Administrator Training

Zearn Math as Core Complement

SESSION 1

OBJECTIVES

During the training, PW deepen their understanding of:

- The Zearn Math approach to teaching and learning and the learning principles that guide Zearn Math design
- The integrated supports that ensure all students are able to access grade level learning with Zearn Math
- How to leverage Zearn materials to complement their daily instruction to provide hands-on and independent learning

During the training, PW craft a plan to support a cohort of teachers in implementing Zearn as a Core Complement with fidelity

AGENDA

1. Welcome & Set-up
2. Warm-up
3. Zearn Math: Approach to Implementation
4. Zearn Math as Core Complement: Exploration
5. Zearn Math as Core Complement: A Case Study
6. Zearn Math as Core Complement: Application to Current Context
7. Closing & Takeaways
Introducing the Independent Digital Lesson
As we watch a video introducing the Zearn Independent Digital Lesson, consider:

● What do you notice about how Zearn Independent Digital Lessons were designed?
● What are the key elements of the Independent Digital Lesson? What makes these unique?

Notes:

Introducing Mr. Lewis
As you read Mr. Lewis’ reflection on setting up Zearn as a Core Complement in his school, consider:

● What is the benefit of using Zearn as a Core Complement?
● What might be challenging about implementing Zearn as a Core Complement?
● How might you approach integrating this into your school schedule to support effective teacher use?

Mr. Lewis had been working as an Assistant Principal at his school for the last 4 years. Prior to that he was a classroom teacher in grades 3-5. As he approached the start of his 5th year in his leadership role, he knew he wanted to focus on supporting teachers in leveraging technology to support their instruction. He had noticed in his classroom observations of the fourth grade team in particular that a lot of instructional time was wasted when students finished lessons early and when teachers decided to pull groups of students during math and literacy blocks as the remainder of the class was working independently at their desks. The level of engagement with the independent work was mixed. Some students opted out, while others attempted, got stuck and didn’t know how to move forward.

When he received an email from the principal announcing their school was beginning the process of adopting a new complement to their core math curriculum, he was excited but cautious. To him, this felt aligned to what he hoped to focus on this year. At the same time, he knew this was going to be a tough sell for the 4th grade teaching team. The teachers on that team were Ms. Johnson, Ms. Howard and Mr. Smith. Each teacher had a different trajectory to and at their school.

With a range of teachers on the fourth grade team, Mr. Lewis had his work cut out for him in thinking through how to best support them to internalize and implement Zearn math as a Complement to their core math curriculum. How would he plan to invest teachers who were resistant to change and implementing new programs? How would he support teachers who struggled with consistency in
implementation of new programs? With a heavy sigh, he logged into Zearn math for the first time using the credentials his principal emailed earlier in the week.

Upon logging in, he was met with a welcome video that outlined what Zearn math was and how to implement. Ms. Johnson and Mr. Smith are going to love this, he thought. The engaging videos align with what these teachers were already trying out in their lessons and they would be grateful for the double dose of content aligned to their instruction. He especially thought Ms. Johnson would be excited about the embedded remediation, since she often wanted to differentiate lessons but lacked the experience to know how. He also thought Mr. Smith would be game for a two part rotation each day - giving him more time to immerse himself in discussions with kids. But how would he sell this to Ms. Howard? He noticed a section titled “school account resources.” When he clicked this, he noticed that there were videos on how to use the math class reports for teachers. This could be a way in with Ms. Howard. One thing that he knew clearly was that, above everything else, Ms. Howard was dedicated to ensuring that her students were on track to be successful with grade level content. These reports could be a key to investing her in implementation. She would have data tools at her fingertips that were autogenerated by Zearn based on student work completion.

Mr. Lewis began to get some ideas on how to invest the teachers in 4th grade in effectively using Zearn math as a Complement to their core math instruction. Now, he needed to deepen his understanding of how to implement Zearn math. He opened up the K-5 Digital Resource Training and started to take some notes.

Notes:

What are your key ideas from this section?
**OPENING FLUENCY**

*Number Gym*

Every Independent Digital Lesson and K Digital Activity includes Number Gym, an individually adaptive fluency experience that helps students build foundational number sense. As students demonstrate proficiency in an activity, they progress to larger numbers and more challenging portions of the Number Gym sequence.

**Lesson Aligned Fluency**

After completing Number Gym, Zearn Math’s adaptive fluency experience, students move on to a fluency activity aligned to the specific Independent Digital Lesson they are working on. These activities support ongoing grade-level learning by developing students’ procedural fluency and preparing them for upcoming content.

**GUIDED PRACTICE**

Students learn new concepts and extend their understanding during the Guided Practice portion of Independent Digital Lessons. This content should align to the content of the teacher’s live instruction. Guided Practice activities create a rich learning environment for students through engaging and interactive videos featuring real on-screen teachers, virtual manipulatives, and paper-and-pencil Student Notes.

**TOWER OF POWER**

Students demonstrate their understanding of the content of an Independent Digital Lesson and unlock the next one by completing all problems correctly in the Tower of Power. If students make a mistake in a Tower of Power problem, a Boost breaks down the question into smaller steps with more supportive manipulatives to allow students to understand and correct their mistakes. Students then have a chance to demonstrate their learning with a new problem. If students continue to struggle in the Tower of Power after multiple remediation paths, their teacher receives an alert in the Tower Alerts Report, enabling them to provide differentiated support for that student. Boosts, like all embedded support in Independent Digital Lessons, precisely address misconceptions in real time and give all students opportunities to visualize problems in multiple ways and try again.
Instructional Non-Negotiables

Commit to Time
Set aside 30 minutes during the day for Zearn digital lessons, 3-4 times a week; 10 minutes if Kindergarten

Connect Your Instruction
Connect your live instruction and digital instruction at the unit levels

Start on Grade Level
Set all kids to their grade level within Zearn. The acceleration supports are embedded into grade level lessons.

Utilize Reports to Make Adjustments
If needed, use Zearn tower alerts and foundational lesson guidance to strategically bookmark aligned work at the previous grade level. Use extra intervention time to do this rather than taking from grade level time.
Zearn Math as Core Complement: A Case Study

Analyze Ms. Johnson, Ms. Howard and Mr. Smith’s Plan for Getting Started
As you read about how Ms. Johnson, Ms. Howard and Mr. Smith use Zearn math as a Core Complement, consider:

- How did the teachers utilize Zearn as a Core Complement to build independence and meet the needs of all the learners in their classrooms?
- What gaps did you notice in implementation (i.e. where were the non-negotiables absent)? What impact did this have?
- What lessons do you plan to leverage for your own implementation?

Brookfield Elementary School
333 Kindergarten-5th Grade Students
25% Students with Disabilities | 30% English Language Learners | 90% Free and Reduced Priced Lunch

Teacher 1 - Ms. Johnson

- 3rd year teaching; 1st year teaching 4th
- 25 students in her class, 9 students or 36% identify as girls and 16 or 64% identify as boys
- Implemented Zearn as Core Complement some weeks during math block stations and some weeks during independent practice as a choice students could make and during the final class period 2 days a week

After learning of her school's adoption of Zearn as a Complement, Ms. Johnson chose to introduce Zearn math during her math instructional block at the beginning of the year. As she introduced Zearn to her class, she shared that students would be completing lessons independently while she would be working with another group of students. She made sure students understood that the digital lessons and her instruction would be on similar things. When she’s teaching multiplication and division, kids will be learning those ideas on Zearn. She also set up a structure where students could ask a Zearn math captain if they got stuck while working on an Independent Digital Lesson. Zearn math captains were students who completed 3 lessons every week for at least 3 weeks in a row. Creating the classroom job of Zearn math captain also excited students by creating a leadership opportunity connected to their learning.

Over the first few weeks of implementation, Ms. Johnson experimented in how she used Zearn. Most weeks, she decided to set up 2 stations - one station where she teaches a core math lesson with half the class and the other half of the class works on Zearn and then the groups rotate. On weeks she
implemented the station rotations, she noticed that her lesson went well over time. This led to students getting really different amounts of time on Zearn.

On other weeks, students were allowed to choose to use Zearn math or independent reading once they complete the independent practice from the current core lesson they were working on. During these weeks, Zearn math was also used in the final instructional block of the day on Tuesday and Friday afternoons. However, in implementing Zearn math in this structure, there were a lot of logistics that she hadn’t planned for. She struggled to meet the needs of her students which resulted in behavior outbursts throughout the day. This was even more prevalent during independent work, which led to many students not being able to complete independent work in enough time to log into Zearn or students missing the choice time altogether.

Starting at the end of October, Ms. Johnson was starting to get into a more solid routine and felt more confident in her implementation. She decided to start logging into Zearn to review student progress every other week on Monday mornings as she prepared for the week. She also used this information to support students in setting up individual goal charts. These goal charts are in individual student goal folders and are updated at the end of the day every Friday at the conclusion of the Zearn math independent work time. Students love adding stickers on their goal chart every time they complete a Zearn Math Digital Lesson. Ms. Johnson also created a Zearn math cheer that students do every time all students in the class complete a lesson.

Teacher 2 - Ms. Howard
- 18th year teaching; 9 years teaching 4th grade
- 25 students in her class, 12 students or 48% identify as girls and 13 or 52% identify as boys
- Implemented Zearn as Core Complement during a second math block through stations 4 days a week with 1 day for mixed review

Ms. Howard had a very particular way of approaching the design and implementation of her math instruction that she had developed over the last decade. She taught her core math instruction as her second period of the day followed by a secondary math block filled with three stations that students rotated through; independent practice, small group work with the teacher, and partner collaboration through math games. Her independent practice was aligned to the core math lessons she was teaching. When Mr. Lewis shared that they would be implementing Zearn this year, she sighed. A new initiative rolled out by the district that would disrupt what she knew worked for her students. She quickly sent an email to Mr. Lewis about a time to meet to talk about whether or not she actually had to implement Zearn this year.

After a series of meetings with Mr. Lewis, she felt slightly more at ease. Mr. Lewis reassured her that Zearn math would not disrupt her structures or systems and, instead, it would complement what she was already doing. Mr. Lewis noted that the independent station in her secondary math block would be the most aligned place to implement Zearn math as the complement is composed of independent digital lessons that align with core math instruction. Ms. Howard was hesitant but less resistant. Could this be helpful and not disruptive in the way she was imagining?
Ms. Howard left the meeting with Mr. Lewis and decided to try out a Mission by logging into Zearn. Upon starting the lesson, she quickly noted the standards alignment in the lesson. The Mission included details about how to solve single step word problems that she also leveraged in her instruction. She decided to get a few answers wrong to see what would happen. At this, Ms. Howard was pleasantly surprised. Not only was there a quick video to demonstrate what to do differently but she was given another opportunity to practice on similar problems. This might solve the challenge she had last year with students getting stuck at the independent station in her centers and waiting until they arrived at the group station with her to ask their questions. With this in mind, Ms. Howard decided to figure out how to use Zearn in the upcoming school year.

As she planned for implementation, Ms. Howard decided to prepare each student with paper Student Notes along with their headphones and device at station 1. At the end of each Digital Lesson, her students would complete their paper Exit Ticket. She set up bins at the front of her classroom where students could drop off their Exit Ticket after they have finished. If there was still time in the center rotation after they finish the Exit Ticket, they could begin working on the next Digital Lesson.

After two weeks of implementation, Ms. Howard set up a routine where she quickly checked the paper Exit Tickets each day to identify kids who need extra support with tough concepts and use that to inform planning for the Small Group Instruction, which was one of the three station rotations offered. On Thursdays, she would log in and check the Zearn Pace Reports to identify any students who have completed fewer than four lessons that week. She would support these students by setting aside time on Friday for these students to finish their Independent Digital Lessons so they can meet their goals.

**Teacher 3 - Mr. Smith**

- 7th year teaching; 6 years teaching 4th grade
- 25 students in her class, 15 students or 60% identify as girls and 10 or 40% identify as boys
- Implemented Zearn as Core Complement during a second math block 4 days a week

Mr. Smith was a fixture of the school community. He was in his 7th year teaching and every student in the school knew him. Students loved being in his class and loved when he participated in lunch, PE and recess even more. Mr. Smith was excited about implementing Zearn as a Complement, and specifically of the idea of digital lessons. He consistently looked for innovative ways to increase engagement during his lessons and the digital lessons that aligned with what he was teaching in his current core math instruction felt like the perfect fit.

In figuring out how to implement Zearn Independent Digital Lessons, Mr. Smith focused on how to set meaningful goals for his class. He rolled out Zearn math Independent Digital Lessons as a teamwide competition; specifically that the team would be able to earn choice time each week, every time all students completed four independent digital lessons. His students were beyond excited. More time on the computer and choice time was exactly what they were looking forward to.
In addition to this, he planned to have a second math block during the instructional week in which Zearn math would be implemented. This would directly follow the core math block he would teach, which meant that students would have additional, aligned practice on the same content he just taught in the whole group when they logged into their Zearn Independent Digital Lessons. To ensure all students were able to work on Zearn at the same time in his class, he reserved the library 4 days a week for this second math block as the library was the only place in the school that had a class set of computers.

After the first few weeks of implementing Zearn math, he noticed that some students took a bit longer to finish because they go through additional personalized remediation paths in the digital lesson. This led to a series of weeks in succession that the class did not meet their goal of completing the 3-4 lessons in a week. It also led to students being on different Missions, which meant the content students were practicing in the Independent Digital Lessons was not always aligned to the core math instruction he was delivering to the whole group. Both his and his students’ frustration with implementing Zearn was rising; he was ready to move on to a new technology to use during his fourth period math extension block.

At the most recent coaching meeting, Mr. Lewis asked Mr. Smith what he was noticing related to student progress from the Pace report. Sheepishly, Mr. Smith replied that he had not been using the online platform and that he forgot what his log in was.

Based on your review of the case studies, consider:

- How did the teachers utilize Zearn as a Core Complement to build independence and meet the needs of all the learners in their classrooms?
- What gaps did you notice in implementation (i.e. where were the non-negotiables absent)? What impact did this have?
- What lessons do you plan to leverage for your own implementation?

Notes:

What are your key ideas from this section?
Zearn Math as Core Complement: Application to Current Context

Accessing Digital Report Directions
Access Ms. Johnson’s Digital Data Reports by following these directions:

1. Access Zearn math
2. Log in using the following account details:
   a. Username: ZearnMathTeacherTraining@Zearn.org
   b. Password: june142021
3. <optional> Utilize these directions for Orienting to the Welcome Page
4. <optional> Utilize these directions for how to access the Pace Report
5. Access Ms. Johnson’s Pace Report

Utilizing the Zearn Math Reports
As you explore Ms. Johnson’s data in the Pace Report, consider:

- How many students met the 3-4 lessons a week goal in the past week? How many did not?
- What lessons are students on? Are they similar content?
- What can you learn from using the Pace Report? How might this support your ability to coach teachers on implementing Zearn as Complement?

Notes:
Implementation Planning Next Steps

As you prepare for implementation of Zearn as Core Complement, consider:

- What additional next steps do you need to take as you prepare your school community for implementing Zearn as Core Complement?
- What resources might you leverage in order to achieve your goals related to implementation?

Notes:

What are your key ideas from this section?