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The Effect of Title 1 First Grade Math Intervention Groups

An Action Research Report
By Amanda Jensen

The Effect of Title 1 First Grade Math Intervention Groups

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Advisor_____

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Abstract

This action research study investigated the effectiveness of two Title 1 math groups in a Title 1 neighborhood school. Each Title 1 group was composed of four first graders who were flagged as needing number identification intervention support by using Aims web, an online assessment tool. The action research examined the growth of the students' number identification 0-20 over a 3 week intervention period. Daily formative assessment was used to guide instruction, students were part of the goal setting and tracking process, and students were progress monitored weekly using Aims web. After the 3 week intervention, the number identification Aims web growth of the first graders in the Title 1 intervention was compared with the first graders not part of the intervention. My data supports that the intervention was successful in raising Title 1 intervention Aims web number identification scores by an average of 19.25 numbers identified in four weeks as compared to the control group of students who did not receive the intervention who raised their scores by 4.4 points in four weeks. The action research has shown the usefulness of Aims web as a formative assessment tool and the importance of goal setting with students. A further topic to investigate is teaching primary students how to set clear and understandable goals.

My job as a Title 1 teacher is to provide students with a supplemental support program in math and reading for students below grade level. After reflecting on my teaching and my students' learning, I discovered the problem of not having any data to drive my decisions on teaching and selection of students for my Title 1 math groups. This problem affects the first grade students who receive Title 1 math support and the students who may be in the classroom who need the math support but have not been identified because of this lack of data.

The past two years I gave the first graders a test based on the kindergarten math objectives and used the data to form my math small groups in the fall. As the year progressed, I took teacher recommendations and I used observations during Title 1 small group to assess the progress of the Title 1 students and change my groups accordingly. The problem was a lack of useful data to create my Title 1 intervention groups and a lack of researched based instructional practices. My first two years of teaching I was in survival mode and created the most effective intervention groups I could but was not using researched instructional practices when forming or instructing my intervention groups.

The school I work at is a Title 1 school, which means there is a high percentage of students who qualify for free or reduced lunch. It is a neighborhood elementary school with two sections of each grade level kindergarten through fifth grade. As a Title 1 teacher, I support two first grade classrooms. Participants in the action research were 8 first grade students who were in Title 1 math intervention groups. The students were

placed in 2 groups of 4. All first grade students were benchmarked to determine which 8 students would be placed in the Title 1 intervention. My first step was to study current research regarding effective math interventions to gain the knowledge needed to improve my teaching and students' learning.

Forming effective math intervention groups involves making a number of teaching decisions. The first decision is the size of the intervention group. Bryant (2011) found having 3 to 5 students in an intervention group allowed the students the best opportunity to make math gains. Fuchs et al. (2006) found math intervention groups were effective with 2 to 4 students in each group. An earlier study suggested students in math intervention groups of 2 or 3, made progress (Fuchs et al., 2005). Taking the three studies into consideration, math intervention groups with 2 to 5 students saw progress in their students' math abilities.

Another teaching decision is the amount of time of each intervention. One study scheduled 20 minutes for each intervention time and saw progress in their students (Bryant et al., 2008). Another study stated at least 20 minutes, 4 days a week, was needed to give students the practice time they needed (Bryant et al., 2011). A 2006 study used intervention math groups 3 days a week for 20 to 30 minutes and found that amount of time was needed to make a significant improvement in math skills (Fuchs et al., 2006).

Besides making logistical decisions of how many students are in each intervention group, the length of the intervention sessions and how often the intervention will occur,

the big decision of which students will receive an intervention is vital to effective intervention group making. Data on the students' abilities is essential for students with math difficulties. (Bryant et al, 2008; Burns et al., 2010). Data provides teachers the information needed to place students in the appropriate intervention (Burns et al., 2010). Aims web (2013) is an assessment program utilized by the school where I teach. Aims web provides short 1 minute assessments on a computer or iPad with benchmarks in the fall, winter, and spring. Aims web offers progress monitoring tools as well as goal-setting tools (2013).

Burns et al. (2010) emphasized the need for another type of data, formative assessment, which provides data for teachers to make their interventions more individualized. Daily progress monitoring was a key ingredient in the intervention studies. Teachers need data to identify and figure out the problem to ensure an appropriate intervention according to Burns et al. (2010). One study (Bryant et al., 2008) had teachers progress monitor students by giving them four questions at the end of every lesson. Students needed to get three out of four correct to "pass" the lesson. Bryant et al. (2011) and Fuchs et al. (2005) had teachers monitor and record students' progress during independent practice time. Bryant et al. (2008) and Bryant et al. (2011) had students correct their own work and fix their errors to include the students in progress monitoring.

Bryant's studies (2008, 2011) share useful instructional strategies for math interventions: peer-assisted tutors raised math scores of their students and having students explain their thinking ensured the students understood the concepts. Goal setting is

another useful instructional strategy. Teachers who participated in a study in 2003 that studied the affect of a goal setting model in students age 5 to 10 found a positive academic and behavioral result from students setting goals (Palmer and Wehmeyer, 2003).

After researching effective math intervention groups, I have found patterns in the research findings. The size of an effective math intervention group is between 2 to 5 students (Bryant et al., 2011; Fuchs et al., 2006; Fuchs et al., 2005). A minimum of 20 minutes is needed to allow enough time for students to practice math (Bryant et al., 2008; Bryant et al., 2011; Fuchs et al., 2006). It is important to use data to identify whom to place in an intervention group (Bryant et al, 2008; Burns, Coddling, et al. 2010). Aims web is an effective screening tool to collect data (2013). Data is also important to monitor the progress of the students, in order to create individualized interventions (Burns et al., 2010). The research has also shown there are instructional strategies that are effective when teaching intervention groups. Examples of instructional strategies include, physical and visual representation of math concepts (Bryant et al., 2008; Bryant et al., 2011), and incorporating goal setting (Fuchs et al., 2006; Burns et al., 2010; Palmer and Wehmeyer, 2003).

Following, reflecting, and synthesizing the research on effective math interventions created a question. My research investigated: How will Title 1 first grade math intervention groups where formative assessment is used daily to guide instruction and where students create math goals based on the formative assessment data improve

students' number identification Aims Web math scores? The goal of the action research was to create and instruct effective Title 1 math groups using data and research based instructional practices.

Description of Research Process

The first step in the process was selecting the students for the Title 1 intervention math groups. The first week of school I used Aims web (2013) to benchmark all 48 first grade students. I gave each of the students the one minute number identification assessment. For the assessment, I gave standardized Aims web instructions and the numbers 1-20 were randomly distributed in rows for students to identify and read aloud. After I collected the benchmark data I met with the principal and the math intervention specialist to interpret the data and selected eight students to receive Title 1 math supplemental support in an intervention group. The eight students who were selected had the lowest number identification scores and were ranked below the 25 percentile for Aims web number identification first grade national norms. Once the students were selected, I sent home the Title 1 paperwork and compact the parents must sign in order for their child to receive Title 1 support. After I received the Title 1 compact from parents, I split the eight Title 1 math students into 2 small groups of 4. I created a schedule where I would meet with each math intervention group every day for 25 minutes. The students stayed in their same group throughout the three week intervention.

The first day of math intervention groups was Thursday, September 12. For 15 consecutive school days I taught the 8 selected Title 1 math students. The topic of each objective of each lesson was number identification from 0-20. I posted the objective daily and discussed the importance of number identification. Each day certain numbers were taught and emphasized. After numbers 0-20 were taught the remaining intervention lessons focused on identifying the numbers automatically and quickly as well as understanding the value of each of the numbers.

The students were held accountable for the objectives and their learning process. I shared individually with each student their number identification benchmark score and helped each student create a goal for their next progress monitoring number identification assessment. After every four number identification intervention lessons the student was given the Aims web number identification one minute assessment to monitor their progress. After each progress monitoring assessment we set a new goal for the student for the next assessment based on their results. The students had their own math portfolios where they graphed their number identification scores, goals, and progress. In their math portfolios there was also the number 0-20 on a sheet of paper. The students highlighted the numbers they could identify as the intervention progressed. Having the students take responsibility for their own learning and create goals for themselves was a researched instructional strategy I implemented into the math intervention (Palmer and Wehmeyer, 2003).

Each day of the intervention two sources of data were collected. The first source of data is the formative assessment score I collected daily. I gave the students 1 to 4 exit questions at the end of the day based on the objective. At the end of each intervention lesson I assessed each student by giving them one of three marks. I gave them an X if they completed or mastered the objective, a slash (/) if they started to understand how to complete the objective but needed more practice, or a minus (-) if they did not understand the objective and needed additional instruction in order to meet the objective. I gave the students the marks based on questions I gave the students at the end of each lesson. I gave them a post-it note to answer their questions or they orally responded to answer the questions. The second source of data was the anecdotal notes and observations I recorded daily. I recorded what students were absent for the intervention group, if a certain student was confusing two numbers or struggling with a certain aspect of an objective, or if a student seemed extremely distracted or exceptionally engaged. At the end of each intervention lesson I would look at the formative assessment and observational data and plan for the next day based on the students needs, performance, and understanding of the objective the day before.

The last day of the intervention, on October 2nd, I gave my students a math intervention survey. The survey asked the students in the intervention to evaluate their math progress, their attitude towards the daily math formative assessment questions, and their attitude towards the setting of goals. The survey contained three questions that were multiple choice and one short answer question. I read the survey aloud to the students

and the students completed their surveys independently. The students did write their name on the surveys in order for me to better analyze the results.

The final source of data was collected immediately after the intervention concluded. On Thursday, October 3rd I gave all 48 first grade students, including the students who just finished the Title 1 intervention group, the Aims web progress monitoring assessment. The benchmark data from the first week of school and the progress monitoring data one month later allowed me to look at the growth of first grade students in Title 1 math intervention group compared to first grade students who did not receive the intervention.

Data Analysis

I began this study looking at Title 1 first grade math intervention groups. I looked at the impact of formative assessment and student driven math goals on students' number identification Aims Web math scores. What I found was the value of formative assessment and goal setting for teachers and students. My data also showed a plateau students reached calling into question the usefulness of Aims web data after students reach a certain score and the importance of focusing on the percentile over evaluating the growth of the score in isolation.

During the three week intervention, I progress monitored the eight intervention students weekly on Fridays. I used the Aims web progress monitoring scores to outline the following week's lessons. The data from the weekly progress monitoring scores after the first week of the intervention was encouraging. Looking at the table of data below, 2

of the 8 students met the 3 week intervention goal of 43 numbers identified correctly in only one week. The other 6 intervention students moved up at least one percentile group.

The data from week 2 shows 3 students’ scores dropped. From my observations all 3 students’ scores dropped because they were rushing. They wanted to beat their previous Aims web math score and either lost track of which number they were on or had visible signs of rushing through the assessment by saying the numbers they knew loudly and quickly.

Before I gave all the first grade students the assessment in week 3, I reminded the students not to rush and lose their spot or get too hurried because of the intervention students’ performance in week 2. In the third week 7 of the 8 students improved their Aims web scores. Alice’s score dropped by 4 points. She identified every number correct except she confused 12 and 20 a number of times.

Table 1
Title 1 Intervention Students Aims Web Number Identification Scores

<u>Students</u>	<u>Benchmark</u>				<u>Growth</u>
	<u>Sept 6</u>	<u>20-Sep</u>	<u>27-Sep</u>	<u>4-Oct</u>	
Landon	18	43	35	40	22
Jessica	23	36	44	55	32
Justin	13	35	39	48	35
Amanda	3	21	31	27	24
Jackie	29	43	36	44	15
Alan	26	32	32	30	4
Alice	17	28	26	22	5
Yolanda	21	24	24	38	17
Average	18.75	32.75	33.375	38	19.25

Note. Names of students are changed for confidentiality purposes

When looking at the increase of students' Aims web scores or growth, a plateau starts to become visual as seen in table 2. The first week of the intervention the average growth of the students was 14. The second week the average growth dropped to .625 numbers. Growth from second to the final week was an average of 4.65 numbers. Growth was still occurring but at a slower, steadier pace. In this situation, after reflecting on the data and the Aims web norms table a plateau is not a negative thing. The Aims web norm table for the 25 percentile from fall to winter is an increase of 20 numbers identified correctly and from winter to spring is an increase of 6 numbers. For the 50 percentile from fall to winter the increase is 18 numbers and from winter to spring is an increase of 5 numbers. The clearest example of the plateau is in the 90 percentile where the increase from fall to winter is 13 numbers and from winter to spring is 0 numbers. There comes a point where the students cannot identify numbers much more quickly.

Table 2

Weekly Aims Web Number Identification Growth Of Title 1 Students

<u>Student</u>	<u>Week 1-2</u>	<u>Week 2-3</u>	<u>Week 3-4</u>
Landon	25	-8	5
Jessica	13	8	11
Justin	22	4	9
Amanda	18	10	-4
Jackie	14	-7	8
Alan	6	0	-2
Alice	11	-2	-4
Yolanda	3	0	14
Average Growth	14	0.625	4.625

The plateau tells me to look not only at the Aims web number identification scores in isolation but to look at where the scores place the intervention students on the Aims web national norms chart to track success (see Appendix A for Aims web norm table). The benchmark scores had 6 intervention students below the 10 percentile and 2 students below the 25 percentile. Looking at my students' current intervention scores, 3 students are currently at or above the 50 percentile, 3 students are at or above the 25 percentile, and the other 2 students are above the 10 percentile. The Aims web norms table is helpful when you look at growth by the growth in percentile. Our district considers students above the 50 percentile to be considered on track and not in need of an individualized intervention. Looking at the 50 percentile benchmark numbers gives me a goal for my students and a marker to identify students who need invention support.

The Aims web scores was one piece of the action research data puzzle. I collected daily formative assessment scores and recorded observations as well. The daily formative assessment scores correlate to the Aims web scores. For example, the 3 students who ended up at or above the 50 percentile had the largest number of "x" scores for daily formative assessment. The "x" was given to students who mastered the daily objective.

Looking at the daily formative assessment scores and my observation notes allowed me to prepare my lessons to fit the needs of my students. For instance, the lesson on September 13 focused on the number 13 and reviewed numbers 1-13. Three students received "/" formative assessment scores and looking at my observations notes

for that lesson I could see that those 3 students did not remember the number 12 from the previous day's lesson. The data allowed me to plan the next lesson with the same objective stressing numbers 1-13 but to focus on the number 12 for another day. The Aims web data allowed me to see the overall progress of identifying numbers 1-20 but the daily formative assessment scores and my observational notes gave me specific information to plan my daily lessons. The daily formative assessments told me when to move on and when students needed more practice with a number.

The goal in education is for students to learn. I looked at was my math intervention group successful when I used Aims web data as formative assessment and used daily formative assessment and the students worked towards a goal. The students' scores in my intervention group did increase. The students were also in the classroom with other students and were instructed on number identification as well. The Title 1 intervention students must be compared to the control group. The control group is the first grade students who did not receive the Title 1 math intervention. Control group's average growth was 4.4 numbers identified. The Title 1 intervention student's average growth was 19.25 as seen in table 1. The Aims web data supports that the Title 1 intervention was success and helped increase students' Aims web scores and in turn their number sense.

Another conclusion my data supports is the value of goal setting. However, the students in my intervention did not fully benefit from the goal setting in the Title 1 intervention because of the type of goals set and the measurements used to measure the

goals. With each small group I shared that a goal is something you work towards and is something you are striving to meet. A goal helps children and adult focus on what they are working towards.

The goal of the intervention was for the students to identify numbers 1-20 43 times on the Aims web number identification assessment in one minute by the end of the three week intervention. I shared the goal with the students and met with them individually to discuss the growth needed to make the goal. I showed the students their Aims web score, the goal, and their trend line on a line graph. Each week after their progress monitoring I met with them briefly to show them how I plot their next point on their chart.

From my observations they were motivated to meet their goal of identifying 43 numbers but did not understand the value of 43 or how to read the line graph. For example, after I showed Landon the line graph for his score of week 2, he was excited about his progress but his score went down. He could not read the graph. Another student, Alice, asked if she met her goal when I told her she indentified 28 numbers the second week. The students were always excited to know if they met their goal and took each assessment seriously, however, they did not have a clear grasp of the goal and value of the goal.

The final piece of the data is the student survey information (see Appendix B for student survey). I learned from the survey that all the students felt they were doing well in math. This piece of data encouraged me to continue to praise students' efforts and

continue to emphasize learning as a process not something you are good or bad at. The students struggled to answer the question about how they felt about the exit slips. I was pleased to hear that the students' did not have a negative feeling towards my exit questions and I disguised the formative assessment as normal questions. All the students enjoyed working towards a goal. Their enjoyment of working towards a goal encourages me to continue to teach goal setting and set future goals with my Title 1 students. The short answer question which asked the students' favorite activity of math group, does not support my research question directly but gave me information about what types of activities the students' enjoyed most.

In conclusion, the goal of the action research was to create and instruct effective Title 1 math groups using data and research based instructional practices. My data supports that the intervention was successful in raising Title 1 intervention Aims web number identification scores by an average of 19.25 numbers identified in four weeks as compared to the control group of students who did not receive the intervention who raised their scores by 4.4 points in four weeks. The difference in growth can be partly accounted for by the plateau explained by the inability to identify numbers any quicker. However, the difference in growth can also be accounted for by the extra instruction, practice, and goal setting done by the Title 1 math intervention students.

Action Plan

After forming a research question, creating a research plan, implementing the action research, synthesizing data, I have another question to answer. What do I do with

the synthesized data? I have found a number of teaching practices to continue, alter, and additional questions to be answered and investigated.

After reflecting on my data from my action research I have seen the usefulness of using Aims web as a source of data for myself as a teacher and for my students. I plan to continue to use Aims web as a source of data to indentify students for Title 1 support in first grade. My intervention students have strengthened their number indemnification skills to a point where I can move on from focusing solely on number identification. The Title 1 students current intervention scores show 3 students are currently at or above the 50 percentile, 3 students are at or above the 25 percentile, and the other 2 students are above the 10 percentile. I will move on to comparing quantities and finding missing numbers on a number line. These are number sense skills I hope to strengthen as a Title 1 teacher and Aims web has assessment tools I can use to benchmark and progress monitor my intervention students. Number identification skill will be used while learning how to find the missing numbers and learning how to find the larger number.

My plan is to expand my use of Aims web as well, to help form my kindergarten literacy and math Title 1 groups and my first grade literacy groups. My action research has shown me the benefit of data to create intervention groups and guide instruction. I will dig further into Aims web to better understand the tools the program offers to interpret data.

Another component of my research which I plan on continuing into my teaching practices is the use of student surveys. The information I obtained from the survey I

gave to the Title 1 intervention math students was valuable to my teaching and students felt their opinion was valued. I also felt that when I asked the students' opinions and feelings in the survey it strengthened my relationship with the students. The students felt valued and I obtained valuable information about their progress and math from their perspective. I hope to further research effectively creating student surveys to gain better data and information from my students in the future.

One specific aspect of my action research which has potential to be a topic of an additional action research project for future study is goal setting at the primary level. I found in my action research from my observations that the students appreciated the clear daily objectives posted. The students were also motivated by the goal of identifying a specific number of numbers on the Aims web assessment as well as the goal to meet the daily objective. However, I hope to further research and investigate more about setting effective goals at the primary grade levels. How do you teach goal setting to first graders? What goals can first graders realistically understand and strive for when they are only beginning to develop their number sense? Both of the goal setting questions I hope to answer as I continue to teach goal setting to my kindergarten and first grade students as well as I hope to continue to study what the research says about primary students' goal setting.

My original question was: How will Title 1 first grade math intervention groups, where formative assessment is used daily to guide instruction and where students create math goals based on the formative assessment data, improve students' number

identification Aims web math scores? My action research has answered my question and has prompted me to continue using aspects of my action research such as using Aims web as a data source and has encouraged me to answer additional questions such as how to effectively teach goal setting to primary level students.

References

Aimsweb. [Pamphlet]. (2013). N.p.: Pearson.

Bryant, D. P., Bryant, B. R., Gersten, R. M., et al. (2008). The effects of tier 2 interventions on the mathematics performance of first-grade students who are at risk for mathematics difficulties. *Learning Disability Quarterly*, 31(2), 47-63. Retrieved from <http://search.proquest.com/docview/233086822?>

Bryant, D. P., Bryant, B. R., Roberts, G., et al. (2011). Early numeracy intervention program for first-grade students with mathematics difficulties. *Exceptional Children*, 78(1), 7-23. Retrieved from <http://search.proquest.com/docview/887546623?>

Bryant, D. P., Bryant, B. R., Gersten, R., et al. (2008). Mathematics intervention for first- and second-grade students with mathematics difficulties: The effects of tier 2 intervention delivered as booster lessons. *Remedial and Special Education*, 29(1), 20-32. Retrieved from <http://search.proquest.com/docview/236335008?accountid=26879>

Burns, M. K., Coddling, R. S., Boice, C. H., et al. (2010). Meta-analysis of acquisition and fluency math interventions with instructional and frustration level skills: evidence for a skill-by-treatment interaction. *School Psychology Review*, 39(1), 69-83. Retrieved from <http://search.proquest.com/docview/219656617?>

Fuchs, L. S., Compton, D. L., Fuchs, D., et al. (2005). Responsiveness to intervention:

Preventing and identifying mathematics disability. *Teaching Exceptional*

Children, 37(4), 60-63. Retrieved from

<http://search.proquest.com/docview/201085048?>

Fuchs, L. S., Fuchs, D., Compton, D. L., et al. (2007). Mathematics screening and

progress monitoring at first grade: Implications for responsiveness to intervention.

Exceptional Children, 73(3), 311-330. Retrieved from

<http://search.proquest.com/docview/201218066?>

Fuchs, L. S., Fuchs, D., Hamlett, C. L., et al. (2006). Extending responsiveness-to-

intervention to math problem-solving at third grade. *Teaching Exceptional*

Children, 38(4), 59-63. Retrieved from

<http://search.proquest.com/docview/201166325?>

Hanley, T. V. (2005). Commentary on early identification and interventions for students

with mathematical difficulties: Make sense-do the math. *Journal of Learning*

Disabilities, 38(4), 346-9. Retrieved from

<http://search.proquest.com/docview/194226303?>

Mazzocco, M. M. M. (2005). Challenges in identifying target skills for math disability screening and intervention. *Journal of Learning Disabilities, 38*(4), 318-23.

Retrieved from <http://search.proquest.com/docview/194223987?>

Palmer, S. B., & Wehmeyer, M. L. (2003). Promoting self-determination in early elementary school: Teaching self-regulated problem-solving and goal-setting skills. *Remedial and Special Education, 24*(2), 115. Retrieved from

<http://search.proquest.com/docview/2363235>

Appendix A

AIMSweb® National Norms Table

Number Identification

Grade	%ile	Fall		Winter		Spring		Group ROI
		Num	CNI	Num	CNI	Num	CNI	
P3	90	191	45	254	46	296	45	0.00
	75		32		32		34	0.06
	50		21		23		23	0.06
	25		4		10		5	0.03
	10		1		1		2	0.03
	Mean		20		22		22	0.06
	StdDev		16		15		16	0.00
P4	90	3623	40	4281	49	5385	55	0.42
	75		23		37		43	0.56
	50		5		19		29	0.67
	25		1		5		13	0.33
	10		0		1		1	0.03
	Mean		13		22		28	0.42
	StdDev		16		18		18	0.06
P5	90	1611	41	2321	50	3282	56	0.42
	75		24		39		44	0.56
	50		6		22		31	0.69
	25		1		7		14	0.36
	10		0		1		2	0.06
	Mean		13		23		29	0.44
	StdDev		15		18		18	0.08
K	90	20746	56	20746	-	20746	-	-
	75		47		56		-	0.50
	50		33		52		56	0.64
	25		15		39		51	1.00
	10		4		25		40	1.00
	Mean		31		46		52	0.58
	StdDev		18		13		9	-0.25
1	90	13841	63	13841	80	13841	80	0.47
	75		54		72		77	0.64
	50		43		61		66	0.64
	25		30		50		56	0.72
	10		17		39		45	0.78
	Mean		41		59		64	0.64
	StdDev		17		15		14	-0.08

Num = Number of Students CNI = Correct Number Identifications ROI = Rate Of Improvement
 ROI is Spring Score minus Fall Score (or Winter minus Fall) divided by 36 weeks (or 18 weeks).

Appendix B

Name: _____

First Grade Title 1 Math Survey

1. How do you feel you are doing in math so far?

Good OK Not very good

2. Do you like the end of the day exit slip questions?

Yes No

3. Did you enjoy working toward a goal of reading 43 numbers in 1 minute?

Yes No

4. What was your favorite activity or part of Title 1 math group so far?
