Blended Learning in Elementary Math

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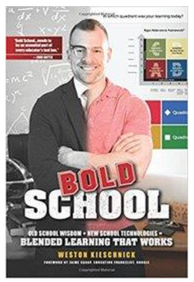
Team USA

Blended Learning

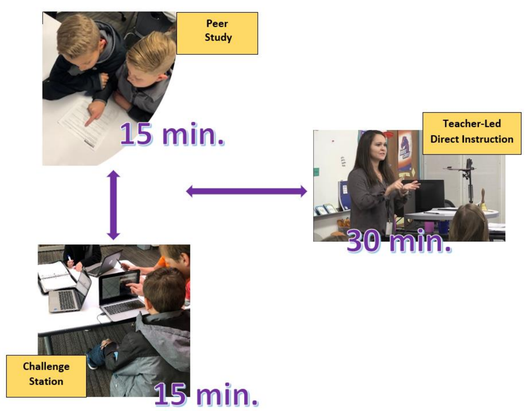
Blended Learning is a combination of direct instruction and technology enriched learning. It merges teacher-led instruction with student directed activities and learning. This allows teachers to integrate technology to enhance the curriculum and prepare students with 21st century skills.

Elementary math has routinely been taught through teacher-led direct instruction, typically following an "I-do, we-do, you-do" scaffolded approach. Many students disengage as math becomes more complicated and less hands-on. Many of my own students found math to be boring. I started this project to challenge the way we teach math and to make the subject more interesting and applicable to what they are doing in their lives. I wanted to find a way for students to apply math skills in other ways, besides work-sheets, and integrate technology in a meaningful way.



This model of blended learning is inspired by Westin Kieschnick and his book BOLD Schools. As I planned each unit I followed his frame work of: Outcomes, Strategies, Tools, Relevance and Rigor. I completely restructured the way I taught math and I saw a transformation in my students.

Rotation Station Model



Direct Instruction

Blended learning does not make teachers obsolete. It allows teachers to have more of an influence where it is needed most.

Teachers guide and direct the learning that is happening in the other stations.

Teachers become available to provide support to struggling students.

Peer Study

Students:

- Help each other review.
- Help each other correct work.
- Participate in math talk- discuss and explain math concepts, inaccuracies, misconceptions, successes.
- Set and review goals.
- Track data

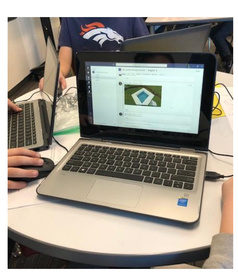
Students are grouped according to similar abilities by bench mark tests. Students are responsible to and for each other.

Challenge Station

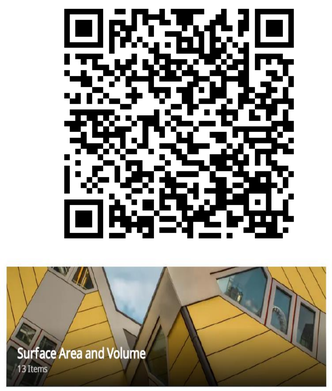
The lesson or unit is purposefully enhanced with technology.

The technology aspect helps students reach the standard and is an integral part of the unit.

It provides a way for students to apply their math skills, solve problems, and use creative thinking.

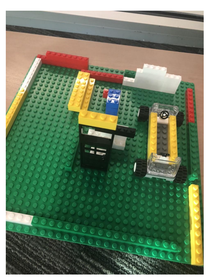


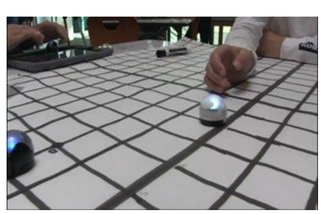
Sample Lesson



Challenge Projects

- Long term projects using Ozobots.
- Applied math skills in Minecraft.
- Created a vlog that explained a misconception on a math topic.
- Watched and produced video clips that enhance the lesson.
- Created SWAYS explaining a math concept.
- Created a lesson using apps such as "Explain Everything."
- Played games to increase understanding and student engagement.
- Made Lego representations.
- Completed lessons in the Imagine Math program.





Organization / Tools

Microsoft Teams allowed me to: assign lessons, attach files, embed videos, link websites, add tabs to apps, converse with students, link to programs, and grade projects.

I started to use **Wakelet** to organize the directions and links to the unit projects It was easy to use and kept everything in one location. It was also easy to post to teams.

Some of the student's favorite projects involve **Minecraft**. The possibilities are endless in Minecraft.

Contact Information

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