Why was this tool developed?

Piedmont Middle School employs 21st century technology to improve student success: the rural Alabama school is in its fourth year of a "1:1 initiative," in which every student in grades 4-12 has a laptop and citywide access to wi-fi provided by the school district. The school also utilizes blended learning in its classrooms, a model in which students learn much of their core content knowledge through online resources, and teachers become facilitators of project-based learning and student-led inquiry.

When Piedmont implemented these strategies, the shift created a steep learning curve for the many student teachers who came to do their pre-service hours from nearby Jacksonville State University (JSU), where they were being trained to teach in traditional classrooms. The classroom skills they had learned were not easily transferable to Piedmont’s blended learning environment, and Piedmont’s teachers were spending valuable time trying to help them adapt. To help improve the preparation of these student teachers for 21st century classrooms, Piedmont City Schools Superintendent Matthew Akin approached JSU with an idea for a mutually beneficial partnership that could produce two main outcomes: increase the number of future teachers who are well-versed in technology-enabled teaching strategies like blended learning, and enable Piedmont to further individualize instruction by placing qualified student teachers in its classrooms.

How is it different?

JSU provides the largest teacher preparation program in the state of Alabama, and many student teachers choose Piedmont—less than 20 miles from JSU—to complete their pre-service teacher training. Akin said that prior to the agreement, JSU’s policy did not allow teacher education students to complete their practicum and student teaching hours at the same school, which meant that student teachers spent only a few hours a week over the course of one semester at Piedmont. Teachers were barely acclimating to the learning environment at Piedmont before they were moving on. Therefore, the partnership began as an agreement to increase the pre-service learning time at Piedmont from one semester to one academic year. Increasing their time at the school meant that student teachers could spend the first semester getting accustomed to the technologies and blended learning strategies, and they could spend their second semester contributing meaningfully as co-teachers in the classroom.

To teach students how to participate constructively as one of two teachers in a classroom, JSU also agreed to make changes to its teacher preparation program as part of the partnership. Dr. John Hammet, Dean of JSU’s College of Education and Professional Studies, added a co-teaching component to the program, so that the students learned how to share a collaborative pedagogy with another teacher (as opposed to serving as an “extra” teacher in a classroom). In addition, the University
of North Alabama provided two days of co-teaching professional development for Piedmont’s current teachers. JSU also agreed to provide a laptop to each student teacher so that s/he could collaborate using technology in the classroom.

Since Piedmont first approached JSU with the opportunity, the partnership has expanded into the Collaborative Regional Education (CORE) initiative. CORE’s mission is to improve college and career readiness of Alabama’s students by focusing on professional development, project- or challenge-based learning, technology, classroom support, change management and partnership building, evaluation and research, dual enrollment, and innovative teacher preparation. Currently, the CORE network has expanded to include JSU working with about 20 districts in Alabama. Together, the CORE partners serve almost 100,000 students in the northeast Alabama area.

What is the advantage for students?

Piedmont’s partnership with JSU—consisting of co-teaching courses for JSU’s student teachers and Piedmont’s current teachers, as well as increasing the pre-service learning time from one semester to one academic year—provides Piedmont students with two teachers who can effectively co-lead the classroom. Having two teachers in the classroom (as opposed to having a teacher and a helper in the classroom) improves the student-to-teacher ratio and enables multiple modes of instruction; for example, one teacher can provide small group instruction while another works one-on-one with students. In this way, teachers support the goal of blended learning, which is to provide individualized instruction for students’ unique academic needs. In addition, a lower student-to-teacher ratio provides more time for teachers to develop students’ cognitive strategies such as persistence and time management.

How does it improve learning?

With two teachers contributing significantly in the classroom, students have an additional professional overseeing their progress and analyzing assessment data. Teachers and student teachers can use the data to inform instruction and to strategically group students for collaborative learning opportunities. “The real advantage is the fact that there is another person who has eyes on your data, to make sure that you’re growing,” Akin said. “The more qualified teachers you can have working in the class, the better.”

What is the advantage for instructors and administrators?

A main goal is that, by working at Piedmont Middle School, JSU’s graduates will enter the workforce trained to collaboratively co-lead a classroom, to utilize technology to improve student learning, and to utilize project-based learning and student-led inquiry in their classroom. Even if the graduates are not hired to work in blended learning schools, they will have the training to help implement blended learning strategies in other schools, to advocate for 1:1 initiatives, to create and use digital content, and to develop and utilize differentiated instruction. As JSU’s students are trained in these strategies, Piedmont’s teachers and administrators get help in making the most of a blended learning environment for their students.

What are the challenges?

Akin said that having a student teacher can be particularly challenging for teachers in a blended learning model because the student teachers are usually unfamiliar with the environment. At the same time, many of Piedmont’s teachers are still learning how to master the digital learning environment themselves.

“Teachers were thinking, ‘Wow, this is hard enough, and now I have to teach someone else how to do it,’” Akin said. “But we feel that we have an obligation to take the best of what we are doing here and share it with others. This partnership helps us do that.” Akin helps manage the workload for his teachers by alternating the years in which they have a student teacher. As with any teacher/student teacher working relationship, there are also times when personality conflicts get in the way, or when a student teacher needs additional help. Piedmont has a good working relationship with JSU, Akin said, and JSU is quick to intervene when necessary.

What’s next?

Through an NGLC grant that Piedmont received for the 2014-15 school year, the partnership with Piedmont and JSU is placing a JSU student teacher in every classroom for one full year. This co-teaching effort and Piedmont’s 1:1 technology initiative are inspiring similar developments in other CORE partnership schools. In addition, JSU has taken its co-teaching model from Piedmont into a struggling school, where educators hope that placing a co-teaching-trained student teacher in every classroom for a year will improve student success.
**Lesson Plan Title:** Plate Tectonics: Boundary Types  
**Grade Level:** 6th

**Subject/Topic Area:** Earth Science: {ALCOS 4) Plate tectonics, Earthquakes, Volcanoes

**Key Words:**
- Earth Layers
  - Crust
  - Mantle
  - Core
  - Lithosphere
  - Asthenosphere
  - Mesosphere
- Tectonic plate
  - Convergent Boundary
  - Divergent Boundary
  - Transform Boundary
- Deformation
  - Compression
  - Tension
  - Folding
  - Uplift
  - Subduction
  - Strike-slip Fault
  - Normal Fault
  - Reverse Fault

**Lead Teacher:** Darla Cooper  
**Cooperating Teacher:** Jake Green

**Time Frame:** 5 Days / 1 week (Class time 55min per day)

**School District:** Piedmont City Schools / Calhoun County  
**School:** Piedmont Middle School

**Co-Teaching Strategy:**
Teachers will use supplemental teaching - (allows students to be taught at their level of understanding) to guide students in completing a plate tectonics simulation in phet.colorado.edu.

**USE IT:**
- Piedmont Middle School
- CORE Partnership

**FOR MORE INFORMATION:**
**Contact:** Matthew Akin  
makin@piedmont.k12.al.us