

DEPARTMENT OF CURRICULUM AND INSTRUCTION ENEWSLETTER
OCTOBER 2016

SUPPORTING THE IMPLEMENTATION OF STEM EDUCATION IN THAILAND

During the week of September 19 – 23, a delegation selected by The Royal Thai Ministry of Education visited The University of Alabama. The delegation included a group (10) of Ministry administrators, school principals and some teachers from the Office of Basic Education Commission (OBEC), responsible for K-12 education throughout the nation. They were here to discuss Science, Technology, Engineering, and Mathematics (STEM) education, policy, professional development, and assessments.

The Department of Curriculum and Instruction and the College of Education hosted this group of delegates. The goal of their visit was to address a long term problem they are having at the Ministry with developing policy for enhancing STEM education in Thailand.

This was not the first time a delegation from the Ministry visited The University of Alabama. Two years ago, the Royal Thai Ministry of Education sent of six Ministry administrators and teacher trainers here with a focus on improving middle school science teaching.

The recent visit focused on developing national STEM education goals, formative assessment, teacher training, preparing cost effective science materials for schools, and distributing science materials to schools. During their time here, the Department of Curriculum and Instruction developed a series of seminars and visits to K-12 schools to help the delegation gain information, consider research results, discuss, view, and experience how US schools address their issues with STEM.

On September 20th, they visited Rock Quarry Middle School where they received a warm welcome from the school's orchestra. Here they were able to see



Dr. Cynthia Sunal (left), Dr. Dennis Sunal and the Thai Delegation

STEM combined in an interdisciplinary manner. Also on this day, they visited the Alabama Math, Science, and Technology Initiative's (AMSTI) STEM Education Materials and Management facility to see the different education materials for STEM. A focus was on production of materials, refurbishment of kits, and how materials were distributed to schools.

The delegation went to Woodland Forrest Elementary School on September 21st. At Woodland Forrest, they saw STEM in action through different science projects. Students, for example, worked with an earthquake simulation to learn how engineers construct buildings to withstand damage from earthquakes by building their own structures with toothpicks and marshmallows. Students tested how earthquake-proof their buildings were by testing them on an earthquake simulated in a pan of Jell-O®.

On their last day in town, September 23rd, the delegates visited Tuscaloosa Career and Technology Academy (TCTA). Students at the High School level were able to demonstrate how knowledge and skills in STEM could lead to a promising career.

The delegates were able to observe STEM education at the elementary, middle and high school grade levels. At each school, the department

provided lunches so that delegation members could talk with the teachers they observed in a relaxed manner. The delegation was very impressed with student learning and teacher instruction during authentic learning activities. They intend to implement ideas gathered from visits to the AMSTI facility and TCTA as they get their STEM program underway. The thought the Department presented information in ways they could easily adapt and apply in a Thai context.

ELEMENTARY EDUCATION COLLABORATION WITH SHANGHAI NORMAL UNIVERSITY TIANHUA COLLEGE CONTINUES...

The Elementary Education partnership the College of Education launched with Shanghai Normal University Tianhua College (SNU) in China in the summer of 2014 continues to grow. The two institutions executed an agreement to allow SNU's pre-service teachers to attend the UA and study up to a year. The collaborative efforts between the institutions is not only intended to improve the learning and the instruction of the student educators and education professors of Shanghai but strengthen their international relations. The Shanghai Normal University Tianhua College Collaboration program is supported by the College of Education's Office of International Programs.

Shanghai Normal University Tianhua College has an education professor here in the Department of Curriculum and Instruction's Elementary Education program this fall to observe classroom engagement, and curriculum implementation at UA and in the elementary schools in the Tuscaloosa area. Ms. Yan Yang, an assistant professor of elementary education at SNU is visiting UA to obtain information for her colleagues, and for the undergraduate students from China who are projected to begin classes at UA in three years. Students' participation in the program is estimated to at about 100 students over the next 10 years.

Yang expressed that in just one month she has noticed some significant differences in the teaching and learning that takes place in the classroom in the United States and China.

I have noticed the many ways the students are evaluated. In China the students have more summative assessments, and one final exam at the end of their program. Here, the assessments are formative, performance-based, and incremental, which shows the growth of individual students as they progress, said Yang.

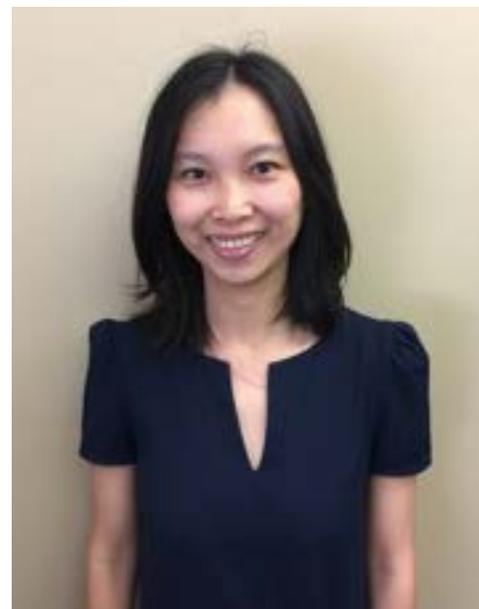
The Department of Curriculum and Instruction further collaborated with a group at the University of Texas at Tyler Texas where the delegates went to focus on alternative strategies during September 26 -29. For more information, contact dr. Dennis Sunal at dwsunal@ua.edu.

She also observed a difference in student participation and engagement in the classroom. "I like the way the teachers encourage or motivate students' learning."

In China, students listen to teacher and they do not ask many questions. I see the students talking with the professors and asking questions; they interact more. Also, class time is more structured in China and not much time is spent on experimenting like here.

The big difference between Tianhua's and UA's teacher educator preparation programs is the time student educators spend in the classroom. In China, they spend a week in the classroom for their entire education program. At UA students will spend 500 to 600 hour practicing their craft in schools while taking full coursework at the University.

Yang says, she is having fun learning and observing the schools and has developed an interest in the different forms of assessments. She plans to conduct research on formative assessments in the near future. For more information, contact Dr. Lee Freeman at lfreeman@ua.edu



Ms. Yan Yang

COLLABORATION IN MATHEMATICS EDUCATION

Creating a collaborative educational environment will not only build relationships, but can establish a community that works towards the shared goal of student learning.

Dr. Justin Boyle, assistant professor of secondary mathematics education, teamed up with seven in-service middle school mathematics teachers from the Tuscaloosa City School District to make this goal happen in the 2016 summer school program through a month-long professional development project on collaborative teaching and learning.

In June, Dr. Boyle joined the teachers in collaboratively developing a dynamic mathematics unit plan using a problem-based approach and training materials from the Connected Mathematics Programs. For 10 days, in pairs, the teachers learned the content and the activities of the unit. Then, they taught the unit while the other participants observed and collected information on how to improve it before introducing it to the students in a classroom setting. After the professional development training, for the

next 20 days students learned and the teachers taught collaboratively.

Collaborative teaching and learning occurring simultaneously is not a typical practice in any district. Usually, professional training divorces the two. The District's current summer program is predominantly computer-based with students interact with a computer as a key element of the learning process. Therefore, teaching and learning are occurring in isolation and the human connection from the traditional in-class experience is absent. The mission of the training was to give teachers the expertise to interact with the training material in order to implement it with confidence in the classroom. In the end, the training increased teacher and student engagement, critical thinking, and teacher sharing of pedagogical methods. For further information, contact Dr. Justin Boyle at justinb@ua.edu



Dr. Justin Boyle

EDTPA @ UA

Preparation is key to being a successful teacher. Consequently, the more a teacher is prepared for the classroom, the better the chance is for success. The College of Education has taken further steps ensure our student educators are prepared with the skills and knowledge needed to meet their students' needs on the first day of school by implementing the edTPA assessment.

edTPA is a performance-based assessment employed by teacher preparation programs throughout the United States. The assessment is becoming a fixture in many programs because it is subject-specific and has a support system to emphasize, measure and reinforce the skills and knowledge necessary for all teachers to have when they enter the classroom. There are versions of this test for 27 teaching fields, Pre-Kindergarten to 12th grade. edTPA features a common architecture focused on three tasks: Planning, Instruction, and Assessment.

Ms. Dana Evans, a Curriculum and Instruction doctoral student and graduate assistant, admits that to become edTPA ready is rigorous work, however, it is not beyond the student educators' abilities here at UA. They start by preparing a portfolio of the required materials during their student teaching clinical experience. After preparing the portfolio, future teachers must exhibit a readiness to teach by designing authentic lesson

plans to support their students' strengths and needs; engage real students in ambitious learning; analyze whether their students are learning, and adjust their instruction to become more effective. Unedited video recordings of the teacher candidate teaching in a real classroom must be submitted as part of a portfolio that is scored by highly trained educators.



Ms. Dana Evans

edTPA was developed by Stanford University faculty and staff at the Stanford Center for Assessment, Learning, and Equity (SCALE) which is the exclusive author and owner of this assessment. During development process of this test, they sought the advice and feedback of educators, student educators as well as looked to their 25 years of developing performance-based assessments (including the National Board for Professional Teaching Standards (NBPTS), the Interstate Teacher Assessment and Support Consortium (InTASC) Standards portfolio, and the Performance Assessment for California Teachers. For more information, contact Ms. Dana Evans at Stewa099@ua.edu

THE GILBERTS: A FAMILY OF EDUCATORS

"I want them to know what teaching means to my family," says Shari Gilbert as she references the passion of her three daughters who all have chosen to follow in her footsteps by attending the College of Education to become educators.

Even before entering the Teacher Education Program, each of the Gilbert girls taught hundreds of children throughout several remote desert villages in Turkana in Northern Kenya. It was no coincidence that they were prepared for their first true teaching experience in the challenging environment. They had been preparing for the experience since they were toddlers, playing in the halls of Hillcrest High School and playing teacher for hours in their Mommy's classroom while she stayed late to prepare lessons or mentor a teacher intern. Gilbert, who is edTPA coordinator and clinical instructor at UA, earned a BA (1992) in secondary education social science and an MA (1994) in Secondary Education has over 20 years in public education. She recently left the classroom for an opportunity to impact students throughout Alabama.

Gilbert's three daughters witnessed first-hand the enthusiasm, dedication, passion, and hard work required to give the very best to students. This explains why they either completed or are on track to complete their degrees as educators in an average of 3 years. Her oldest daughter, Briana Gilbert Kidd, obtained a BA in secondary education English language arts in 2013 and a MA in secondary education in 2015. She began her doctoral studies at UA in Curriculum and Instruction this fall. The second daughter, Britney Gilbert, and her youngest daughter, Brooke Gilbert, are both pursuing a BA in early childhood and elementary education.

They are projected to graduate fall 2017, and spring 2018 respectively.

Although I never attempted to sway my girls toward any particular career path, they each made the choice to become educators. I am so proud of their decision because being a teacher is without a doubt one of the most rewarding careers with possibly the greatest impact, said Shari.



Top: Briana Gilbert Kidd; Left: Brooke Gilbert; Bottom center: Shari Gilbert and Right: Britney Gilbert

Briana Gilbert Kidd had the following to say about her mother's influence:

From basically living in the hallways of the schools at which she taught, to watching the countless hours she poured into making her class unlike any other, to observing the connections she built with her students, to the incredible privilege of having her as my 11th grade American Studies teacher, I knew that I would undoubtedly follow in the footsteps of my extraordinary mother to become a stand-out teacher.

Shari Gilbert may be contacted at sagilbert@ua.edu.

ALUMNI SPOTLIGHT: DR. JOHANNA MASSEY

Johanna Massey is a Summer 2013 graduate of the University of Alabama earning a PhD in Elementary Education under the guidance of Dr. Cynthia Sunal, Dr. Elizabeth Wilson, Dr. Kagendo Mutua, and Dr. Aaron Kuntz. Her dissertation is entitled Teachers' Conceptions of Successful Elementary Mathematics Pedagogical Practices with African American Students.

Currently, Dr. Massey is an Assistant Professor of Elementary Education at Alabama Agricultural and Mechanical University (AAMU) in Normal, Alabama. One of her endeavors at AAMU is embedding the Alabama Mathematics Science and Technology Initiative (AMSTI) into the science and mathematics methods course for early childhood and elementary education majors. Preservice teachers are taught with the AMSTI

philosophical approach and will receive AMSTI certification without having to attend a separate training.

Dr. Massey has pursued other endeavors at AAMU which include developing online graduate courses, and supervising teacher interns. Dr. Massey has been selected to



Dr. Johanna Massey

present at three conferences this year including Alabama Council of Teacher of Mathematics Fall Forum, National Alliance of Black School Educators Conference, and Association for Math Teacher Educators.

Before joining the AAMU family, Dr. Massey served as an adjunct faculty member at the University of Alabama for one academic year. For 14 years, Dr. Massey worked at J. S. Abrams Elementary School in Bessemer in various capacities such as general education teacher, mathematics instructional coach, and AMSTI lead mathematics teacher.

MEET OUR NEW STAFF: BECCA LANGFORD

Please join the Department of Curriculum and Instruction in welcoming our new Office Associate, Ms. Becca Langford. Becca is a Tuscaloosa native. She has a bachelor's degree in Elementary Education from Jacksonville State University and taught for 5 years before coming to The University of Alabama.

Ms. Langford's role as an office associate means that she will serve as the first contact for students in the main Departmental Office for Curriculum and Instruction. She compiles enrollment reports to assist scheduling of classes, assists the Promotion and Tenure Committee, serves as scribe during Curriculum and Instruction departmental meetings, and serves as a transcriptionist to faculty on an as needed basis. Ms. Langford coordinates advising dates and times for Secondary Education Faculty, maintains the student database, compiles applications and distributes comprehensive exams to students for completion, reports comprehensive exam results to students, and to the

Graduate School, and Student Services, and serves as liaison with the Graduate School to ensure students have met requirements for admission and also throughout their program to graduation. She also compiles results of TEP Interviews and Writings to be reported to the students and to Student Services, as well as completing TEP applications for Student Services Office and obtaining approval from students', advisors, and the Department Head. She may be contacted at relangford@ua.edu.



Ms. Becca Lanford