

Association for Educational Communications & Technology

TechTrends

Linking Research and Practice to Improve Learning

January/February 2009

Vol. 53.1

**CREATING
DESIGN
SOLUTIONS**

**THIS
EXIT**

Designing for Enhanced
Conceptual Understanding
Teaching Assistive Technology
Assessment of
Student Collaboration
Design Principles
Performance Assessment



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TechTrends

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Volume 53 Number 1
January/February 2009

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The Open University of Indonesia and Florida State University: Communication, Collaboration, and the Important Work of Training Teachers

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Since the summer of 2006, faculty from the Florida State University (FSU) College of Education and Learning Systems Institute and the Open University of Indonesia (Universitas Terbuka, or UT) have worked together to strengthen UT's distance teacher education program, which prepares a large percentage of Indonesia's basic education teachers. While this relationship has been positive and collaborative from the beginning, we have naturally experienced some misunderstandings. These are inevitable consequences of the nexus of different cultures, instructional approaches, and learning contexts. At the same time, faculty involved in this project have found many areas of common ground, leading to what has become a strong relationship that will expand considerably as UT begins sending faculty for graduate study at FSU. Here we briefly describe the context and background of the proj-

ect, evolving collaborative work between the two universities, obstacles we have faced and progress that we have achieved, and lessons learned to date.

Background

FSU's work with UT has occurred under the auspices of the United States Agency for International Development's (USAID) Decentralized Basic Education (DBE) in Indonesia project. DBE is a large multi-year project designed to improve various facets of Indonesia's basic education system. A key component of DBE is the partnering of universities in Indonesia and the United States in order to improve Indonesian higher education's capacity to provide high-quality, relevant teacher education. As one of the three U.S. universities participating in the project, FSU has teamed with seven universities in Indonesia, the largest of which is UT.

As Indonesia's largest university, and one of only a small group of Indonesian universities that provide distance education to teachers, UT will play a central role in meeting the requirement of recent legislation that all primary teachers in the country hold four-year postsecondary degrees by 2015. Given

Indonesian teachers' current educational levels, this is an ambitious goal: In 2004, only 8% of the country's primary teachers held the required degree. Over 1.1 million practicing teachers must earn four-year degrees by 2015 in order to comply with government requirements (Jalal, 2006). Given teachers' demanding schedules and limited opportunities to engage in face-to-face instruction, distance education must be a central strategy in this effort, which in turn presents UT with an enormous challenge.

Since its establishment in 1984, UT has played an increasingly important role in training Indonesia's teachers. In 2007, UT trained 11% of the country's 2.7 million classroom teachers, and by 2007, nearly 21% of the primary teacher workforce (about 560,000 teachers) had received two-year postsecondary degrees from UT. Given UT's important teacher training function, its largest faculty is Teacher Training and Educational Services, which enrolls approximately 363,000 active students, compared to 86,000 in the other faculties combined. In 2007, total enrollment reached over 450,000 students in more than 1,000 courses in 34 study programs offered by four undergraduate faculties.

Getting to Know You: Reciprocal Trips to FSU and UT

In August 2006, two FSU faculty members visited UT's campus south of the capital city of Jakarta, as well as two of UT's 37 regional centers. After meeting top administrators and academic staff and touring UT's central campus, the FSU representatives were left with two initial impressions. First, the university had highly qualified leadership and staff and had developed robust and reliable procedures for developing distance education courses. Distance education at UT has typically been managed through the delivery of printed instructional materials supplemented with multimedia available on CD-ROMs, as well as face-to-face tutorials. All aspects of course development and delivery are taken seriously at UT, from developing and validating content materials to delivering materials across the Indonesian archipelago, and through the examination process.

FSU faculty's second impression was that UT faced an enormous challenge in terms of assessment. UT's print-based instructional methods require that all students enrolled in a class simultaneously take sit-down tests at one of UT's regional centers. This means that about 600 examination locations must be organized and approximately 1.6 million written tests must be scored every semester—a gigantic task given the number of students involved and the rigors of the test, which involve essays and written reports in addition to multiple choice questions.

After visiting UT's regional centers in Surabaya, East Java and Bandung, West Java, the FSU representatives began to understand another important challenge: instruction itself. Many of UT's courses require tutorials, most of which are conducted face to face. However, the Faculty of Education students enrolled in courses are generally full-time teachers taking up to six courses a semester while juggling family and other personal responsibilities. They have little time to read the

course materials and—according to UT students who were interviewed—often rely on tutors to explain content that they do not have time to read. The tutors, who are recruited from local universities and often travel long distances to the tutorials, simply can not provide both instruction and tutoring in the short time allotted to the tutorials.

An initial reaction of FSU representatives to these significant challenges was that UT must begin the process of placing its courses and content online, which would allow students to download materials, provide opportunities for online instruction, allow more flexibility for in-service teachers with busy schedules, and allow greater use of online assessment. Of course, this approach also faces obstacles, including the cost of access, limited Internet access, and infrastructure—especially in rural areas where many of UT's students live—and limited experience with online learning on the part of students and tutors. However, UT had conducted a pilot study in which it found that students' participation in online tutorials increased both achievement and course completion rates (Belawati, 2005). Additionally, UT's growing graduate studies program requires participation in online tutorials for all of its courses. Participation in these tutorials contributes 60% to the final grade of each course, with another 40% coming from the final examination. This policy encourages students to be actively involved in online tutorials and to complete all assignments through this means.

The graduate experience has also become the basis for university policy toward undergraduate studies. Beginning in the second semester of 2007, UT students who were taking the final course of their degree programs could join online tutorials, for which they received 50% of their final grade from the online tutorial assignment and 50% from the final examination. This program seems to be a good solution, but often undergraduate students have limited Internet access, making it difficult for UT to make online participation mandatory.

Another potential media that will be used for graduate studies in the coming years is videoconferencing. In 2008, UT started to build infrastructure for videoconferencing at 14 regional offices. This will allow UT's regional offices to have more frequent synchronous long distance tutorials. UT will also be able to invite content experts from across Indonesia and internationally to provide guest lectures to its graduate students. In fact, in November 2007, one of the participating FSU faculty members delivered a videoconference lecture to graduate students and faculty in Jakarta.

The initial visit to UT led the UT/FSU team to identify a central theme for future assistance and collaboration: leveraging technology to improve instruction and assessment. This theme guided all subsequent activities, including a reciprocal visit to FSU in August 2007 by UT's rector and two other administrators, representatives of FSU's other partner universities, and the Indonesian Ministry of Education. During this visit, FSU faculty involved in the DBE effort did their best to showcase FSU's strengths in instructional design, distance education, and teacher education. This visit included a trip to rural Alabama, where the Indonesian visitors toured a K-8 school participating in an FSU project funded by the U.S. Department of Education and designed to improve instruction through the use of instructional technology. During this visit and a candid exchange between Indonesian and U.S. educators, we witnessed the power of bringing together very different perspectives to discuss differences and identify a surprising breadth of common ground. In the opinion of one of the Alabaman participants, this visit was the highlight of her professional career.

Collaborative Work and Workshops

The reciprocal visits left us with a fairly specific idea of the type of work that should be conducted during the FSU representatives' next visit to UT in September 2007. During this two-

week visit, FSU faculty conducted workshops in curriculum development and evaluation, technology-based learning and instruction, classroom action research, and using technology for strategic planning. While Indonesian workshop participants contributed actively and appreciated the information shared with them, a consistent theme of these workshops were the obstacles UT faculty and staff faced in trying to apply the information and procedures to their unique situation. For example, after presenting information on using rubrics to score essay examinations, the natural question for UT staff was how to use this approach consistently for hundreds of thousands of students. FSU's tips on leading online discussions were met with questions on how to motivate students to participate in such discussions when many had inconsistent access to the Internet and did not have experience in online environments. Moreover, in some of the few existing online tutorials, there were as many as 200 registered students. In many cases, the FSU representatives had no response to such questions beyond "We're not sure how to do that. It is certainly a large challenge." Participants in these workshops, as well as UT administrators, also expressed a desire for FSU faculty to work collaboratively with UT staff to develop products and processes that would be directly relevant to improving instruction and assessment at UT.

The September trip also gave FSU faculty an opportunity for a true cultural experience. This trip coincided with the Islamic holy month of Ramadan, allowing the FSU representatives an opportunity to witness how this affected the world's largest Muslim nation. During Ramadan, observers rise before dawn and fast until dusk. As a result, some participants came to workshops hungry, thirsty, and sleepy. The workshops also ended early to allow for prayer and preparations to break the fast. While the workshops were well received, one participant wrote on an evaluation form, "The workshop was great, but next time don't have it during Ramadan."

Deepening Collaboration: Developing Products, Collaborating on Research, and Long-Term Study

The 2007 trip to UT represented a turning point and deepening of the FSU-UT collaboration, as FSU faculty had the opportunity to experience the concrete challenges facing UT. UT and FSU faculty identified several projects and products for the following summer's visit, as well as other collaborative endeavors. These included the joint development of an article on UT for a special issue of the journal *Distance Education* (Luschei, Dimiyati, & Padmo, 2008), and the initiation of a UT-FSU videoconference seminar series sponsored by UT's postgraduate studies program.

In the summer of 2008, FSU faculty returned to work collaboratively with UT personnel on projects related to research and training in instructional design, improving training in conducting online discussions, developing video-based cases for UT's online teaching clinic, and developing resources for in-service teachers working in large, multi-grade classrooms. Each of these activities resulted in a preliminary product that would be directly relevant to UT's work in training teachers. FSU faculty members were also scheduled to conduct a videoconference lecture on assessment of learning and instruction, with over 20 Indonesian universities participating. Immediately prior to the opening of the videoconference, the neighborhood surrounding UT suffered a power outage, leading to the cancellation of the videoconference. This perfectly illustrated the challenges UT faces as it forges ahead with the use of technology to improve instruction.

While at UT in the summer of 2008, FSU faculty also conducted an orientation to FSU for seven UT academic staff who had been accepted or were applying for graduate study at FSU, supported by fellowships fully funded from several different sources. This cohort will considerably deepen and ensure the legacy of the UT-FSU re-

lationship, as FSU-trained academic staff members return to UT to support instructional advances certain to occur in the coming years.

Lessons Learned to Date

During the first three years of the UT-FSU relationship, all participants have had an opportunity to learn both cultural and professional lessons. Most important, FSU faculty came to understand the pressing and large-scale challenges that UT faces in providing high-quality distance education for a large fraction of Indonesia's teachers. UT personnel became aware of FSU's capabilities (and limitations) in instructional technology and distance education. Other important lessons learned so far include:

1. Visits to schools are an important way for FSU faculty and UT staff to understand the importance and difficulties of teacher training; this was especially true with regard to rural, multi-grade classrooms they visited during the summer of 2008.
2. Distance education in a vast and diverse setting requires a variety of approaches and modalities, including face-to-face and online instruction, when possible.
3. Higher education partnerships represent an excellent means to improve not only higher education, but teacher quality, and ultimately, promote economic development.
4. When professional relationships become friendships, the potential for real collaboration increases dramatically.

References

- Belawati, T. (2005). The impact of online tutorials on course completion rates and student achievement. *Learning, Media and Technology*, 30(1), 15-25.
- Jalal, F. (2006, April). *Teacher's quality improvement in Indonesia: New paradigms and milestones*. Report presented to the President of the World Bank. Jakarta, Indonesia: Ministry of National Education.
- Luschei, T. F., Dimiyati, S., & Padmo, D. (2008). Maintaining e3-learning while transitioning to online instruction: The case of the Open University of Indonesia. *Distance Education* 29(2), 165-174.