

Using Web 2.0 Tools to Engage Learning in English Language Arts and Math

Capstone Report Part B

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Everyday educators are seeking for creative ways to engage their students in a secure and welcoming learning environment. At Harmony-Leland Elementary School, some of the major goals are to increase student comprehension, fluency, and math skills across the board. With the many tasks teachers face, it can be challenging at times to search for technology tools that will support the needs of all students and encourage continued participation throughout each day. This is why instructional technology coaches are valuable in the learning community. The purpose of this capstone was to identify effective resources that would promote integration of technology seamlessly into the classroom with special emphasis on English Language Arts (ELA) and Math. The inspiration for this goal was developed based off the goals listed in Harmony-Leland's School Improvement Plan (SIP).

Many times, teachers are open to learning about new resources and how they can build students' academic skills. Even with knowing this, it would be wise to consider the thoughts and concerns that teachers battle with when it comes to integrating technology into their classrooms. The idea of integrating technology into the classroom is not the major problem at hand but more so the struggle of identifying how to properly implement technology and becoming familiar with the resources that will compliment and inspire engaging lessons in subject areas such as English Language Arts and Math. According to Mishra and Koehler (2006), "Merely introducing technology to the educational process is not enough. The question of *what* teachers need to know in order to appropriately incorporate technology into their teaching has received a great deal of attention" (p. 1018). Mishra and Koehler (2006). As educators become more knowledgeable about web

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According to Mishra and Koehler (2006), "Merely introducing technology to the educational process is not enough. The question of *what* teachers need to know in order to appropriately incorporate technology into their teaching has received a great deal of attention" (p. #).

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resources and the positive impact that learners experience as they explore them, the more likely they will welcome the growing culture of integrating technology within the curriculum.

Description of Capstone Experience

In the Lee and Hollebrands (2008) article, it ~~discusses~~ discussed the advantages of using technology and how it magnifies students' abilities to solve problems. The authors described how t Technology is used to help reorganize the way students think about problems and their solutions. It can also be used to accelerate mathematical procedures and has the potential to change the way students and teachers think about mathematical ideas. With this gained research, the intention was to use this information to support an optimistic view of technology with hopes that teachers would be motivated to increase integration of it more frequently.

To begin, the participants of this capstone consisted of Harmony-Leland's third grade team. It was suggested to use a smaller group with this experiment so that data could be easily collected and also for the Instructional Coach (IC) to better assist those involved. The process started with a survey created through Google Forms (See Appendix A) to measure the comfort level of teachers with using Kahoot, the first technology tool to be integrated to improve student engagement and learning. As previously stated, the goal of using digital resources was to support the increase of ELA and Math skills using integration of technology.

After information was gathered, a workshop was designed using Weebly to provide teachers with resources which included informative videos, handouts, and screenshots to encourage motivation of implementing the tool into their classroom. Teachers were able to

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revisit the housed resources at their convenience using the Weebly link provide by the IC. During Professional Learning (PL) meetings (on Wednesdays) and individual scheduled meetings, teachers discussed their progress and concerns with IC ~~over the span of approximately~~ four weeks from August 15, 2019 -September 13, 2019. A post survey was emailed to participants to determine teachers' present comfort level, approximate weekly use of tool, whether they found it to be effective and also to share what they learned.

The same process as Kahoot was repeated with using web 2.0 tools Edmodo and Learn Zillion. A survey was emailed to each teacher identifying their familiarity and comfort level with using the two resources. The surveys were reviewed, a workshop was provided for each tool and then videos, handouts, and screenshots were uploaded to Weebly based off the teacher responses. None of the teachers had previously implemented Edmodo (See Appendix B) into the classroom due to lack of knowledge and only one teacher shared that they used Learn Zillion (See Appendix C) but only once a week. This brought forth encouraging vibes to introduce knowledge that the teacher may not have been aware of with the hopes of being able to convince her to use the tool more often. A workshop followed after each survey focusing on resources that teachers would find beneficial and that would be deemed worthy of sacrificing time from their busy schedules. Just like with Kahoot, teachers were able to review shared material at their leisure (using a Weebly link), whole group meetings were scheduled, along with a few individual meetings for those who requested, and then a final survey was emailed to determine the success of implementation and learning for each web 2.0 tool.

There are three important tools, Kahoot, Edmodo, and Learn Zillion, that will be discussed in reference to implementing the capstone. The first tool that will be addressed is

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Kahoot. One of the really great benefits about Kahoot is that it is extremely easy to set up and students do not have to create an account to participate. All they have to do is navigate to the Kahoot website, put in the code for the quiz that the teacher provides, and then have fun. What makes Kahoot a win is that it can be used for Elementary age students all the way to High School students. **Next.** Edmodo provides a secure collaborating space that welcomes classroom discussions, assignments, quizzes, polls, and a gradebook. It includes different contents such as Language Arts, Mathematics, Science, Social Studies, Special Education, ESL, and much more. It also serves grade levels from Elementary to High School and has a mobile app for parents so that they can also be updated with classroom activities. Finally, Learn Zillion includes great lessons plans and video lessons for Math and English Language Arts and can be shared with parents. The math lessons are task based and include guidance for implementation. For English Language Arts, the lessons include anchor text, text dependent questions, and student handouts. There are also teacher notes, suggested pacing, standards that are addressed, and at the end of each lesson are comprehension skill videos to provide extra support for struggling students. Learn Zillion is good for whole groups, small groups or assigning assignments to individual students.

Commented [TR12]: TIP: for organization purposes, I might change this topic sentence to note that you'll be speaking to all three tools. You start talking about Kahoot, then move into Edmodo, and then Learn Zillion. Just make sure that the reader knows where you're headed at the start of this paragraph :)

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Implementation

For the most part, the project pretty much stayed consistent with the overall plan that was scheduled. There were a few times when dates had to be slightly adjusted for collaboration during Professional Learning (PL) days and Cognitive Ability Testing (CoGAT); however, it did not cause a major impact on the progression of the experience. There was only one time when one of the workshops had to be rescheduled due to a staff meeting but that change actually worked out more in everyone's favor. As expected, some

teachers were able to be more active with implementation of the web 2.0 tools and individual meetings outside of team collaborations than others. Despite this challenge, all teachers were able to learn and express their gratitude of this experience.

Project Outcomes

The final outcome of this project demonstrated that the shared web tools, workshops, and collaboration was a success. The goal was for teachers to increase the use of shared web 2.0 tools (Kahoot, Edmodo, and Learn Zillion) by at least 20%. According to the surveys (see Appendix A-C) four out of the five teachers were not very familiar with the web 2.0 tools, specifically ~~(Kahoot and Learn Zillion)~~ and therefore did not use any of them in the classroom. ~~(Edmodo was not used at all by any of the five teachers)~~. With this factor, teachers were a bit more interested in learning something new. When reflecting back to the final survey, there was an increase of about 60% use for Kahoot being that participants started from not using it in the beginning to now using it three times a week (See Appendix A). For Edmodo, the results showed that two teachers now use this tool once a week, one teacher twice a week, and the other two teachers four times a week. Comparing this to the fact that in the beginning not even one teacher implemented Edmodo into the classroom (See Appendix B), it is safe to say that the 20% increase in technology use has been met. Finally, examining the results for Learn Zillion, there was only one teacher who had implemented the technology tool once a week in class while the others had not at all. After the workshop and collaborations, the final results (See Appendix C) revealed that now four out of the five teachers implement the tool twice a week and the other teacher said three times a week. Again, this results in exceeding the 20% increase goal of the

shared web 2.0 tools. In conclusion, reviewing the collected outcome of the capstone project was quite pleasing.

Barriers Encountered

As a future Instructional Coach (IC) I believe that one of the keys to increasing integration of technology in the classroom is by addressing concerns that teachers may have. Knight (2007) states that “ICs can increase their chances of having a big impact by focusing on high-leverage practices that truly respond to teachers’ most pressing concerns”

(p.22). If teachers’ concerns are acknowledged and catered to from the beginning, then they are more likely to jump on board when new forms of implementation are suggested, especially when it comes to integration of technology. Every person wants to feel valued and so it is the ICs job to focus on how they can present high-leverage practices that will be meaningful to all participants.

In the beginning, there had to be some convincing of embracing the capstone project. Sometimes teachers are open to learning about new tools and resources but at other times the fear of not knowing what to do or maybe even the patience required to learn about resources can be discouraging. After discussing how students would be interested in technology tools, offering support whenever needed, mentioning workshops, how parents can be engaged and also having a housed website ~~{(e.g., using~~ Weebly) full of resources that teachers could view at their convenience, they all finally jumped on board.

It is often heard how educators are sometimes overwhelmed with the demanding expectations and limited time to reflect and catch their breath. During the process of the project some teachers expressed that the lack of time and resources made it challenging to really dive in deep with the way they intended to integrate technology tools more into the

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classroom. Between pull-outs, push-ins, testing, and other schedule meetings it was tough at times to find opportunities to meet with teachers individually to give them additional support. Another barrier was the mention of lack of consistent technology resources in the classroom. With only five desktop computers in each classroom, team members often shared the laptop cart whenever they checked it out from the Learning Commons [\(Library\)](#). This allowed two classes to engage in implementing web 2.0 resources whenever they were actually able to sign up for a cart. Sign up is limited due to allowing other grade levels to have a fair share of using technology as well.

Follow-Up

There will be a follow-up to see how many teachers are still engaging their students with the digital resources provided. It would be nice to hear more about the success they have seen since the final meeting that took place before the holiday break in December. More than likely, there will be other questions from at least three of the participants because they are always engaged and thinking of new ideas. The great thing about this experience is that a few teachers are now interested in incorporating the technology with other subjects outside of ELA and Math. So, for those individuals, a follow-up is definitely in the making. ~~We will~~The focus will be on the different leveled groups and how ~~we it~~ can effectively address the needs of students in both high and low groups so that all students can be successful. Also, during the follow-ups, I would like to discuss any noticeable changes of increase in scores with assessments, what specifically may have caused this change, and what ~~we can~~can be done to continue the -promotion of higher test scores as well as reach those who are presently showing little to no progress academically.

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Discussion and Reflection

Completing this capstone has allowed me to gain a greater understanding of technology facilitation and leadership by the experiences I had while collaborating with my colleagues and administration. The school's vision is what inspired the digital tools presented in my capstone and encouraged me to research and share resources that would support higher order learning for all students. It also presented the opportunity to address the need of improving Mathematical and English Language Arts skills in preparation for assessments such as the Georgia Milestones. During this experience, I learned that technology facilitators must be open-minded, familiar with all of their resources, and accountable when it comes to communicating with administration and staff members that they are collaborating with. I believe that if one aspires to make an impact on the success of the individuals that they lead, one will have to keep these key things in mind.

In order to be an effective leader, it is imperative to understand the goals of both the school and teachers that you are working with. Having knowledge of how to seamlessly intertwine both visions allows for more engaging moments and opportunities to build student-centered learning. By taking this approach, teachers can be confident that their voices are being heard and that their concerns will be addressed as both coach and teacher work together to create a learning environment that will support school expectations. A technology facilitator must possess the skills that are necessary to connecting technology integration into the classroom. Therefore, understanding how to design and implement technology-enhanced best practices, being familiar with multiple tools (including assistive

technology), and having the ability to create lessons that can promote authentic experiences for all learners is what will support in achieving academic goals.

It is also beneficial to be aware of and understand others dispositions with technology and digital tools because that can also play a major role in the progress of meeting particular goals. I learned that if you are confident and maintain a positive outlook throughout any given task, you can help accommodate the barriers that cause teachers to dread the thought of change and the fear of implementing new learning strategies connected with technology integration.

As I completed my capstone experience, I demonstrated the knowledge, skills, and dispositions to create, support, and manage an effective digital learning environment by modeling and facilitating digital content and tools to support and extend student learning. I was able to expand opportunities for professional learning for teachers and administrators through sharing the digital tools listed in my capstone at Professional Learning (PL) meetings. As I met with my colleagues in whole group as well as individually, they were able to learn more about online tools that they heard of, such as Edmodo and Learn Zillion, but were not aware of the support and value that these tools would have when implemented into lessons and learning within the classroom.

Some of the PSC Standards that I used in my capstone were 1.1 Shared Vision, 2.3 Authentic Learning, 2.4 Higher Order Thinking Skills, 3.2 Managing Digital Tools and Resources, and 6.2 Reflection. I was able to use shared vision by including the school improvement goals to drive my capstone. Withing the capstone, I developed opportunities for students to experience authentic learning and higher order thinking skills by exploring

web 2.0 tools as they engaged in instruction and produced their own products as forms of assessments in the end. I learned that managing digital tools and resources had a heavy impact on the success students had as they learned content and technology standards. The more prepared a technology leader is the better they can manage and direct the path of learning for all individuals. Of course, during the process, I did a lot of reflecting on the things that went well and ways that I could improve with modeling and facilitating technology- enhanced learning experiences in the future. Looking at where I started from at the beginning of the ITEC program until now, I am proud of the knowledge, skills, and growth that I have gained as a leader and look forward to sharing more meaningful experiences with my colleagues and students.

Recommendations

For anyone who may want to implement a similar project, it would be wise to keep one key factor in mind. According to Zoch, Myers, and Belcher (2016), "Understanding the challenges teachers face with technology integration is important, but so is considering how to support them" (p. 27). If someone wants to connect with teachers and truly have their attention when it comes to integrating technology, they must be mindful of the appropriate ways to support them. Just like with children, there needs to be modeling of material and opportunities for teachers to explore the digital tools. Having workshops and one-on-one meetings can help encourage educators to be more intentional when it comes to implementing technology during instruction. Often times you hear about the busy schedules that teachers have and how it never seems to be enough time in the day to complete everything on their To-Do list. ICs can acknowledge this factor by being flexible

with teachers' schedules and meeting at times that are more reasonable for them.

Providing teachers with the support they need to be effective leaders will not only boost their confidence and appreciation of technology integration but it will also promote increase in students participation resulting in authentic learning experiences and enhance academic scores.

References

Knight, J. (2007). *Instructional Coaching: A Partnership Approach to Improving Instruction*. Thousand Oaks, CA: Corwin Press.

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Lee, H., & Hollebrands, K. (2008). Preparing to Teach Mathematics with Technology: An Integrated Approach to Developing Technological Pedagogical Content Knowledge. *Contemporary Issues in Technology and Teacher Education*, 8(4), 326-341.

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Mishra, P., & Koehler, MJ. (2006). Technological Pedagogical Content Knowledge: A Framework for Integrating Technology in Teacher Knowledge. *Teachers College Record*, 108(6), 1017-1054.

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Zoch M., Myers, J., & Belcher, J. (2016). Teachers' Engagement with New Literacies: Support for Implementing Technology in the English/Language Arts Classroom. *Contemporary Issues in Technology & Teacher*, 17(1).

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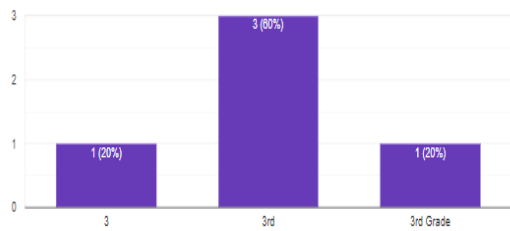
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Appendix A

Pre-Survey

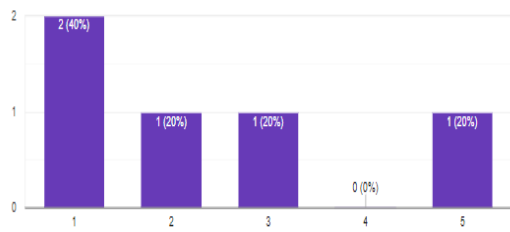
2. What grade/subject do you teach?

5 responses



3. How familiar are you with Kahoot?

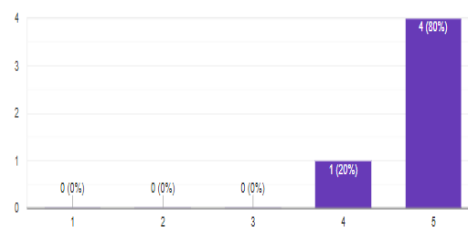
5 responses



Post-Survey

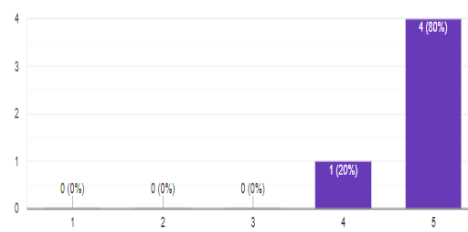
2. How comfortable are you with creating your own Kahoot account and utilizing this tool?

5 responses



3. From a scale of 1-5, do you feel that Kahoot can help encourage student engagement?

5 responses



4. Do you think that Kahoot can be used as an assessment to monitor student learning?

5 responses



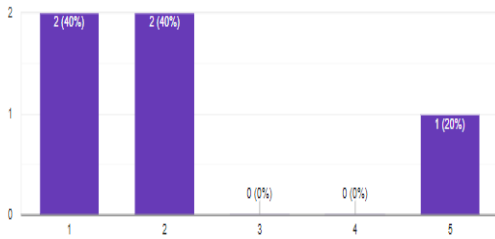
5. Can you see yourself using Kahoot more in your classroom?

5 responses



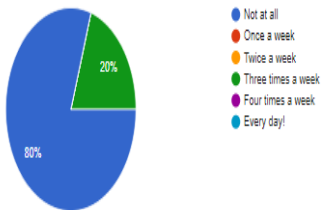
4. If you are familiar with Kahoot how comfortable are you with implementing it into your classroom?

5 responses



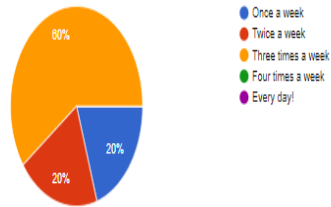
5. How often do you use Kahoot in the classroom?

5 responses



6. How much would you say that you are using Kahoot in the classroom now?

5 responses



7. Share something that you learned from this workshop

5 responses

I learned how to utilize kahoot as an assessment tool for my students. The videos and handout were very helpful resources for me to use as a teacher.

I learned how to create assessments and use them to review and assess students on grade level standards. Students were able to practice identifying verbs in a Kahoot activity. They had fun and were eager to participate in what is usually a 'pain staking' activity

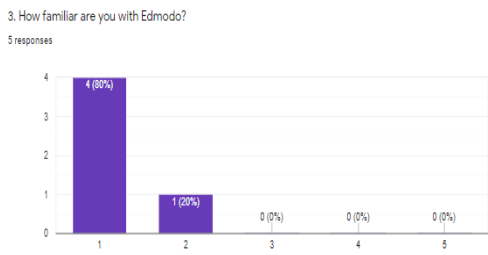
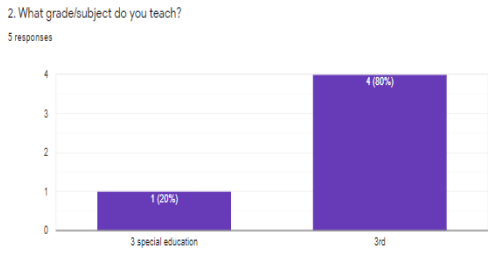
How to effectively use Kahoot!

I learned how to quickly get the class engaged while assessing knowledge.

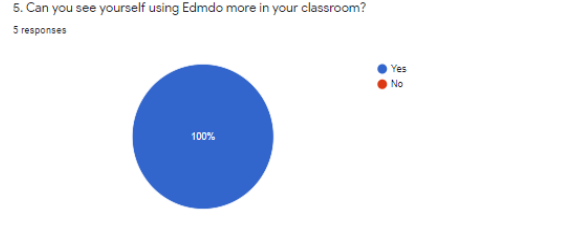
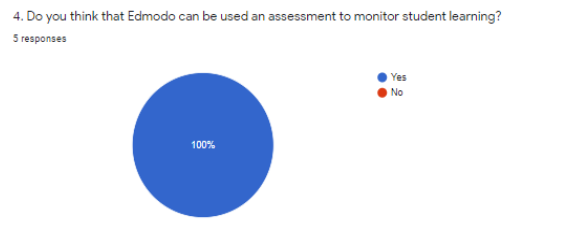
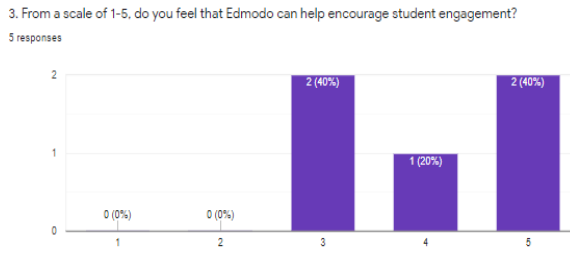
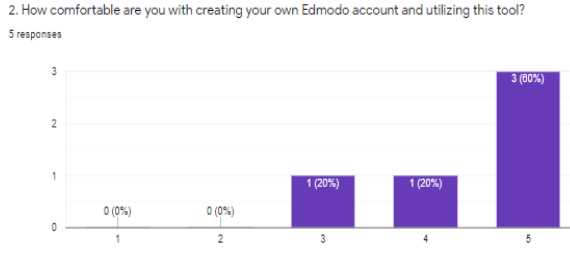
Using a variety of technology is important for student engagement

Appendix B

Pre-Survey

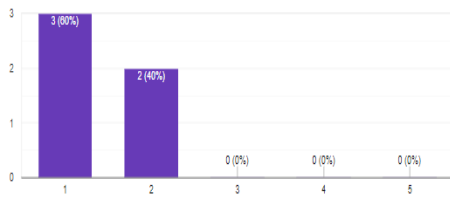


Post-Survey



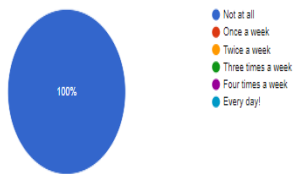
4. If you are familiar with Edmodo how comfortable are you with implementing it into your classroom?

5 responses



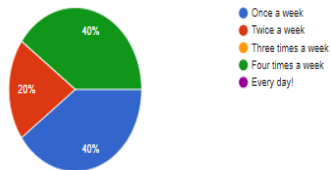
5. How often do you use Edmodo in the classroom?

5 responses



6. How much would you say that you are using Edmodo in the classroom now?

5 responses



7. Share something that you learned from this workshop

5 responses

With this workshop I realized that Edmodo is a awesome tool to use in order to manage communcation with student and parents. To collaborate with my fellow district colleagues.

My biggest take away was the fact it works similar to class dojo but it has a parent community that is extremely important to me. Since I started using Edmodo, my parents are able to work on things and community as a team.

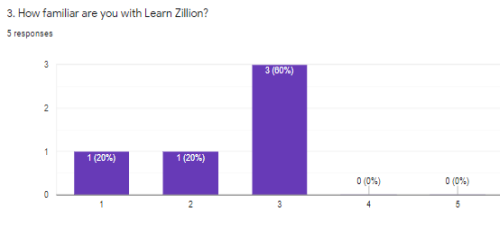
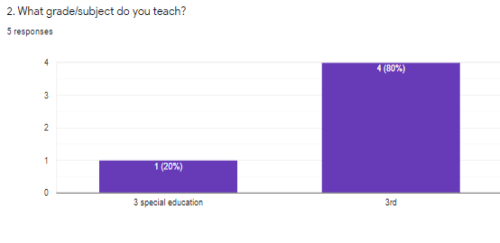
Great community tool

I learned how to add games and increase interest.

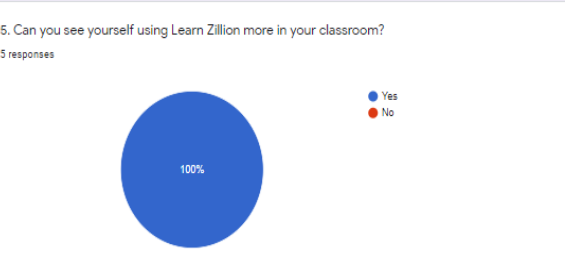
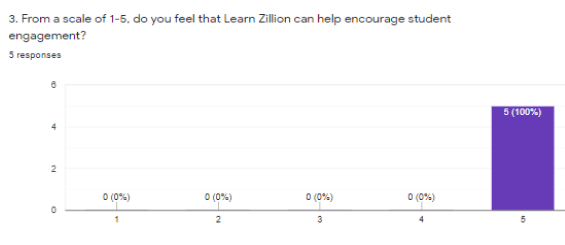
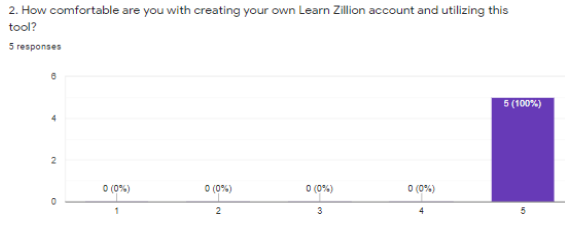
Effective assesments are given in a variety of ways

Appendix C

Pre-Survey

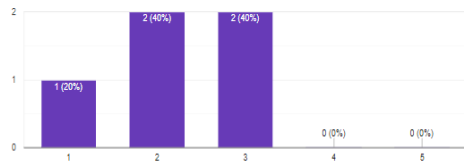


Post-Survey



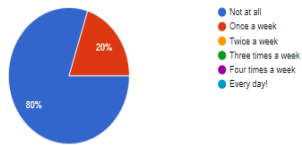
4. If you are familiar with Learn Zillion how comfortable are you with implementing it into your classroom?

5 responses



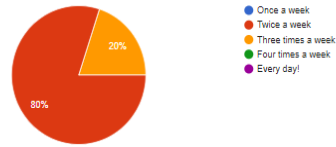
5. How often do you use Learn Zillion in the classroom?

5 responses



6. How much would you say that you are using Learn Zillion in the classroom now?

5 responses



7. Share something that you learned from this workshop

5 responses

I learned how to implement math and language arts resources in order to support my struggling students. Learn Zillion allows me to differentiation within the classroom.

I learned that Learn Zillion has many Math lessons that students and teachers can access.

Differentiated lessons

How to use videos from Learnzillion to reinforce what is being taught in the classroom and as a tool to share with parents that are not familiar with the Common Core.

Learn Zillion is a good resource to use to show parents how and what students are learning