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Faculty Merges Technology into Teaching Program

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Faculty Merges Technology into Teaching Program

Two Dominican faculty members have developed a structured teacher education program designed to combine the aspects of essential learning outcomes of the 21st century with the professional skills required of K-12 teachers.

Dr. Elizabeth Truesdell, assistant professor and chair of Dominican's single subject credential program, and Dr. Rebecca Birch, who has been appointed Technology Facilitator for the model, have co-authored "Integrating Instructional Technology into a Teaching Education Program: A Three-Tiered Approach." Their program – funded by a strategic initiative grant from Dominican – has received national attention in the Association of Independent Liberal Arts Colleges for Teacher Education (AILACTE) Journal for Fall 2013.

A former high school English teacher, Truesdell realized development of a common thread program was needed based on data from the 2011 California Commission on Teaching Credentialing, feedback from pre-service teachers and a faculty technology survey she and Birch commissioned at Dominican. They concluded many teachers today are experiencing digital naiveté in the classroom. These teachers are not fully prepared to help students learn curriculum subjects with computer-based applications and technology.

"There was a technology learning curve going on that was taking away from their actual teaching," Truesdell says.

The three-tier framework developed by Truesdell and Birch focuses on literacy, augmentation and transformation of the credential program whereas the activity of learning can only be accomplished through leveraging technology. The goal is to equip, educate and support teaching credential candidates to meet the level of technological expertise required in today's K-12 classrooms.

"It's a pedagogy of learning how to incorporate different types of instructional tools and be able to access them and leverage them as they evolve," Truesdell says.

The pilot program has been introduced and implemented in Dominican's Department of Education. The long-term goal is to bridge the program into K-12 classrooms in the community and make Dominican a model school for implementing it.

"What makes us unique now is we are modeling this in our classroom so our students are seeing it. Additionally, students are required to utilize new technologies in their Dominican lessons and assignments," Birch says.

One of them, Michelle Harrison, is student teaching at Dixie Elementary School in Lucas Valley.

"We see Michelle as one of our pioneers," Birch says. "She became a trainer of teachers at her school site. She is taking what she is learning from us and she is training others."

When Harrison came to Dominican to earn her teaching credential, she had a keen interest in technology and education. She had worked for the CATS program (Collaborative Autism Training and Support) and discovered that iPad technology was a valuable tool for communication, social skills, and many other important outlets for individuals. At Dominican,

Harrison has learned how important it is to embrace change because technology is only going to increase and grow. Utilizing a Doceri application that turns her projector into a form of a smart board, Harrison has noticed that her Dixie School students are more involved in the learning process.

"When I see 20 hands shoot up in the air to give a mathematical response on the iPad as opposed to the 5 or 10 hands when the answer is given orally, that is what inspires me to provide more integration," Harrison says. "Having children become excited and engaged in their learning is something that I believe all teachers strive for. When it comes to technology and education, there is a fine line between the students 'having fun' and fully understanding the concepts you are teaching with technology. Thanks to all of the professors at Dominican, my mentor teacher, and the wonderful supporting staff I have behind me, I feel that I will be successful in bridging that gap and creating an engaging classroom climate full of meaningful learning."

The genesis of "Integrating Instructional Technology into a Teaching Education Program: A Three-Tiered Approach" began when Truesdell approached Birch, who teaches "Using Technology in The Classroom" at Dominican, and together they partnered, developed and presented their program. They researched similar models at other institutions and determined their program needed to be more organized and structured to succeed. They created a three-tier approach of learning literacy to establish a knowledge base amongst faculty members, augmenting required courses to model the use of instructional technology, and finally transformation and full engagement of the 4 Cs of 21st century skills – collaboration, communication, critical thinking and creativity.

Birch was hired as Technological Facilitator to help integrate new instructional technology to students and faculty. She meets individually and in groups with Dominican faculty in the Department of Education with the aim of developing the pilot across all credential programs, and aspects, such as the e-portfolio component, university-wide.

This facilitator position provides sustainable structure to professional development, which differentiates Dominican from other universities attempting to learn and integrate new technologies. Birch brings not only technical expertise, but also her years of experience as an educator.

"We're evolving and it continues to evolve, but at least we have the building blocks where we can continue to grow," Birch says.

The goal is to help teaching credential candidates select and adapt instructional tools to address and engage K-12 students' varying learning styles and abilities. Today's students live in a digital world, and teachers must recognize that.

"I'm not going to fight what's happening. The technology is there," Truesdell says. "If we don't model its effective use, then our teaching candidates won't be able to, and we will no longer have the great reputation that we have."

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