2015

A Validation of the Family Involvement Questionnaire-High School Version

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A Validation of the Family Involvement Questionnaire-High School Version

By

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A Dissertation Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Psychology

In

School Psychology

Minnesota State University, Mankato

Mankato, Minnesota

May 2015

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March 30, 2015
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Dedication

This dissertation is dedicated to my husband, my family, and all of the educators who have impacted me as a professional and a person.

To my husband, Rob, I can't put into words how much your unwavering support has meant to me. You are my rock, banker, counselor, fan club, and deliverer of late night take-out dinner and printer ink. I couldn't have completed this adventure without you.

To my family, thank you for your unconditional love and support. To my parents, your steadfast belief that I would be successful in this adventure convinced me to take this leap. Thanks for your faith in my abilities and providing home-cooked meals on weekends. To my brother, Willie, thanks for your humor and chipper attitude. To my little one, thank you for showing up and spurring me to finish this beast of a project.

To all of the educators who have left their mark on me, thank you for your wisdom, support, and passion for sharing your knowledge. I want to specifically thank my advisor, Dr. Daniel Houlihan. Your guidance, knowledge, and bluntness have helped shaped the school psychologist and person I am today. The education that you and the other faculty of Minnesota State University-Mankato have provided me is invaluable.

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Abstract of the Dissertation

The purpose of this study was to validate the Family Involvement Questionnaire (FIQ) for use in high school settings (9th-12th grade). After the FIQ was redesigned for use in the high school setting, 517 parents completed the questionnaire online. Internal consistency for the 40-item questionnaire was high ($\alpha = 0.93$). A confirmatory factor analysis failed to substantiate the FIQ-HS to the elementary version from which it was adapted. However, an exploratory factor analysis yielded three factors consistent with the FIQ-E. Family demographics were compared to participants' responses, and significant effects for students' school and special education status were found.

Chapter 1

Introduction

The discussion of family involvement in children's schooling is not new. Buchanan, Hansen, and Quilling (1969) conducted one of the first studies examining the relationship between family involvement and student performance in the late 1960's. Educational laws in the United States have mandated the involvement of parents in their children's education since the 1970's (EAHCA, 1975; IDEA 2004; NCLB, 2001). The first mandate specifically requiring parent involvement in schools was in 1975 with the Education for All Handicapped Children Act (EAHCA), requiring that schools needed to consistently collaborate and communicate with families of children with disabilities. The No Child Left Behind Act of 2001 (NCLB) outlines how schools should implement policies and structures to increase family involvement, including regular communication with parents on their children's academic progress and having parents partner with school officials when implementing and reviewing progress of family programs.

The factors and benefits of family involvement have been examined in over forty years of research, and multiple meta-analyses have been conducted to synthesize the data (Fan & Chen, 2001; Jeynes, 2005, 2007, & 2012; Mattingly, Prislin, McKenzie, Rodriguez, & Kayzar, 2002). This body of research provides a firm basis to conclude that family involvement can have a positive effect on school children's achievement as measured by grades, standardized test scores, school enrollment, and high school graduation rates (Catsambis, 1988; Fan & Chen, 2001; Hill & Taylor, 2004; Jeynes, 2005).

In 2006, Appleseed completed an investigation of educational laws, policies, and

practices and their impact on family involvement practices in schools. In this investigation, researchers interviewed educational leaders, community organizations, and school district staff. They also conducted parent focus groups and reviewed research on family involvement. Overall, the researchers felt that schools do not accept family involvement as a main strategy for making academic gains, and current federal laws requiring parent involvement are not being followed by districts, likely because of a lack of understanding and support. Appleseed's report concluded that:

> Too many parents fail to receive clear and timely information about their children and their schools. Poverty, limited English proficiency, and varying cultural expectations are among the biggest barriers to parental involvement. Poor communication with parents hinders their ability to exercise NCLB's choice and supplemental education services options. Creative, multi-faceted communication and engagement strategies can promote better parental involvement in schools. Parental involvement is not uniformly valued by school leaders as a key accountability strategy. (p.2)

Differences in family involvement between primary and secondary grade levels are apparent in both research and practice. Case in point, parent attendance rates to school functions typically decrease as students enter secondary grade levels. Researchers at the National Center for Education Statistics (2013) found that 89 percent of parents of kindergartners through fifth graders regularly attended parent-teacher conferences. That statistic dropped to 71 percent for parents of sixth through eighth graders, and dropped down to 57 percent attendance rate for parents of ninth through twelfth grade students.

Other differences between primary and secondary grades were found in this national household education survey, including differences in parent participation in school, educational habits in the home, and parents' school satisfaction levels (National Center for Education Statistics, 2013). The rate at which parents volunteered at school or served on school committees dropped significantly from primary grades to secondary grade levels. However, more parents reported meeting with a school counselor when their child was in secondary school versus when their child was in primary school.

This survey also asked parents about their school-related parenting behaviors in the home setting and their satisfaction levels (National Center for Education Statistics, 2013). Parents reported high rates of ensuring their child had a place in their home for them to complete homework at all grade levels. However, parents of secondary students reported much lower rates for checking that their homework is complete than parents of primary students. Parent satisfaction with their child's school and teachers also yielded significant differences. More parents reported that they were very satisfied with their child's teacher(s) if their child was in a primary grade, than if their child was in a secondary grade. More parents also reported that they were very satisfied with the way in which school staff interacts with parents when their child was in a primary grade, versus a secondary grade.

Statement of Problem

Literature on the effects of family involvement in school settings has focused primarily on early childhood and primary school settings (Fantuzzo, Tighe, & Childs, 2000; Manz, Fantuzzo, & Power, 2004; Waanders, Mendez, & Downer, 2007). This literature has established a firm base of knowledge that family involvement in schooling

can positively impact students' school performance. However, significant differences in family involvement practices and behavior between primary and secondary grade levels are evident (National Center for Education Statistics, 2013). As educational laws that mandate the involvement of families in the educational process cover all grade levels, it is important to have valid measures for assessing involvement in the lesser-studied secondary grade level. The current study will seek to validate the Family Involvement Questionnaire for use in the high school level (9th through 12th grades).

Research Questions

In order to validate the Family Involvement Questionnaire (FIQ) for the high school level (FIQ-HS), a sample will be collected and statistical analyses will be conducted to establish the reliability and validity of the instrument. Additional correlation analyses will be conducted to examine demographic data with the instrument. By conducting these analyses, we hope to answer three main research questions:

1) Does the FIQ-HS demonstrate internal consistency?

2) What factors are associated with family involvement in high school settings?

3) Are the factors found in the FIQ-HS consistent with the ones found in previous FIQ versions, including Home-School Communication, Home-Based Activities, and School-Based Activities factors?

Previous research in family involvement has not examined the factors of involvement in the high school setting through the use of this questionnaire. Because of this, expected outcomes for this study are difficult to hypothesize. It is expected that there will be differences between the elementary and high school versions of the FIQ, as each setting has its own unique family involvement structure and expectations. Although differences

between elementary and high school settings are evident, general factor patterns are expected to be consistent between the two settings.

Significance of the Study

The results of this study will add to the literature base on family involvement in schools by assessing involvement within a setting that previous research has not assessed in such a way. The data collected from this study can also be used within the individual schools, and others of similar structure, to help develop interventions targeted towards increasing specific aspects of family involvement. As previous literature has established, students of families that are regularly engaged in school activities have higher school performance (Fan & Chen, 2001; Jeynes, 2005, 2007, & 2012; Mattingly et al., 2002). As family involvement practices can be relatively inexpensive or free for schools to implement, programs targeting family involvement should be in place at every school.

The United States' educational laws have further reinforced the importance of family involvement in schools (IDEA, 2004; NCLB, 2001). IDEA requires each state to provide the federal government with data on parent involvement facilitated by schools, but gives little guidance on how to collect such data. Elbaum (2014) found high variability between the states in their reported data, likely owing to the different measures states chose to use when collecting their data. Due to the inconsistencies between the states, comparing data from different states or synthesizing data becomes inaccurate. With the results of this study, participating schools will be able to review their current overall level of family involvement, and then target specific factors or aspects of involvement they wish to increase. Schools may also use this assessment at a later date to

compare any possible changes in the family involvement levels once programs or initiatives have been put into place.

Another function of this study is to extend the FIQ, so the measure can be used to assess family involvement in high school-aged students' families. The majority of research on family involvement in schools has focused on early childhood and primary school grade levels. It is likely that the components of family involvement change as students age into adolescence. By extending the FIQ questionnaire to the high school level, more research can be conducted in this setting through the use of this simple questionnaire.

Scope of the Study

Data will be collected using the FIQ from five high schools in Minnesota, United States. The data obtained from each school will be compiled and analyzed as a whole for the purpose of this study. Family involvement results of individual school sites will then be analyzed to make recommendations specific to each school site.

To extend the FIQ to the high school level, items from the FIQ-E will initially be analyzed for their appropriateness and relativity to secondary-aged students and their families. Once data from the high school version of the FIQ has been collected, analyses including Cronbach's alpha and factor analyses will be conducted on the questionnaires completed to establish the reliability and validity of the instrument in the high school setting. Analyses will be completed to examine any possible relationships between participants' responses on the FIQ and their responses to the demographic questionnaire. Factor loadings and structures from the factor analysis will also be compared with

previous versions of the FIQ. Sample demographics data will also be calculated and reported.

Limitations of the Study

In this study, the extension of the FIQ to the high school level is limited by geographic region and small sample size. The geographic region of this sample will be confined to the state of Minnesota. The sampling pool for this portion of the study is intended to consist of approximately 500 parents. While this sample will be large enough for an initial factor analysis to establish the FIQ within the high school setting, results should not be generalized based on the small sample and confined setting characteristics.

Definition of Terms

Family Involvement: The term family involvement will be used to describe the participation of parents in the education of their children. This includes meaningful communication with school staff and performing behaviors that are related to their child's learning within the school, home, or community settings (United State Department of Education, 2004). Epstein (1992) defined family involvement into six specific components; these components are associated with the development of the original FIQ:

1) Assisting parents in child-rearing skills, 2) School-parent communication, 3) Involving parents in school volunteer opportunities, 4) Involving parents in home-based learning, 5) Involving parents in school decision-making, 6) Involving parents in school-community collaborations. (pp. 1142-1150)

Parent: The term parent is defined as a student's biological parents, legal guardians, or primary caregivers. For the purpose of this study, parents are further defined as being at least 18 years old.

Student: The term student is defined as a school-aged (5-21 years old) person, who is enrolled full-time in a high school system (grades 9th through 12th).

Overview of Study

This study is organized into five sections. Section one is an introduction to the study that outlines the framework in which the study was developed. The importance of family involvement in schools is established through a literature review in Section two. The literature review also discusses the current research on family involvement. The methods used to collect and analyze the data are outlined in Section three, and the results derived from the data collection are in Section four. Section five is an in-depth discussion of the results found in the comparative analyses and factor analysis of the FIQ-HS. Implications of this study as well as recommendations for future research are also discussed.

Chapter 2

Review of Related Literature

Overview

The notion that family involvement has a positive impact on student school performance is easy to accept. Not necessarily because of the vast amount of empirical research that has been conducted and published in peer-reviewed journals, but because on a basic level, it appears intuitive. The way in which researchers measure family involvement varies depending on their interpretation and definition of this construct. Undoubtedly, family involvement is a multifaceted construct, and therefore will have varying definitions between researchers. Differences between primary and secondary aged students and their families further confound the definition and measure of this construct.

Quantitative research on the effects of family involvement on student school performance officially began in the late 1960's. Buchanan, Hansen, and Quilling (1969) examined the relationship between the frequency of contact between students' home and school environments, and their performance in math. Their study was the first published work to examine family involvement and academic performance in a quantitative manner through an experimental group design. Although their study yielded insignificant results for the effects on the students' math performance over the 12-week study schedule, numerous other studies examining family factors would follow over the next forty years.

Researchers have had difficulty defining what is family involvement in schools. Different school systems promote different types of involvement programs for families of

their students. Schools have the choice in the type of programs they choose to implement or support. The way in which schools are selecting such programs likely range from empirical support, to easiness and cost, to continuing with what has historically been done in their school system. Each family also has their own opinions on what behaviors of family involvement are important to them. These opinions are likely shaped by their own experiences, knowledge, and cultural background.

Huntsinger and Jose (2009) examined parental involvement behaviors in two United States cultures: European Americans and Immigrant Chinese Americans parents. They found a distinct difference in behavior patterns between the two cultures. European American parents were more involved with activities at their child's school. However, Chinese Americans were more involved in educational training at home. Another interesting difference between the two cultures was that European American families preferred a tradition grading system (e.g., letter grades, plus/minus) for communicating academic progress. Chinese American families preferred more detailed communication with teachers, including specific concepts their child has mastered or still needs to learn. This study demonstrated how cultural differences in family involvement are not only evident between countries, but are seen within one as well.

Using Bronfenbrenner's (1992) ecological systems theory, it is easy to explain the influences of both family and school on a child and why collaboration between them is important. Both of these institutions fall within a child's microsystem and have direct impact on their development. For children, school is their main focus, much like a job is for an adult. The child's family is designed to be a consistent support of basic needs and foster growth and development. These two institutions likely have the greatest direct

impact on a child, so bridging a partnership between the two is important. When problems, trauma, or change occurs in one of these settings it will likely affect the child's behavior in the other. The importance of this partnership is seen with Bronfenbrenner establishing the mesosystem within his model depicting these interconnections between the child's microsystems. Christenson (2004) supports family involvement practices in schools as they can create a synergistic relationship between these two institutions that are central to a child's development. She discusses several barriers as to why this partnership is not always achieved, which include not only structural or practical barriers, but psychological ones as well. Christenson argues that school psychologists are aptly trained to have a leading role in bridging home-school partnerships at a systems level.

Pelco, Ries, Jacobson, and Melka (2000) conducted a national survey of school psychologists to examine their views and practices of family involvement in schools. Overall, school psychologists supported parent involvement in education as a way to increase student success. They viewed their roles in consulting with families, teaching parenting skills, and facilitating conferences as very important, and a majority of respondents reported regularly participating in these activities.

Components of Family Involvement

In 1987, Epstein identified four types of parental involvement in school: Basic Obligations, School-Home Communications, Parental Involvement at School, and Parent Involvement in Learning Activities at Home. In 1992, Epstein further defined her types of parental involvement to include six different levels of involvement: 1) Assisting parents in child-rearing skills, 2) School-parent communication, 3) Involving parents in school volunteer opportunities, 4) Involving parents in home-based learning, 5) Involving

parents in school decision-making, and 6) Involving parents in school-community collaborations.

In 2002, Epstein et al. simplified her six types of involvement into: parenting, communicating, volunteering, learning at home, decision-making, and collaborating with the community. In the parenting type of involvement, schools assist families by teaching parenting skills and providing support to families. Parents in turn are expected to share with the school their family backgrounds, values, and goals. The communicating type involves schools communicating with families about events, programs, and their individual child's progress. Epstein and colleagues stressed that schools should strive to create a two-way communication channel were the parent feels comfortable contacting the school with news or concerns. In the volunteering type, schools seek to recruit families as volunteers in a manner that supports students. In learning at home, schools strive to extend the child's learning to the home setting by having family members support the student through learning activities. In decision-making, families are included in school decisions through committees, action teams, or other organizations. In collaborating with the community, schools aid families by connecting them with community resources or services, as well as organizations, businesses, or post-secondary education.

Based on the description of these levels, Epstein takes the viewpoint of the school system. She appears to believe that it is the responsibility of the school system to facilitate and encourage family involvement. Current United States educational law, such as No Child Left Behind Act (NCLB, 2001), would support that the burden of facilitating and promoting family involvement falls onto the school system. Schools receiving Title 1

funding are also required to spend a portion of the funds on organizing and facilitating parent participation programs.

Some researchers feel that Epstein's levels of involvement may be too simplistic to capture the true nature of family involvement (Jeynes, 2012). In 1995, Hoover-Dempsey and Sandler established their own theoretical framework for parental involvement. Since then, they have continued to rework their model with other researchers. In 2005, they presented a revised model, with five levels of involvement seen in Table 1.

Table 1. Walker, Wilkins, Dallaire, Sandler, and Hoover-Dempsey's Theoretical Model for Parent Involvement Process

1. Parents' initial decision to become involved in school
   a. Sense of responsibility for schooling
   b. Belief in capacity to contribute to academic success
   c. Perception of invitations
   d. Perception of life contexts
2. Parents' choice of involvement
   a. Location (home or school)
3. Mechanisms of involvement influence on students' outcomes
   a. Modeling
   b. Reinforcement
   c. Instructions
4. Tempering/mediating variables
   a. Use of developmentally appropriate strategies
   b. Fit between parents' behaviors and school expectations
5. Student outcomes
   a. Skills and knowledge
   b. Self-efficacy for school success

Adapted from Walker, J. M. T., Wilkins, A. S., Dallaire, J. R., Sandler, H. M., & Hoover-Dempsey, K. V. (2005). Parental involvement: Model revision through scale development. *The Elementary School Journal, 106,* 85–105.

The way in which family involvement is defined and the components in which it is measured are important in an assessment development phase. The original FIQ-Early Childhood version was developed using Epstein's framework (Fantuzzo, Tighe, & Childs, 2000). The developers used Epstein's six levels of involvement to guide their item development and focus group discussions.

Smith, Wohlstetter, Kuzin, and Pedro (2011) used Epstein's model to assess family involvement in urban charter schools. They found that overall this model worked well. However, their main criticism was that some of their strategies did not fit into this model. Such strategies included mandated family volunteering hours, school communication through technology, and translating parent materials into multiple languages.

Smith and colleagues (2011) found that the biggest difference seen in Epstein's model in their charter schools was at level five, participation in school decision-making. In some cases parents elect the school's governing board, and in others parents make up the governing board. The researchers found that administrators lacked confidence in situations when they needed to involve parents, possibly because of their lack of experience with working in parents in such a way in an educational system, or because of the power the parents held in these alternative school settings.

Specific components of family involvement were assessed in Jeynes' (2005) meta-analysis. Parental expectations, parental reading, parental style, and specific parental involvement were found to significantly effect school performance. Parental expectations and style were found to have the strongest effect sizes, suggesting that specific behaviors were less influential. Checking homework, attending school functions,

and establishing household rules did not produce significant effect sizes on school performance. The significant effect parental expectations and parenting style have on student outcomes outline the importance of the family's atmosphere and dynamics.

Not all family involvement practices are equal. Pomerantz, Moorman, and Litwack (2007) argued that more importance should be placed on the exact nature and way in which parents are being involved in their child's schooling. They concluded that when parent involvement was controlling, person focused, and was accompanied by a negative affect or negative beliefs it has a negative impact on student outcomes. Whereas when involvement was autonomy supportive, process focused, and associated with positive affect and beliefs, the parents' behaviors had a positive impact on student outcomes.

Cox (2005) reviewed eighteen studies examining the effects of home-school collaboration interventions on student outcomes. She found that overall these interventions increased students' academic achievement and improved student behavior. The interventions with the greatest effect sizes involved parents and teachers co-implementing an intervention and routinely exchanging information.

Effects and Associations of Family Involvement

The effects of family involvement on students' school performance have been well studied over the past four decades. A current search on the Education Resources Information Center (ERIC) database of, "parent, involvement, and schools," will yield over 11,600 journal articles, papers, and books. Multiple meta-analyses have been conducted using published studies to synthesize findings (Fan & Chen, 2001; Jeynes, 2005, 2007, & 2012; Mattingly et al., 2002).

Fan and Chen (2001) completed one of the first meta-analyses in this area. They narrowed down their initial pool of published studies and articles from over 2,000 to 25 empirical studies that met their inclusion criteria. When reviewing the literature, they found that the effects of family involvement were inconsistent between studies. Fan and Chen found that studies in which the area of academic achievement was assessed by a more global indicator, such as GPA, had greater effect sizes than studies in which achievement was measured by specific subject grades or single test scores.

Another interesting finding in Fan and Chen's (2001) meta-analysis, was that parental involvement when measured by direct supervision had a very low effect size on school performance. The largest effect sizes for parental involvement were found when it was measured by parent's expectations or aspirations for their child's performance. These differences in effect sizes for different parenting behaviors highlight the importance of determining what programs should be targeted by schools.

Fan and Chen (2001) calculated an overall correlation of $r = .25$, which is considered small, but meaningful. The authors noted that they believed this is a low estimate of the true effect size of parental involvement on school performance. They felt that studies in which a global indicator of school performance (e.g., GPA) was used as a measure were more accurate, and calculated such studies as having a higher correlation to family involvement ($r = .33$). Studies in which single subject grades were used as a measure had a smaller correlation (Science $r = .15$, Math $r = .18$, Reading $r = .18$).

One year later, Mattingly, Prislin, McKenzie, Rodriguez, and Kayzar (2002) reviewed 41 studies that targeted parent involvement programs' relationship to student performance. After reviewing over 200 studies available, the researchers accepted 41

studies for their analysis. The researchers noted their disappointment in the significant methodological flaws found in a majority of the studies they reviewed. Using the studies with greater methodological control, Mattingly and colleagues categorized the parent programs by intervention components. Program components associated with showing improvement (80% or greater of studies reviewed) in student performance included: parent education, parent participating in decision-making, parent volunteering, and parent community support/involvement.

Mattingly and colleagues (2002) concluded that the current body of research on the effects of parent involvement programs shows little to no support. The main flaws that led them to this conclusion are the significant lack of rigorous methodological procedures and weak outcome measures used in a majority of the reviewed studies. With numerous threats to internal and external validity, the researchers felt the effects reported were inaccurate. The researchers suggested that future research not only focus on achieving methodological control, but also on demographic data and family characteristics.

Jeynes (2005) conducted a meta-analysis of studies conducted between 1969 and 2000 that examined the relationship between parental involvement and student academic achievement focusing on urban elementary-aged students. Jeynes found that parental involvement was associated with a 0.70 to 0.75 standard deviation increase in performance on academic measures. High effects were found across multiple measures including classroom grades, standardized tests, other academic assessments, and overall academic achievement. The positive relationship was seen across student gender and racial groups.

In 2012, Jeynes conducted another meta-analysis, this time focusing on parental involvement programs used in urban schools. Overall, he found that such programs were associated with a .30 standard deviation increase in school performance. Specific programs with significant effect sizes included shared reading, emphasized partnership, checking homework, and communication between parents and teachers. Shared reading programs had the greatest effect size (.51). These were programs that encourage parents to read with their children, either using materials provided or recommended by the school, or materials chosen by parents. Programs with low effect sizes included English as a Second Language programs targeted towards parents and Head Start programs that emphasized parent participation.

Jeynes (2012) also noted that the majority of studies he reviewed were conducted in primary school grades. He suggests that this shows the value schools place on parental involvement in lower grades compared to the secondary level. Jeynes also suggests that schools find it easier to involve parents of younger children, making parent involvement programs utilized more than they may otherwise be at a secondary level. Although, the similarity in effect sizes Jeynes calculated for primary students (.29) and secondary students (.35) would suggest that parent involvement programs can have similar effects with older students.

El Nokali, Bachman, and Votruba-Drzal (2010) reviewed data from the National Institute of Child Health and Human Development's study on early childcare and youth development to assess elementary children's academic and social development in relation to their family's involvement in school related activities. They found that increases in parent involvement were associated with decreases in behavior problems and increases in

children's social skills. However, increased levels of parent involvement were not associated with an increase in academic achievement.

The Center for Research on the Education of Students Placed At-Risk sponsored a longitudinal study investigating the effects of family involvement on at-risk secondary students' school performance (Catsambis, 1988). The report found that high educational expectations, regular encouragement, and behaviors that create or enhance learning opportunities were associated with positive effects on twelfth grade students' achievement, as measured by course credits and placement. Variables including socioeconomic status and ethnicity did not significantly interfere with the positive effects seen in families with high expectations for their students' educational performance.

Jeynes (2007) completed another meta-analysis focusing on urban secondary school-aged students. After reviewing 52 studies that included middle and high school students' families, he found that overall parental involvement was associated with a .50 to .55 increase of a standard deviation in performance on academic measures. These increases were lower than the results found in Jeynes' (2005) other meta-analysis focusing on elementary-aged students, which showed an overall increase of .70 to .75 of a standard deviation. Although a lesser effect was found within studies of secondary students, a meaningful increase in academic performance was still evident.

The evidence of positive effects connected to family involvement is present in the literature base. So, how can schools increase family involvement? Some of the significant influencers of parental involvement are out of schools' control, but schools can manipulate others. If targeting school-based involvement, research suggests that parental role activity beliefs, parental self-efficacy, teacher invitations, student invitations, and

parents' reports of time and energy for involvement are the greatest predictors of engaging in school-based involvement (Green et al., 2007). Schools can attempt to increase their parent involvement at school by having teachers and students make specific requests or invitations to parents to participate, and by describing to the parents exactly what would be expected of them during the involvement. General invitations from the school and parents skills or knowledge were not important predictors of parent involvement in school-based activities.

Adolescents and Secondary Settings

Research in the area of family involvement practices in schools has focused primarily on early childhood and elementary settings (Fantuzzo et al., 2000; Manz et al., 2004; Waanders et al., 2007). This focus may be because of the natural shift that occurs in family involvement practices as students age into adolescence, generally becoming less hands-on and more supportive in nature. However, family involvement practices have still been shown to significantly increase student outcomes at the secondary school level (Hill et al., 2004; Jeynes, 2007; Spera, 2005).

In 2005, Spera published a review of family involvement practices in adolescence and their relationship to school achievement. He concluded that family involvement is a strong predictor of adolescent achievement, and that family involvement declines in middle and high school. Wentzel and Battle (2001) saw this decrease in family involvement as a natural progression, "a hallmark of adolescent development is gaining emotional and psychological independence from family" (p. 95). Suggesting that as students age into adolescence, the way in which families are involved in their schooling needs to change from direct involvement to a more supportive role in the home setting.

Deslandes and Cloutier (2002) surveyed adolescents on their views of parent involvement in their schooling. Overall, they found that the adolescents supported the majority of family involvement activities, with females indicating a higher degree of support than males. The activities in which the adolescents agreed most to included: asking parents for ideas on projects, having their parent share stories from when they were a teenager, and showing their parent what they learned or completed. The two activities in which the adolescents were not supportive of were chaperoning school trips and visiting their classes. This implies that the participants preferred that their parents were not physically present in their school, but instead provide support in the home setting.

Developmentally, the decrease in parental involvement in schools as students age is logical. As students mature, they are expected to become more self-reliant and independent from their families. Izzo, Weissberg, Kasprow, and Fendrich (1999) conducted a longitudinal study to examine parent involvement in first through third graders. They found that parent-teacher interactions and parent involvement at school decreased at each grade level. Green and colleagues (2007) found a similar decline from first through sixth grade for both school- and home-based involvement. Spera (2005) showed that this trend continues through secondary grades. However, family involvement can still have a positive effect on secondary students' school performance. As children mature, the way in which families are involved needs to change (Hill et al., 2004; Jeynes, 2007; Spera, 2005).

By comparison family involvement in the early-childhood and elementary levels is expected, fun, and easily understood by the parent and school. Eccles and Harold

(1993) discuss creating meaningful and age-appropriate opportunities for family involvement in secondary schools. They suggest that schools have parents in important roles or on committees, begin communicating with families prior to the secondary transition, and create multiple opportunities for parents to support their child's schooling in the school and home settings.

Adams and Christenson (2000) surveyed parents and teachers about their level of trust in family-school relationships. Overall, parents reported higher levels of trust than teachers. They found that both parents and teachers reported higher levels of trust in elementary grades than secondary grades. Parents indicated that improving communication between school and family would most likely to increase family-school trust, while teachers indicated that demonstrating dedication to education and having a positive academic environment would increase the trust level most.

Wheeler (1992) argued that family involvement in secondary schools is necessary for students to develop into successful adults. She points out the struggles in accomplishing this as adolescents tend to distance themselves from their families, and as the amount of students each teacher works with grows considerably. She recommends creating activities that are age appropriate, increasing home-school communication and home-based activities, and using advisors or other people that can be the main school contact for a family. She also stresses that schools should make their first contact positive, continue frequent communication, find positives to share with the family, ask for parent suggestions, encourage parents to visit the school, and be specific when asking for parent help.

Hornby and Witte (2010) found a great diversity of family involvement practices

among the twenty-one New Zealand secondary schools included in their study. Almost all schools regularly implemented programs such as open or parent days, parent-teacher conferences, new parent open houses, school performances, and exhibitions. Some of the lesser-utilized programs included parent newsletters, guest speakers, parent education workshops, parent lunches, informational evenings, and school fairs. Only one of the schools included in the study had an official policy on family involvement.

Hill et al. (2004) completed a longitudinal study examining parent involvement in seventh through eleventh grade students and its effect on the students' school behavior, academic achievement, and post-secondary aspirations. They found that parental involvement continues to be a strong predictor of student achievement throughout secondary school. Overall, the researchers found that parent involvement in seventh grade was negatively correlated to school behavior problems in eighth grade, and positively correlated to post-secondary aspirations in eleventh grade. Differences across family socio-economic status were also found. Parents with lower education levels who were more involved in their child's schooling were associated with increased student aspirations for post-secondary schooling and career. However, increased parent involvement for these families was not associated with improved school behavior or achievement. Parents with higher education levels who were more involved were more likely to have students with fewer school behavior problems, and higher school achievement and post-secondary aspirations.

Hill and Tyson (2009) examined 50 studies to determine which types of family involvement are more strongly associated to school achievement in middle school students. In this meta-analysis, they found that overall family involvement was positively

correlated to students' academic achievement. However, with great variability in the included studies correlations (-.49 to .73), their average weighted correlation of $r = .18$ fell within the weak range. This is likely because of the varying degrees in which the included studies chose to measure family involvement and academic achievement. Hill and Tyson determined that involvement that utilized academic socialization techniques had the greatest impact on students' achievement. Suggesting that parent involvement should focus on goal setting, discussing the purpose of education, and teaching adolescents strategies to use when making decision independently. Family involvement that was school-based, such as attending school events or volunteering at the school, was also correlated to higher achievement levels. Involvement that included providing assistance, checking, or supervising students' academic work was not significantly associated with student achievement.

Instruments

Family Involvement Questionnaire: Early Childhood

Fantuzzo, Tighe, and Childs (2000) developed the original Family Involvement Questionnaire (FIQ) to be used as an assessment of family involvement within early childhood education. Six hundred and forty-one parents of children in preschool, kindergarten, or first grade completed the FIQ-EC. Factor analyses showed three unique dimensions of family involvement within the questionnaire: home-school conferencing, home-based involvement, and school-based involvement. Demographic data were also collected from families and analyzed with their FIQ-EC responses. Variables including parental education, family type, and participation in Head Start activities were associated with significant differences in family involvement.

Fantuzzo, McWayne, Perry, and Childs then used the FIQ-EC in 2004 to assess multiple dimensions of family involvement and their relationship to children's classroom behaviors and learning. They found that in their sample of 144 low-income urban families, home-based involvement was the strongest predictor of child outcomes. High levels of home-based involvement were associated with lower levels of classroom behavior problems and higher levels of attention/persistence, motivation, and receptive vocabulary. Items under the home-based involvement factor with the strongest correlations to child outcomes included reading to the child at home, providing a place for education activities, and asking the child about school.

Other researchers have used the FIQ-EC as an assessment of family involvement in early childhood research. Downer and Mendez (2005) used the questionnaire to assess African American father involvement in Head Start programs. Overall, the fathers in this study reported being most involved in home-based educational activities and rarely involved in direct school-based activities. Waanders, Mendez, and Downer (2007) used the FIQ-EC to examine family involvement in early childhood education, finding that parent characteristics, including education level and strong social networks, were correlated to home-based involvement activities, and perceived context variables were predictive of the teacher-parent relationship. In 2008, McWayne, Camps, and Owsianik also found that parents with higher levels of education typically had higher levels of home-based involvement. They also found that the parent gender and degree of school satisfaction were strong predictors of overall involvement. LaForett and Mendez (2010) examined parent involvement and depression in relation to parent satisfaction with early childhood programs. Parents who reported higher levels of depression also reported lower

levels of home- and school-based involvement as well as less frequent contact with their children's teachers. Parents who reported never being depressed had high levels of satisfaction with their children's teachers and early childhood programs.

In 2013, Fantuzzo, Gadsden, Spoul, McDermott, Hightower, and Minney created a condensed version of the FIQ-EC. Using the original sample in which Fantuzzo et al. (2000) validated the FIQ-EC, they were able to shorten the questionnaire from 42 to 21 items by analyzing the factor loadings. Confirmatory factor analyses were also conducted, finding the same three dimensions of family involvement as the original FIQ-EC: home-based involvement, school-based involvement, and home-school conferencing. The validation of this short form of the FIQ created a cost-effective measure that is less burdensome for parents to complete and researchers to analyze, but continues to be psychometrically sound.

Family Involvement Questionnaire: Elementary

In 2004, Manz, Fantuzzo and Power extended the FIQ from early childhood (preschool, kindergarten, and first grade) to include elementary grades (first through fifth grade). Through parent and teacher focus groups, they determined that a majority (39) of the original 42 items used on the Early Childhood version of the FIQ could be utilized in the Elementary version. They also added seven new items unique to elementary-aged students' family and school dynamics.

In their study, Manz and colleagues (2004) sampled low-income urban elementary students' families. They found three distinct factors of family involvement identified through the FIQ-E responses: Home-School Communication, Home-Based

Involvement, and School-Based Involvement. These three dimensions were equivalent to the factors identified previously on the FIQ-EC.

Demographic information regarding family make-up, and child and caregiver details were also collected and analyzed with the families' FIQ-E responses. Manz and colleagues (2004) found a significant increase in Home-School Communication and Home-Based Involvement in families with caregivers who earned a high school diploma, compared to those who did not complete high school. No significant differences in family involvement were found between caregivers who attended or completed a post-secondary degree and those who did not attend college. Family type (single-parent, two-parents, or other) was associated with a significant difference in family involvement. Single-parent and two-parent families had higher rates of Home-School Communication than other family types. Other significant demographic variables that were also found, related to number of children living in household, child's gender, and age of informant (parent).

Semke, Garbacz, Kwon, Sheridan, and Woods (2010) examined family involvement in children with disruptive behavior. They found that parent role construction mediated the relationship between parenting stress and overall family involvement as measured by the FIQ-E. They also found that parent efficacy for helping children moderated the relationship between parenting stress and home-based family involvement activities.

In 2011, Garbacz and Sheridan validated the FIQ-E in New Zealand. They found a similar factor structure to the original FIQ-E, validated by Manz and colleagues in 2004. The three factors identified in the New Zealand study represented similar dimensions of family involvement (School-Based Involvement, Home School

Communication, and Home-Based Involvement). However, many (13) items that loaded onto factors in the Manz et al. study, did not load onto any factors in the New Zealand sample. Another difference found between the two samples, were that the School-Based Involvement factor accounted for the greatest amount of variance in the New Zealand sample and the least amount of variance in Manz et al. sample.

Purpose of Present Study

The purpose of the present study was to validate the FIQ for use in high school settings by demonstrating reliability and validity of the instrument within a high school parent sample. This instrument was previously been validated in early-childhood and elementary settings, but had yet to be used with families of high school students. The research questions this study addressed included: (1) Does the FIQ-HS demonstrate internal consistency? (2) What factors are associated with family involvement in high school settings? And (3) are the factors found in the FIQ-HS the same as the ones found in the FIQ-E, including Home-School Communication, Home-Based Activities, and School-Based Activities factors?

Chapter 3

Methods and Procedures

Study Design and Overview

This study was a survey of family involvement with the intention of validating the FIQ in the high school setting. Parents of high school students completed the FIQ-HS and a demographic questionnaire. Then the responses from each participant were reviewed and compiled for analysis to evaluate the reliability and validity of the FIQ-HS. Additional analyses to examine correlations between participants' FIQ-HS responses and family characteristics were also conducted. In addition to analyzing the samples data as a whole, individual analyses were conducted for each participating school site to provide specific feedback and recommendations.

Participants

The participants were parents of high school students whose teenager was currently enrolled in ninth through twelfth grade. Five hundred and seventeen parents were recruited from five high schools in southern Minnesota, United States (Table 2). They were 18 years of age or older, with a mean age of 45 ($M = 44.72$, $SD = 5.25$). Table 3 shows the indicated relationship of the participant to the high school student. Mothers were the predominant responders (79.70%) to the survey, with fathers being the second most likely to respond (17%). The majority (96.10%) of participants indicated their family ethnicity as Caucasian or White (Table 4). A majority (87.23%) of participants indicated that their high school student was not receiving special education services (Table 5).

Table 2. Participation by School Site

Schools	N
School A	91
School B	98
School C	151
School D	29
School E	145
No School Indicated	3

Table 3. Participant's Relationship to High School Student

Relationship	N	Percentage
Mother	412	79.70
Father	88	17.00
Step Parent	11	2.10
Grandparent	1	0.20
Aunt/Uncle	0	0.00
Foster Parent	0	0.00
Other	5	1.00

Table 4. Participant's Family Ethnicity

Racial Group/Ethnicity	N	Percentage
African-American	0	0.00
Asian or Pacific Islanders	3	0.60
Caucasian or White	497	96.10
Latino or Hispanic	6	1.20
Multiracial	5	1.00
Native American or Inuit	0	0.00
Other	4	0.80
No Ethnicity Indicated	2	0.30

Table 5. Participant's Teenager Receiving Special Education Services

Response	N	Percentage
Yes	57	11.03
No	451	87.23
Unsure	9	1.74

Potential participants were recruited through email to participate in this study. Participants were directed to an informed consent webpage, which they are expected to read before they completed the study materials. Anonymous informed consent was utilized because the research involved little risk and included no procedures for which written consent is normally required. Participants' informed consent was implied when completed survey materials were returned to the researchers via an online survey system. Participants were not asked to provide any individually identifiable information (e.g., name, birthday, address) in the course of participating in this study.

Measures

Family Involvement Questionnaire: The Family Involvement Questionnaire-High School (FIQ-HS) is a 40-item scale that was designed to gather information about the nature and level of parents' participation in their teenager's school and academic work (Appendix A). A primary caregiver of a high school student completed the FIQ-HS. The parent rated each item on a four-point Likert scale, representing the frequency of each item as it occurs within their family (1 = Rarely, 2 = Sometimes, 3 = Often, or 4 = Always*)*. The FIQ-HS took approximately 10 to 15 minutes for the parent to complete.

The FIQ-HS was adapted from the Family Involvement Questionnaire-Elementary (FIQ-E) established by Manz, Fantuzzo, and Power in 2004 (Appendix B).

The FIQ-E was originally used with families of students in first through fifth grade. The items on the FIQ-E were examined to determine if they were appropriate for high school aged students in grades ninth through twelve. Researcher item examination was used to determine what items from the FIQ-E were applicable to high school aged students and what new items needed to be added to capture any unique family involvement aspect only seen at the high school level.

In the adaptation of the FIQ-HS 34 items were kept from the FIQ-E, and 11 items were removed because the behavior was not applicable to parents of high school students. Examples of removed items included, "I read with my child," and "I go on class trips with my child." Six new items were created for the FIQ-HS (Appendix A; items 10, 12, 13, 28, 30, and 34). These new items reflected transition related parenting behaviors including preparing their teenager for post-secondary education, employment, and independent living.

Additional changes were made to items on the FIQ-HS to make the measure more appropriate for the high school level. These changes included the word "teacher" being pluralized to address the fact that high school students typically have multiple teachers at any one point in time, and changing the word "child" to "teen" in the items. Another significant change made to the FIQ-HS was that a directive was added to the beginning of the questionnaire asking parents to consider the multitude of educators that may not necessarily have the title of "teacher," but serve as a school support for them or their child. Parents who also have younger children who were not yet in high school were also asked to only consider their 9th through 12th grade child(ren) when responding to items.

When the FIQ-E was developed for use with parents of children in primary school, three distinct factors emerged: Home-Based Involvement, Home-School Communication, and School-Based Involvement. Using these factors the researchers divided the 46 items into three scales representing each factor. It was anticipated that similar factor structures would emerge in the FIQ-HS, and the three scales could be established.

Demographic questionnaire: Demographic variables were gathered to gain an understanding of the sample used in this study (Appendix C). Specifically, items addressed participants' relationship to the student, age, ethnicity, and their child's special education status and school of attendance. The demographic questionnaire was completed by a primary caregiver of a high school student and took approximately 5 minutes to complete.

Procedures

To recruit potential participants, permission was first sought from individual school sites (Appendix D). High schools were recruited for their participation by contacting designated administrators, superintendents or principals. School consent was necessary to obtain contact information for high school parents. Once school consent was obtained, parents were then recruited to take part in the study. Five high schools in rural Minnesota signed permission and completed participated in this study.

School administrators were given the option of having parents contacted through postal mailings or email. All participating schools selected to have their parents contacted through email. School administrators were also given the option of releasing parent email addresses to the researchers and having them contact parents, or having the researchers

provide the survey link to the school and they could disperse the link directly to parents. All participating schools choose to disperse the survey link directly to their parents. No parent contact data was released to the researchers. An example email to parents was provided to school administrators (Appendix E), they were able to use this example, modify it, or create their own message. All participating schools choose to use the example email provided.

When participants were contacted they received an email from their respective school administrator briefly explaining the study and providing the survey ink. Participants who selected the link were taken to an online survey system (Qualtrics). They were initially directed to the informed consent webpage (Appendix F). Informed consent was established when a participant selected the "Yes, I agree to participate in this study," button at the bottom of the informed consent webpage and completed the FIQ-HS and demographic questionnaire. By submitting the completed questionnaires the participant also indicated that they were at least 18 years of age and a parent of a high school student.

Participating parents completed the FIQ-HS and demographic questionnaire at a location of their choice, likely in their own home or place of work. Participants completed the questionnaires through a secure online survey website and their responses were stored in an online database that could only be accessed by the researchers.

Approximately two weeks after school administrators sent out their initial email to their parents, researchers informed each school of the number of completed surveys for their school. At this time, researchers recommended sending out one follow-up email to

parents reminding them of the survey (Appendix E). All five participating schools sent out a follow-up email to parents.

After data collection was completed, feedback reports for each participating school were created. These feedback reports included data extracted from their own parents as well as data from the whole sample for comparison purposes (Appendix G). Data provided in the reports included: school demographics, performance by scales for school and sample, individual item mean and distribution by school and sample, and a strengths and weaknesses report. These feedback reports were distributed to school officials approximately one month after all data collection was completed.

Chapter 4

Results

Data was analyzed in three ways. First, to establish the internal consistency of the FIQ-HS a Cronbach's alpha reliability analysis was conducted. Second, to establish the construct validity of the instrument multiple factor analyses were performed. Identified factors were examined for internal consistency and then compared to the FIQ-E. Lastly, relationships between family characteristics identified in the demographic questionnaire and participants' responses to the FIQ-HS were analyzed using a MANOVA to determine what family characteristics were associated with more or less involvement.

Internal Consistency

A Cronbach's alpha was calculated on the 40 items within the FIQ-HS (Cronbach, 1951). The FIQ-HS yielded high internal consistency with a coefficient of 0.93.

Confirmatory factor analysis

A confirmatory factor analysis was conducted to examine the structural validity of the FIQ-HS across three constructs identified in the FIQ-E (Manz et al., 2004). Thirty-four items on the FIQ-HS were assigned to one of the three factors identified in the Manz et al. study. These 34 items were ones that were consistent with the FIQ-E version, with only minor wording changes made for the high school population. The confirmatory analysis indicated that the three-factor structure found in the FIQ-E is not applicable to the FIQ-HS using the current sample.

Exploratory factor analysis

Exploratory factor analyses were completed to identify constructs in the FIQ-HS. An orthogonal (varimax) rotation was conducted first, yielding three factors across 25

items. An oblique (promax) rotation was then conducted on the theoretical basis that the three-factor structure identified in the FIQ-E could have relationships with one another. By conducting the oblique rotation it allows for a small degree of correlation between factors, such as the home-school communication and school-based activities factors that were predicted. A three-factor solution was supported by both orthogonal and oblique rotations, with items loading consistently on the three factors across both methods. As the orthogonal method was used in previous validation studies of the FIQ results from this rotation were used for data reporting and interpretation.

The factor structures were examined using the criteria established by McDermott (1993). Factors with eigenvalues of less than 1 were eliminated, factors that accounted for less than 5 percent of the total variance were eliminated, and factors with unacceptable internal consistency ($\alpha < .70$) were also eliminated. After this process, a three-factor structure was supported by the exploratory factor analysis. The following dimensions were produced across 25 items: home-school communication, home-based activities, and school-based activities. The internal consistency of each factor was good to acceptable, with Cronbach's alpha coefficients of 0.89, 0.71, and 0.77, respectively (Cronbach, 1951). In total, the three factors account for 31.67% of the variance, with the home-school communication factor accounting for 14.19%, the home-based activities factor accounting for 10.27% and the school-based involvement factor accounting for 7.20% of the variance.

The three factors item content and factor loadings are presented in Tables 6, 7, and 8. Items with factor loadings of less than 0.40 were deemed non-loading based on

Stevens (2002) recommendation, however for future research these items and loadings are included with their anticipated factor.

The home-school communication factor is comprised of 11 items reflecting various forms of contact parents might have with school staff, including communication behaviors such as talking with teachers about difficulties at school, accomplishments, and policies, and contacting the school for information (Table 6). The home-based involvement factor is comprised of 9 items and includes activities parents perform outside of school that promote learning, such as talking with their teenager about careers and schooling, and helping their teenager with homework (Table 7). The school-based involvement activities factor is comprised of 4 items that reflect parent behavior in the school setting, such as volunteering, and participating in family social activities at school or school fundraising activities (Table 8).

Table 6. FIQ-HS Factor One-Home-School Communication Loadings and Item Content

Items	Varimax Loadings
Talk to staff when difficulties at school	0.77
Talk to staff about homework	0.73
Talk to staff when concerned about things teenager says	0.72
Talk with teachers through telephone or email	0.70
Talk to teachers about teenager's accomplishments	0.64
Talk to staff about school rules	0.63
Talk to staff about preparing teenager for life after high school	0.62
Talk to staff about our personal matters if affects teenager at school	0.60
Talk to staff about disciplinary procedures	0.60
Contact school to get information	0.64
Attend conferences to talk about teenager's learning and behavior	0.54
Talk to staff about training opportunities for myself	0.25*
Suggest activities or trips to teachers	0.22*

Indicates item did not load onto factor

Table 7. FIQ-HS Factor Two-Home-Based Activities Loadings and Item Content

Items	Varimax Loadings
Talk to teenager about careers they are interested in	0.77
Talk to teenager about how school has helped them	0.67
Talk with teenager about life after high school	0.60
Help teenager with academic skills they struggle with	0.59
Provide assistance during homework	0.51
Share stories with teenager about when they were in school	0.50
Encourage teenager to invite friends to home	0.49
Talk about how teenager is doing in school to family/friends	0.44
Ensure teenager has resources to research post-secondary	0.44
Ask teenager how day was at school	0.37*
Teacher teenager home-living skills	0.36*
Ensure teenager completes homework	0.34*
Bring home learning/post-secondary materials for teenager	0.26*
Maintain clear rules for teenager to obey	0.26*
Teenager has chores to do at home	0.21*
Ensure teenager has quiet place to do schoolwork	0.20*
Ensure teenager has way to het home from school	0.15*
Ensure teenager has way to get to school in morning	0.02*
Limit teenager's TV and computer time	0.01*

Indicates item did not load onto factor

Table 8. FIQ-HS Factor Three School-Based Activities Loadings and Item Content

Items	Varimax Loadings
Participate in fundraising activities at school	0.72
Participate in community and family social activities at school	0.72
Volunteer at school	0.68
Talk with other parents about school meetings and events	0.63
Attend family-school associations meetings	0.39*
Attend parent workshops/trainings at school	0.32*
Feel parents at school support one another	0.21*
Feel school staff encourage parent involvement	0.07*

Indicates item did not load onto factor

In total, 24 of the 40 items on the FIQ-HS were identified across the three factors, with factor loadings of 0.40 or greater. If the factor loading threshold was set at 0.30 or greater, 29 items would load onto the three factors. There were 16 items that did not load onto any factor or did load with a factor loading of less than 0.40.

FIQ-E and FIQ-HS factor analysis comparison

Although the confirmatory factor analysis indicated the factors of the FIQ-E were inconsistent with the FIQ-HS, results of the exploratory factor analysis revealed similarities. First, the three constructs measured on the FIQ-E in Manz et al.'s (2004) study are consistent with those measured on the FIQ-HS (school-based involvement, home-based involvement, home-school communication). A difference is that 40 items loaded onto the three factors in the Manz et al. study with loadings of 0.40 or greater compared to the 24 items in the current study. There were 16 items that did not load onto any factors in the FIQ-HS, compared to only 6 items in the Manz et al. study. A similarity found with the FIQ-E is that the school-based involvement factor accounted for the least variance on the FIQ-E as well as the FIQ-HS.

Scales

Three scales were created using the 40 items based on the factor structure: home-school communication, home-based activities, and school-based activities. The internal consistency of these scales was examined and found to be high to acceptable, with coefficients of 0.90, 0.88, and 0.76, respectively. Figure 1 shows participants' mean responses across the three scales of the FIQ-HS. The home-based activities scale yielded the highest involvement ratings ($M = 3.21$; $SD = 0.42$). The home-school communication ($M = 2.15$; $SD = 0.62$) and school-based activities ($M = 2.18$; $SD = 0.60$) scales yielded similar results.

Figure 1. Parent responses across the three scales of FIQ-HS (1 = Rarely, 2 = Sometimes, 3 = Often, 4 = Always)
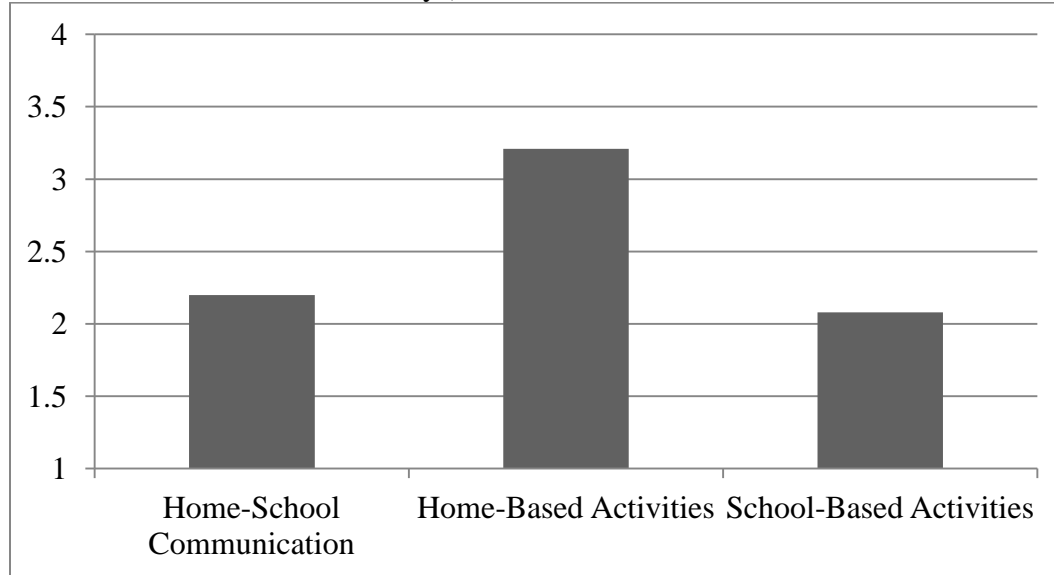
Family characteristics and FIQ-HS

A one-way MANOVA was conducted to determine if any family characteristics were related to the three scales of the FIQ-HS. All 40 items were included in the scales, and division of items was done based on their placement on the factor analysis, for the 15 items that did not load onto any of the three factors researcher judgment was used to assign the item. The internal consistency of these scales was examined and found to be high to acceptable (α = .90 to 0.76).

Using Wilks Lambda statistic, there was a significant effect for the student's special education status on the three scales, $\Lambda = 0.93$. $F(6, 912) = 5.60$, $p <.01$. Parents who indicated that they did not know if their child was receiving special education services reported lower ratings of involvement on the home-school communication scale when compared to the parents who indicated their child was receiving special education services, $F(2, 458) = 5.14$, $p <.05$. Parents who indicated that they were unsure of their

child's special education status also reported significantly lower home-based activities than parents who reported their child was either receiving or not receiving special education services, $F(2, 458) = 4.29$, $p < .05$.

Using Wilks Lambda statistic, there was also a significant effect for the student's school on the scales, $\Lambda = 0.85$. $F(12, 1249) = 6.65$, $p < .01$. One of the five schools had significantly higher parent ratings on home-school communication [$F(4, 474) = 12.71$, $p < .01$] and school-based activities [$F(4, 474) = 6.10$, $p < .01$]. Parent age, family ethnicity, and parent's relationship to the student were found not to be related to participants' ratings on the three scales.

Chapter 5

Discussion

Findings

The purpose of this study was to validate a high school version of the FIQ by establishing internal consistency and a factor structure consistent with the previous versions. The results of the Cronbach's alpha indicate high internal consistency of the overall questionnaire, and high to acceptable internal consistency for each of the three scales. Results of the exploratory factor analysis supported a three-factor structure consistent with the early childhood, elementary, New Zealand, and early childhood short-form versions of the FIQ.

Results from the confirmatory factor analysis did not confirm an identical factor structure of the FIQ-HS and the FIQ-E. This may be because of the significant differences between the current predominantly White rural school sample and the sample used in Manz et al.'s (2004) FIQ-E validation study which was predominantly African Americans from urban schools. Through the exploratory factor analysis it was discovered that a consistent factor structure with the FIQ-E was evident in the current data. However, fewer items loaded on the FIQ-HS than the FIQ-E, which likely caused the failed confirmatory factor analysis.

Results from the exploratory factor analysis indicated that 11 items on the FIQ-HS loaded onto the home-school communication factor, compared to 13 in Manz et al.'s (2004) study. Nine FIQ-HS items loaded on the home-based activities factor compared to 15 items in the FIQ-E study, and 4 FIQ-HS items loaded on the school-based activities

factor compared to 12 in the FIQ-E study. The lower number of items that loaded onto factors in the current study may be attributed to differences in behavior between the elementary and high school family populations. Sample size is not believed to be an issue, as the current study had 517 parents and the Manz et al. study had 444 parents. Considering the number of items on the questionnaire (40), the current sample size is considered appropriate for conducting a factor analysis.

There were 16 items that did not load onto any factor in the current study, compared to only 6 in the Manz et al. (2004) study. This is likely attributed to a difference in response patterns between the current sample and Mans et al.'s sample. Given the significant differences between the two samples' ethnicity and geographic location, differences in response patterns are not surprising. Items that are the same between the FIQ-E and the FIQ-HS but did not have consistent results may not be meaningful or sensitive enough to the current sample.

Of the 16 items that did not load onto any factors only two items were new additions, "I teach my teenager how to perform home-living skills (e.g., laundry, dishes, car maintenance)," and "I ensure that my teenager has resources available to research post-secondary opportunities (e.g., colleges, careers)." This suggests that a majority of the 6 new items added to the FIQ-HS were appropriate and captured unique involvement behaviors that were not seen at the elementary level.

The three scales created based on the factor structure were found to have high to acceptable internal consistency. These scales represent three unique facets of family involvement. When participants' responses were examined, the home-based activities scale was found to yield higher involvement ratings than the home-school

communication and school-based activities scale. This difference may be explained by the expectation that teenagers become more independent as they enter young adulthood. So parents may be communicating less with school staff, shifting that responsibility to their teenager. Parents may be less involved in school-based activities because of the lack in-school opportunities made available at the high school level. However, as parents become less involved in activities at the school and communicating with school staff, they appear to continue to provide support to their teenager in the home setting.

A significant difference was found with parents who indicated that they did not know if their teenager was receiving special education services and parents who indicated that they did know if they teenager was receiving these services. It is important to note that although this difference is significant, only 9 participants in the sample indicated that they did not know their student's special education status. So this finding should be interpreted with caution.

Parents who indicated that their child was receiving special education services indicated higher ratings on the home-school communication scale than parents who indicated that they didn't know if their student was receiving services. This difference may be because of the necessity for communication and/or the federally mandated communication tactics schools are required to perform with parents of disabled students. For example, parents of students with disabilities may need to contact school staff to obtain information that their student is not capable of relaying. Federal and state laws require school staff to be in regular communication with parents of disabled students to get their input on their child's programing, update them on their progress and changes to programing, and inform them of their rights. It is also likely that parents who indicated

that they did not know if their child was receiving special education services are less likely to be in communication with their school to clarify such confusion.

Parents who indicated that their teenager was either receiving or not receiving special education services indicated higher ratings on the home-based activities scale than parent who did not know if their child was receiving services. This difference may be because parents who indicated that they were unsure of their teenager's special education status are less involved in their child's education and home life. For the parents with special needs students group, this difference may be because students with disabilities typically require more direct assistance to carry out life activities, so these parents may need to provide more direct assistance at home such as helping with homework, teaching them how to perform living skills, and providing learning materials.

Limitations

There were several limitations to the current study. Most importantly, this was a pilot study, so results should be interpreted with caution, as they are considered preliminary. Replication studies are needed to verify the current findings. Although the sample size ($N = 517$) was appropriate for the analyses conducted, a larger sample size would be beneficial. Replication studies should seek to have a minimum of 400 participants, to appropriately run the factor analysis on this 40-item questionnaire.

A significant limitation to the current study is the homogeneity of the sample. The majority of participants were Caucasian or White in ethnicity, from rural areas, and mothers of the students. Non-White participants accounted for only 3.9 percent of the total sample. This disproportionate representation in ethnicity is quite different from Manz et al.'s (2004) FIQ-E and Fantuzzo et al.'s (2000) FIQ-EC validation samples in

which the participant's were predominantly African American and living in urban areas. Considering that the current results are being compared to the results found with these samples, it is fair to say that the factor structure found in the FIQ-EC, E, and HS versions appears to be consistent across White and African American ethnicities and urban and rural areas. However, more research with diverse samples is needed.

The majority of the responders to the survey were mothers (79.7%), which is consistent with Manz et al.'s (2004) sample (79%). This disproportionality of mothers and fathers should be examined in future research. Differences between the participant's relationship to the student and their responses on the FIQ-HS were not found. However, with a larger sample of fathers possible differences between these groups could be more appropriately examined.

Future Directions

Overall, more research is needed to evaluate the generalizability of the FIQ-HS and its internal consistency and factor structure across multiple samples. As a pilot study, the current research can be used for comparison against other samples using the FIQ-HS. By continuing to develop this questionnaire it can eventually be utilized by schools to examine their family involvement practices on a regular basis. This is especially important in the high school setting where there is limited research on family involvement practices and few psychometrically sound assessments available for schools.

The FIQ-HS was found to assess three dimensions of family involvement. However, it is possible that even more dimensions that are unique to the high school setting exist and could be captured by this instrument. This may be particularly true as we demonstrated that home-school communication and school-based activities decreased in

the current FIQ-HS sample when compared to Manz et al.'s (2004) FIQ-E sample. As these dimensions decrease in high school, it is possible that other dimensions of family involvement are increasing. Future research should explore other possible dimensions such as community and civil participation, leisure and recreation, and functional academics (e.g., money management).

Multiple modifications, item eliminations, and item additions were made to adapt the FIQ-E to the high school setting. To increase the FIQ-HS factor loadings, the 15 items that did not load onto any factor could be reexamined for appropriateness to high school families or possible rewording. Adding new items to the FIQ-HS may also increase the number of items loading onto the factors. In the current study, only 6 new items were added to reflect post-secondary education and training, careers, and daily-living skills. As this is a growing area of need in high school more items reflecting the various tasks and behaviors in these areas could be added.

The results indicated that one school in the current sample had significantly higher involvement levels in the home-school communication and school-based activities scales. This school was the only charter school included in the sample. These differences in involvement were examined on a small scale in the current study with the charter school's sample size of 29. While each school system has unique family involvement practices, general differences between traditional and alternative learning centers, such as charter schools, can be examined. If consistent results are found on a larger scale, specific behaviors or programs that are occurring in these alternative learning centers can be further examined to find practices that can be utilized in traditional schools to increase involvement.

In 2013, Fantuzzo and colleagues validated a short form of the FIQ-EC. They were able to reduce the original 42-item questionnaire to only 21 items and still demonstrate acceptable internal consistency and a consistent factor structure. The current 40-item FIQ-HS takes approximately 10-15 minutes to complete. If this questionnaire could be reduced, it would likely increase the participant response rate as well as ease data analysis. This may be particularly important for schools that may eventually administer this questionnaire to parents without the assistance of researchers.

The FIQ now has an early childhood, elementary, New Zealand elementary, early childhood short form, and high school versions validated. Future research should seek to validate a middle school version of the FIQ for grades 6th through 8th. This student family population is too unique from the elementary and high school population to include them in the FIQ-E or FIQ-HS versions. A middle school version of the FIQ can be developed by examining the items on the FIQ-E and the FIQ-HS for appropriateness to the middle school setting, and considering other areas unique to this population.

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Appendix A

Family Involvement Questionnaire-High School Version

Directions: For each item, please circle how often (*Rarely, Sometimes, Often, or Always*) you perform the activity. Please select only one response for each item.

Please Note: For the purpose of this questionnaire, the word *teachers* may include a number of school staff, such as guidance counselors, principals, school psychologists, or school social workers. Additionally, if you have other children that are in 8th grade or lower, please *respond to these items only considering your high school child(ren).*

1. I attend conferences with teachers to talk about my teenager's learning or behavior.	*Rarely*	*Sometimes*	*Often*	*Always*
2. I contact my teenager's school to get information.	*Rarely*	*Sometimes*	*Often*	*Always*
3. I limit my teenager's TV watching or computer time at home.	*Rarely*	*Sometimes*	*Often*	*Always*
4. I make sure my teenager completes their homework.	*Rarely*	*Sometimes*	*Often*	*Always*
5. I suggest activities or school trips to teachers.	*Rarely*	*Sometimes*	*Often*	*Always*
6. I attend parent workshops or trainings offered by my teenager's school.	*Rarely*	*Sometimes*	*Often*	*Always*
7. I talk to school staff about school and classroom rules.	*Rarely*	*Sometimes*	*Often*	*Always*
8. I make sure that my teenager has a way to get to school in the morning.	*Rarely*	*Sometimes*	*Often*	*Always*
9. I share stories with my teenager about when I was in school.	*Rarely*	*Sometimes*	*Often*	*Always*
10. I ensure that my teenager has resources available to research post-secondary opportunities (e.g., colleges, careers).	*Rarely*	*Sometimes*	*Often*	*Always*
11. I communicate with school staff if I am concerned about things that my teenager tells me about school.	*Rarely*	*Sometimes*	*Often*	*Always*
12. I talk to school staff about preparing my teenager for life after high school.	*Rarely*	*Sometimes*	*Often*	*Always*
13. I ensure that my teenager has a quiet place at home where they can complete schoolwork.	*Rarely*	*Sometimes*	*Often*	*Always*

14. I volunteer at my teenager's school.	*Rarely*	*Sometimes*	*Often*	*Always*
15. I participate in fundraising activities at my teenager's school.	*Rarely*	*Sometimes*	*Often*	*Always*
16. I talk to the teachers about my teenager's accomplishments.	*Rarely*	*Sometimes*	*Often*	*Always*
17. I bring home learning or post-secondary materials for my teenager (e.g., books, videos, magazines, brochures).	*Rarely*	*Sometimes*	*Often*	*Always*
18. I participate in community and family social activities at my teenager's school (e.g., sports games, plays, carnivals).	*Rarely*	*Sometimes*	*Often*	*Always*
19. I maintain clear rules at home that my teenager should obey.	*Rarely*	*Sometimes*	*Often*	*Always*
20. I talk to school staff when my teenager has difficulties at school.	*Rarely*	*Sometimes*	*Often*	*Always*
21. I ask my teenager how his/her day was at school.	*Rarely*	*Sometimes*	*Often*	*Always*
22. I encourage my teenager to invite their friends to our home.	*Rarely*	*Sometimes*	*Often*	*Always*
23. I talk with other parents about school meetings and events.	*Rarely*	*Sometimes*	*Often*	*Always*
24. I make sure that my teenager has a way to get to home from school in the afternoon.	*Rarely*	*Sometimes*	*Often*	*Always*
25. I talk with people at my teenager's school about training or career development opportunities for myself.	*Rarely*	*Sometimes*	*Often*	*Always*
26. I talk with school staff about schoolwork my teenager is expected to complete at home.	*Rarely*	*Sometimes*	*Often*	*Always*
27. I talk with school staff about our personal and family matters if it affects my teenager's work at school.	*Rarely*	*Sometimes*	*Often*	*Always*
28. I talk with my teenager about what their life will be like after they graduate high school.	*Rarely*	*Sometimes*	*Often*	*Always*
29. My teenager has chores to do at home.	*Rarely*	*Sometimes*	*Often*	*Always*
30. I teach my teenager how to perform home-living skills (e.g., laundry, dishes, car maintenance).	*Rarely*	*Sometimes*	*Often*	*Always*

31. I feel that teachers and the principal encourage parents to be involved at school.	*Rarely*	*Sometimes*	*Often*	*Always*
32. I feel that parents in my teenager's school support one another.	*Rarely*	*Sometimes*	*Often*	*Always*
33. I help my teenager with academic skills they are struggling with.	*Rarely*	*Sometimes*	*Often*	*Always*
34. I talk with my teenager about possible careers they are interested in.	*Rarely*	*Sometimes*	*Often*	*Always*
35. I attend organized family-school associations at my teenager's school (e.g., parent-teacher association meetings).	*Rarely*	*Sometimes*	*Often*	*Always*
36. I talk with school staff about disciplinary procedures and problems.	*Rarely*	*Sometimes*	*Often*	*Always*
37. I provide assistance or check-in with my teenager when they are completing homework.	*Rarely*	*Sometimes*	*Often*	*Always*
38. I talk with my teenager's teachers on the telephone or through email.	*Rarely*	*Sometimes*	*Often*	*Always*
39. I talk about how my teenager is doing in school to family and friends.	*Rarely*	*Sometimes*	*Often*	*Always*
40. I talk to my teenager about how school has helped me.	*Rarely*	*Sometimes*	*Often*	*Always*

Appendix B

Family Involvement Questionnaire- Elementary Version

Directions: For each item, please circle how often (*Rarely, Sometimes, Often, or Always*) you perform the activity.

1. I attend conferences with the teacher to talk about my child's learning or behavior.	*Rarely*	*Sometimes*	*Often*	*Always*
2. I contact the teacher or principal to get information.	*Rarely*	*Sometimes*	*Often*	*Always*
3. I talk to my child's teacher about his/her daily school routine.	*Rarely*	*Sometimes*	*Often*	*Always*
4. I limit my child's TV and video watching.	*Rarely*	*Sometimes*	*Often*	*Always*
5. I review my child's school work.	*Rarely*	*Sometimes*	*Often*	*Always*
6. I take my child to the public library.	*Rarely*	*Sometimes*	*Often*	*Always*
7. I suggest classroom activities and school trips to the teacher.	*Rarely*	*Sometimes*	*Often*	*Always*
8. I attend parent workshops or training offered by my child's school.	*Rarely*	*Sometimes*	*Often*	*Always*
9. I talk to my child's teacher about the classroom rules.	*Rarely*	*Sometimes*	*Often*	*Always*
10. I take my child to school in the morning.	*Rarely*	*Sometimes*	*Often*	*Always*
11. I keep a regular morning and bedtime schedule for my child.	*Rarely*	*Sometimes*	*Often*	*Always*
12. I praise my child for his/her school work in front of the teacher.	*Rarely*	*Sometimes*	*Often*	*Always*
13. I share stories with my child about when I was in school.	*Rarely*	*Sometimes*	*Often*	*Always*
14. I take my child places in the community to learn specific things (museum, church).	*Rarely*	*Sometimes*	*Often*	*Always*
15. I call the teacher if I am concerned about things that my child tells me about school.	*Rarely*	*Sometimes*	*Often*	*Always*
16. I talk to the teacher about how my child gets along with his/her classmates in	*Rarely*	*Sometimes*	*Often*	*Always*

school.				
17. I check to see that my child has a place at home where books and school materials are kept.	*Rarely*	*Sometimes*	*Often*	*Always*
18. I volunteer in my child's classroom.	*Rarely*	*Sometimes*	*Often*	*Always*
19. I participate in fundraising activities at my child's school.	*Rarely*	*Sometimes*	*Often*	*Always*
20. The teacher and I write notes to each other about my child or school activities.	*Rarely*	*Sometimes*	*Often*	*Always*
21. I talk to the teacher about my child's accomplishments.	*Rarely*	*Sometimes*	*Often*	*Always*
22. I read with my child.	*Rarely*	*Sometimes*	*Often*	*Always*
23. I bring home learning materials for my child (tapes, videos, books).	*Rarely*	*Sometimes*	*Often*	*Always*
24. I go on class trips with my child.	*Rarely*	*Sometimes*	*Often*	*Always*
25. I participate in parent and family social activities at my child's school.	*Rarely*	*Sometimes*	*Often*	*Always*
26. I maintain clear rules at home that my child should obey.	*Rarely*	*Sometimes*	*Often*	*Always*
27. I talk to my child's teacher about his/her difficulties at school.	*Rarely*	*Sometimes*	*Often*	*Always*
28. I ask my child how his/her day was at school.	*Rarely*	*Sometimes*	*Often*	*Always*
29. I arrange times at home when my child's classmates can come and play.	*Rarely*	*Sometimes*	*Often*	*Always*
30. I talk with other parents about school meetings and events.	*Rarely*	*Sometimes*	*Often*	*Always*
31. I pick my child up from school in the afternoon.	*Rarely*	*Sometimes*	*Often*	*Always*
32. I talk with people at my child's school about training or career development opportunities for myself.	*Rarely*	*Sometimes*	*Often*	*Always*
33. I talk with my child's teacher about school work he/she is expected to practice at home.	*Rarely*	*Sometimes*	*Often*	*Always*
34. I talk with my child's teacher about our personal and family matters if it effects my child's work at school.	*Rarely*	*Sometimes*	*Often*	*Always*

35. My child has chores to do at home.	*Rarely*	*Sometimes*	*Often*	*Always*
36. I feel that teachers and the principal encourage parents to be involved at school.	*Rarely*	*Sometimes*	*Often*	*Always*
37. I feel that parents in my child's school support one another.	*Rarely*	*Sometimes*	*Often*	*Always*
38. I do creative activities with my child (like singing, drawing, and story telling).	*Rarely*	*Sometimes*	*Often*	*Always*
39. I spend time with my child working on math skills.	*Rarely*	*Sometimes*	*Often*	*Always*
40. I attend organized family-school associations at my child's school.	*Rarely*	*Sometimes*	*Often*	*Always*
41. I talk with my child's teacher or principal about disciplinary problems.	*Rarely*	*Sometimes*	*Often*	*Always*
42. I help my child with homework.	*Rarely*	*Sometimes*	*Often*	*Always*
43. I talk with my child's teacher on the telephone.	*Rarely*	*Sometimes*	*Often*	*Always*
44. I talk about how my child is doing in school to family and friends.	*Rarely*	*Sometimes*	*Often*	*Always*
45. I talk to my child about how school has helped me.	*Rarely*	*Sometimes*	*Often*	*Always*
46. I meet with other families from my child's classroom outside of school.	*Rarely*	*Sometimes*	*Often*	*Always*

Appendix C

Demographic Questionnaire

Directions: For each question, please select only one answer. If more than one answer is true for you or your family, please select the answer that fits best.

1) What high school does your child(ren) attend?
□ My child's school is not listed
□ Option One
□ Option Two
□ Option Three
□ Option Four
□ Option Five

2) What is your relationship to the student(s)?
□ Mother
□ Father
□ Step Parent
□ Grandparent
□ Aunt/Uncle
□ Foster Parent
□ Other

3) What is your current age?
[   ] *Please enter*

4) To which racial or ethnic group(s) does your family *most* identify?

□ African-American   □ Multiracial
□ Asian or Pacific Islanders   □ Native American or Inuit
□ Caucasian or White   □ Other
□ Latino or Hispanic

5) Does your child (one or more) have an Individualized Education Plan (receiving special education services)?
□ Yes
□ No
□ Don't Know

Appendix D

School Administrator Permission Form

On behalf of the School Psychology Program at Minnesota State University – Mankato, thank you for your consideration and interest in our research. We have received approval from the Institutional Review Board at Minnesota State University-Mankato and are seeking to move forward gathering family involvement data in your school district. At this time we are asking for your permission to proceed with research.

It is our plan to share these outcomes with the participating schools and possibly make recommendations on how each school site can improve their family involvement practices. This research is being conducted by Katlyn Grover, who will be directly supervised by Dr. Daniel Houlihan. We are asking for your participation in this research because we feel this would be of great use and benefit to your schools to use the information we obtain to improve family involvement practices in your high school. We ask that you read this form before agreeing to participate in the research.

Purpose
Past research has demonstrated that family involvement in education is an important contributor to children's school success. Children from families that have high rates of involvement typically earn higher grades, perform better on standardized assessments, earned more course credits, and are more likely to remain enrolled in school and graduate (Catsambis, 1988; Fan & Chen, 2001; Jeynes, 2005). Empirical investigations on family involvement in secondary schools are limited. However, there is a strong base of research investigating family involvement in early childhood and primary school settings. What we expect to see is that these factors of family involvement found in elementary settings are comparable to factors in secondary settings.

The purpose of this study is to validate the Family Involvement Questionnaire for use in high school settings. Responses to this questionnaire will also give us insights as to specific practices that may be manipulated or interventions that schools may put into place, which can increase family involvement.

Procedures
If you agree to participate in this research by signing this consent form, we ask that you release contact information for your 9th through 12th grade parents to the primary investigator, or disperse mailing packets and/or survey links to the appropriate parents directly. If you choose to have us disperse the research materials, then the contact information we require would be either parent email addresses or mailing addresses. We will then contact the parents for their voluntary informed consent to participate in this study. Parents who choose to participate in the study will complete two short questionnaires, the Family Involvement Questionnaire and a demographic questionnaire.

The Family Involvement Questionnaire will ask parents about their involvement with their child's school and academic well-being. The demographic questionnaire will ask basic questions

about the parent, their child(ren), and their family's make-up. These two questionnaires should take approximately 20 minutes to complete.

If you choose to have parents contacted by postal mail, then parents who agree to participate will be asked to return their completed Family Involvement Questionnaire and demographic questionnaire to us via an envelope provided to them.

If you choose to have parents contacted through email, then parents who agree to participate will be directed to an online survey system (through Qualtrics). Parents will initially be directed to a consent form, which they will need to agree to before they may complete the Family Involvement Questionnaire and demographic questionnaire. Once they have completed both questionnaires online, their responses will be sent to a secured online database were we can retrieve them.

Risks and Benefits
There is little risk involved with the study. However, some parents may experience feelings of embarrassment for the answers that they may choose. This risk should be mitigated by the fact that responses will be anonymous.

Although, responses will be anonymous, whenever one works with online technology there is always the risk of compromising privacy, confidentiality, and/or anonymity. If you or a participating parent would like more information about the specific privacy and anonymity risks posed by online surveys, please contact the Minnesota State University, Mankato Information and Technology Services Help Desk (507-389-6654) and ask to speak to the Information Security Manager.

There are no direct benefits for the parents participating in this research, but the results of this study may help guide your school to improve family involvement practices.

Confidentiality
All records of this research will be kept private. All assessment data and parent contact information will remain confidential. In any sort of report, we will not include any information that will make it possible to identify a parent or school. Parent informed consent forms are anonymous, meaning we will not be collecting any individually identifiable information from participating parents such as names or birthdays.

School privacy will be maintained by using a false name for the school, and all other individuals that may be identifiable in this research. Additionally, these false names will be used in all communications and all research published from this data.

All forms for this research will be kept in a locked file cabinet in a research storage room at Minnesota State University-Mankato. Only the researchers have access to the records. These records will be kept for 3 years, and then they will be destroyed.

Voluntary nature of the research project
Your decision whether or not to participate in this research will not affect your current or future relations with the School Psychology Program at Minnesota State University, Mankato, or the researchers. Even if you sign this permission form, you are free to stop participation at any time.

Contact
The researchers conducting this project are Dr. Daniel Houlihan and Katlyn Grover. You may contact the researchers at the University by calling (507) 389-2724 or by email daniel.houlihan@mnsu.edu or katlyn.grover@mnsu.edu.

If you have any questions or concerns regarding the treatment of human subjects, contact: Dean Barry Ries, Administrator of the Institutional Review Board at (507) 389-2321.

I have read the above information and understand that participation is voluntary and I may cease participation at any time. I consent to district participation in this research project.

_____   _____

Name of School Administrator (print)   Position

_____   _____

Signature of School Administrator   Date

_____   _____

Signature of Principal Investigator   Date

I consent for the researchers to recruit parents from the following high schools in the district to participate:

_____

I consent for the researchers to recruit parents through the following source.

     1) Postal Mailing   (   ) Yes   (   ) No

     2) Email   (   ) Yes   (   ) No

Select one:

    (   ) I authorize the release of the above parent contact information to the primary investigator.

    (   ) I will disperse the materials (mailing packets or email link) to the parents directly. The researchers will provide me with blank mailing packets or the survey link.

MSU-Mankato IRBNet ID# 616144
Date of MSU-Mankato IRB approval: 8/21/2014

Appendix E

Parent Email Example

Sample Email to Parents-Initial

Dear Parent,

*** High School is partnering with Minnesota State University-Mankato to examine our family involvement practices. We are asking every parent of a 9th through 12th grade student to complete a short survey. This survey will ask questions about your current involvement in your teen's education at school and home. Your feedback is very important and will be used to identify school strengths and areas we can improve upon.

Please click on the link below to complete the survey. You will initially be taken to a consent page describing the study, the following pages will have the questions.

https://mnsu.co1.qualtrics.com/SE/?SID=SV_b7uRkyvUANP36cZ

*** High School and Minnesota State University-Mankato thank you for your time!

Sample Email to Parents-Follow-up

Dear Parent,

This is a friendly reminder for those parents who have yet to complete our family involvement survey. We are asking every parent of a 9th through 12th grade student to complete this short survey. Your feedback is very important and will be used to identify school strengths and areas we can improve upon.

Please click on the link below to complete the survey. You will initially be taken to a consent page describing the study, the following pages will have the questions.

https://mnsu.co1.qualtrics.com/SE/?SID=SV_b7uRkyvUANP36cZ

*** High School and Minnesota State University-Mankato thank you for your time!

Appendix F

Parent/Guardian Informed Consent Form Online

Dear Parent,

You are invited to participate in a research study on family involvement in high schools. The purpose of this project is to validate a family involvement questionnaire for use in 9th through 12th grades. If you agree to participate, you will be asked questions about your family and your involvement in your high school child's school and academic well-being.

If you agree to participate, please select the "Yes" button at the bottom of this page. You will then be directed to complete the Family Involvement Questionnaire and a demographic questionnaire. These questionnaires will take about 15 to 20 minutes to complete. Once completed, the survey company will send your responses to the researchers.

Participation in this project is voluntary, and you may stop at any time by closing your web browser. Your decision whether to participate will not affect your relationship with Minnesota State University-Mankato.

We want the process of participating in this study to be enjoyable for you. However, some people may experience feelings of embarrassment for the answers that they may choose. This risk should be reduced by the fact that all responses will be anonymous. Although, responses will be anonymous, whenever one works with online technology there is always the risk of compromising privacy, confidentiality, and/or anonymity. If you would like more information about the specific privacy and anonymity risks posed by online surveys, please contact the Minnesota State University, Mankato Information and Technology Services Help Desk (507-389-6654) and ask to speak to the Information Security Manager.

There are no direct benefits to you as a participant in this research, but the results of this study may help guide your school to improve their family involvement practices.

The fact that you are participating in our study will not be revealed to anyone at your school, nor will your name appear in any reports or presentations. All data collected from this research will be kept in a locked file cabinet in a research storage room at Minnesota State University-Mankato. Only the researchers have access to the records. These records will be kept for 3 years, and then they will be destroyed.

This study is being conducted by Katlyn Grover, under the direct supervision of Dr. Daniel Houlihan. If you have any questions, please feel free to contact the researchers, via email at katlyn.grover@mnsu.edu, or daniel.houlihan@mnsu.edu or via phone at (507) 389-2724. If you have any questions about your rights as a participant, please contact Dean Barry Ries, Administrator of the Institutional Review Board at (507) 389-2321.

Submitting the completed questionnaires will indicate your informed consent to participate in this study, and indicate your assurance that you are at least 18 years of age and a parent of a high school student.

You may print a copy of this page for your future reference.

Thank you so much for your consideration!

PARTICIPATION

(**YES**) I agree to participate in this study.

If you do not want to participate in this study you may close this web browser.

MSU-Mankato IRBNet ID# 616144

Date of MSU-Mankato IRB approval: 8/21/2014

Appendix G

School Feedback Report Template

Family Involvement Study High School

Grades 9th - 12th
December 2014 – February 2015

*** High School

Individual School Feedback Report

School Psychology Doctoral Program

Researcher Contact Information

Primary Investigator:
Dr. Daniel Houlihan
Professor of Psychology
Minnesota State University-Mankato
Psychology Department
23 Armstrong Hall
Mankato, MN 56001
(507) 389-2724
daniel.houlihan@mnsu.edu

Student Investigator:
Katlyn Grover, M.S.
Doctoral Candidate-School Psychology
Minnesota State University-Mankato
Psychology Department
23 Armstrong Hall
Mankato, MN 56001
katlyn.grover@mnsu.edu

MSU-Mankato's Institutional Review Board (IRB)
Dean Barry Ries
Administrator of the IRB
(507) 389-2321
MSU-Mankato IRBNet ID# 616144
Date of MSU-Mankato IRB approval: 8/21/2014

MSU-Mankato's IRB protects the welfare of human research participants. The IRBs purpose is to approve, monitor, and review all research involving human participants. Questions regarding participants' rights may be directed to the IRB.

March 2, 2015

On behalf of Minnesota State University-Mankato and the School Psychology Doctoral Program we want to thank you for your participation in our family involvement study. This winter we had five high schools in southern Minnesota participate in our study, and over five hundred parents complete our online survey.

This is your school district's individual feedback report. You will find data analyzed from your responding parents as well as data from our entire sample.

- On page 5 you will find demographic information of your responding parents.

- On page 6 you will find the average parent responses for the three scales; home-school communication, home-based involvement activities, and school-based involvement activities. This area provides an overall view on how your parents' rated their level of involvement in each area. A comparison to our entire sample is also provided.

- On pages 7 to 10 you will find your parent responses for each of the 40 items on the questionnaire. You can examine each item by looking at the mean response and the distribution of responses across the four choices (*rarely, sometimes, often* or *always*).

- On page 11 you will find a strength and weakness report. This section will provide specific behaviors your parents' rated as *often* or *always* performing, and behaviors they rated as *sometimes* or *rarely* performing.

- On pages 12 to 15 you will find data obtained from our entire sample. While each school site has unique family involvement practices, we understand that you may be interested in comparing your school's results to others in our sample. Individual item responses for all participating parents' are provided.

Again, thank you for your participation. If you should have any questions please do not hesitate to contact either Dr. Daniel Houlihan or Katlyn Grover with the contact information provided.

Sincerely,

Katlyn Grover, M.S.   Dr. Daniel Houlihan
Doctoral Candidate   Professor
School Psychology   Psychology Department
MSU-Mankato   MSU-Mankato

Demographic Information: *** High School

1) What is your relationship to the student(s)?

#	Answer	Response	%
1	Mother		%
2	Father		%
3	Step Parent		%
4	Grandparent		%
5	Aunt/Uncle		%
6	Foster Parent		%
7	Other		%
	Total		**100%**

2) What is your current age?

Mean = * years
Maximum = * years
Minimum = * years

3) To which racial or ethnic group does your family most identify?

#	Answer	Response	%
1	African-American		%
2	Asian or Pacific Islanders		%
3	Caucasian or White		%
4	Latino or Hispanic		%
5	Multiracial		%
6	Native American		%
7	Other		%
	Total		**100%**

4) Does your child (one or more) have an Individualized Education Plan (receiving special education services?)

#	Answer	Response	%
1	Yes		%
2	No		%
	Total		**100%**

** parents indicated that they did not know if their child was receiving special education services.

Scale Analysis: *** High School
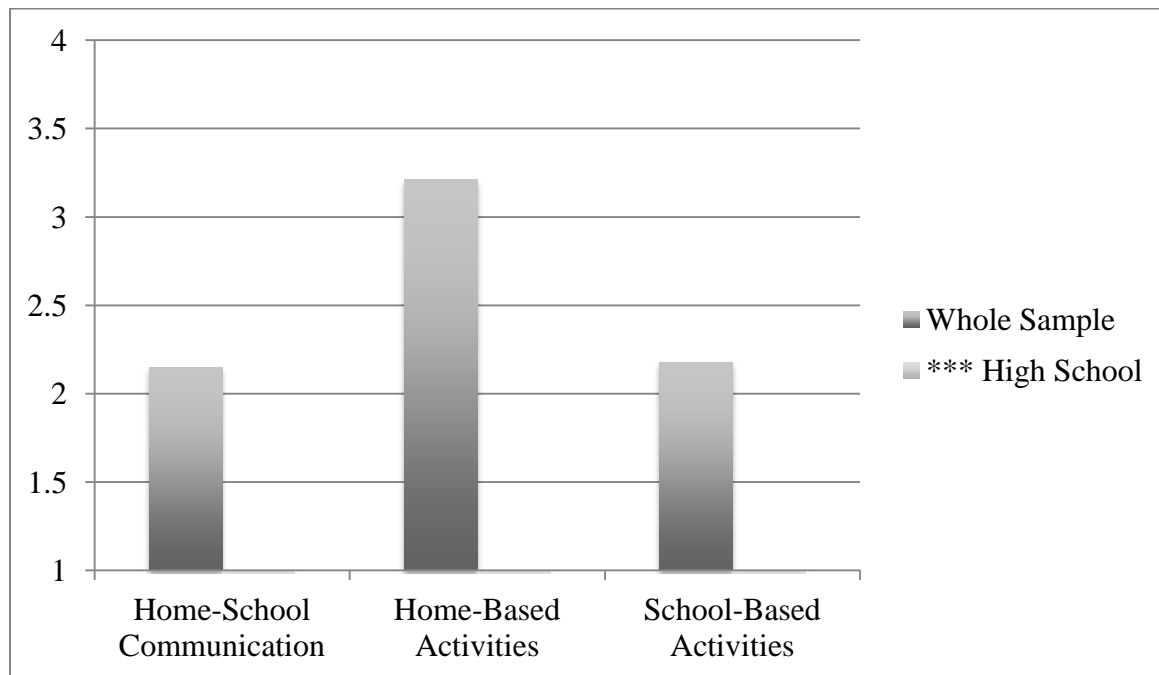
*Scale ranges from 1 to 4 (1 = Rarely, 2 = Sometimes, 3 = Often, 4 = Always)

Whole Sample Scale Means
- Home-School Communication = 2.15
- Home-Based Activities = 3.21
- School-Based Activities = 2.18

*** Scale Means
- Home-School Communication = **
- Home-Based Activities = **
- School-Based Activities = **

Individual Item Analysis: *** High School

#	Question	Rarely	Sometimes	Often	Always	Total Responses	Mean
1	I attend conferences with teachers to talk about my teenager's learning or behavior.						
2	I contact my teenager's school to get information.						
3	I limit my teenager's TV watching or computer time at home.						
4	I make sure my teenager completes their homework.						
5	I suggest activities or school trips to teachers.						
6	I attend parent workshops or trainings offered by my teenager's school.						
7	I talk to school staff about school and classroom rules.						
8	I make sure that my teenager has a way to get to school in the morning.						
9	I share stories with my teenager about when I was in school.						
10	I ensure that my teenager has resources available to research post-secondary opportunities (ex. colleges, careers).						

Scale ranges from 1 to 4 (1 = Rarely, 2 = Sometimes, 3 = Often, 4 = Always)

#	Question	Rarely	Sometimes	Often	Always	Total Responses	Mean
11	I communicate with school staff if I am concerned about things that my teenager tells me about school.						
12	I talk to school staff about preparing my teenager for life after high school.						
13	I ensure that my teenager has a quiet place at home where they can complete schoolwork.						
14	I volunteer at my teenager's school.						
15	I participate in fundraising activities at my teenager's school.						
16	I talk to the teachers about my teenager's accomplishments.						
17	I bring home learning or post-secondary materials for my teenager (ex. books, videos, magazines, brochures).						
18	I participate in community and family social activities at my teenager's school (ex. sports games, plays, carnivals).						
19	I maintain clear rules at home that my teenager should obey.						
20	I talk to school staff when my teenager has difficulties at school.						

Scale ranges from 1 to 4 (1 = Rarely, 2 = Sometimes, 3 = Often, 4 = Always)

#	Question	Rarely	Sometimes	Often	Always	Total Responses	Mean
21	I ask my teenager how his/her day was at school.						
22	I encourage my teenager to invite their friends to our home.						
23	I talk with other parents about school meetings and events.						
24	I make sure that my teenager has a way to get to home from school in the afternoon.						
25	I talk with people at my teenager's school about training or career development opportunities for myself.						
26	I talk with school staff about schoolwork my teenager is expected to complete at home.						
27	I talk with school staff about our personal and family matters if it affects my teenager's work at school.						
28	I talk with my teenager about what their life will be like after they graduate high school.						
29	My teenager has chores to do at home.						
30	I teach my teenager how to perform home-living skills (ex. laundry, dishes, car maintenance).						

Scale ranges from 1 to 4 (1 = Rarely, 2 = Sometimes, 3 = Often, 4 = Always)

#	Question	Rarely	Sometimes	Often	Always	Total Responses	Mean
31	I feel that teachers and the principal encourage parents to be involved at school.						
32	I feel that parents in my teenager's school support one another.						
33	I help my teenager with academic skills they are struggling with.						
34	I talk with my teenager about possible careers they are interested in.						
35	I attend organized family-school associations at my teenager's school (ex. parent-teacher association meetings).						
36	I talk with school staff about disciplinary procedures and problems.						
37	I provide assistance or check-in with my teenager when they are completing homework.						
38	I talk with my teenager's teachers on the telephone or through email.						
39	I talk about how my teenager is doing in school to family and friends.						
40	I talk to my teenager about how school has helped me.						

Scale ranges from 1 to 4 (1 = Rarely, 2 = Sometimes, 3 = Often, 4 = Always)

Strengths and Weaknesses Report: *** High School

Items parents indicated they performed *often* or *always* include:
-
-
-
-
-

Items parents indicated they perform *rarely* or *sometimes* include:
-
-
-
-
-

Whole Sample: Individual Item Analysis

#	Question	Rarely	Sometimes	Often	Always	Total Responses	Mean
1	I attend conferences with teachers to talk about my teenager's learning or behavior.	99	128	119	175	521	**2.71**
2	I contact my teenager's school to get information.	78	226	126	91	521	**2.44**
3	I limit my teenager's TV watching or computer time at home.	116	225	131	48	520	**2.21**
4	I make sure my teenager completes their homework.	26	75	196	225	522	**3.19**
5	I suggest activities or school trips to teachers.	400	79	27	13	519	**1.33**
6	I attend parent workshops or trainings offered by my teenager's school.	355	106	41	17	519	**1.46**
7	I talk to school staff about school and classroom rules.	250	181	57	33	521	**1.76**
8	I make sure that my teenager has a way to get to school in the morning.	6	4	13	498	521	**3.93**
9	I share stories with my teenager about when I was in school.	4	104	207	206	521	**3.18**
10	I ensure that my teenager has resources available to research post-secondary opportunities (ex. colleges, careers).	7	62	136	317	522	**3.46**

Scale ranges from 1 to 4 (1 = Rarely, 2 = Sometimes, 3 = Often, 4 = Always)

#	Question	Rarely	Sometimes	Often	Always	Total Responses	Mean
11	I communicate with school staff if I am concerned about things that my teenager tells me about school.	49	169	125	177	520	**2.83**
12	I talk to school staff about preparing my teenager for life after high school.	200	179	92	50	521	**1.98**
13	I ensure that my teenager has a quiet place at home where they can complete schoolwork.	5	26	144	346	521	**3.60**
14	I volunteer at my teenager's school.	228	184	64	45	521	**1.86**
15	I participate in fundraising activities at my teenager's school.	133	181	124	82	520	**2.30**
16	I talk to the teachers about my teenager's accomplishments.	111	211	126	73	521	**2.31**
17	I bring home learning or post-secondary materials for my teenager (ex. books, videos, magazines, brochures).	210	178	86	47	521	**1.94**
18	I participate in community and family social activities at my teenager's school (ex. sports games, plays, carnivals).	51	111	157	200	519	**2.97**
19	I maintain clear rules at home that my teenager should obey.	3	23	164	330	520	**3.58**
20	I talk to school staff when my teenager has difficulties at school.	53	127	151	189	520	**2.92**

Scale ranges from 1 to 4 (1 = Rarely, 2 = Sometimes, 3 = Often, 4 = Always)

#	Question	Rarely	Sometimes	Often	Always	Total Responses	Mean
21	I ask my teenager how his/her day was at school.	1	9	118	391	519	**3.73**
22	I encourage my teenager to invite their friends to our home.	8	74	175	260	517	**3.33**
23	I talk with other parents about school meetings and events.	77	152	180	107	516	**2.61**
24	I make sure that my teenager has a way to get to home from school in the afternoon.	3	11	22	482	518	**3.90**
25	I talk with people at my teenager's school about training or career development opportunities for myself.	393	73	29	23	518	**1.39**
26	I talk with school staff about schoolwork my teenager is expected to complete at home.	168	213	92	46	519	**2.03**
27	I talk with school staff about our personal and family matters if it affects my teenager's work at school.	238	150	67	62	517	**1.91**
28	I talk with my teenager about what their life will be like after they graduate high school.	10	82	218	207	517	**3.20**
29	My teenager has chores to do at home.	11	78	177	253	519	**3.29**
30	I teach my teenager how to perform home-living skills (ex. laundry, dishes, car maintenance).	6	65	155	293	519	**3.42**

Scale ranges from 1 to 4 (1 = Rarely, 2 = Sometimes, 3 = Often, 4 = Always)

#	Question	Rarely	Sometimes	Often	Always	Total Responses	Mean
31	I feel that teachers and the principal encourage parents to be involved at school.	98	186	149	83	516	**2.42**
32	I feel that parents in my teenager's school support one another.	65	235	167	49	516	**2.39**
33	I help my teenager with academic skills they are struggling with.	20	130	186	181	517	**3.02**
34	I talk with my teenager about possible careers they are interested in.	6	51	214	247	518	**3.36**
35	I attend organized family-school associations at my teenager's school (ex. parent-teacher association meetings).	251	141	72	51	515	**1.85**
36	I talk with school staff about disciplinary procedures and problems.	260	163	55	39	517	**1.75**
37	I provide assistance or check-in with my teenager when they are completing homework.	35	124	203	156	518	**2.93**
38	I talk with my teenager's teachers on the telephone or through email.	120	222	99	76	517	**2.25**
39	I talk about how my teenager is doing in school to family and friends.	26	143	218	130	517	**2.87**
40	I talk to my teenager about how school has helped me.	30	160	187	140	517	**2.85**

Scale ranges from 1 to 4 (1 = Rarely, 2 = Sometimes, 3 = Often, 4 = Always)