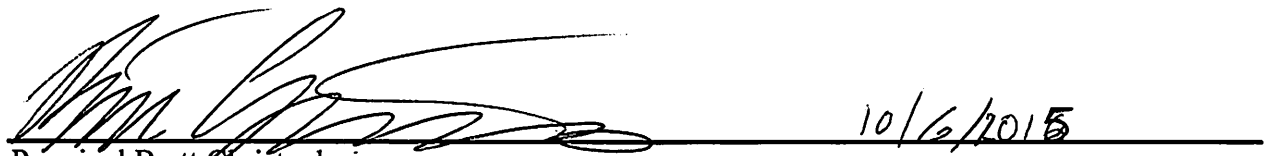
Heritage University Special Project Permission to Conduct Research

Permission has been given for Binita K. Dahal, by Brett Christopher, to conduct an action research project as part of the Heritage University Masters Degree Program entitled Teacher Leadership, with a concentration of English as a Second Language. The Hypothesis of this study is the following:

Middle school students who participate in extended day of math intervention class with parental support will have higher Math grade than who participate in extended day of math intervention with limited or no parental support. Middle school students will report that they will feel a confidence and improved ability in mathematics as a result of participating in extended day of Math intervention classes.

A copy of the project survey will be presented to Brett Christopher before being given. The results of the study will be shared with the Principal and other building departments as appropriate.

Signature



10/6/2015

Principal Brett Christopher

Showalter Middle School

Date 10/6/2015

Novack, W. P. (1996). *Inviting school success: A self-concept approach to teaching, learning, and democratic practice (3rd ed.).* Belmont, CA: Wadsworth Publishing Company .

Oxford, R. (1994). Individual differences among your students: Why a single method can't work. *Journal of Intensive English studies* , 7, 27-42.

Peterson, J. M. (1989). Remediation Is No Remedy. *Educational Leadership*, 24-25.

Protheroe, N. (2001). Improving Teaching and Learning with Data-Bases Decisions: Asking the Right Questions ans Acting on the Answeres. *Education Research Services*, 356-359.

Sapon-Shevin, M. (2003). *Inclusion a matter of social justice. Education Leadership*, 61(2), 25-28.

Taras, M. (2005). Assessment: Summative and Formative: Some Theoretical Reflections. *British Journal of Educational Studies*, 466-478.

Tobias, S. (1998). Anxiety and mathematics. *Harvard Education Review*, 50, 63-70.

Fusarelli, L. D. (2004). The potential impact of the no child left behind act on equity and diversity in American education. *Educational Policy*, 71-94.

Frattura, E., & Capper, C. A. (2007). *Leading for Social Justice: Transforming schools for all learners.* Thousand Oaks, CA: Corwin Press.

Gersten, J. R. (2005). Early identification ans intervention for studnets with mathematics disabilities. *Journal of Learning Disabilities* , 38, 293-304.

Goertz, Margaret. 2001. "Standards-Based Accountability: Horse Trade or Horse Whip?" In *From the Capitol to the Classroom: Standards-Based Reform in the States*, ed. Susan Fuhrman. Chicago: University of Chicago Press.

Guild, P. (1994). The culture/learning style connection. . *Educational Leadership*, 16-21.

Introduction: No Child Left Behind. (2005, January 19). Retrieved June 1, 2014, from U.S. Department of Education: http://www2.ed.gov/print/nclb/overview/intro/index.html

Kilpatrick, J. (2006). A Golden Means to Teaching Mathematics Effectively: A Review of "The Middle Path in Math Instruction: Solutions for Improving Math Education" . *National Council of Teachers of Mathematics*, 256-259.

Marine, A. M. (2007). Politics of education standards. *The Elementary School Journal*, 315-329.

Matthew Shirley, K. C. (2013). Exploratory Examination of Relationships between Learning Styles and Creative Thinking in Math Students. *International Journal of Academic Research in Business and Social Sciences*, 506.

McKenzie, R. G. (2009). Obsuring Vital Distinctions: The Oversimplification of Learning Disamilities Within RTI. *Learning Disability Quarterly*, 203-215.

NCTM. (2014). *Principals to Actions Ensuring Mathematical Success for All* . Reston, VA: Library of Congress Cataloging-in-Publications Data.

REFERENCES

Armstrong, J. (1985). National assessment of participation and achievement in women in mathematics. Women and Mathematics: Balancing the equation. Hillsdale, NJ: Erlbaum.

Berliner, D & Casanova, U. (1987). Are you helping boys outperform girls in math? Instructor, 97 (3), 10-11.

DeVinne, P.B. (Ed). (1987)). American Heritage Illustrated Encyclopedic Dictionary. Boston: Houghton Mifflin Company.

Archer, A. (2011). *Explicite Instruction: Effective and Efficient Teaching* . NY: Guilford Publications .

Bumiller, E. (2002, January 9). Focusing on home front, Bush signs education bill. . *The New York Times*, p. p. A16.

Christian T. Doabler, H. F.-W. (2012). Evaluation Three Elementary Mathematics Programs for Presence of Eight Research Based Instructional Design Principals. *Learning Disabilities Quarterly*, 200-211.

Deborah Loewnberg Ball, L. S. (2009). Combining the Development of Practice and the Practice of Development in Teacher Education. *Elementary School Journal 109, no. 5*, 458-74.

Farkas, K. B. (2007). Mathmatics Growth in Early Elementary School: The Roles of Beginnin Knowledge, Student Engagment, and Instruction. *The Elementary School Journal.*

Francis, T. (2011). Responce to Intervention: A Research Based Summary. *Theory into Practice* , 50-67.

Fuchs, L. S. (2008). Intensive Intervention for Students with Mathematics Disabilities: Seven Principals of Effective Practice. *Learning Disabilities Quarterly*, 79-92.

Recommendations

The literature discussed in this study indicated a need for high quality instruction for all students with parental support. In order to gain access to the core instruction students need to be differentiated for in the classroom to meet the need of their learning style and ability. Formative assessment is a must we can no longer wait for a child to fail and look at the "autopsy" summative before we intervene. In order to close the achievement gap students need to be a part of the core instruction with their peers and receive intervention with parental support on the top of the core lesson.

received the parental support and some students did not receive the parental support.

Middle school students who participate in extended day of math intervention class with parental support will have higher Math grade than who participate in extended day of math intervention with limited or no parental support. Middle school students will report that they will feel a confidence and improved ability in mathematics as a result of participating in extended day of Math intervention classes. The researcher predicted that students who received extended day intervention with parental support would perform better and report that their confidence, understanding and participation in core math class improved.

All 15 students took a pre and post standardized math assessment. One is September and one in May. The math assessment was used to show growth to determine if the hypothesis could be accepted or rejected.

Conclusions

After conducting the study, gathering the data, and evaluating the implications, the data supported the hypothesis. The parental supported group made the growth than the non- parental supported group. On a survey the students did report that their confidence, understanding and participation in math class improved.

CHAPTER 5

Summary, Conclusions and Recommendations

Introduction

This chapter has been organized around the following topic: (a) Introduction, (b) Summary, (c) Conclusions and (d) Recommendations. The purpose and nature of the research Project and concern are paraphrased here.

Summary

Schools that receive Title 1 funding must make Adequate Yearly Progress (AYP) on test scores. Meaning each year of 6th grader must do better than the previous year's 6th grader on state tests. Tukwila School District is a Title 1 school that did not meet AYP for the 2013-2014 school year and then again in the 2014 -215 school year. As a result Showalter Middle School started school wide math intervention program.

This researcher had students in the math intervention program and were still not making adequate progress with the intervention models in place. The school decided to extend the day, they wanted to know what type of group would be more effective. Would students participating in a parental support group perform higher on their tests than participating in a non- parental support group.

The research was done with 15 students. All students received the same instruction and support in Math extended after school program. Some students

intervention program and the null hypothesis was rejected. The parental support group showed significant academic growth. The non- parental support group did not show the growth or very little growth compared to the parental support group. Students would pay attention, ask clarifying questions, and do their best work during after school math intervention class. Students would attend school on a regular basis. Parents were involved and support the program. Chapter 5 will summarize the study, draw conclusions, and make recommendations.

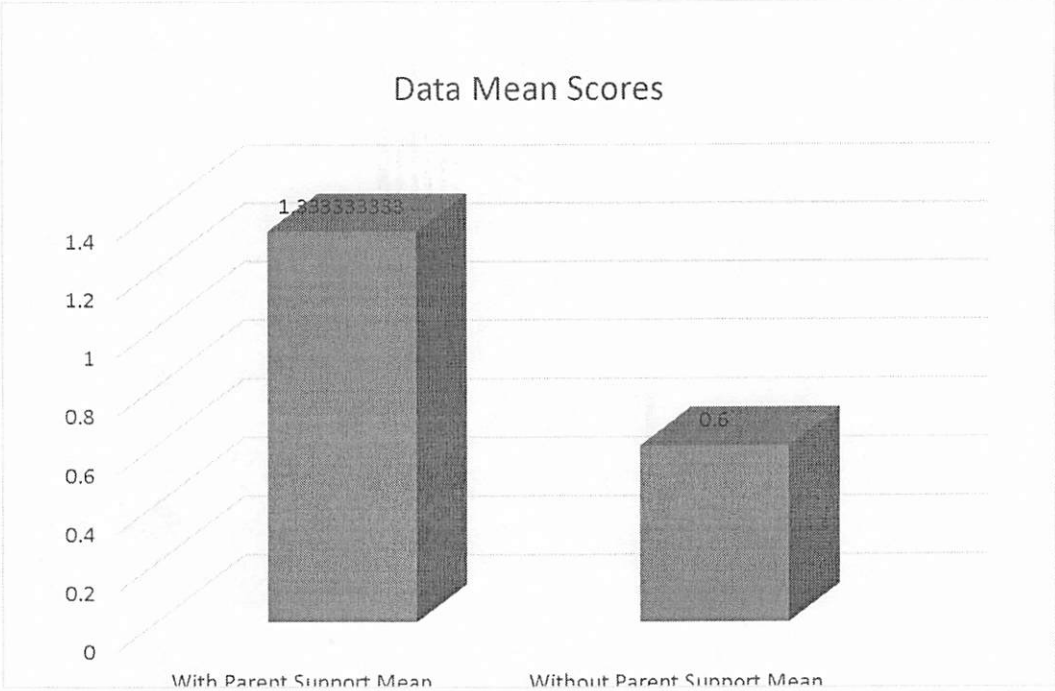
show that the parental support in extended day of math intervention program would have higher Math grade.

The group was chosen for this study collectively had not passed the math over the last 2 years from the middle school after school math intervention groups at Showalter Middle School in Tukwila School District, located in Tukwila, Washington. The project was conducted during the 2015-2016 school year, with 15 students. There were 11 girls in the study group and 4 boys. 42 % of students had passed the math MSP. Showalter Middle had an enrollment of 667 students in the summer count of 2014. Students were separated into the parental support and non- parental support groups.

The purpose of the project was to determine if students participating with the parental support in the extended day program would perform better on their grades and build confident. The students participating without the parental support in the extended day program would not perform better on their grades. Students reported on the survey that their confidence, understanding and participation in math extended day program improved.

Summary

This chapter was designed to analyze the data and identify the findings. From the data, the hypothesis was supported for the parental support extended math



Discussion

The study resulted in findings that were partially consistent with the expectations of the author. The hypothesis of the study was that Middle school students who participate in extended day of math intervention class with parental support will have higher Math grade than who participate in extended day of math intervention with limited or no parental support. Middle school students will report that they will feel a confidence and improved ability in mathematics as a result of participating in extended day of Math intervention classes. The result did

Findings

The hypothesis "Middle school students who participate in extended day of math intervention class with parental support will have higher Math grade than who participate in extended day of math intervention with limited or no parental support" was supported t- test results showed at t- value of 2.36 with a degrees of freedom of 13. A p=0.5 value of 2.16 was needed to show significance. The survey hypothesis Middle School students will report that they will feel confidence and improved ability in mathematics as a result of participating in extended day of Math intervention classes. It was supported for survey question "I felt like I am passing math class with the help of math intervention class." Five respondents strongly agreed to the statement while six respondents agreed. There were three respondents disagreed and one respondent who strongly disagreed to the statement. If the null hypothesis is accepted or rejected, then the hypothesis is either supported or not supported. If the research question is asked, it must be answered.

To the statement "I am able to understand the mathematical vocabulary words." Seven respondents strongly agreed to the statement while three respondents agreed. There were three respondents disagreed and two respondent who strongly disagreed to the statement. The mean score was 3.00.

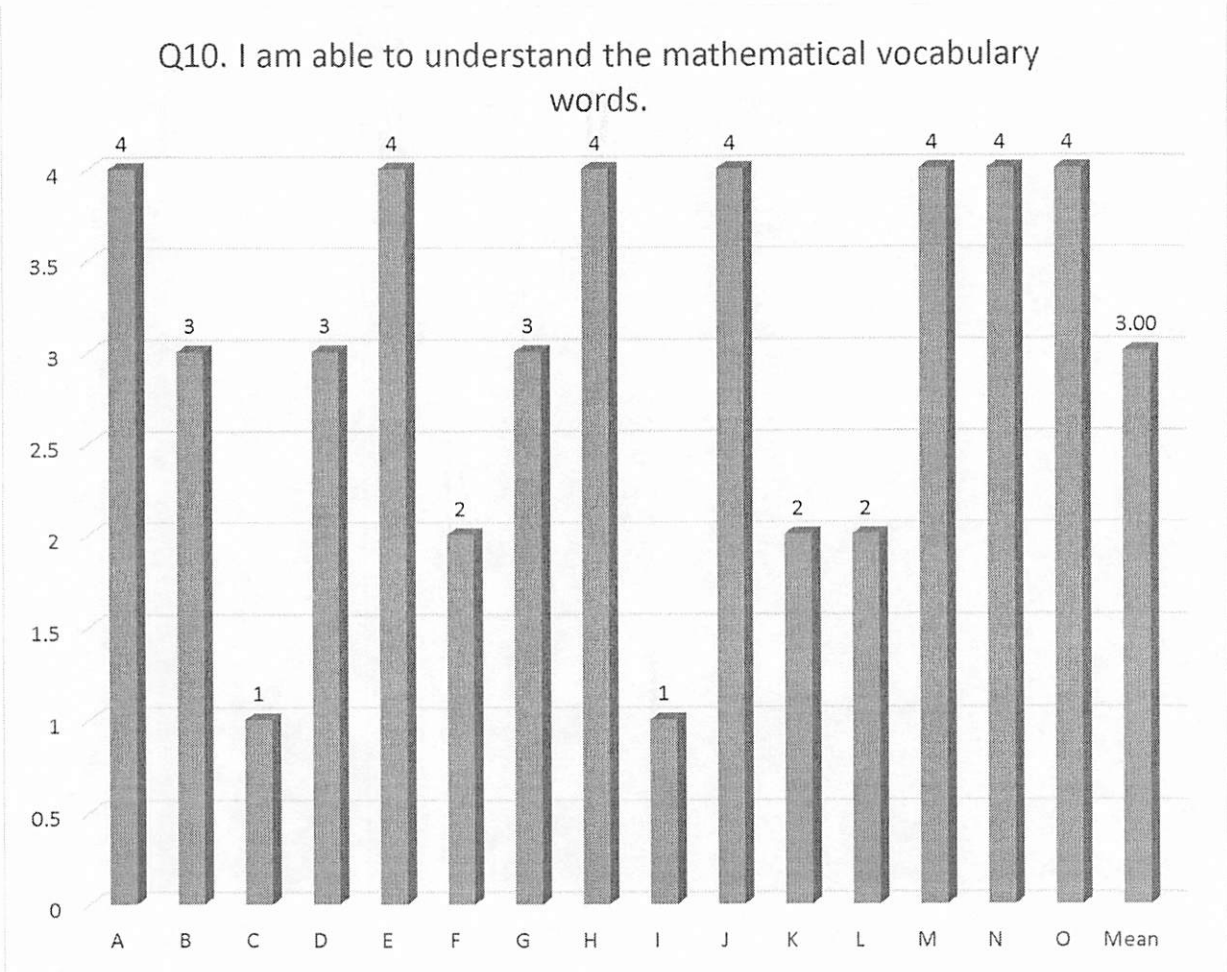


Fig 10

To the statement "My parents were involved." Ten respondents strongly agreed to the statement while one respondents agreed. There were four respondents disagreed and zero respondent who strongly disagreed to the statement. The mean score was 3.40.

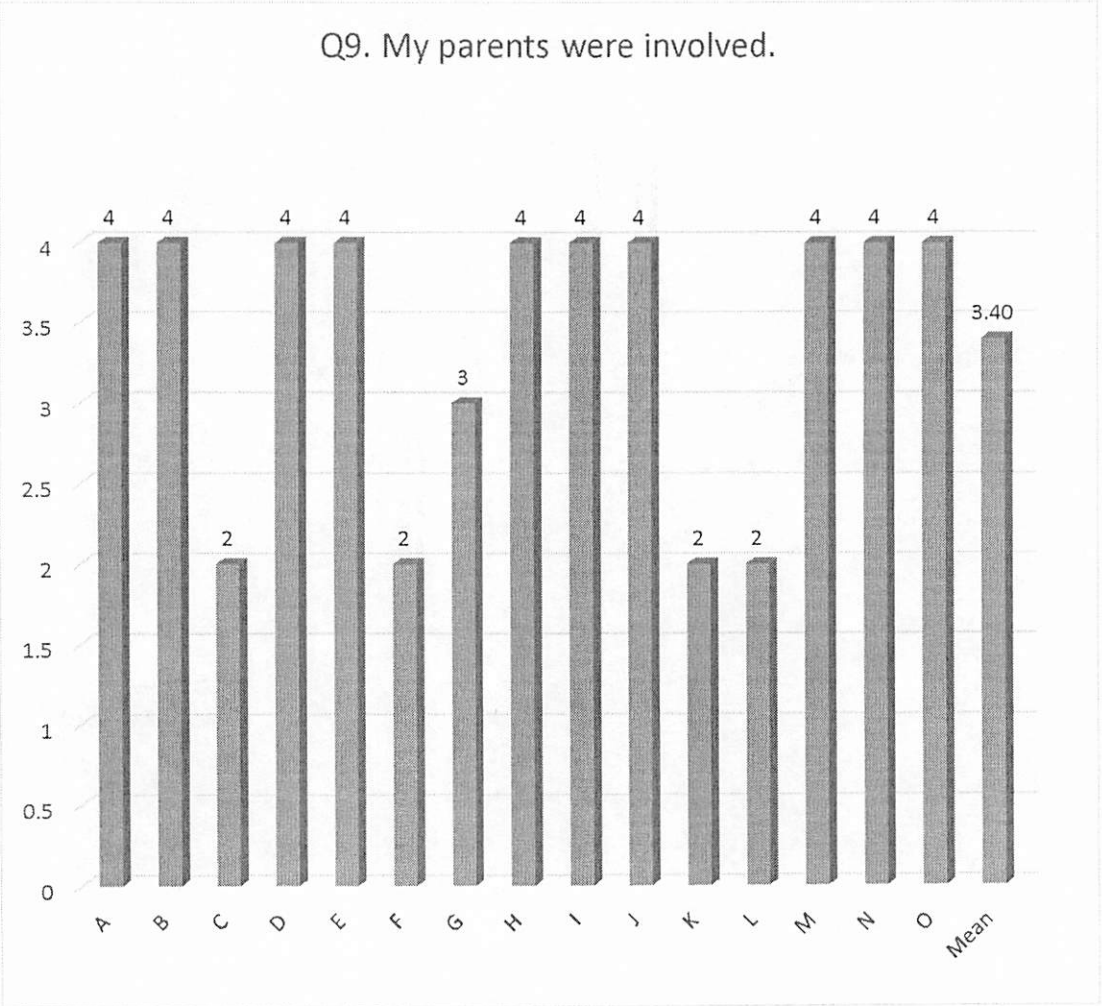


Figure 9

To the statement "I felt like I am passing math class with the help of math intervention class." Five respondents strongly agreed to the statement while six respondents agreed. There were three respondents disagreed and one respondent who strongly disagreed to the statement. The mean score was 3.00.

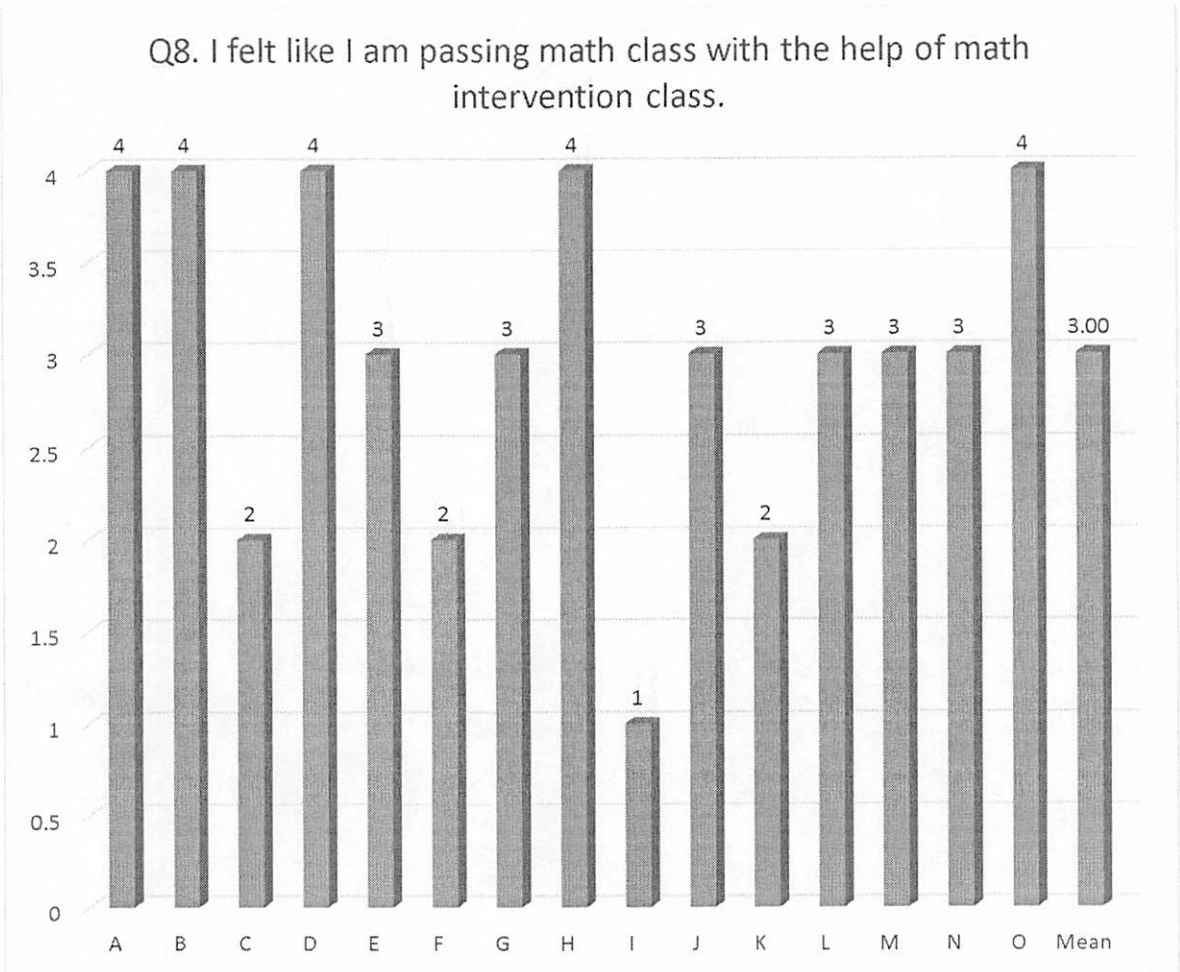


Figure 8

To the statement "I am working on specific challenges in Math." Five respondents strongly agreed to the statement while seven respondents agreed. There were three respondents disagreed and zero respondent who strongly disagreed to the statement. The mean score was 3.13.

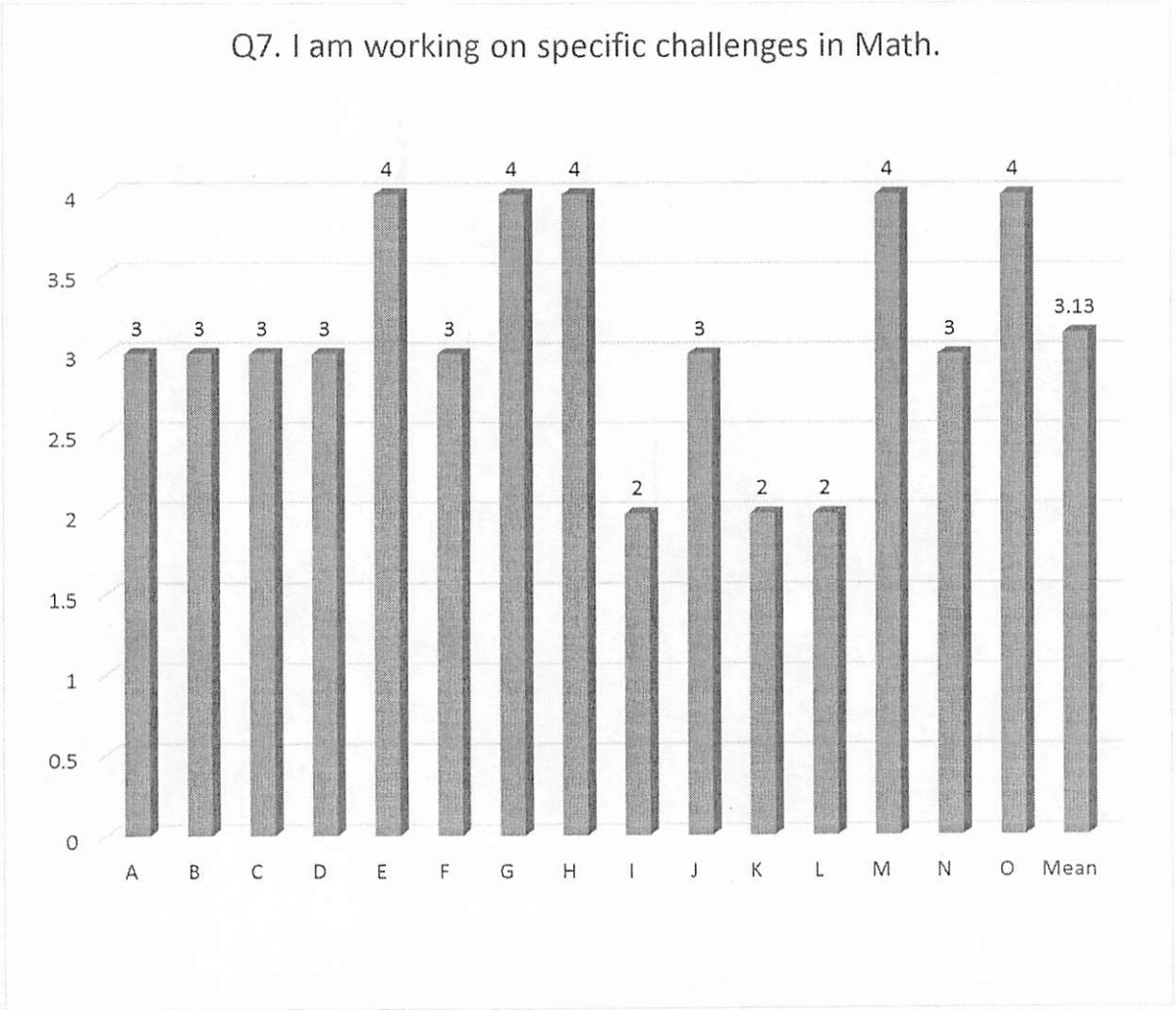


Figure 7

To the statement "I am improving my math skills because of the math intervention class." Nine respondents strongly agreed to the statement while two respondents agreed. There were four respondents disagreed and zero respondent who strongly disagreed to the statement. The mean score was 3.33.

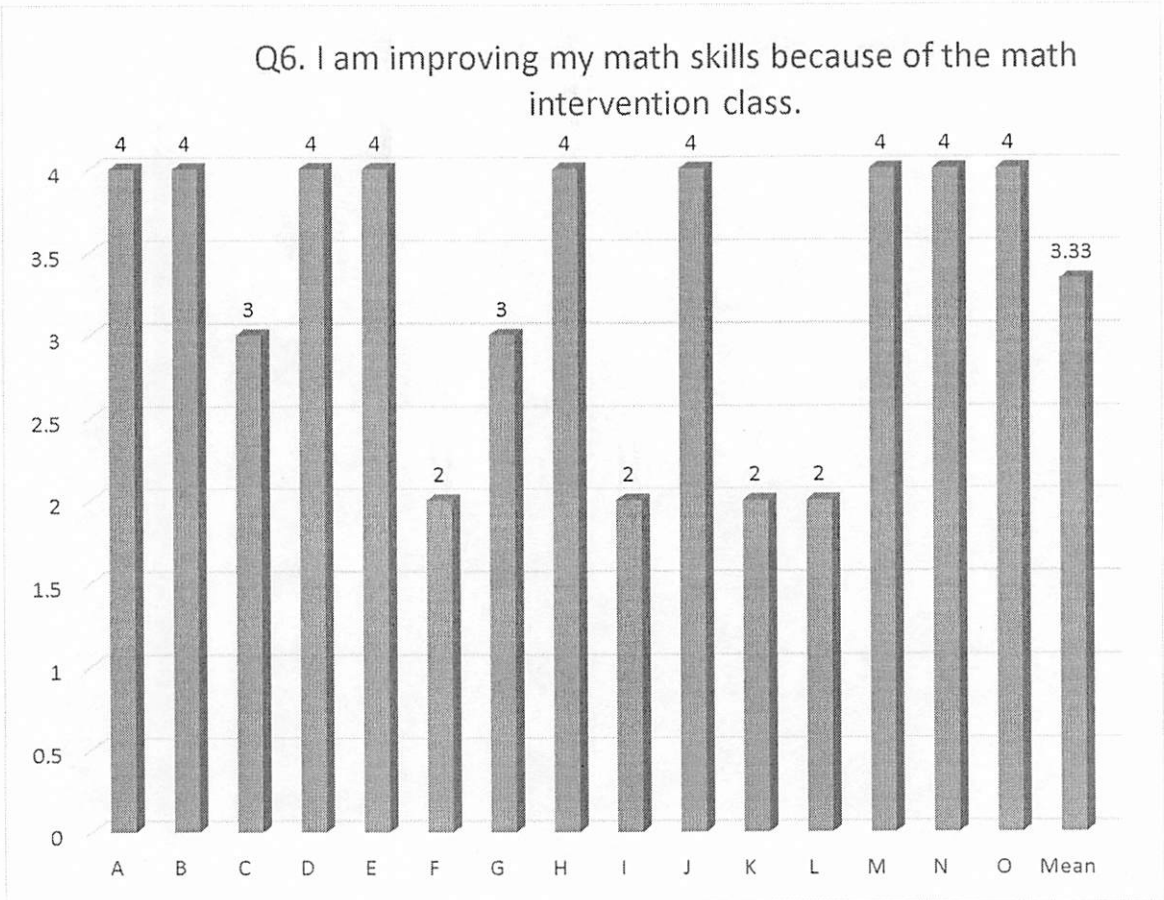


Figure 6

To the statement "I feel supported by my family in Math." Ten respondents strongly agreed to the statement while four respondents agreed. There were zero respondents disagreed and one respondent who strongly disagreed to the statement. The mean score was 3.53.

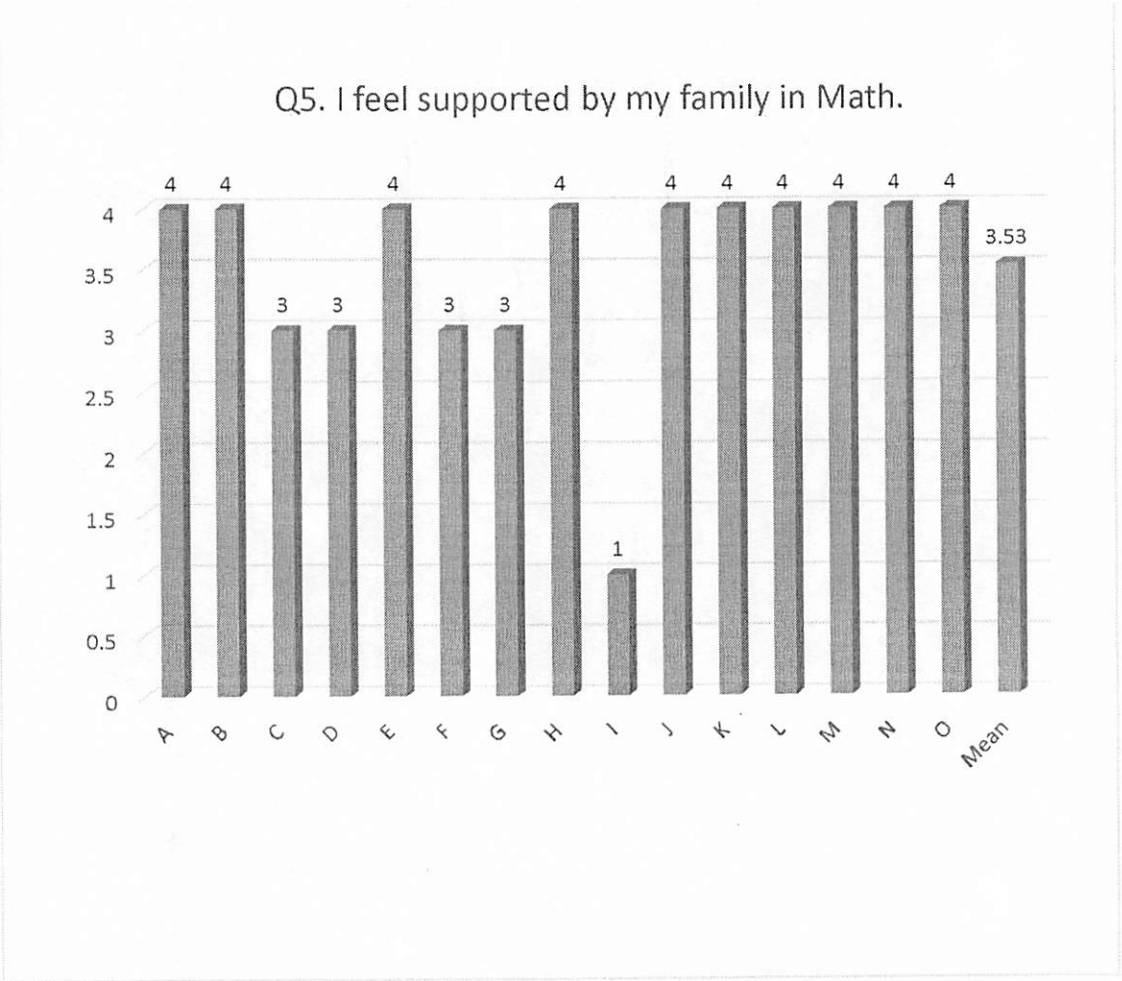


Figure 5

To the statement "I am asking questions in the regular math class." Five respondents strongly agreed to the statement while four respondents agreed. There were one respondents disagreed and five respondent who strongly disagreed to the statement. The mean score was 2.60.

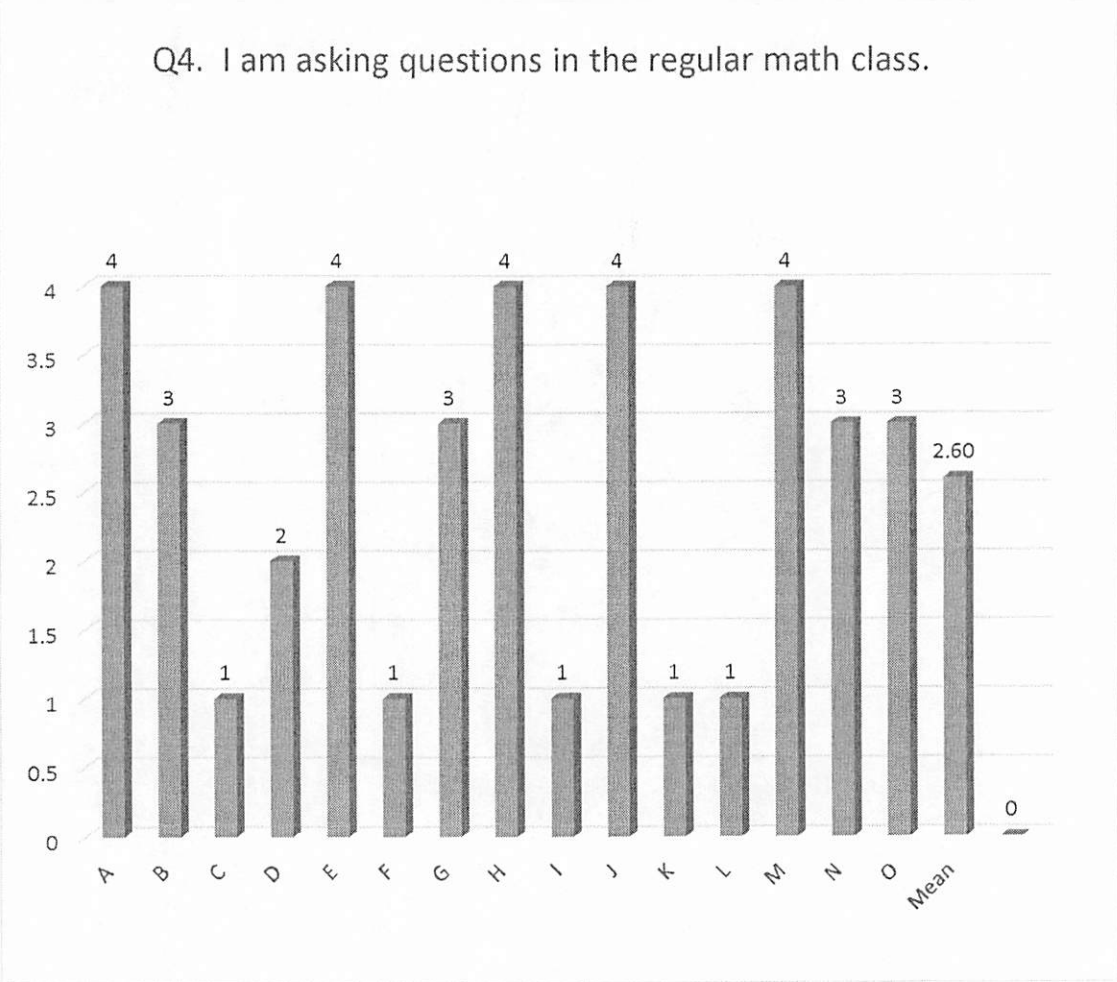


Figure 4

To the statement "It is easy to ask questions in the math intervention class." Eight respondents strongly agreed to the statement while seven respondents agreed. There were zero respondents disagreed and zero respondent who strongly disagreed to the statement. The mean score was 3.53.

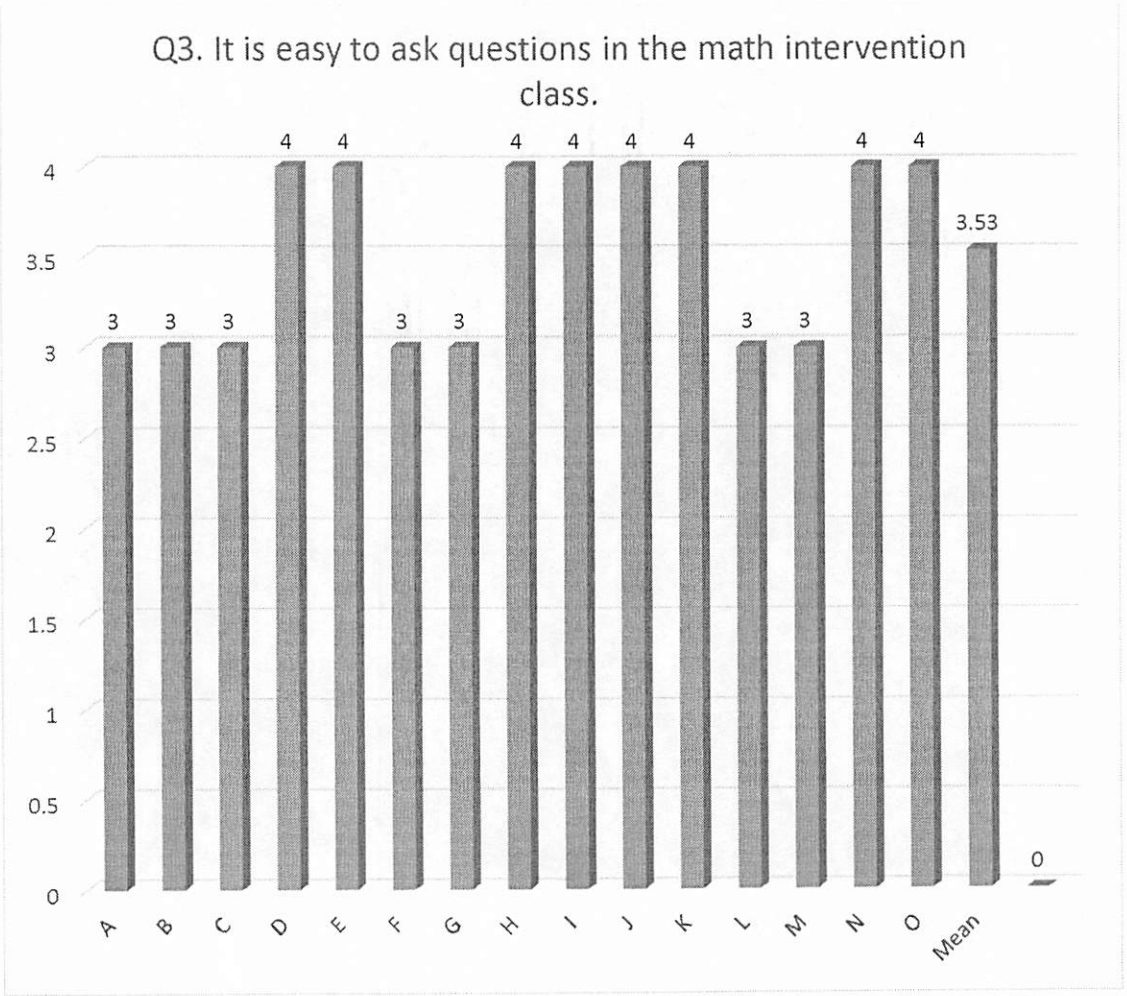


Figure 3

To the statement "I know, I need the math intervention class." All Fifteen respondents strongly agreed to the statement while zero respondents agreed. There were zero respondents disagreed and zero respondent who strongly disagreed to the statement. The mean score was 4.00.

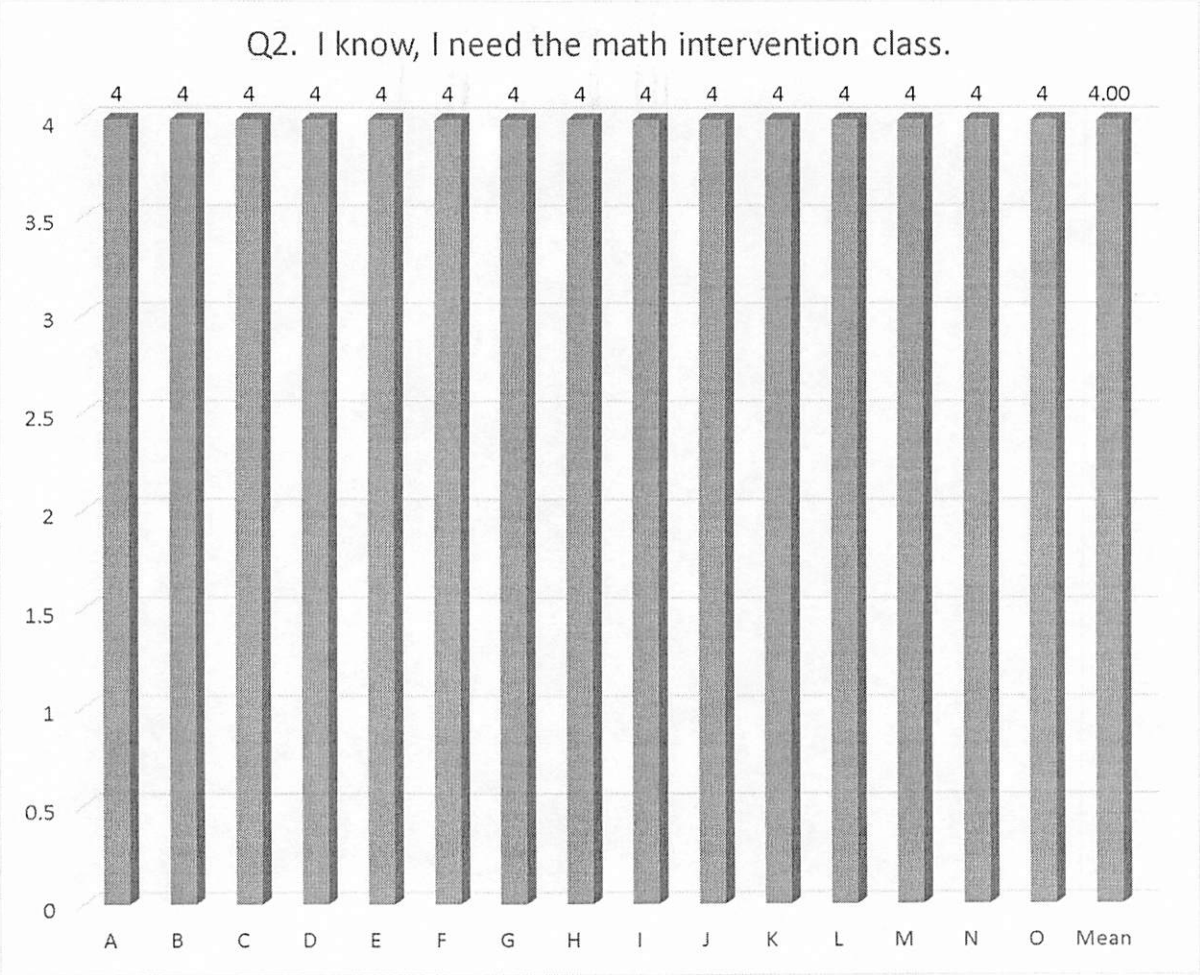


Figure 2

To the statement "I am attending math intervention class regularly." Nine respondents strongly agreed to the statement while one respondents agreed. There were five respondents disagreed and zero respondent who strongly disagreed to the statement. The mean score was 3.27.

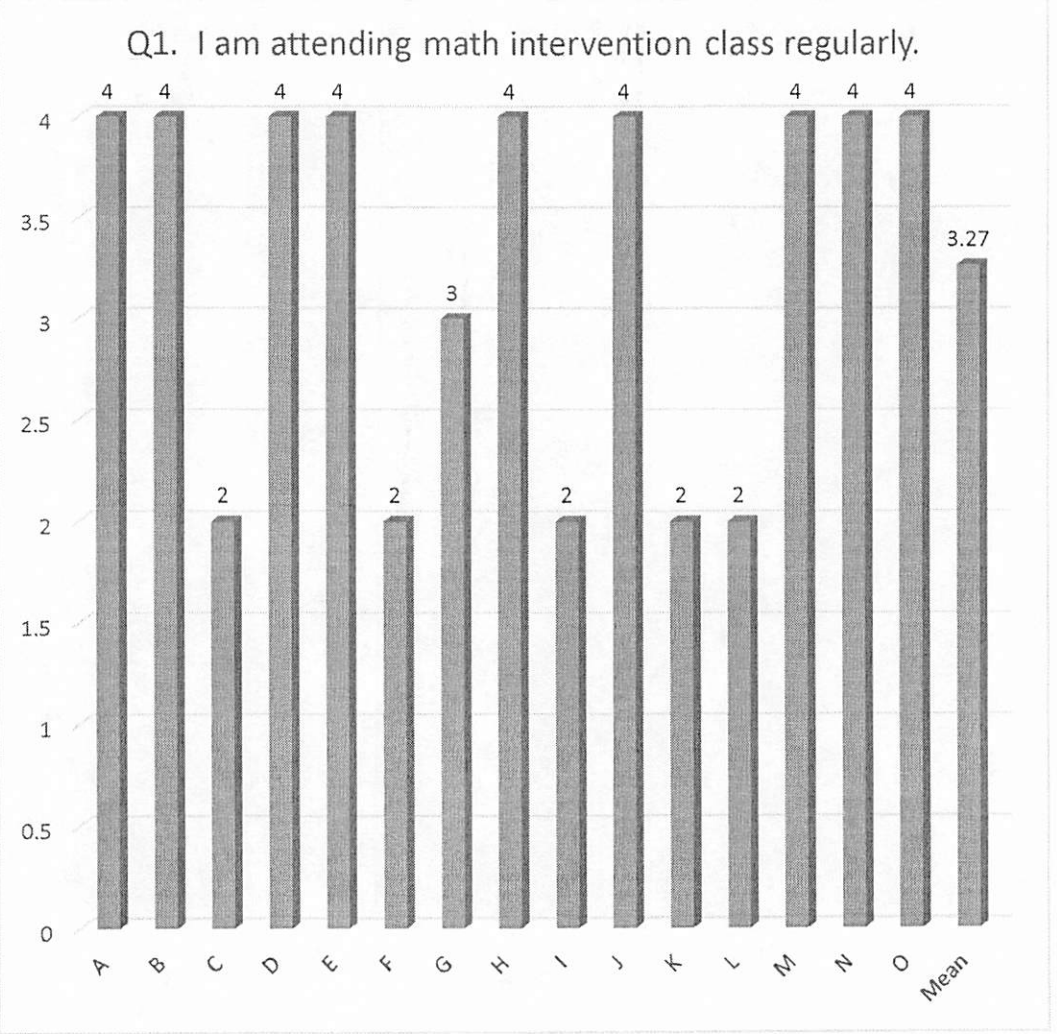


Figure 1

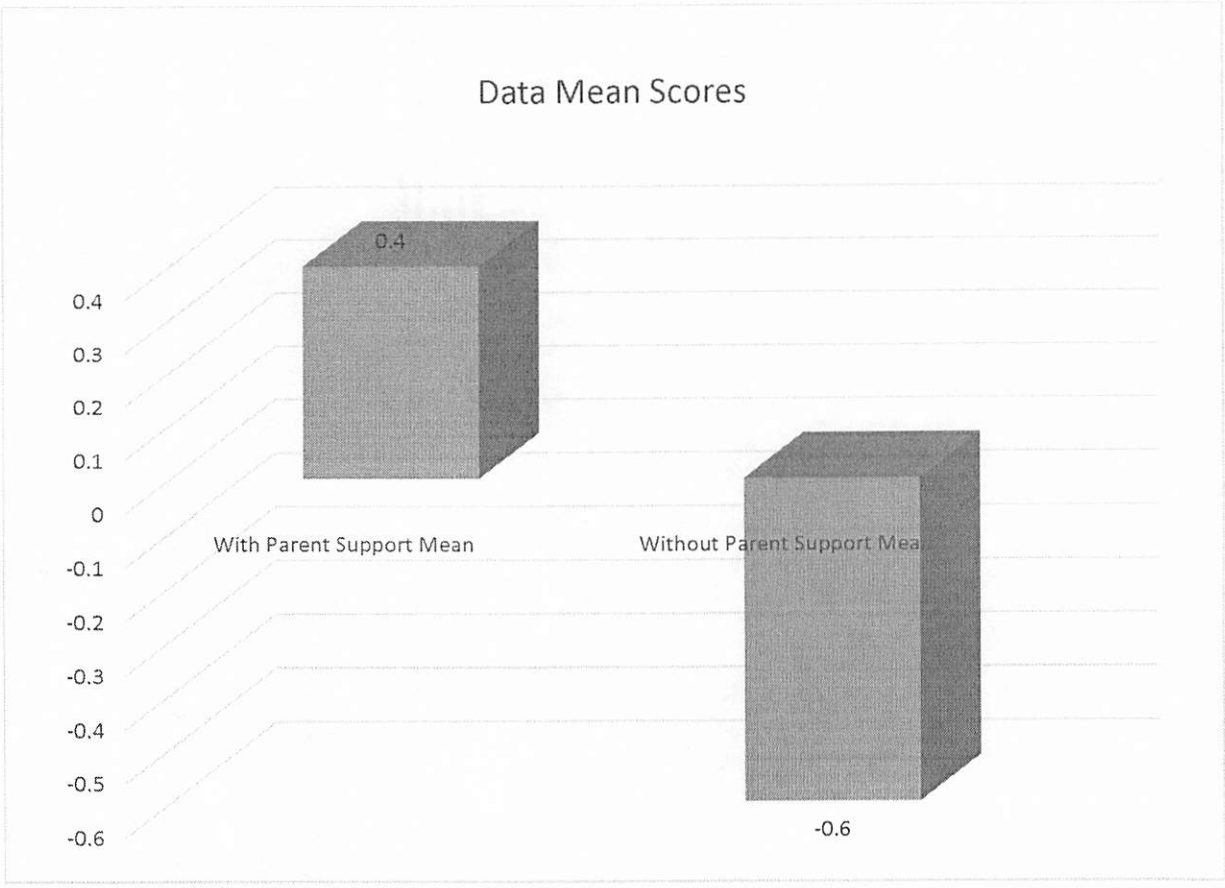


Figure A

A survey to answer the hypothesis "Middle school students will report that they will feel a confidence and improved ability in mathematics as a result of participating in extended day of Math intervention classes." was conducted. Graphs were developed to visually display the data.

Results of the Study

Using the statistical calculator program Stat Pak, a statistical t- Test, was performed to determine whether there was significance at the p=.05 confidence level. To determine significance of the hypothesis that Middle school students who participate in extended day of math intervention class with parental support will have higher Math grade than who participate in extended day of math intervention with limited or no parental support, the researcher used an Independent t- Test.

The results of the Independent t-Test showed the number of scores for parental support group was 10, the mean score was 1.33 while the number of scores for without parental support group was 5 with a mean score of 0.6. The t-value was 2.36 with a degree of freedom of 13. To show significance at P= .05 at t-value of 2.16 was required with a degrees of freedom of 13. Therefore the Independent t-Test showed that the null hypothesis could be rejected and the hypothesis could be supported.

The mean scores for the t-Test showed growth between the pre and post scores. This was consistent with the t-Test results.

The project was conducted during the 2015/2016 school year from the after school math program. The researcher studied the students from November, 2015 to May, 2016.

Hypothesis

Middle school students who participate in extended day of math intervention class with parental support will have higher Math grade than who participate in extended day of math intervention with limited or no parental support. Middle school students will report that they will feel a confidence and improved ability in mathematics as a result of participating in extended day of Math intervention classes.

Null Hypothesis

Middle school students who do not participates in extended day of math intervention class with parental support will not have higher math grade who participate in extended day of math intervention with limited or no parental support. Middle school students will report that they will feel a confidence and improved ability in mathematics as a result of participating in extended day of Math intervention classes.

CHAPTER 4

Analysis of the Data

Introduction

Chapter 4 has been organized around the following topics: (a) description of environment, (b) hypothesis, (c) results of the study, (d) findings, and (e) summary. This section provides a paraphrased statement of the research concern which the study has addressed.

Description of the Environment

This project were delimitated to Showalter Middle school after school math intervention groups in Tukwila School District, located in Tukwila, Washington. The project was conducted during the 2015-2016 school year, with 20 students. There were 12 girls in the study group and 8 boys. 42 % of students had passed the math MSP. Showalter Middle had an enrollment of 667 students in the summer count of 2014. The ethnicity of Showalter middle school was White: 14 %, Hispanic: 24.7 %, Multi- racial: 5.7%, American Indians/ Alaskan Native: 0.6 %, Asian: 30.6 % and Black/African American: 21.4 %. Free and reduced lunch was 79 %. Special Education: 10.3 %. Bilinguals ELL: 26.8 %. There were 44 classroom teachers, of which 75 % had their master's degree; However 100% of the teacher were qualified (office of Superintendent of public Instruction 2014)

were numerically presented on a scale from 1-4. All information for the surveys was represented using Excel chart.

The data gathered from the pre and post standardized test was gathered, tabulated in a spreadsheet, and examined using Stat Pak. Stat Pak was also used to find the mean and t-score of the pre and post-tests.

Summary

This chapter was designed to review the methodology and treatment of data related to the study to determine if the students participating in the after school math intervention program would perform better on a standard test than students who did not participate. The analysis of data and findings from this study are reported in Chapter 4.

After 32 weeks of intervention, 4 times a week, 45 minutes a day, all students' math grades were collected again. The data were compared by the researcher.

A survey was developed by the researcher. The researcher gave the survey to the students and collected accordingly. The survey was entered into an Excel program. Results were tabulated and graphs created.

After 32 weeks of intervention all students were given a survey to see how they felt about after school intervention. Surveys were totaled and shared with the staff and administration.

Math grades were compared before and after intervention. The researcher also shared the data with the students and their parents. The students shared how they felt with their parents.

A conclusion was drawn regarding the structure of after school math intervention. The students who participate in extended day of math intervention class with parental support will have a higher Math grade than who participate in extended day of math intervention with limited or no parental support.

Treatment of Data

The data gathered from the pre-teach intervention group survey was calculated and examined using the Microsoft Excel program. Responses from the survey

Middle School did not receive many applications at the beginning. The District Liaison started making phone calls and did the home visit to explain the goal of this math intervention class.

Based on the student's math grade and the parents' permission, students were placed in math intervention after school program. Parents were contacted through telephone and home visit to let them know about the day and time of the math intervention after school program.

Parents were informed of the significance of attendance and without their support, the EWIS team would not be able to do it alone. The program offered 5 days a week and the researcher requested the families to send their kids at least 3 days a week.

The program offered four days a week. All students were told to be in the program for at least three days a week.

Students Math grades were recorded when the program started. The team and the researcher met with the students to encourage them to have a regular attendance.

Students who were absent received a phone call from the school liaison to remind the parents of the importance of the attendance in the program. This was to ensure that parents knew they were supposed to call the school when the student will miss the program.

Design

The group of 15 middle school students who participated in the study was predetermined. The study design was pre- and post- test. The researcher prepared a survey that the 15 Middle school students who participated with parental support took at the end of the survey. This survey was to determine how the Middle school students felt about their confidence, improved ability in mathematics, and participation in core math class.

Procedure

The researcher wanted to determine if students participating in the math after school intervention program would perform better on a standard test than students not participating in the program.

The researcher was given permission to conduct research at Tukwila School District. The permission was granted on 10/15/2015.

A review of selected literature was conducted at Tukwila School District, Heritage University, and internet search engines. The information was in chapter 2.

Math grades were collected before the study began. The early warning indicator team selected the students who have F grade and sent the enrollment application form for the after school math intervention program. Showalter

teachers, of which 75 % had their master's degree; However 100% of the teacher were qualified (office of Superintendent of public Instruction 2014).

Instruments

The researcher for this study used the 15 students from the math after school program. Students were provided daily instruction around their math standards. A standards based pre and post standard assessment was used to gather data over the course of the study. A survey was utilized to collect participant's responses. The scale used in the survey was agree, strongly agree, disagree and strongly disagree.

After the data was gathered the researcher entered it into the spreadsheet program, Excel. Excel was the software program written and distributed by Microsoft. Excel that was used to create graphs and charts. Stat Pac was the statistical calculator used to determine significant of the data result.

The researcher used the secondary staff generated EWIS program to select the students with district approval. Stat Pac was a valid and reliability tool because it was a recognized statistical calculator. The researcher gave the survey in a controlled setting to help with validity issues. The survey was given in May, 2016.

(e.g., regression, and selection interaction effects). Action research involved the researcher was involved in study and in the educational setting. This research was completed from September 2015 and May 2016. For the purpose of this study, the researcher focused on the extended day of math intervention learning for those who do not meet the grade level standard.

The collected data was entered into a statistical calculator (Stat Pak) and a t-test. The result of the t-test were then compared to distribution of t table to ascertain if the treatment did provide a significant change in lesson delivery.

Participants

This project was delimited to the middle school after school math intervention groups at Showalter Middle School in Tukwila School District, located in Tukwila, Washington. The project was conducted during the 2015-2016 school year, started with 20 students and towards the end there were 15 students. There were 11 girls in the study group and 4 boys. 42 % of students had passed the math MSP. Showalter Middle had an enrollment of 667 students in the summer count of 2014. The ethnicity of Showalter middle school was White: 14 %, Hispanic: 24.7 %, Multi- racial: 5.7%, American Indians/ Alaskan Native: 0.6 %, Asian: 30.6 % and Black/African American: 21.4 %. Free and reduced lunch was 79 %. Special Education: 10.3 %. Bilinguals ELL: 26.8 %. There were 44 classroom

CHAPTER 3

Methodology and Treatment of the Data

Introduction

This chapter has been organized around the following topics: (a) Methodology, (b) Participants, (c) Instruments, (d) Design, (e) Procedure, (f) Treatment of the Data, (g) Summary

Methodology

The researcher determined that the best method for this study was the Quasi Experimental design. The researcher was given permission to conduct this study by the Tukwila School District. Based on Action research, the study was conducted in Showalter Middle School. Quasi- Experimental design according to Gay, Mills, and Airasian (2013) in Educational Research, Competences for Analysis and Applications, consisted of non-randomized groups and less control of variables.

True Experimental designs, where all external and internal elements were controlled and random selection was not utilized. In Quasi- Experimental external elements were not controlled. A true Experimental design used control of variables. The nonequivalent control group design involved the assignment of groups not individuals. The lack of random assignment introduces validity threats

gap. Pulling students out of their core math instruction to remediate would only drag them forth behind.

Student discourse offered opportunities for students to acquire what math was and how one did it. Effective mathematical teaching engaged students in discourse to improve the mathematical learning of the whole class. Mathematical discourse was the focused exchange of ideas through classroom discussion, as well as through other forms of verbal, visual and written communication. The discourse in the math classroom gave students chance to share ideas and clarify understandings, construct convincing arguments regarding why and how things worked, develop a language for expression mathematical ideas, and learned to see things from other perspectives. (NCTM, 2014) Sentence stems were provided for the students to be able to start accessing meaningful discussions.

Summary

The focus of this chapter was to address the available evidence to the topics of (a) ELL, NCLB laws and requirement, (b) Math Intervention Program, (c) Extended Day Program, (d) Parental Support Vs with Limited or no Support, and (e) Middle School Math Instruction. The methodology and treatment of the data are reported in Chapter 3.

math concepts and abstract symbols. Procedural knowledge was the ability to perform procedures fluently and effortlessly. A student with procedural knowledge could retrieve answers to basic number combinations by memory. (Christian T. Doabler, 2012)

A significant body of research showed that explicit instruction maximized students' academic growth. Explicit instruction was a systematic instructional approach that included a set of delivery and design procedures. It provided a series of support or scaffolds, where students were guided through the learning process with clear statements about the purpose for learning the new skill, clear explanations and demonstrations of the instructional objectives, and supported practice with feedback until independent mastery had been achieved. (Archer, 2011) This was a shift from stand and deliver direct instruction. Direct instruction had its place in the world but that place was not in the learning of elementary mathematics.

High quality core instruction was scaffolded and differentiated. "Equity does not mean that every student receive identical instruction; instead, it demands that reasonable and appropriate accommodations be made as needed to promote assess and attainment for all students." (NCTM, 2014, p.12) Every child needed to be met where they were at in the core classroom in order to close the achievement

Middle School Math Instruction

Math instruction and pedagogy was thought to be a difficult thing. It required teachers to have a deep understanding of the math knowledge they were expected to teach. (Ball, Thames, and Phelps 2008) and an understanding of one of the major shifts in Common Core, Coherences. Coherence was the forward thinking of where did my student come from and where are they going.

Many children experienced an early and lasting onset of difficulties in mathematics. Approximately 5-9 % of the school age population and growing could be identified with a learning disability in the area of mathematics. (Fuchs, 2008) These are only a small fraction of the students who struggled in the area of math many students had the same difficulties however were not far enough behind or were too low cognitively to receive the supports of Specially Designed Instruction (SDI). Others students were on the opposite end of the spectrum and exceled in mathematics, and also every kind of student in between.

One way to address the relatively low math achievement of children was to enhance the quality of core math instruction delivered in general education classrooms. (Gersten, 2005) Core math instruction had a unique role in helping students become proficient in mathematics. Math proficiency includes two knowledge forms: conceptual knowledge and procedural knowledge. Conceptual knowledge involved understanding the relationship between representations of

that the child completed their work. Teachers of students with highly involved parents tended to give greater attention to those students, and they were more likely to identify at earlier stages problems that might inhibit student learning.

Parents with higher levels of education were more likely to be involved in their children's schools. Parents of students living in a household with income above the poverty level were more likely to be involved in school activities than parents of children living in a household at or below the poverty line. Parents who did not speak English at home (parents who did not learn English as a child and currently speak different language in the home) were less likely involved in their children education. http://www.childtrends.org

The research on Parent involvement over the past decade, also found that, regardless of family income or background, students with involved parents were more likely to earn higher grades and test scores, and enroll in higher level programs, be promotes, pass their classes, and earn credits, attend school regularly, have better social skills, show improved behavior, and adapt well to school and graduate and go on to postsecondary education.

http://www.nea.org/tools/17360.htm

(Educating everybody children)

there have had a common set of implementation issues faced by most. For example, decisions have been made about who will attend the program, what to do if children attend irregularly or drop out, what types of paid staff and volunteer to recruit, hot to obtain funding, how to provide adequate training for staff and volunteers, and so on. The following were some factors that appear to be conductive to the implementation of a good after school program; Train the staff, create the program with structure, evaluate the program, include families and children in the planning and have an advisory board. www.csos.jhu.edu

Parental Support Vs with Limited or no Support

The article on Parent Support in Child trends, students with parents who were involved in their school tended to have fewer behavioral problems and better performance, and were more likely to completed school than students whose parents were not involved in their school. The article also noted that positive effects of parental involvement had been effected often, mostly at the elementary and secondary levels across several studies, with the largest effect. A recent meta-analysis showed that parental involvement in school life were more strongly associated with high academic performance for middle schooler. Involvement allowed parents to monitor school and classroom activities, and to coordinate their efforts with teachers to encourage acceptable classroom behavior, while it ensured

specific support, the use of RTI continued to be refined to improve the real time responsive nature of its supports to become far more proactive. http://web.a.ebscohost.com.libdb.heritage.edu

Extended Day Program

Extended day programs have served a variety of purposes for children and their parents, by having provided a safe recreation environment to academic enrichment, but the most often-cited purpose of these programs is providing adult supervision of children. In 1991, 1.6 million children aged 5-14 years old were estimated to be in self- care or unsupervised by an adult. http://nces.ed.gov

Every child had the capacity to succeed in school. Yet far too many children, especially those from poor and minority families, were placed at risk by school practices that were based on a sorting paradigm in which some students received high quality instruction while the rest are relegated to lower quality education and lower quality futures. The sorting perspective needed to be replaced by a "talent development" model that asserts that all children are capable of succeeding in a rich and demanding curriculum with appropriate assistance and support.

Schools have identified components that belong in an effective after school program, strong implementation of the components must still be accomplished. After school programs were highly diverse n purpose, funding, and quality, but

significantly below grade level by one or more years and needed intensive supports to help close their achievement gap. (McKenzie, 2009) The tier 3 students should have been working with the most skilled teachers. Great teachers have the skills to help the students who struggled the most. (Francis, 2011) If one's child was very ill. They would have expected that they would have seen the best doctor. Furthermore, learning difficulties have been declared to have the same treatment.

The RTI model was fueled by the implications of NCLB and the additional focus on serving our Special Education students to help close achievement gaps. Because RTI encouraged explicit use of proven intervention strategies, curricula, and systems with regular monitoring, it had become the pervasive model used to identify and support students demonstrating learning deficits. The transition from a "wait to fail" system to a "responsive intervention system" was essential in the successful implementation of a working RTI model. States, district, and school continued to work on improving this process and then strengthened the RTI model by implementing research based high quality first instruction during core to better limit the amount of students requiting interventions to "catch them up." With improvement in data monitoring approaches and system, better use of quality formative and summative assessments, and improved collaboration models to facilitate more frequent conversations around student performance date and

than ever before and certainly had a profound impact on how schools view equity in serving all of our student populations.

Math Intervention Program

Response to Intervention (RTI) was designed to support students who demonstrate deficits in their learning by providing strategic and intensive real time interventions for students that were performing below grade level. (Francis, 2011) The system relied upon the use of research based high quality instructional aides and supports that were proven to help diminish in student learning. Though increased monitoring and use of student data to make informed decisions about the necessity, approach, and impacts on student learning that interventions provide to assist in closing achievement gaps, the premise was that students received timely support that facilitate greater success in core instruction and could move them from performing below benchmark to at or beyond grade level success. The levels for students success were identifies in tiers. Tiers 1 which would comprise approximately 80% of students represented benchmark or on-grade level achievement. Tier 2 indicated, "Students who were slightly below grade level in their achievement and required strategic supports to bring them up to standard which was typically considered to cover about 15% of students". Tier 3 were for the lowest performing group, typically 5% of students, who were

assessments. States were allowed to develop their own standards, but were required to show AYP in the measured areas or be subject to sanctions connected to Title I funds provided by the U.S. Government.

NCLB claimed to have many positive impacts. One of those was the increased accountability component that has forced states and school districts to rethink their perspective on teaching and learning. With specific measurable goals for varied demographic groups tied to increased performance and competency attainment, the approach of "I taught it " from teachers was forced to shift to a student centered perspective of "They learned it." States were given 12 years to assist students to achieving a 100% pass rate which concludes in 2014. Those states that had higher standards at the often saw lower test performance scores compared to those states that are lower standard. However, this soon became apparent when tests were compared from state and public pressure forced many states to adopt more stringent standard (Marine, 2007). The most critical was the emphasis on looking at the performance of traditionally underperforming subgroups and for states to respond by developing system and financial support that assisted schools in increasing student achievement equitably for all students (Fusarelli, 2004). Currently, there was much political pressure brewing due to the fact that the majority of schools in the U.S have not lived up to the aspirations of NCLB. The stark reality was presenting more stress for our public school systems

CHAPTER 2

Review of Selected Literature

Introduction

This chapter has been organized around the following topics: (a) ELL, NCLB laws and requirement, (b) Math Intervention Program, (c) Extended Day Program, (d) Parental Support Vs with Limited or no Support, (e) Middle School Math Instruction, and (f) summary.

ELL, NCLB laws and requirement

In 2001, the reauthorization of the Elementary and Secondary Education Act known by its more common name, the No Child Left Behind Act (NCLB), was authorized by the US Congress under the direction of President George W. Bush. (Introduction: No Child left Behind, 2005) President Bush said that the NCLB act would put American School, "on a new path of reform and a new path of result." (Bumiller, 2002, p.A16). The act was initiated to promote standards based education that included the setting of high standard and measureable goals for all students and included annual assessment in basic skills. These assessments were to be given annually by states at specific grade levels and provide for the establishment of Annual Yearly Progress (AYP) on the skills measured by the

Achievement Gap – The disparity of educational measures between the performance groups of students, especially groups defined by socioeconomics, race/ethnicity, and gender.

Acronym

AYP - Annual Yearly Progress.

ELL - English Language Learner.

GPA – Grade Point Average.

EWIS – Early Warning Indicator System

MBA – Math benchmark Assessment.

NCLB - No Child Left Behind

OSPI - Office of Superintendent of Public Instruction.

Definition of Terms

For the purpose of this study, the following words are defined:

At Risk The term is defined in a complete sentence. If the definition takes more than one line, the second line should begin on the left margin.

Parent and Student Liaison Establish for the purpose of enlisting parental to understand the school processes and parent and student success.

Adequate yearly progress – is a measure by which schools, districts and states are held accountable for student performance under Title 1 of the NO Child Left Behind Act of 2001. It is used to determine if schools are successfully educating their students.

Intervention - Identify students who need assistance and address the needs of the students through focused instruction. This is done in addition to core instruction.

Core Instruction – Instructional strategies used routinely with all students in the general education setting using grade level appropriate and standards.

Title 1 – Is a federal grant program designed to give educational assistance to students living in areas of high poverty.

No Child Left Behind Act – Is a law that requires all states to establish a standards test. The goal is to close the achievement gaps by providing all children with a fair, equal, and significant opportunity to obtain a high quality education.

2. A review of selected literature was conducted at Tukwila School District, Heritage University, and internet search engines.
3. Selected students Math grade were collected before the study began.
4. Based on Math grade students were placed in math intervention after school program.
5. Parents were contacted through telephone and home visit to let them know about the math intervention after school program. Parents were told that the attendance in program is very important.
6. All students were told to be in program for at least three days a week.
7. Students Math grades were recorded at the beginning of the program.
8. Students who were absent will receive the phone call from the school liaison.
9. After 10 weeks of intervention, all students' math grades were collected again.
10. A survey was developed by the researcher
11. After 10 weeks of intervention all students were given a survey to see how they felt about after school intervention.
12. Surveys were totaled and shares with the staff and administration.
13. Math grades were compared between the before and after intervention.
14. A conclusion was drawn regarding the structure of after school math intervention

participate in extended day of math intervention with limited or no parental support. Middle school students will report that they will feel a confidence and improved ability in mathematics as a result of participating in extended day of Math intervention classes.

Significance of the Project

The purpose of this project was to provide a factual base of information regarding after school math intervention programs. Showalter Middle school was not meeting the grade level standard test. The Showalter Middle school was also not getting the parental support for this intervention program. After providing this significant math intervention program to these students, if they did better than Showalter middle school had shown the necessity to expand these programs. If the after school program did not show the significant improve then the middle school math curriculum program would need to be adjusted.

Procedure

For the purpose of this project, the following procedures were implemented:

1. Permission to conduct research at Tukwila School District was granted by Brett Christopher.

However 100% of the teacher were qualified (office of Superintendent of public Instruction 2014)

Assumptions

Students would pay attention, ask clarifying questions, and do their best work during after school math intervention class. Students would attend school on a regular basis. Parents were involved and support the program. Students and parents would be honest on their survey questions.

Hypothesis

Middle school students who participate in extended day of math intervention class with parental support will have higher Math grade than who participate in extended day of math intervention with limited or no parental support. Middle school students will report that they will feel a confidence and improved ability in mathematics as a result of participating in extended day of Math intervention classes.

Null Hypothesis

Middle school students who do not participates in extended day of math intervention class with parental support will not have higher math grade who

Purpose of the Project

The purpose of this study was to determine if middle school students who participated in an extended day of math intervention class with parental support would have higher GPA scores. Middle school students would report that they would feel more confidence in mathematics as a result of participating in extended day of math intervention classes.

Delimitations

This project was delimited to the middle school after school math intervention groups at Showalter Middle School in Tukwila School District, located in Tukwila, Washington. The project was conducted during the 2015-2016 school year, with 15 students. There were 11 girls in the study group and 4 boys. 42 % of students had passed the math MSP. Showalter Middle had an enrollment of 667 students in the summer count of 2014. The ethnicity of Showalter middle school was White: 14 %, Hispanic: 24.7 %, Multi- racial: 5.7%, American Indians/ Alaskan Native: 0.6 %, Asian: 30.6 % and Black/African American: 21.4 %. Free and reduced lunch was 79 %. Special Education: 10.3 %. Bilinguals ELL: 26.8 %. There were 44 classroom teachers, of which 75 % had their master's degree;

home (parents who did not learn English as a child and currently speak different language in the home) were less likely involved in their children education. http://www.childtrends.org

When Showalter Middle School started the math intervention program teachers, were not provided with a curriculum for math intervention class. Students seemed to be doing something different. Some students come regularly in the class where other did not. The researcher focused on the student's growth and the success. High quality core instruction was scaffolded and differentiated. "Equity does not mean that every student receive identical instruction; instead, it demands that reasonable and appropriate accommodations be made as needed to promote assess and attainment for all students." (NCTM, 2014)

Statement of the Problem

Showalter Middle School looked at their MSP scores for the 2013-2014 and 2014-2015 school years and decided there was a need to take action in math instruction. The school was scoring below 50% across all grade level. Showalter Middle School started after school math intervention program for the students. School needed support from the families to keep the students in the extended school program.

level tests. RTI served to support students who demonstrated deficits in their leaning by providing strategic and intensive real time intervention for students that were performing below grade level. (Francis, 2011) The school used assessment data to place students in the intervention after school class.

Showalter Middle School made a lot of growth in math through extended day program however, did not meet AYP for the 2013-2014 school year and again in the 2014-2015 school year in the area of mathematics. Every child had the capacity to succeed in school. Yet far too many children, especially those from poor and minority families, were placed at risk by school practices that were based on a sorting paradigm in which some students received high quality instruction while the rest were relegated to lower quality education and lower quality futures. www.csos.jhu.edu

Parental Support played a vital role for this after school intervention class. Some parents were very supportive while others were not. Parents with higher levels of education were more likely to be involved in their children's schools. Parents of students living in a household with income above the poverty level were more likely to be involved in school activities than parents of children living in a household at or below the poverty line. Parents who did not speak English at

CHAPTER 1

Introduction

Background for the Project

Most of the Showalter Middle School students did not meet the grade level standardized math test, especially ELL students. An after school math intervention class was developed. The purpose of this intervention was to work with the individual student to support these middle school students to meet the grade level standardized test which the students had not met.

According to the OSPI, the No Child Left Behind Act (NCLB) was an act intended to close the achievement gap for disadvantaged students. This act went into effect in 2002. The NCLB act required that all public schools receiving federal funding to administered a state wide standardized test. Schools that received Title 1 funding must have made Adequate Yearly Progress (AYP) on test scores. For schools this meant that each year students must do better than the previous year on state tests. In response to NCLB Washington State Assessment of Student Learning. This assessment has since been replaced by a less expensive new standardized test called Measure of Student Progress (MSP).

In 2012, the Showalter Middle School started the Response to Intervention (RTI) program, which required schools to provide math intervention for students who struggled in the grade level standards and were unable to perform on grade

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BKharel, Author

July 13, 2016, Date

ABSTRACT

Title: Extended day of Math Intervention with Parental Support

Researcher: BINITA KHAREL DAHAL, B.A. in Ed., Natural Science, EWU
M.Ed., Heritage University

Chair Advisory Committee: Robert P. Kraig, PhD.

Middle school students who participate in extended day of math intervention class with parental support will have higher Math grade than who participate in extended day of math intervention with limited or no parental support. Middle school students will report that they will feel a confidence and improved ability in mathematics as a result of participating in extended day of Math intervention classes.

FACULTY APPROVAL

Extended day of Math Intervention with Parental Support

A Master's Special Project

by

Binita Kharel Dahal

Approved for the Faculty

Robert P Kraig, Faculty Advisor

Dr. Robert P. Kraig

7/14/2016, Date

Project Title

Extended Day of Math Intervention with Parental Support

A Special Project

Presented to

Dr. Robert P. Kraig

Heritage University

In Partial Fulfillment

of the Requirements for the Degree of

Master's in Education – Teacher Leadership, ESL

BINITA DAHAL

JULY 13, 2016