in Table 36. The differences in the perceptions of teachers and guidance counselors regarding the percentage of parents utilizing the parent portal (survey question 7) and the frequencies of their use (survey question 8), are not statistically significant. Both identified grades as the primary reason why parents access the portal (survey question 9). The majority of the teachers (79.6%) and guidance counselors (70%) identified attendance as the secondary reason why parents access the portal (survey question 10).

Table 36

*Differences between Responses on Parent Portal*

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Teachers</th>
<th></th>
<th></th>
<th>Guidance Counselors</th>
<th></th>
<th></th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of parents utilize parent portal</td>
<td>2.3</td>
<td>.64</td>
<td>2.4</td>
<td>.50</td>
<td>272</td>
<td>-.84</td>
<td></td>
<td>.40</td>
<td></td>
</tr>
<tr>
<td>Frequency parents access parent portal</td>
<td>2.5</td>
<td>.98</td>
<td>2.5</td>
<td>1.32</td>
<td>271</td>
<td>-.13</td>
<td></td>
<td>.90</td>
<td></td>
</tr>
<tr>
<td>Primary reason parents access parent portal</td>
<td>2.0</td>
<td>.11</td>
<td>2.0</td>
<td>.00</td>
<td>288</td>
<td>-.47</td>
<td></td>
<td>.64</td>
<td></td>
</tr>
<tr>
<td>Secondary reason parents access parent portal</td>
<td>1.5</td>
<td>1.01</td>
<td>1.8</td>
<td>1.25</td>
<td>282</td>
<td>-1.21</td>
<td></td>
<td>.23</td>
<td></td>
</tr>
<tr>
<td>Impact of parent portal on student attendance</td>
<td>2.5</td>
<td>.52</td>
<td>2.8</td>
<td>.44</td>
<td>285</td>
<td>-2.35</td>
<td></td>
<td>.02*</td>
<td></td>
</tr>
<tr>
<td>Impact of parent portal on grades</td>
<td>2.7</td>
<td>.48</td>
<td>3.0</td>
<td>.22</td>
<td>285</td>
<td>-2.29</td>
<td></td>
<td>.02*</td>
<td></td>
</tr>
<tr>
<td>Impact of parent portal on parental involvement</td>
<td>2.5</td>
<td>.54</td>
<td>2.8</td>
<td>.41</td>
<td>287</td>
<td>-2.14</td>
<td></td>
<td>.03*</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05
The perceptions of teachers (M = 2.5, SD = .52) and guidance counselors (M = 2.8, SD = .44) on the impact of parent portal on student attendance (survey question 11), was found to be statistically significant, \( t(285) = -2.34, (p<.05) \). Perceptions of teachers (M = 2.7, SD = .48) and guidance counselors (M = 3.0, SD = .22) on the impact of parent portal on grades (survey question 12), was statistically significant \( t(285) = -2.29, (p<.05) \). The difference in the teachers (M = 2.5, SD = .54) responses were statistically significant \( t(287) = -2.14, (p<.05) \) to the guidance counselors (M = 2.8, SD = .41) responses on the impact of parent portal on parental involvement (survey question 13). As a result, the null hypothesis, there is no statistical significance in the perceptions of teachers and guidance counselors on the impact of the parent portal, was rejected for each related question.

**Chi-Squared Tests**

Chi-squared tests were performed to measure the difference between the observed frequencies (fo) and expected frequencies (fe) from teachers and guidance counselor on each strategy survey questions (questions 14-31) and compared the difference to determine a statistical significance. The null hypothesis for each strategy survey question states that there is no significant difference between the observed and expected frequencies from teachers and guidance counselors.

Tables 37-42 presents the summary of the analysis for each strategy survey questions grouped under *The Family* Sphere of Influence utilizing an alpha level of .05. The strategy survey question presented in Table 37, *Provide parents with information on how to effectively monitor and utilize the information provided by the parent portal*, \( x^2 = (3, N = 292) = 1.70, p = .638 \), had a non-significant difference. The results of the strategy survey question (Table 38), *Parents receive assistance in understanding the data through workshops and/or training*, which revealed no statistically significant difference between observed and expected frequencies, \( x^2 = (3, N = 289) = 2.93, p = .40 \). The results of the strategy survey question presented in Table 39, *Video tutorials are available online to assist parents in navigating through the parent portal* (survey question 16), \( x^2 = (3, N = 267) = 5.78, p = .123 \) which were non-significant.
Table 37
Provide Parents with Information on how to Effectively Monitor and Utilize the Information Provided by the Parent Portal

<table>
<thead>
<tr>
<th>Rating</th>
<th>Teacher</th>
<th>Guidance Counselor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fo</td>
<td>fo</td>
</tr>
<tr>
<td>Not used &amp; Should Not</td>
<td>0.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>10.7</td>
<td>15.0</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>64.0</td>
<td>50.0</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>25.0</td>
<td>35.0</td>
</tr>
</tbody>
</table>

Note. Twelve participants did not respond. Frequencies listed in percentages.

Table 38
Parents Receive Assistance in Understanding the Data through Workshops and/or Training

<table>
<thead>
<tr>
<th>Rating</th>
<th>Teacher</th>
<th>Guidance Counselor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fo</td>
<td>fo</td>
</tr>
<tr>
<td>Not used &amp; Should Not</td>
<td>4.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>38.3</td>
<td>25.0</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>46.5</td>
<td>60.0</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>10.4</td>
<td>15.0</td>
</tr>
</tbody>
</table>

Note. Fifteen participants did not respond. Frequencies listed in percentages.
Table 39

*Video Tutorials are Available Online to Assist Parents in Navigating through the Parent Portal*

<table>
<thead>
<tr>
<th>Rating</th>
<th>Teacher</th>
<th>Guidance Counselor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$fo$</td>
<td>$fe$</td>
</tr>
<tr>
<td>Not used &amp; Should Not</td>
<td>4.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>50.6</td>
<td>45.0</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>34.4</td>
<td>20.0</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>10.9</td>
<td>25.0</td>
</tr>
</tbody>
</table>

Note. Thirty-seven participants did not respond. Frequencies listed in percentages.

Like the other questions grouped under Epstein’s *The Family* Sphere of Influence, the remaining strategy survey questions (see Tables 40-42): Annual surveys are conducted on users of the parent portal to gather their concerns, suggestions, and/or satisfaction of the program, $x^2 = (3, N = 263) = 7.32, p = .06$, Remind parents to sign up for parent portal through messages on progress reports and report cards, $x^2 = (3, N = 281) = 1.70, p = .64$, and Parents may stop by guidance at any time to request copies of current grades and/or attendance reports from parent portal, $x^2 = (3, N = 272) = .40, p = .941$ revealed no significant difference.
Table 40
Annual Surveys are Conducted on users of the Parent Portal to Gather their Concerns, Suggestions, and/or Satisfaction of the Program

<table>
<thead>
<tr>
<th>Rating</th>
<th>Teacher</th>
<th>Guidance Counselor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(fo)</td>
<td>(fe)</td>
</tr>
<tr>
<td>Not used &amp; Should Not</td>
<td>12.7</td>
<td>31.6</td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>57.8</td>
<td>47.4</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>24.6</td>
<td>10.5</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>4.9</td>
<td>10.5</td>
</tr>
</tbody>
</table>

Note. Forty-one participants did not respond. Frequencies listed in percentages.

Table 41
Remind Parents to sign up for Parent Portal through Messages on Progress Reports and Report Cards

<table>
<thead>
<tr>
<th>Rating</th>
<th>Teacher</th>
<th>Guidance Counselor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(fo)</td>
<td>(fe)</td>
</tr>
<tr>
<td>Not used &amp; Should Not</td>
<td>5.3</td>
<td>10.5</td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>22.9</td>
<td>15.8</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>37.4</td>
<td>31.6</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>34.4</td>
<td>42.1</td>
</tr>
</tbody>
</table>

Note. Twenty-three participants did not respond. Frequencies listed in percentages.
Table 42

*Parents May Stop by Guidance at any Time to Request Copies of Current Grades and/or Attendance Reports from Parent Portal*

<table>
<thead>
<tr>
<th>Rating</th>
<th>Teacher</th>
<th>Guidance Counselor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>fo</em></td>
<td><em>fo</em></td>
</tr>
<tr>
<td>Not used &amp; Should Not</td>
<td>15.1</td>
<td>10.0</td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>9.5</td>
<td>10.0</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>29.4</td>
<td>30.0</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>46.0</td>
<td>50.0</td>
</tr>
</tbody>
</table>

Note. Thirty-two participants did not respond. Frequencies listed in percentages.

The results from chi-squared tests completed on the three strategy survey questions grouped under Epstein’s *The Community Sphere of Influence: Neighborhood meetings are conducted where laptops are taken into the community so parents can sign up to receive access or be trained, x² = (3, N= 265) = 1.75, p = .63; Provide a resource directory for parents with information on community services, programs, and agencies to gain internet access, x² = (3, N= 259) = 2.06, p = .56; and Schools are encouraged to work with local businesses, libraries and other organization or programs to help parents gain internet access, x² = (3, N= 254) = 0.73, p = .87 are presented in Tables 43-45. There was no indication of a statistically significant difference in the observed frequencies and expected frequencies for each question utilizing an alpha level of .05.
**Table 43**

*Neighborhood Meetings are Conducted where Laptops are taken into the Community so Parents Can Sign Up to Receive Access or be Trained*

<table>
<thead>
<tr>
<th>Rating</th>
<th>Teacher</th>
<th>Guidance Counselor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$f_o$</td>
<td>$f_o$</td>
</tr>
<tr>
<td></td>
<td>$f_e$</td>
<td>$x^2$</td>
</tr>
<tr>
<td></td>
<td>df</td>
<td>$P$</td>
</tr>
<tr>
<td>Not used &amp; Should Not</td>
<td>41.6</td>
<td>30.0</td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>47.8</td>
<td>60.0</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>8.2</td>
<td>10.0</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>2.4</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Note. Thirty-nine participants did not respond. Frequencies listed in percentages.

**Table 44**

*Provide a Resource Directory for Parents with Information on Community Services, Programs, and Agencies to Gain Internet Access*

<table>
<thead>
<tr>
<th>Rating</th>
<th>Teacher</th>
<th>Guidance Counselor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$f_o$</td>
<td>$f_o$</td>
</tr>
<tr>
<td></td>
<td>$f_e$</td>
<td>$x^2$</td>
</tr>
<tr>
<td></td>
<td>df</td>
<td>$P$</td>
</tr>
<tr>
<td>Not used &amp; Should Not</td>
<td>16.7</td>
<td>20.0</td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>54.4</td>
<td>40.0</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>20.9</td>
<td>25.0</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>7.9</td>
<td>15.0</td>
</tr>
</tbody>
</table>

Note. Forty-five participants did not respond. Frequencies listed in percentages.
Table 45
Schools are Encouraged to Work With Local Businesses, Libraries and Other Organization or Programs to Help Parents Gain Internet Access

<table>
<thead>
<tr>
<th>Rating</th>
<th>Teacher</th>
<th>Guidance Counselor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fo</td>
<td>fo</td>
</tr>
<tr>
<td>Not used &amp; Should Not</td>
<td>24.7</td>
<td>21.1</td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>46.8</td>
<td>52.6</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>21.3</td>
<td>15.8</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>7.2</td>
<td>10.5</td>
</tr>
</tbody>
</table>

Note. Fifty participants did not respond. Frequencies listed in percentages.

The results of the chi-squared tests of the strategy survey questions grouped under Epstein’s The School Sphere of Influence had mixed outcomes. Tables 46-50 displays the summary of the examination of observed frequencies ($fo$) and expected frequencies ($fe$) of strategy survey questions: Communicate with parents frequently on utilizing parent portal to monitor student progress, $x^2 = (3, N = 285) = 3.63$, $p = .31$; Received training on how to use the parent portal to help parents, $x^2 = (3, N = 290) = 3.75$, $p = .29$; School-wide policy on how often teachers update grades, $x^2 = (3, N = 297) = 2.16$, $p = .54$; PTSA encourages parents to utilize the parent portal by making announcements at meetings and in newsletters, $x^2 = (3, N = 264) = 2.44$, $p = .49$; and Parents given alternative strategies on utilizing the parent portal if they do not have internet access at home, $x^2 = (3, N = 229) = 1.48$, $p = .69$ failed to indicate a statistically significant difference.
Table 46

Communicate with Parents Frequently on Utilizing Parent Portal to Monitor Student Progress

<table>
<thead>
<tr>
<th>Rating</th>
<th>Teacher</th>
<th>Guidance Counselor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fo</td>
<td>fo</td>
</tr>
<tr>
<td>Not used &amp; Should Not</td>
<td>2.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>12.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>54.0</td>
<td>60.0</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>30.9</td>
<td>40.0</td>
</tr>
</tbody>
</table>

Note. Nineteen participants did not respond. Frequencies listed in percentages.

Table 47

Received Training on how to use the Parent Portal to Help Parents

<table>
<thead>
<tr>
<th>Rating</th>
<th>Teacher</th>
<th>Guidance Counselor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fo</td>
<td>fo</td>
</tr>
<tr>
<td>Not used &amp; Should Not</td>
<td>7.4</td>
<td>5.0</td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>45.2</td>
<td>30.0</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>35.6</td>
<td>40.0</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>11.9</td>
<td>25.0</td>
</tr>
</tbody>
</table>

Note. Fourteen participants did not respond. Frequencies listed in percentages.
Table 48

*School-Wide Policy on how Often Teachers Update Grades*

<table>
<thead>
<tr>
<th>Rating</th>
<th>Teacher</th>
<th>Guidance Counselor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$f_o$</td>
<td>$f_o$</td>
</tr>
<tr>
<td>Not used &amp; Should Not</td>
<td>9.7</td>
<td>5.0</td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>6.9</td>
<td>5.0</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>34.3</td>
<td>50.0</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>49.1</td>
<td>40.0</td>
</tr>
</tbody>
</table>

Note. Seven participants did not respond. Frequencies listed in percentages.

Table 49

*PTSA Encourages Parents to Utilize the Parent Portal by Making Announcements at Meetings and in Newsletters*

<table>
<thead>
<tr>
<th>Rating</th>
<th>Teacher</th>
<th>Guidance Counselor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$f_o$</td>
<td>$f_o$</td>
</tr>
<tr>
<td>Not used &amp; Should Not</td>
<td>6.5</td>
<td>10.5</td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>32.2</td>
<td>15.8</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>42.0</td>
<td>52.6</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>19.2</td>
<td>21.1</td>
</tr>
</tbody>
</table>

Note. Forty participants did not respond. Frequencies listed in percentages.
Table 50
Parents Given Alternative Strategies on Utilizing the Parent Portal if they do not have Internet Access at Home

<table>
<thead>
<tr>
<th>Rating</th>
<th>Teacher</th>
<th>Guidance Counselor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fo</td>
<td>fo</td>
</tr>
<tr>
<td>Not used &amp; Should Not</td>
<td>22.4</td>
<td>10.5</td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>21.9</td>
<td>26.3</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>38.1</td>
<td>42.1</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>17.6</td>
<td>21.1</td>
</tr>
</tbody>
</table>

Note. Seventy-five participants did not respond. Frequencies listed in percentages.

The four remaining strategy survey questions grouped under Epstein’s *The School Sphere of Influence* chi-square test results indicated a statistically significant difference in the observed frequencies and the expected frequencies requiring a rejection of the null hypothesis for each. Presented in Table 51 is the summary of the analysis for the strategy survey question, *Established suggestions for parents on alternative ways to access the parent portal*, utilizing an alpha level of .05, there was a statistically significant difference between the received and expected frequencies, $x^2 = (3, N = 284) = 10.44, p<.05$. With an expected frequency of 45.1% for the response, *Not used & Should*, 46.2% of the teachers and 30% guidance counselors selected that answer. For the response, *Used & Strong*, with an expected frequency of 12.3% had 35% of the guidance counselors and 10.6% of the teachers indicated it as their selection.
Table 51  
*Established Suggestions for Parents on Alternative Ways to Access the Parent Portal*

<table>
<thead>
<tr>
<th>Rating</th>
<th>Teacher</th>
<th>Guidance Counselor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>8.3</td>
<td>5.0</td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>46.2</td>
<td>30.0</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>34.8</td>
<td>30.0</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>10.6</td>
<td>35.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>fo</th>
<th>fe</th>
<th>$\chi^2$</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>8.3</td>
<td>5.0</td>
<td>8.1</td>
<td>10.44</td>
<td>3</td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>46.2</td>
<td>30.0</td>
<td>45.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>34.8</td>
<td>30.0</td>
<td>34.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>10.6</td>
<td>35.0</td>
<td>12.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. *p<.05. Twenty participants did not respond. Frequencies listed in percentages.

Displayed in Table 52 is the summary analysis for the strategy survey question, *Parents are reminded regularly to check their students’ progress through the parent portal,* $\chi^2 = (3, N= 289) = 21.12, p < .05,$ indicate a statistically significant difference in the observed frequencies and the expected frequencies. With an expected frequency of 23.9% for the response, *Used & Strong,* 20.8% of the teachers and 65% of the guidance counselors selected this response. The percentage of teachers, 33.5%, was greater than the expected frequency of 31.4% and the percentage of guidance counselors, 5%, selecting the response, *Not used & should.*
### Table 52

**Parents are Reminded Regularly to Check their Students’ Progress through the Parent Portal**

<table>
<thead>
<tr>
<th>Rating</th>
<th>Teacher</th>
<th>Guidance Counselor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$fo$</td>
<td>$fe$</td>
</tr>
<tr>
<td>Not used &amp; Should Not</td>
<td>10.4</td>
<td>5.0</td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>33.5</td>
<td>5.0</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>35.3</td>
<td>25.0</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>20.8</td>
<td>65.0</td>
</tr>
</tbody>
</table>

Note. *p<.05. Fifteen participants did not respond. Frequencies listed in percentages.

The summary analysis for the strategy survey question, *Teachers utilize the parent portal to make announcements and upcoming assignments, homework and projects*, $x^2 = (3, N=288) = 12.14$, p < .05 indicating a statistically significant difference in the observed frequencies and expected frequencies is displayed in Table 53. None of the guidance counselors selected the response, *Not used & should not*, unlike 18.7% of the teachers. The percentage of teachers, 11.9% indicated, *Used & Strong*, as their answer to the survey question while 35% of the guidance counselors selected the same response.
Table 53

*Teachers Utilize the Parent Portal to Make Announcements and Upcoming Assignments, Homework and Projects*

<table>
<thead>
<tr>
<th>Rating</th>
<th>Teacher</th>
<th>Guidance Counselor</th>
<th>$f_o$</th>
<th>$f_o$</th>
<th>$f_e$</th>
<th>$x^2$</th>
<th>df</th>
<th>$P$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used &amp; Should Not</td>
<td>18.7</td>
<td>0.0</td>
<td>17.4</td>
<td>12.14</td>
<td>3</td>
<td>.01*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>26.1</td>
<td>15.0</td>
<td>25.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>43.3</td>
<td>50.0</td>
<td>43.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>11.9</td>
<td>35.0</td>
<td>13.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. **p<.05. Sixteen participants did not respond. Frequencies listed in percentages.

The results of the chi-squared test indicating a statistically significant difference in the observed frequencies and expected frequencies performed on the strategy survey question, *Required to contact parents who are not utilizing the parent portal*, $x^2 = (3, N= 289) = 21.12, p < .05$, is presented in Table 54. More guidance counselors, 30%, selected the response, *Used & Strong*, than teachers, 5.6% for the question which had an expected frequency of 7.3% for the same response. The number of teachers, 59.3%, selecting the response, *Not used & Should not*, was greater than the expected frequency, 58%, and the number of guidance counselors selecting the same response.
Table 54

*Required to Contact Parents who are not Utilizing the Parent Portal*

<table>
<thead>
<tr>
<th>Rating</th>
<th>Teacher</th>
<th>Guidance Counselor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$fo$</td>
<td>$fe$</td>
</tr>
<tr>
<td>Not used &amp; Should Not</td>
<td>59.3</td>
<td>58.0</td>
</tr>
<tr>
<td>Not used &amp; Should</td>
<td>17.9</td>
<td>17.4</td>
</tr>
<tr>
<td>Used but Needs Strengthening</td>
<td>17.2</td>
<td>17.4</td>
</tr>
<tr>
<td>Used &amp; Strong</td>
<td>5.6</td>
<td>7.3</td>
</tr>
</tbody>
</table>

Note. Sixteen participants did not respond. Frequencies listed in percentages.

**Analysis of Perceptions**

A One-Way Analysis of Variance (ANOVA) was used to determine if there was any difference in the overall perception, teachers and guidance counselors, at each high school participating in this study regarding the impact of the parent portal on student attendance, grades and parental involvement. The ratings assigned to the three options for each question were 1 – Negative, 2 – Neither Negative nor Positive and 3 - Positive. Table 55 presents the results from the ANOVA completed on the perceptions of the parent portal’s impact on attendance. The analysis revealed no statistically significant difference among the schools, $F(9,287) = 1.29, p = .243$, with an overall mean of 2.49. The majority of the respondents from three schools (D, F and J) indicated the parent portal had no impact on student attendance.
Table 55

*Impact of the Parent Portal on Student Attendance*

<table>
<thead>
<tr>
<th>School</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School A</td>
<td>2.29</td>
<td>.59</td>
</tr>
<tr>
<td>High School B</td>
<td>2.65</td>
<td>.49</td>
</tr>
<tr>
<td>High School C</td>
<td>2.57</td>
<td>.51</td>
</tr>
<tr>
<td>High School D</td>
<td>2.48</td>
<td>.51</td>
</tr>
<tr>
<td>High School F</td>
<td>2.38</td>
<td>.52</td>
</tr>
<tr>
<td>High School G</td>
<td>2.50</td>
<td>.50</td>
</tr>
<tr>
<td>High School H</td>
<td>2.60</td>
<td>.50</td>
</tr>
<tr>
<td>High School I</td>
<td>2.50</td>
<td>.52</td>
</tr>
<tr>
<td>High School J</td>
<td>2.36</td>
<td>.49</td>
</tr>
<tr>
<td>High School K</td>
<td>2.50</td>
<td>.53</td>
</tr>
</tbody>
</table>

Notes: High School E data not included.

The data presented in Table 56 is a result of the ANOVA completed on the perceptions of the parent portal’s impact on grades at the ten high schools participating in this study. The differences in perceptions were found to be statistically non-significant, $F(9,287) = 1.53, p = .136$, with an overall mean of 2.72. The majority of respondents from each school indicated the parent portal had a positive impact on grades.
Table 56

Impact of the Parent Portal on Grades

<table>
<thead>
<tr>
<th>School</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School A</td>
<td>2.53</td>
<td>.51</td>
</tr>
<tr>
<td>High School B</td>
<td>2.84</td>
<td>.37</td>
</tr>
<tr>
<td>High School C</td>
<td>2.70</td>
<td>.56</td>
</tr>
<tr>
<td>High School D</td>
<td>2.60</td>
<td>.50</td>
</tr>
<tr>
<td>High School F</td>
<td>2.75</td>
<td>.46</td>
</tr>
<tr>
<td>High School G</td>
<td>2.70</td>
<td>.48</td>
</tr>
<tr>
<td>High School H</td>
<td>2.80</td>
<td>.41</td>
</tr>
<tr>
<td>High School I</td>
<td>2.67</td>
<td>.49</td>
</tr>
<tr>
<td>High School J</td>
<td>2.80</td>
<td>.51</td>
</tr>
<tr>
<td>High School K</td>
<td>3.0</td>
<td>.00</td>
</tr>
</tbody>
</table>

Notes: High School E data not included.

The results of the ANOVA completed in Table 57 regarding the perceptions of the parent portal on parental involvement revealed there was not a statistically significant difference, $F(9,289) = 1.26, p = .260$, at each of the ten high schools participating in the study with an overall mean of 2.56.
### Qualitative Analysis

The final survey question provided the sample population of teachers and guidance counselors the opportunity to share any practice or strategy they have employed in an effort to increase parental utilization of the parent portal. Of the 304 study participants, 178 (59%) responded to the open-ended question, *what practice or strategy have you used to get your parents to utilize the parent portal?* Four of the 178 responses were concerns regarding the other survey questions. For example, one respondent shared “As a teacher I did not have the information necessary to answer the questions on this survey. You needed an answer choice to reflect what I think.” Two responses were both a reflection and a concern: “They are made aware of the parent portal, it’s up to them whether they use it or not. I have found the process to get registered is a bit cumbersome.” and “I Leave it up to them, parenting is not focus. This is a
very wide problem that the Superintendent needs to tackle.” One of the eight responses of “none” provided a reason why a practice or strategy was not given, “none, parent portal holds little of my attention as a teacher, it is a tool for parents.”

To organize the data, each response was placed into a coding category that was developed after several reviews of all responses. The categories: electronic, paper and verbal described how the practice or strategy employed by a respondent to get parents to use the parent portal is delivered. Some of the responses overlapped into more than one category. For example, this response “including the information on my class expectations and bringing it up at Open House” is both paper (class expectations) and verbal (Open House).

After analyzing the responses in each category for patterns and trends, two themes emerged: teacher invitation and student invitation. For each practice or strategy shared, the communication between the parent and respondent was direct or student-led. Some practices and strategies start as a student invitation but end as a teacher invitation. “I send a notice of how to get signed up and I offer students extra credit, if their parents email me so I have access to parents... only 20-25% participate each year.” is an example a teacher shared that started with students and ended with parents directly communicating with the teacher. The following are examples of direct contact that also illustrates how parents are provided assistance in the registration process, “printing out directions and walking parents through the setup” and “during parent conferences I register them after the meeting and given them my email address to forward the verification code to me so I can validate their ID without them coming back up to school to show their ID.”

Appendix G contains the full list of responses to the open-ended survey question. Below are some of the practices and strategies shared under each theme respondents (teachers and guidance counselors) employ to increase parental use of the parent portal:

**Student Invitation (Student-Led Contact)**

1. Include parent portal information on class expectations
2. Encourage students to get parents to sign up
3. Extra credit for students whose parents sign up to use portal
4. Send home weekly reports with recommendations for parents to use portal
5. Make class announcements

**Teacher Invitation (Direct Contact)**

1. Discuss during Open House
2. Call parents and recommend they register to get access
3. Discuss during parent-teacher conference
4. Assist parents in registering after a conference
5. Email parents highlighting benefits of using the parent portal
6. Include link to the parent portal on signature section of emails

**Summary**

This chapter presented detailed analyses and results of the data gathered to investigate the perceptions of teachers and guidance counselors on the impact of a parent portal component of a student information system on parental involvement at the high school level and the strategies used to increase parental use. A total of 304 teachers and guidance counselors from ten comprehensive high schools in a suburban school division utilizing a student information system for the past four years participated in the study. The participants responded to an electronic survey designed around the three components of Epstein’s *Overlapping Spheres of Influence: The Family, The School, and The Community*.

Descriptive and inferential statistics were performed on the data gathered from the surveys. From the descriptive analyses conducted, it was determined that the majority of the study participants were teachers (92.8%) and most had been in their current position for seven or more years (69%). A wave analysis was performed to verify the absence of response bias in the survey responses. An acceptable Cronbach’s alpha of .787 was revealed when the reliability check of internal consistency was performed on the twenty-five survey questions regarding use of the parental portal and the strategies employed to increase parental use.

From the inferential statistics performed, Independent Samples *t*-Tests, the differences in four strategies grouped under Epstein’s *The School* Sphere of Influence and the perceptions of teachers and guidance counselors regarding the impact of the parent portal on attendance, grades, and parental involvement revealed a statistically significant difference. Chi-squared tests conducted on all strategy questions concluded that the same four strategy survey had statistically significant differences in observed frequencies and expected frequencies.

The qualitative data from the open-ended survey question were analyzed using thematic coding categories. Of the 304 study participants, 178 responded to the final question in the
survey, what practice or strategy have you used to get your parents to utilize the parent portal?
From the analysis completed two themes emerged: student invitation and teacher invitation.

The results from the data analysis completed in this chapter will guide the findings and implications presented in Chapter 5.
Chapter 5
Findings and Implications

Introduction

An investigation of the perceptions of teachers and guidance counselors on the impact of a parent portal component of a student information system on parental involvement at the high school level and the strategies used to increase parental use was the purpose of this study. Teachers and guidance counselors, 304 respondents of an electronic parent portal survey, from ten comprehensive high schools in a school division utilizing a student information system for the past four years participated in the study. Descriptive and inferential statistics were used to analyze the data from the survey. The findings from the data analysis in terms of their relevance to the research questions used to guide the study, implications for practice, suggestions for future studies and the researcher’s reflections of the study are presented in this chapter.

Findings and Discussion

Finding 1. The majority of respondents, teachers and guidance counselors, believed at least 30 – 50% of their parents utilized the parent portal. The survey results indicated 50% of the sample population believed 30 – 50% of their parents used the portal and 32% believed 60 – 80% of their parents used the portal. There are little differences between perceptions of teachers and guidance counselors regarding parental use of the parent portal. The teachers (55%) perceive 30 – 50% of their parents utilizing the parent portal compared to 60% of the guidance counselors indicating the same rate. Data analysis revealed no statistically difference in the perceptions of teachers and guidance counselors.

This finding is similar to previous research completed by Bouffard (2008). From the results of a national study, Bouffard found that only 36% of parents with access to the internet utilized a web-based technology to receive information regarding their students’ academic progress. Additionally, studies completed by Kokoszka (2009) and Koch (2010) reported more than half of the parents participating in their research utilized their school division’s parent component of a student information system.

Finding 2. The majority of respondents participating in this study believe parents access the parent portal primarily to view their students’ grades and secondarily to view
attendance. Teachers and guidance counselors, 95% of the total sample population, responded in the survey that parents access the parent portal primarily to view their students’ grades. Attendance was identified, 74% of the total sample population, as the secondary reason why parents access the parent portal. Independent samples t-tests results revealed there was no statistically significant difference in the responses of the teachers and guidance counselors regarding the primary and secondary reason why parents access the parent portal.

This finding is supported by research completed by Garrow (2009), Koch (2010) and Wilson (2005) where parents utilizing student information system indicated the parent portal was accessed to keep them informed of their students’ grades, attendance and progress. Garrow reported 88.46% of the parents accessed the portal to monitor their students’ overall progress and 92.31% of the respondents indicated they accessed the portal to view grades. When in given an option, the parent participants in the study completed by Koch identified the parent portal component of a student information system as their preferred electronic method of receiving academic information from school regarding their students.

Finding 3. The majority of the respondents, teachers and guidance counselors, perceive parents access the parent portal at least biweekly. Of the total sample population, 55% perceived their parents access the parent portal weekly and access the portal every other week was the second most indicated frequency with a much smaller percentage of the total, 16%. Accessing the parent portal monthly had the lowest percentage indicated at only 6%. This finding is consistent with research completed by Wilson (2005) and Kokoszka (2009) in which their studies indicated parents accessed a parent portal component of a student information system weekly or biweekly.

Finding 4. The overall perception of both teachers and guidance counselors is that their parents are accessing the parent portal more than once a month. The majority of teachers (79%) and guidance counselors (70%) indicated parents access the parent portal weekly or every other week. However, 20% of the guidance counselors perceive their parents access the parent portal after receiving a progress report or report card compared to 7% of the teachers. None of the differences between the perceptions of teachers and guidance counselors regarding parental use of the parent portal were statistically significant. This is similar to findings reported by Garrow (2009) which indicated parents would access the student information system after being notified of their students’ current grades.
Finding 5. Overall, teachers and guidance counselors perceive the parent portal had a positive impact or no impact on student attendance. The survey results indicated 48% of the sample population perceived the impact of the parent portal was positive and 47% perceived the parent portal had no impact on student attendance. Only 1% of the total sample population perceived the parent portal had a negative impact on student attendance.

Respondents in Koch (2010) and Kokoszka (2009) investigations indicated similar findings. While the studies suggested the use of a parent portal component of a student information system had no negative impact on student attendance, their finding indicated mixed views on whether the impact on student attendance was positive or had no impact at all.

Finding 6. Teachers and guidance counselors perceived the impact of the parent portal on student attendance differently. The difference in the perceptions of teachers and guidance counselors on the impact of the parent portal on student attendance was statistically significant. Teachers, 51% perceive the parent portal had neither a negative or positive impact on student attendance compared to 75% of the guidance counselors who perceived the impact to be positive.

Finding 7. Overall, teachers and guidance counselors perceive there has been a positive impact on grades by the parent portal. The majority of the sample population, 73%, indicated student grades were positively impacted by the parent portal and only 26% perceived the parent portal had neither a positive nor negative impact.

This finding is consistent with previous studies completed by Garrow (2009), Koch (2010) and Wilson (2005). Wilson and Garrow suggested the impact was positive due to the increased communication with parents and teachers. Koch reported one of the reasons why the impact was positive was due to the parents’ satisfaction over the accessibility the parent portal provided to their students’ grades.

This finding varies slightly from the research completed by Kokoszka (2009) who reported the parent portal component of the student information system had both negative and positive impact on student grades. Reasons why the parent portal had a positive impact were in line with the findings of the other research studies. Reasons for the negative impact were reported from study participants indicating parents and students became grade conscious and focused exclusively on grades when utilizing the parent portal to monitor academic progress and not on student learning.
Finding 8. Teachers and guidance counselors perceive the impact of the parent portal on grades differently. The difference in perceptions of teachers and guidance counselors on the impact of the parent portal on grades was statistically significant. Teachers, 71%, perceive the parent portal had a positive impact on grades compared to 95% of the guidance counselors.

This finding is in line with previous research completed by Kokoszka (2009) regarding guidance counselors having positive perceptions of the impact of the parent portal component of a student information system on grades unlike the teachers’ perceptions. Kokoszka suggested guidance counselors perceived the impact to be positive due to the redirection of the communication between the home-school partnerships. Guidance counselors felt parents directly contacting teachers to discuss student progress or the lack of after viewing grades in the parent portal assisted in providing students with support quicker than waiting for a parent-teacher conference resulting in improved academic performance (Kokoszka, 2009).

Finding 9. Overall, parental involvement has been positively impacted by the parent portal according to teachers and guidance counselors. The majority, 57%, of the sample population perceive parental involvement has been positively impacted by the parent portal. A smaller percentage, 39%, perceived the impact to be neither negative nor positive. The research presented in the literature review supports this finding.

Wilson (2005) reported the parent component of a student information system impacted parental involvement by providing parents with open access to their students’ grades and their teachers. Parents were able to communicate, with knowledge of their students’ current grades, with teachers without barriers. As a result, parent utilization of the portal increases because they are satisfied with the accessibility it provides to their students grades and teachers (Koch, 2010).

Finding 10. Teachers and guidance counselors perceive the impact of the parent portal on parental involvement differently. The difference in the perceptions of teachers and guidance counselors on the impact of the parent portal on parental involvement was statistically significant. Guidance counselors, 80%, perceive the impact was positive compared to 56% of the teachers. A smaller percentage of the teachers, 42%, felt the impact was neither negative nor positive.

According to Kokoszka, this finding is in line with the research study completed in 2009. Teachers and guidance counselors shared slightly different perceptions of impact of the parent portal component of the student information system on parental involvement. Since parents
communicated with teachers without contacting them to arrange a parent-teacher conference, guidance counselor felt the parents were becoming more involved in the educational process of their students.

**Finding 11.** The differences in the overall perception, teachers and guidance counselors, at each of the ten high schools participating in this study were not statistically significant. The overall perceptions at each high school mirrored the perceptions of the sample population regarding the impact of the parent portal on student attendance, grades and parental involvement. Grades and parental involvement were perceived to be positively impacted by the parent portal. Positive impact or no impact at all was the perception of the parental portal on student attendance.

**Finding 12.** Two of the eighteen parent portal strategies received top ratings of being used and a strong part of schools for most parents. For one of the two strategies, school-wide policy on how often teachers update grades, 47% of the respondents indicated the strategy was used in their schools and is a strong component of promoting parental use of the parent portal. Overall, 82% of the teachers and guidance counselors participating in the study indicated this strategy was used in their schools. This finding is supported by studies that concluded schools need to employ school-wide policies to increase accountability regarding the updating of grades in the parent portal by teachers (Garrow, 2009; Wilson, 2005).

For the other strategy, parents may stop by guidance at any time to request copies of current grades and/or attendance reports from parent portal, 41% of the teachers and guidance counselors indicated the strategy is used and a strong part of their schools for most parents. Overall, 82% of teachers and guidance counselors participating in the study indicated this strategy was used in their schools. Researchers have concluded, recommended and warned schools to stay mindful of parents who do not have access to the internet and provide them with as much accessibility to their students’ grades as possible (Beghetto, 2001; Boufard, 2005; Halsey, 2005; Koch, 2010; Kokoszka, 2009; Strom & Strom, 2002; Wanat, 2010). Bouffard (2008) stated it best, “it is therefore essential that policies and practices pay close attention to the digital divide and work to increase access and knowledge among all families” (Conclusion section, para 2.).
Finding 13. Of the eighteen parent portal strategies, eight were identified as being used in school but in need of strengthening. Respondents indicated the following strategies used in their schools need strengthening:

- The strategy, *provide parents with information on how to effectively monitor and utilize the information provided by the parent portal*, is used and needs strengthening. The majority, 86%, of the respondents identified this strategy as being used in their schools with 61% indicating a need strengthening. There was no statistically significant difference in the responses from guidance counselors and teachers.

- Teachers and guidance counselors indicated the strategy, *parents receive assistance in understanding the data through workshops and/or training*, is used. Nearly half (46%) of the total indicated that the strategy needs strengthening. There was no statistically significant difference in the responses from guidance counselors and teachers.

- Teachers and counselors believe that they should communicate with parents frequently about using the parent portal to monitor student progress. 81% of the respondents indicated the strategy, *teachers and guidance counselors communicate with parents frequently on utilizing parent portal to monitor student progress*, is used in their school/division with 51% identifying the need for the strategy to be strengthened. There was no statistically significant difference in the responses from guidance counselors and teachers.

- Overall, 56% of the respondents identified the strategy, *parents are reminded regularly to check their students’ progress through the parent portal*, as a strategy that is used in schools with 33% indicated a need for the strategies to be strengthened.

- Respondents, 42%, identified the strategy, *teachers utilize the parent portal to make announcements and upcoming assignments, homework and projects*, as a strategy that has been implemented in their schools but need strengthening.

- Teachers and guidance counselors, 37%, indicated the strategy, *PTSA encourages parents to utilize the parent portal by making announcements at meetings and in newsletters*, is used at their schools but needs strengthening.

- For the strategy, *remind parents to sign up for parent portal through messages on progress reports and report cards*, 67% of the respondents indicated it was used in
their schools and 35% indicated a need for improvement. The differences in the responses from the teachers and guidance counselors were not statistically significant. Both indicate the strategy is used and 32% indicated it needed strengthening.

- Respondents, 50%, indicated the strategy, *parents given alternative strategies on utilizing the parent portal if they do not have internet access at home*, has been placed into action in their schools. Overall, 34% indicated the strategy needed improvement.

The strategies identified as being in need of improvement address two areas of concern, training and communication, which have been recommended by researchers as the most identified areas in which schools can improve to increase parental involvement (Bouffard, 2008; Halsey, 2005; Koch, 2010; Kokoszka, 2009; Strom & Strom, 2002). Bouffard’s work suggested schools develop strategies and programs that provide parents training to effectively use technology to communicate regarding student progress. Training for parents as well as taking advantage of opportunities to remind them to utilize the parent portal is essential in the process of increasing parental use (Kokoszka, 2009).

**Finding 14. Respondents identify four parent portal strategies, already implemented division-wide, as strategies that are not used in their schools but should be.** The following strategies, already put into practice division-wide, were identified by teachers and guidance counselors participating in this study as not being used in their schools but should be:

- The respondents indicated the need for the strategy; *video tutorials are available online to assist parents in navigating through the parental portal*. Overall, 48% of the teachers and guidance counselors indicated the strategy is not used of which 44% indicated it should be. There was no statistically significant difference in the responses from guidance counselors and teachers.

- For the strategy, *received training on how to use the parent portal to help parents*, 49% of the respondents indicated the strategy is not used in their school/division with 42% identifying a need to use the strategy.

- Overall, 50% of the teachers and guidance counselors indicated the strategy, *established suggestions for parents on alternative ways to access the parent portal*, is not used. The majority of the total respondents, 42%, indicated the strategy needed to be implemented in their schools. 46% of the teachers indicated the strategy is not used but should be.
• The strategy, *annual surveys are conducted on users of the parent portal to gather their concerns, suggestions, and/or satisfaction of the program*, was identified by the majority of the respondents, 62%, as a strategy that was not used in their schools but needed to be implemented. The differences in responses from the teachers and guidance counselors for the strategy were statistically non-significant.

There are nine parent portal tutorial videos, a posted list of alternate ways to access the portal, a phone number and email address to assist anyone utilizing the parent portal as well as provide information on how users can submit suggestions and concerns on the official school division’s website. The teachers and guidance counselors (as low as 42% and as high as 62%) participating in the study appeared to be unaware these strategies had been implemented and available for use at any time.

Lack of knowledge on behalf of teachers and school personnel regarding resources available for parents to increase their involvement hinders home-school lines of communication as well as the level of parental engagement (Astwood, 2009; Garrow, 2009; Koch, 2010). In order to effectively engage parents in the educational process to increase student achievement, parents must be aware of the resources available to them (Astwood, 2009; Epstein, 2008; Hoover-Dempsey et al., 2005).

**Finding 15. Teachers and guidance counselors participating in this study indicated a need for schools to partner with the community to improve parental use of the parent portal.** All parent portal strategies grouped under Epstein’s *The Community Sphere of Influence* were identified by the respondents as strategies that are not used and should be implemented in their schools. For the strategy, *neighborhood meetings are conducted where laptops are taken into the community so parents can sign up to receive access or be trained*, 47.8% of the teachers and 60% of the guidance counselors indicated the strategy should be used at their schools. Overall, 61% of the respondents indicated that the strategy, *provide a resource directory for parents with information on community services, programs, and agencies to gain internet access*, was not used in their schools. The teachers, 46.8%, and guidance counselors, 52.6%, indicated the need to implement the strategy, *schools are encouraged to work with local businesses, libraries and other organization or programs to help parents gain internet access*, in their schools.
This finding is in line with recommendations from previous research completed by Epstein (1996, 2004, 2005, &2008). Epstein (2008) noted the utilization of technology along with community-based activities could assist in the goal of establishing sustainable parental involvement. Henderson and Mapp (2002) suggested the partnering of schools and community organizations provide great opportunities for the sharing of resources to improve student achievement will have a positive impact on parental involvement.

Finding 16. The strategy, teachers and guidance counselors are required to contact parents who are not utilizing the parent portal, was identified as a strategy that had not been implemented and should not be. Overall, 55% of the respondents (59% of the teachers and 40% of the guidance counselors) disagreed with the strategy contacting parents not utilizing the portal. Not implementing the strategy in which teachers are required to contact those parents not utilizing the parent portal is contrary to research studies presented in the literature review (Bouffard, 2008; Halsey, 2005; Henderson & Mapp 2002; Strom & Strom, 2002; Wanat, 2010). Although teachers and guidance counselors may find the task difficult, at the secondary level, they must invest time and energy to get parents involved (Epstein, 2008; Epstein & Sanders, 2006, Strom & Strom, 2002). “Effective parental engagement will not happen without concerted effort, time and commitment from both parents and schools. It will not happen unless parents know the difference that they make, and unless schools actively reinforce that ‘all parents matter’” (Harris & Goodall, 2008, p. 287).

Finding 17. Guidance counselors perceived the overall impact of the parent portal to be positive and indicated more strategies were used in their schools. Of the guidance counselors participating in the study, 75% indicated student attendance, 95% indicated grades and 80% indicated parental involvement was positively impacted by the parent portal. Guidance counselors also indicated twelve of the eighteen strategies, two-thirds, are used in their schools. As low as 40% and as high as 60% of the guidance counselors indicated the other six strategies not being used in their schools should be.

This finding is consistent with research identifying the role of the school guidance counselor as one that has a full view of all aspects of a student along with a working knowledge of the programs and resources available to assist the student and parents (Epstein & Voorhis, 2010). According to Epstein & Voorhis, guidance counselors have a vital role in the implementation, development and success of home-school partnership strategies and programs.
Finding 18. Teachers and guidance counselors communicate with parents regarding the utilization of the parent portal through student and teacher invitations. Data analysis completed on the results of the open-ended question, *what practice or strategy have you used to get your parents to utilize the parent portal?*, identified two emerging themes: student invitation (student-led) and teacher invitation (direct contact). For each practice or strategy shared, the communication between parent and respondent involved direct exchange of information regarding the parent portal or students were provided information with instructions on how to inform their parents. Student-led contacts are considered student invitations and direct contacts are considered teacher invitations. Student and teacher invitations have been identified as having the most influence on parental involvement (Deslandes & Bertrand, 2005; Halsey, 2005; Hoover-Dempsey et al, 2005; Hornby & Lafaele, 2011).

Some respondents (teachers and guidance counselors) indicated that students often access the parent portal for their own knowledge or for their parents. The following are comments shared by respondents of the open-ended survey question regarding students accessing the parent portal:

- “I find my students access parent portal far more than parents do. It is clear in my classes that the first place to look for grades and missing assignments is parent portal.”
- “My students check their own grades on Parent Portal; since they want it, parents register.”
- “I tell students to have their parents sign up so the student can monitor his/her own grades”
- “Have not used any strategies except putting it on my classroom expectations. My students seem to log into the portal more often than their parents do”
- “Most students want to know their grades and many times parents sign up because their children want the information”

This finding is supported by previous studies that recommended involving students in the process of enhancing the lines of communications between home and school in an effort to improve parental involvement at the secondary level (Epstein et al., 2006; Garrow, 2009; Halsey, 2005; Koch, 2010; Kokosz, 2009). According to work completed by Deslandes and Bertrand in 2005, schools at the secondary level need to work directly with students in order to increase
parental involvement. Kokoszka and Koch reported students accessed the student information system for their own knowledge in order to communicate with their teachers and parents about their academic progress. By having constant access to their grades, students are able to monitor their progress on making up missed or incomplete work, address concerns with teachers regarding discrepancies with assessment grades, and keep track of their overall grade average in each class (Kokoszka, 2009). Students become their own advocates.

Summary of Findings

Overall, it is perceived teachers and guidance counselors participating in the study believe parents are accessing the parent portal at least biweekly to view students’ grades and that the parent portal has positively impacted grades and parental involvement. Although the study participants (teachers and guidance counselors) perceive the impact of the parent portal differently on student attendance, grades and parental involvement, both believe that the impact was not negative. This perception is mirrored at each of the ten participating high school.

Of the eighteen parent portal strategies, only two, *school-wide policy on how often teachers update grades* and *parents may stop by guidance at any time to request copies of current grades and/or attendance reports from parent portal*, were identified by respondents as strategies used that are strong parts of the schools for most parents. Eight of the parent portal strategies focusing on training and communication were indicated as being used in schools but in need of strengthening. Four parent portal strategies, currently in place division-wide, were identified by respondents as strategies that had not been implemented in their schools and should be. Data analysis of the open-ended survey question responses revealed the utilization of student invitations (student-led contact) and teacher invitations (direct contact) as the strategies employed to increase parental use of the parent portal.

Lastly, all strategies grouped under Epstein’s *The Community Sphere of Influence* were identified as strategies that should be implemented in schools indicating teachers’ and guidance counselors’ perception that there is a need to focus on involving the community to engage parental use of the parent portal. However, study participants disagreed with the implementation of a strategy requiring them to contact parents not utilizing the parent portal.
Implications for Practice

The following recommendations for practice were developed from the findings and literature review of this study:

1. The school division should consider offering division-wide professional development for teachers and guidance counselors that involve strategies and activities to assist parents in utilizing the parent portal to access academic information to monitor student progress and attendance. It is essential for teachers and guidance counselors to have first-hand knowledge of the parent portal to assist parents in navigating through the system (Ramirez, 2001). By investing time and financial resources in parent portal training for teachers and guidance counselors, the school division illustrates its commitment to optimizing resources to increase student success through increased parental involvement (Yares, 2010).

2. Schools should continue to seek ways of encouraging parents to register for the parent portal. Clerical staff in each school should be trained to offer access, register and assist in navigating the parent portal. Additionally, receiving invitations from teachers and guidance counselors to sign up for the portal provide parents with a specific method of assisting their students academically. As noted by Hoover-Dempsey et al (2005), parental efficacy and parental involvement improve when parents are given clear, specific tools to actively engage in student learning.

3. The school division and schools should consider offering training sessions for parents on how to navigate the parent portal and utilize the data to engage in their students’ learning. Providing hands-on training for parents is a research-based activity that has been directly linked to improved parent-student interaction for secondary students (Epstein et al., 2002; Epstein, 2008). The training sessions should be offered several times including evenings and Saturdays to accommodate working parents and family schedules. Hosting sessions on Saturdays illustrates a commitment to increasing parental involvement (Ramirez, 2001).

4. Schools should continue to employ various methods of encouraging parents to utilize the parent portal to monitor their students’ academic progress and attendance. Whether it is displaying messages on a marquee or utilizing rapid notification systems to send out voice, email or text reminder messages, schools are providing information
on how to engage in student learning. Research supports parents perceive these messages as invitations to get involved and provide specific action to check. (Epstein, 2008; Halsey, 2005; Hoover-Dempsey et al, 2005). “In short, schools need to consider how to sustain parental engagement once they have secured it.” (Harris & Goodall, 2008, p. 286)

5. Schools should consider developing activities and programs that partner with their communities to combine resources in an effort to increase parental use of the parent portal and student achievement. According to work completed by Sheldon and Epstein (2004), community-involved activities can assist schools in improving student attendance. Both teachers and guidance counselors in this study acknowledged the need to include the community in their efforts to increase parental use of the portal. Utilizing community resources to assist families enhances parental involvement at home (Koch, 2010).

6. The school division should consider publishing an annual user guide on the parent portal for all stakeholders (teachers, guidance counselors, administrators, students, parents and the community). This publication will provide details on division-wide parent portal practices, registration process, training opportunities, online tools such as video tutorials, community partners willing to assist parents in gaining internet access, best practices on how to utilize the data, and any additional information vital to increasing everyone’s knowledge of the resources available. It is essential teachers and guidance counselors familiarize themselves with parental involvement strategies, practices and resources offered by their schools and divisions. The expectation is to not have teachers and guidance counselors become experts on every parental involvement strategy, practice or resource but have a working knowledge they exist and how to access them when needed to assist parents and students (Astwood, 2009; Epstein, 2008; Hoover-Dempsey et al., 2005; Wanat, 2010). Centralizing information distributed regarding the parent portal will strengthen the overall intent of the program and the division’s goal of providing opportunities for all stakeholders to actively engage in student achievement (Longfellow, 2004).

7. Schools should consider completing a needs assessment on their parental involvement strategies employed to get parents to utilize the parent portal. Some strategies may be
identified as ones in need of strengthening or a complete overhaul. Most importantly, as schools continue to increase the use of technology to communicate with parents regarding academic progress, student achievement and student attendance, the methods must be accessed to ensure effectiveness and efficiency (Kokoszka, 2009; Longfellow, 2004; Wilson, 2005; Yares, 2010).

8. The school division should consider implementing the student portal component of the student information system. Providing students at the secondary level with anytime access to their grades and attendance will improve engagement in learning, student achievement and parental involvement (Deslandes & Bertrand, 2005). Students participating in the study completed by Kokoszka (2009) identified having access to their grades, like their parents, as empowerment to improve grades, keep up with missed work and communicate with their parents about their academic progress. According to Deslandes and Bertrand (2005), if secondary schools want to increase parental involvement at home, they must develop ways to provide opportunities for their students to invite their parents to engage in their learning. The use of student portals will provide opportunities for students to invite parents to get involved in their academic life.

**Recommendations for Future Studies**

The following recommendations have been made for future researchers as a result of this study:

1. Replicate the study and include parents and students as study participants.
2. Conduct a similar study with parents that are not utilizing the portal as participants.
3. Conduct a similar study at the middle school level utilizing teachers, guidance counselors, students, and parents.
4. Conduct a similar study utilizing only secondary schools (middle and high) with proportionally large percentages of parents actively utilizing the parent portal. The study should include a focus group component.
Reflections

The journey from chapter one to chapter five of this study was truly eventful yet extremely fruitful. Completing chapter one assisted the researcher in developing a passion into a focus on how to enrich communication between home and school of high school students. Although there is no shortage of research regarding parental involvement, its importance in the educational process of a student at all levels, and its effects on student achievement, completing chapter two revealed the need to investigate how schools, specifically teachers and guidance counselors, utilize student information systems to equip parents at the high level to be involved in their students’ academic life.

From completion of chapter three a blueprint for the investigative journey was crafted. Statistical adventures and data analysis opportunities allowed the researcher to become a descriptive and inferential investigator. Completing chapter five revealed the findings of the investigation, how to implement the findings, and possible routes for new investigative journeys. Where the journey ends, another begins for the researcher who has now been equipped with research-based methods, strategies and practices to capitalize on the rich resource of technology to ultimately improve student achievement.
References


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Gliem, J., & Gliem, R. (2003). Calculating, interpreting, and reporting Cronbach’s Alpha reliability coefficient for Likert-type scales. Presented at the Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education, The Ohio State University, Columbus, OH, October 8-10


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Appendix A
Training in Human Subjects Protection Certificate of Completion
Appendix B

Institutional Review Board Approval

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MEMORANDUM

DATE: May 30, 2012
TO: Carol S Cash, Paula Johnson
FROM: Virginia Tech Institutional Review Board (FWA00000572, expires May 31, 2014)

PROTOCOL TITLE: The Impact of Technology on Parental Involvement: Perceptions of teachers and guidance counselors regarding the impact of a parent portal component of a student information system on parental involvement at the high school level.

IRB NUMBER: 12-493

Effective May 30, 2012, the Virginia Tech Institution Review Board (IRB) Chair, David M Moore, approved the New Application request for the above-mentioned research protocol.

This approval provides permission to begin the human subject activities outlined in the IRB-approved protocol and supporting documents.

Plans to deviate from the approved protocol and/or supporting documents must be submitted to the IRB as an amendment request and approved by the IRB prior to the implementation of any changes, regardless of how minor, except where necessary to eliminate apparent immediate hazards to the subjects. Report within 5 business days to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

All investigators (listed above) are required to comply with the researcher requirements outlined at:

http://www.irb.vt.edupages/responsibilities.htm

(Please review responsibilities before the commencement of your research.)

PROTOCOL INFORMATION:

- Approved As: Exempt, under 45 CFR 46.110 category(ies) 2
- Protocol Approval Date: May 30, 2012
- Protocol Expiration Date: N/A
- Continuing Review Due Date*: N/A

*Date a Continuing Review application is due to the IRB office if human subject activities covered under this protocol, including data analysis, are to continue beyond the Protocol Expiration Date.

FEDERALLY FUNDED RESEARCH REQUIREMENTS:

Per federal regulations, 45 CFR 46.103(f), the IRB is required to compare all federally funded grant proposals/work statements to the IRB protocol(s) which cover the human research activities included in the proposal/work statement before funds are released. Note that this requirement does not apply to Exempt and Interim IRB protocols, or grants for which VT is not the primary awardee.

The table on the following page indicates whether grant proposals are related to this IRB protocol, and which of the listed proposals, if any, have been compared to this IRB protocol, if required.
Appendix C
Permission to Conduct Research and Distribute Surveys

June 15, 2012

Ms. Paula Johnson

Dear Ms. Johnson:

This letter serves as the Department of Educational Leadership and Assessment’s approval for your research study entitled “The Impact of Technology on Parental Involvement: Perceptions of Teachers and Guidance Counselors Regarding the Impact of a Parent Portal Component of a Student Information System on Parental Involvement at the High School Level.” Your request to survey high school teachers and guidance counselors has been approved with the understanding that individual participation is completely voluntary. As stated in your application, we expect that you will share the school-level data with each school that participates but that you will not identify the names of the participants, schools, or the school division in any written reports for nonschool division personnel. As always, the final decision to participate rests with the school principal, and you are expected to discuss your study with the principals prior to starting your research activities.

Our approval for your study will expire one year from the date of this letter. If there are any changes to the methods or materials that you plan to use as part of your study, you must submit the changes to our office for review prior to proceeding. It is our expectation that you will submit an electronic copy of the final report upon its completion to the Department of Educational Leadership and Assessment. Please send the report to [redacted] If you have any questions, please contact me at [redacted]

Sincerely,

[Signature]

cc:

[Redacted]

All High School Principals
Appendix D

Email Requesting Permission to Reproduce and Use Survey

From: pajohns6@vt.edu [mailto:pajohns6@vt.edu]
Sent: Sunday, March 13, 2011 5:05 PM
To: Joyce Epstein
Subject: Permission requested to reproduce materials and use survey

Dear Dr. Epstein,

I am Paula Johnson, a graduate student at VA Tech currently working on chapters 1 -3 of my dissertation titled, The Impact of Technology on Parental Involvement: A descriptive study of parental use of web-based student information systems (SIS) in secondary schools. My goal is to gather baseline data on parental involvement strategies school divisions in Hampton Roads of Virginia have implemented to increase parental use of SIS through the parent access applications often called parent portals.

Your work on parental involvement is greatly appreciated. It is apparent from the literature review I have completed thus far that you are an expert researcher in this area and the one who could provide guidance, grant permission along with answering a few questions. While I am awaiting the arrival of a few of your books (one being School, Family, and Community Partnerships: your handbook for actions; 3rd Edition), I wanted to ask some questions regarding A, B, C, and D Forces illustrated in your Theoretical Model: Overlapping Spheres of Influence. Are these forces a representation of vectors? Is there a specific article or book you’ve written that provides an explanation of the forces?

Lastly, I have ordered and received High School and Family Partnerships: Questionnaires for Teachers, Parents, and Students. It is my wish that I be granted permission to model the questions I will develop for my study after the teacher survey provided in the High School and Family Partnerships: Questionnaires for Teachers, Parents, and Students and include a copy of the teacher survey I used to guide the development of my questions in the appendix of my study. I plan to survey teachers, guidance counselors, and administrators. I am also asking permission to reproduce the Theoretical Model: Overlapping Spheres diagram and the chart of the Framework of Six Types of Involvement. I will make sure to provide references to the Theoretical Model: Overlapping Spheres of Influence, the chart of the Framework of Six Types of Involvement and the teacher survey from the High School and Family Partnerships: Questionnaires for Teachers, Parents, and Students in my bibliography as well as any future publication of my work.

Your time and attention to my requests are greatly appreciated!

Thank you even taking the time to read this email.

Sincerely,
Paula Johnson
Appendix E
Permission Granted to Use Model and Survey

From: Joyce Epstein [mailto:jepstein@CSOS.jhu.edu]
Sent: Saturday, April 16, 2011 1:48 PM
To: ’pajohns6@vt.edu’
Subject: RE: Permission requested to reproduce materials and use survey

4-16-11

To: Paula Johnson

From: Joyce Epstein

Re: Permission to reprint/use surveys

Thank you for your note. I am glad to know of your interest in and research on school, family, and community partnerships.

This is to grant you permission to use or adapt our surveys (High School and Family Partnerships: Questionnaires for Teachers, Parents, and Students) for your dissertation study—The impact of technology on parental involvement: A descriptive study of parental use of web-based student information systems (SIS) in secondary schools—to be completed at VA Tech.

You also have permission to reproduce the theoretical model of Overlapping Spheres of Influence

All that we require is that you include full reference to the survey(s) and, for the model to one of books (below) in your study and resulting reports.

Per your other question, below. A full discussion of the model of overlapping spheres of influence is in Chapter 2 (and other sections) of my textbook:


The activation and implications of the “forces” at work in the theoretical model (e.g., time--differences across historical periods and differences by grade level; and the other “external” and “internal” forces of the model) are discussed and studied in many ways.
throughout the text and in field work in the Handbook for Action that you mentioned below.

Parent portals are being used across the country. Thus, your study will have broad interest.

Best of luck with your project.

Joyce L. Epstein, Ph.D.
Director, Center on School, Family, and
Community Partnerships
and National Network of Partnership Schools
Research Professor of Sociology
Johns Hopkins University
2701 North Charles Street, Suite 300
Baltimore, MD 21218

Tel: 410-516-8807
Fax: 410-516-8890

jepstein@csos.jhu.edu
http://www.partnershipschools.org
Appendix F
Parent Portal Survey Email

Dear Educator:

I am a doctoral candidate conducting a study on the perceptions of teachers and guidance counselors regarding the impact of the parent portal on parent involvement at the high school level. The study will also examine strategies teachers and guidance counselors indicate are used in their schools to encourage parental use of the parent portal. I would like to invite you to participate in this research study via an online survey.

Your participation in this study is voluntary and strictly confidential. Permission has been granted by your school division and principal to conduct this study, *see attached letter. The results of the survey will be analyzed and shared with your school.

Below is the link to the online survey. You will have approximately one week from the time the survey is sent to you to complete and submit the survey. Completion of this survey indicates (1) you agree to participate in this study, (2) you acknowledge that your participation in this survey is voluntary, (3) you understand that you will not be compensated for completing this survey, and (3) there is no promise or guarantee of benefits for completing the survey.

Your participation is greatly appreciated. Thank you in advance for your assistance.

Sincerely,
Paula Johnson

[Click here to complete Parent Portal Survey]
Appendix G
Parent Portal Survey

Demographics
Please answer the questions below by selecting the one that best describes you or your perception:

1. Name of School:
2. Position
   a. Teacher
   b. Guidance Counselor

3. Subject(s) taught:
4. Gender
   a. Male
   b. Female

5. Years in the current position
   a. 1 – 3 years
   b. 4 – 6 years
   c. 7 – 10 years
   d. More than 10 years
6. Highest level of education
   a. Bachelor's Degree
   b. Master's Degree
   c. Master’s Degree +30 credit hours
      Doctorate Degree

Parental Portal Usage
Please answer the questions below by selecting the one that best describes your perception:

7. The percentage of parents at your school that utilize the Parent Portal:
   a. 0 – 20%
   b. 30 – 50%
   c. 60 – 80%
   d. 90 – 100%
8. The frequency parents at your school access the Parent Portal:
   a. Daily
   b. Weekly
   c. Every other week
   d. Monthly
   e. Only after a progress report or report card is issued

9. Primary reason parents at school access the Parent Portal:
   a. Attendance
   b. Grades
   c. Teachers’ comments
   d. Teachers’ email addresses
   e. Student’s schedule
10. Secondary reason parents at your school access the Parent Portal:
    a. Attendance
    b. Grades
    c. Teachers’ comments
    d. Teachers’ email addresses
    e. Student’s schedule
11. The impact of the parent portal on student attendance at your school:
   a. Negative
   b. Neither Negative nor Positive
   c. Positive

12. The impact of the parent portal on grades at your school:
   a. Negative
   b. Neither Negative nor Positive
   c. Positive

13. The impact of the parent portal on parental involvement at your school:
   a. Negative
   b. Neither Negative nor Positive
   c. Positive

*Each survey question below is numbered in order it appeared in the online survey and under its strongest correlation of the three components of Epstein’s Overlapping Spheres of Influence: the family, the school, and the community.


**Strategies Implemented**

Please use the scale below when responding to the statements below regarding strategies used in your school/division to increase parental use of the parent portal:

<table>
<thead>
<tr>
<th>Not Used in school (Division) and Should not be</th>
<th>(1) Not used &amp; Should Not</th>
<th>Means this is NOT used in your school division or school now, and SHOULD NOT BE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Used in school (Division) but should be</td>
<td>(2) Not used but Should</td>
<td>Means this IS NOT used in your school division or school now, but SHOULD BE</td>
</tr>
<tr>
<td>Used in school (Division) but Needs Strengthening</td>
<td>(3) Used but Needs Strengthening</td>
<td>Means this IS used in your school division or school, but NEEDS TO BE STRENGTHENED</td>
</tr>
<tr>
<td>Used in school (Division) and is Strong</td>
<td>(4) Used &amp; Strong</td>
<td>Means this IS a STRONG part of your school division or school for most parents</td>
</tr>
</tbody>
</table>
School

17. Teachers and guidance counselors communicate with parents frequently on utilizing our parent portal to monitor student progress.

<table>
<thead>
<tr>
<th></th>
<th>1) Not used &amp; Should Not</th>
<th>2) Not used but Should</th>
<th>3) Used but Needs Strengthening</th>
<th>4) Used &amp; Strong</th>
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</table>

18. Teachers and guidance counselors received training on how to use the parent portal to help parents utilize the software, setup alerts, read the grade reports, etc.

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<th>1) Not used &amp; Should Not</th>
<th>2) Not used but Should</th>
<th>3) Used but Needs Strengthening</th>
<th>4) Used &amp; Strong</th>
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</table>

19. There is a school-wide policy on how often teachers should update grades.

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<th>1) Not used &amp; Should Not</th>
<th>2) Not used but Should</th>
<th>3) Used but Needs Strengthening</th>
<th>4) Used &amp; Strong</th>
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20. Teachers and guidance counselors have established suggestions for parents on alternative ways to access parental portal other than through the use of a desktop computer. (i.e. SMART phones and iPods)

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<th>1) Not used &amp; Should Not</th>
<th>2) Not used but Should</th>
<th>3) Used but Needs Strengthening</th>
<th>4) Used &amp; Strong</th>
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</table>

21. Parents are reminded regularly to check their students’ progress through the parent portal (i.e. messages on marquee or automatic phone calls home)

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<tr>
<th></th>
<th>1) Not used &amp; Should Not</th>
<th>2) Not used but Should</th>
<th>3) Used but Needs Strengthening</th>
<th>4) Used &amp; Strong</th>
</tr>
</thead>
</table>

22. Teachers utilize the parent portal to make announcements and update parents on upcoming assignments, homework, and projects.

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<th></th>
<th>1) Not used &amp; Should Not</th>
<th>2) Not used but Should</th>
<th>3) Used but Needs Strengthening</th>
<th>4) Used &amp; Strong</th>
</tr>
</thead>
</table>

23. Teachers and guidance counselors are required to contact parents who are not utilizing the parent portal.

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<tr>
<th></th>
<th>1) Not used &amp; Should Not</th>
<th>2) Not used but Should</th>
<th>3) Used but Needs Strengthening</th>
<th>4) Used &amp; Strong</th>
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</table>

24. The parent association (PTSA) encourages parents to utilize the parent portal by making announcements at general meetings and in monthly newsletters.

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<th>2) Not used but Should</th>
<th>3) Used but Needs Strengthening</th>
<th>4) Used &amp; Strong</th>
</tr>
</thead>
</table>

31. Parents are given alternative strategies (i.e.: having reports emailed to them at work) on utilizing the parent portal if they do not have access to the internet at home.

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<th>1) Not used &amp; Should Not</th>
<th>2) Not used but Should</th>
<th>3) Used but Needs Strengthening</th>
<th>4) Used &amp; Strong</th>
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</thead>
</table>
Family

14. Our school provides parents with information on how to effectively monitor and utilize the information provided by the parent portal.

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<tr>
<th>(1) Not used &amp; Should Not</th>
<th>(2) Not used but Should</th>
<th>(3) Used but Needs Strengthening</th>
<th>(4) Used &amp; Strong</th>
</tr>
</thead>
</table>

15. Parents receive assistance in understanding the data available in the parent portal through workshops and/or training sessions.

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<tr>
<th>(1) Not used &amp; Should Not</th>
<th>(2) Not used but Should</th>
<th>(3) Used but Needs Strengthening</th>
<th>(4) Used &amp; Strong</th>
</tr>
</thead>
</table>

16. Video tutorials are available online to assist parents in navigating through the parent portal.

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<tr>
<th>(1) Not used &amp; Should Not</th>
<th>(2) Not used but Should</th>
<th>(3) Used but Needs Strengthening</th>
<th>(4) Used &amp; Strong</th>
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</table>

25. Annual surveys are conducted on parental users of the parent portal to gather their concerns, suggestions, and/or satisfaction with the program.

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<tr>
<th>(1) Not used &amp; Should Not</th>
<th>(2) Not used but Should</th>
<th>(3) Used but Needs Strengthening</th>
<th>(4) Used &amp; Strong</th>
</tr>
</thead>
</table>

26. Our school reminds parents to sign up for our parent portal through general messages on progress reports and report cards.

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<thead>
<tr>
<th>(1) Not used &amp; Should Not</th>
<th>(2) Not used but Should</th>
<th>(3) Used but Needs Strengthening</th>
<th>(4) Used &amp; Strong</th>
</tr>
</thead>
</table>

27. Parents may stop by the guidance office at any time to request copies of current grades and/or attendance reports from parent portal.

<table>
<thead>
<tr>
<th>(1) Not used &amp; Should Not</th>
<th>(2) Not used but Should</th>
<th>(3) Used but Needs Strengthening</th>
<th>(4) Used &amp; Strong</th>
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</thead>
</table>

Community

28. Neighborhood meetings are conducted where laptops are taken in to the community so that parents can sign up to receive access or to be trained on how to navigate the parent portal.

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<thead>
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<th>(1) Not used &amp; Should Not</th>
<th>(2) Not used but Should</th>
<th>(3) Used but Needs Strengthening</th>
<th>(4) Used &amp; Strong</th>
</tr>
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</table>

29. Our school division provides a resource directory for parents with information on community services, programs, and agencies that will help parents gain internet access without cost.

<table>
<thead>
<tr>
<th>(1) Not used &amp; Should Not</th>
<th>(2) Not used but Should</th>
<th>(3) Used but Needs Strengthening</th>
<th>(4) Used &amp; Strong</th>
</tr>
</thead>
</table>
30. Schools are encouraged to work with local businesses, libraries and other organizations or programs to help parents gain internet access to monitor their students’ progress through the parent portal.

| (1) Not used & Should Not | (2) Not used but Should | (3) Used but Needs Strengthening | (4) Used & Strong |

32. What practice or strategy have you used to get your parents to utilize the parent portal?
Appendix H
Open-Ended Survey Question

What practice or strategy have you used to get your parents to utilize the parent portal?

#2: 2012-09-17 07:06:16
Class Expectations

#7: 2012-09-17 07:11:28
A link to it is included with my signature at the bottom of my emails.

#9: 2012-09-17 07:16:15
Open house and monthly e-mail updates

#10: 2012-09-17 07:16:52
I encourage the students to get their parents to sign up

#13: 2012-09-17 07:28:39
I make a note of it in my course expectations.

#15: 2012-09-17 07:30:30
Include on expectations with link on how to sign up...suggest in emails and parent conferences

#16: 2012-09-17 07:30:35
Recommended at PTA

#17: 2012-09-17 07:30:37
Word of mouth

#18: 2012-09-17 07:36:57
biweekly emails (letters to those without email access); stressed in Classroom Expectations document; mentioned at community programs such as Back to School Night and Big Chill

#19: 2012-09-17 07:40:56
encouraging though class expectations and open house, phone calls

#20: 2012-09-17 07:41:01
Announcements at Open House, phone messages, e-mails

#21: 2012-09-17 07:41:30
including the information on my class expectations and bringing it up at Open House
I find my students access parent portal far more than parents do. It is clear in my classes that the first place to look for grades and missing assignments is parent portal.

Communication through email, conferences, Open House, etc.

Informing them at beginning of year and throughout the year

Reminders in the AVID newsletters and parent emails.

none, parent portal holds little of my attention as a teacher, it is a tool for parents

I update my grades often so the parents can see the changes as the marking period goes on. I advertise it to the students so they can tell their parents about it too (if they want their parents to have it!)

Explain it at Open House

meeting with parents

Discuss it at IEP meetings

Announcements at Open House, Encouraging students to have parents sign up by showing positive aspects of parent portal, discussions with students in my homeroom class when progress reports and report cards come out about the positives of parent portal

I give the parents the information during open house, when I call a parent and or during a parent conference. I also have the information in my "Classroom Expectations"

Class Information Sheets; direct contact when I speak with parents about the progress of their child in my class
The student has a classroom expectations sheet where the use of the student portal is explained. This sheet is signed by both the parent and the student. During the first open house, use of the student portal is encouraged by both the administration and the counselors.

Word of mouth

Classroom expectations

Included in Class Expectations and Open House information

Whenever I speak with parents about students and their progress I encourage them to use parent portal

I send a notice of how to get signed up and I offer students extra credit, if their parents email me so I have access to parents... only 20-25% participate each year. we need not be PARENTING our students PARENTS. Maybe.. have a scan code in the office to scan using i-phone to install on phone.

I have met some parents after school to assist them in setting up their parent portal

talking to my students

I distribute a letter along with my class expectations to each parent and highlight the use of the Parent Portal in that letter. I additionally send regular emails to a Parent Distribution List and often will include a summary of the benefits of Parent Portal.

The option is mentioned in the course expectations, discussed with students in class and mentioned at PTA Open House.

Its there child to use parent portal

Keeping track of Due dates on the calendar.
#58: 2012-09-17 10:19:46
Keep parents informed on incomplete assignments and to check on tardies and absences

#60: 2012-09-17 10:31:02
emails to emphasize the parent portal

#61: 2012-09-17 10:31:16
E-mail parents

#64: 2012-09-17 10:50:13
class announcements first week and during open house

#65: 2012-09-17 10:54:42
none

#67: 2012-09-17 10:57:37
None

#70: 2012-09-17 11:03:29
I have added information on my classroom expectations and asked whether parents have it and if they do not have it would they like more information.

#72: 2012-09-17 11:21:45
sending emails and open house

#73: 2012-09-17 11:25:18
Constant reminders-helping parents set up their account up to a point

#74: 2012-09-17 11:27:46
Class Expectations

#75: 2012-09-17 11:40:10
Assignment due dates posted, concert dates and grades.

#76: 2012-09-17 11:46:27
put reminders in Class Expectations

#78: 2012-09-17 11:55:56
Mention it at open house and meetings

#79: 2012-09-17 12:03:44
I make my own reminders and send them home. I also print weekly reports for the students.

#80: 2012-09-17 12:52:49
it is a self-publicizing tool. most parents use Portal
None other than announced that the Parent Portal is available and grades are updated several times per week.

I have sent an email reminding parents about parent portal

My students check their own grades on Parent Portal; since they want it, parents register.

Have sent information home repeatedly - but it doesn't matter - I have multiple parents that have parent portal and still want daily/weekly e-mails or calls anyway

mentioned it at conferences and at open house

None

For AVID, because there is a parent participation aspect, I tell my parents they SHOULD be on it and that I will help them set it up if needed. Student portal needs to be implemented.

I tell students to have their parents sign up so the student can monitor his/her own grades

Phone calls and e-mails

Put the information about it on my class expectations and syllabus

Ask parents if they have it and use it on a parent comment sheet the first day of school.

communicate the idea with my student
mentioned at Open House and class e-mails

make sure that they're aware of it

extra credit

Weekly e-mails to a parent distribution list in each class

Call each parent at the beginning of the year.

Face-to-face conversations during Open House night, initial contact at the starting of school year, explaining the importance to the students when discussing expectations....

My Class Expectations (for which a student receives extra credit for having his parents acknowledge understanding of in writing) urge parents to obtain access to PP and monitor it regularly. Questions I have left blank above are ones I'm unable to answer. I have no clue how many parents monitor PP

I encourage them to sign up and check grades in my annual welcome letter.

Have parents email me the first day of school so I can stay in contact with them and promote the Parent Portal.

Include on class expectations

I provide instructions during open house and throughout the year via email, especially when a student appears to be having a difficult time in class.

I e-mail parents with reminders and ask them to keep track of student progress through parent portal.
Have them sign up when they are in attendance at the school.

Reference it in my class expectations, suggest it at Open House (Parent's Night)

Encouraging parents to sign up @ IEP meetings

parent contact via phone calls or email

Posted information on class website.

posted on website, in class expectations, discussed at open house, and suggested when contacting parent by phone

Personally handing parents information on Parent Portal at meetings while explaining the benefits of the program

I encourage parents to gain access and then turn over the responsibility of checking the portal to their child.

send note home with students offering extra credit

Classroom expectations, parent conferences, open house, emails

printing out directions and walking parents through the setup

Open House is a great place to discussion parent portal. Also, during conferences or phone calls, esp. when a teacher is calling a parent over a concerned grade.

Class Mailing List
After I received the information sheets from the parents, I emailed or called them to encourage usage of parent portal. Additionally, the ones who expressed an interest in signing up were told how they could do so.

reminders through emails/phone conversations

My email signature includes a line about the advantage of having unlimited access to student's grades as well as how to access it from the school's website. I also mention it to parents if I need to contact them about attendance or grades by email or phone.

communication during parent/teacher conferences

Assignments/grades are updated on a regular basis.

listed in class expectations, parent survey asking if parents have parent portal and/or will sign up, and reminder to sign up for it via email

This survey has had me reflect...I'll have to do something on my blog space about Parent Portal; as an aside--I had to guess on many of these, as I do not have access to much of this information. Wish there had been an option for that...

Remind them to sign up for the parent portal during meetings, phone calls, and open house.

Have not used any strategies except putting it on my classroom expectations. My students seem to log into the portal more often than their parents do.

Class Expectations, Open House, Notes on Class Progress Reports, Verbal Reminders to Students, Teacher Model of Sign-up for Students

Beginning of year ask parents to email me if they have access to parent portal

I leave it up to them, parenting is not focus. This is a very wide problem that the Superintendent needs to tackle.
Put information on my class expectation sheet

Emphasizing the daily access and opportunity to monitor your child's progress daily before progress reports and marking periods. And to enhance communication with counselor/teacher.

none

Mention whenever possible!

As a teacher I did not have the information necessary to answer the questions on this survey. You needed an answer choice to reflect that I think.

Remind 101

open house, emails, classroom expectations

Help them complete the application

Class Expectations

email

Giving extra credit to parents who email me that they have portal access or if they do not have access that they will register for it.

This is not a valid survey, because most teachers don't know if parents are using Parent Portal or not, unless a parent contacts a teacher about grades or something else in PP.

During Parent Conferences I register them after the meeting and give them my email address to forward the verification code to me so I can validate their ID without them coming back up to school to show their ID.

Reminders emails and phone calls, extra credit for their child,
Encourage students to inform parents of portals potentials in tracking grades.

emailing

Strong encouragement and provision of access info via email

put info on my class expectations and web page

open house

verbal and email reminders that it is the best way to stay on top of their student's progress

I remind parents at open house and on class expectations.

I include the option on all parent correspondence.

Emails, EC points

There is no way to know who has access to parent portal except to ask the student. Also we, teachers, don't know who has access to technology.

talked with parents and suggested they used parent portal and it is also on my classroom expectations that goes out to all of my students

Remind them at open house.

inform them in person or through email

Send a letter and talk about it in the open house in the beginning of the year

Just reminding the students to inform their parents to use the parent portal
Most of the questions in this survey are items I have no knowledge of. As a teacher, I have no access to data that may or may not be collected about parent portal. As a teacher, I only make my students and parents aware that this system is in place for their use.

During parent/teacher conferences I always recommend parents sign up if they haven't yet.

None. How are we supposed to know how often parents use parent portal to accurately answer this survey?

Provide them the information at every conference and phone conversation.

None

Make it easier for them to sign up. They should not have to come into school to prove that they are who they say they are then sign up again. Most parents cannot take off time from work to come in and sign up. Students should be able to access this with their own info also.

Sent home a parent letter informing them about it.

Recommending it when conversing via email or phone about a student who is falling behind as a means of parent support, particularly for an uncommunicative student.

Reminders

Grades are posted ahead of time and is on teacher website to look at parent portal.

Form letters and word of mouth

I haven't employed any specific practices to encourage the use of parent portal.

After answering a parent questions, I remind them that assignment descriptions are included on parent portal.
I get the email addresses of all the parents at the beginning of the year, and send them periodic updates, including encouragement to use the parent portal. However, I was unable to answer many of the questions in the survey because there is no way for us to know how often or in what way the parents

I remind parents of about the Parent Portal at every conference and when I telephone them with concerns about the child.

direct individual contact

I contact parents via email and/or phone and ask them to use parent portal to track their child's progress. I also encourage parents to stop by guidance during Open House to get gain access to parent portal.

I always share information about parent portal at Open House and via email or phone call when I contact parents.

courage parents of students on my case load to sign up

I encourage students to ask their parents to enroll and to look at it together.

Most of the questions on this survey are directed at parents of my school and I am no one of them and can not answer

Use of VBCPS we page

I believe parents should take the initiative. When parents ask about a grade after report cards, I remind them of the option of parent portal. I have also reminded through mass emails.

Open House, phone conversations, emails

I have info on Parent Portal below my signature on email.
In my course expectations, I include reminders at open house and class expectations. I inform parents in classroom expectations at the beginning of the year. I ask them to sign up for the parent portal, and if they do not use it, I communicate with them via email and phone calls.

I have suggested to my parents that they use the parent portal to check their student's grades and attendance. I hand out a grades report, usually 3 times per marking period. I ask them who has the portal and that everyone should sign up for it.

They are made aware of the parent portal, it's up to them whether they use it or not. I have found the process to get registered is a bit cumbersome. I include links to info in letters home, classroom expectations with parent portal info sent home for signature, and Instructions for Registration document sent home with students and mailed to parents.
I'm sorry, but I am unable to answer most of these questions. If they were phrased in a way that applied to me, I could respond, but using general words like "parents" and "teachers," you’re asking me to know all their intents, and I do not know that.

emails home reminding to sign up as well as giving an alternative method of seeing student grades on Edmodo.

I have a description of parent portal and a policy stated on the classroom expectations. I also mention it in parent conferences and phone calls.

Most students want to know their grades and many times parents sign up because their children want the information

Email reminders about accessing grades via parent portal.