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Latin America Looks to Europe for Teaching Reform

Efforts to introduce critical thinking aim to inspire both students and professors

By Marion Lloyd

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Veracruz, Mexico _ Ten years ago, one of Jorge Balderrama's psychology students gave the following answer when asked to evaluate his professor's performance: "You pretend to teach, and I pretend to learn."

The student might have been describing the classroom experience today at most Mexican universities, says Dr. Balderrama, a physician and psychologist who has taught for more than 15 years.

Despite more than a decade of government-led higher-education reforms in Latin America, most of the region's universities continue to rely on a traditional professor-centered educational model, which includes a rigid, pre-professional curriculum and an emphasis on rote learning. The model is also highly inefficient, with Mexican college students spending on average 30 percent more time in class than their counterparts in the United States and Canada do, according to education specialists in Mexico and the United States.

Dr. Balderrama is now in the vanguard of an ambitious experiment to transform the way 70,000 students are taught at the University of Veracruz, the country's third-largest public institution of higher education.

The project is one of several major teaching-reform efforts taking place across the region, many of them modeled on the European Union's Bologna Process, which seeks to establish a common standard for university education and boost student and faculty mobility throughout Europe.

Students in the bioanalysis school at the U. of Veracruz do fieldwork at local clinics. "It has been a huge eye-opener seeing what bad shape our community is in," one student said.

Educators leading the projects in Latin America say that if the region is truly to improve its higher-education system, it must start by changing the way professors and students interact in the classroom, bringing more real-world experience and critical thinking into the process.

Starting in February, Dr. Balderrama and another 100 professors drawn from the university's five campuses scattered across the Gulf Coast state underwent a semester-long training program in student-centered learning.

The participants met for several three-day seminars, during which they were asked to identify specific real-life skills their students should be learning, ways of incorporating technology into the classroom, and ideas for hands-on teaching methods, such as involving students in fieldwork and in leading classroom discussions. Each professor was then required to develop a strategy for transforming one of his or her courses to incorporate those goals, and then to put it into effect by the following semester.

The professors are now transferring their knowledge to another 700 colleagues, who will in turn serve as mentors to the rest of the university's 3,500 professors.

Proyecto Aula, or Project Classroom, as the effort is called, seeks to provide the missing link in a decade of sweeping academic reforms at Veracruz, which were designed to combat soaring dropout rates, a lack of scholarly research, and the poor quality of many of the university's academic programs. Changes include instituting a flexible and multidisciplinary curriculum, a new emphasis on critical thinking and problem-based learning, and integrating research and technology into the classroom.

"This project is very innovative and also very necessary in the Mexican context," says Francisco Marmolejo, executive director of the Consortium for North American Higher Education Collaboration, based at the University of Arizona. "There is a very important need to develop new models and to demonstrate that students can learn on their own."

Mr. Marmolejo, a Mexican who holds a degree in business administration from the Autonomous University of San Luis Potosí, argues that Latin American universities must abandon their emphasis on highly specialized and often outdated curricula if they hope to produce graduates who are qualified to compete in the increasingly globalized work force.

"What matters in the end is not just how much they know about one specific discipline or profession," he says. "We need more thinking students with the capacity to adapt to changing conditions in the work environment."

Rethinking Higher Education

He and other education specialists say the fact that a second-tier university such as Veracruz is undergoing such ambitious reforms could inspire other institutions in the region to follow suit.

Still, Veracruz officials acknowledge that, while radical by Mexican university standards, many of the reforms proposed over the past decade have remained on paper.

"It's not just about curricular change or let's change everything to change nothing," says Raúl Arias Lovillo, a Spanish-trained economist who was just elected to a second four-year term as the university's rector. "We had to change the way we were teaching the students."

Mr. Arias got the idea for Project Classroom from a Colombia-based experiment in higher-education reform that sought to increase scholarly and student exchange between Europe and Latin America. Financed by the European Union, the project involved 150 professors from 60 Latin American and European universities in a three-year training program from 2004-7. The project was led by Salvador Malo, director of ASET, a Mexico City-based education-consulting company.

Mr. Arias invited Mr. Malo, a physicist and former No. 2 official at the National Autonomous University of Mexico, to set up a similar project at Veracruz, with a specific focus on improving the quality of teaching at the university.

"There is no other experiment like this in Latin America," says Mr. Malo. While there are examples of Latin American universities adopting partial reforms, he says, "this is the only case of an entire institution trying to rethink higher education."

Other reform projects in the region include a European Union-led effort to revise university curricula that involves consulting public and business officials and other stakeholders about what university graduates need to know.

That tuning process, which began about five years ago in Latin America, was first done in Europe a decade ago as part of broader higher-education reforms. Several Latin American countries, including Chile and Brazil, are also experimenting with instituting student-centered learning methods in public universities.

"In Latin America, the majority of professors are focused on their research and professional work, but they rarely see teaching as an intellectual challenge," says Mr. Malo. "They see it as a chore."

The situation is even bleaker at provincial universities such as Veracruz, where both the level of teaching and of research are far below that of most Asian universities, not to mention European and U.S. institutions, he says. He blames a system that has long mistaken classroom attendance for learning.

Project Classroom also seeks to promote research, but as a complement to teaching. Despite what the name suggests, the project seeks to get students out of the classroom and into the field.

Encouraging students to do fieldwork might be standard practice in the United States, but it's a revolutionary concept in Latin America. Several professors at Veracruz's School of Bioanalysis said they were barred by their previous dean from taking students off the campus as recently as two years ago. Meanwhile, failure of a professor to show up for class is still grounds for disciplinary and economic sanctions at the university, while students who miss several classes automatically fail the course.

However, things are starting to change.

For example, in 2007, Dr. Balderrama began sending his students to conduct sociological surveys in poor neighborhoods, as part of Veracruz's Urban Observatory program. The project, which is supported by the United Nations, uses data collected in cities throughout Veracruz to guide public policy in the state.

He is now integrating technology into the process—an idea he got from Project Classroom. Starting last semester, his students began submitting their field observations electronically through the university's intranet system, a method that has increased interaction among the students. It has also allowed those with scheduling problems to contribute work at off hours.

Another professor, Alfonso Alexander Aguilera, plans to use the training he's receiving through Project Classroom to build on a pilot project in the city's 64 public-health clinics. Starting in 2008, he and another professor, Mercedes Castañeda López, began sending their bioanalysis students to take blood and urine samples from diabetic patients in poor areas. (The state of Veracruz has the highest per capita incidence of diabetes in Mexico, which itself has one of the highest rates of diabetes in the world.)

The students had previously relied on friends or family members for samples, which provided a skewed view of the region's health situation while generating little social benefit. But in the past three semesters, they have taken 15,000 samples from 3,000 patients—tests the recipients would not otherwise have been able to afford.

Real-World Experiences

Mr. Alexander, who is enrolled in the second phase of Project Classroom, is now planning to incorporate professors and students from other departments such as nursing, engineering, and physical education into the fieldwork program.

"How will you generate solutions if you don't expose your students to the conditions of hunger, poverty, social inequality, and illiteracy?" he asks during a recent field trip to a health clinic in Granjas de Río Medio, a squalid cluster of tin-roofed shacks on the outskirts of Veracruz City. Río Medio is one of 41 impoverished neighborhoods that rely on the clinic's three doctors, who serve a total population of 27,000 people.

By the time the students arrive at the bare-bones clinic around 9 a.m., several dozen patients are already waiting in plastic chairs. Minutes later, three Veracruz students in crisp white lab coats begin taking blood and urine samples, while a fourth records the patients' medical histories.

At one point, Jeanette Pulido, a 23-year-old bioanalysis student, misses a vein in an elderly patient's hand. The woman glares at Ms. Pulido as blood spurts from her hand onto the student's white pants and the floor.

Still, most of the patients are grateful for the free medical care.

"If this program had existed 10 years ago, my life would be different," says Guillermina Hernández, a 63-year-old diabetic who recently went blind from the disease.

The patients are not the only ones benefiting from the outreach program. Josefina Morales, a 23-year-old bioanalysis student, is writing her thesis on the prevalence of diabetes in the Veracruz area, using data collected by fellow students.

"It has been a huge eye-opener seeing what bad shape our community is in," she says, while processing blood samples from the health clinic back at the university's laboratory. "I had no idea that diabetes was so rampant."

Project Classroom has already created a ripple effect. The University of Veracruz is serving as the sponsor institution for Project Innova-Cesal, another European Union-financed endeavor aimed at creating a network of teaching experts at seven universities in Europe and Latin America over the next two years. The European Union is providing \$120-million, with the Latin American institutions covering the remaining \$30-million.

Still, not everyone supports the changes under way at Veracruz.

Many students complain that the new flexible curriculum requires them to spend far more time on the campus; rather than four-hour blocks of mandatory courses, students are now required to take English, computer science, and a wide range of electives. Many also say their professors take advantage of the new emphasis on student participation to prepare less for their courses.

Mr. Arias, the rector, acknowledges that the reform process is far from complete. "How do you tell a professor with little relationship with research, when he is teaching based on texts, that his teaching has to relate to real-life problems?" he says. "You're asking him to conform to the profile of an academic in the 21st century. But what is his response? 'No, don't make me work more.'"

However, Mr. Arias is optimistic that Project Classroom will help transform the culture of teaching at Veracruz by showing professors the benefits of a more student-centered approach.

The result, he says: "We're going to have graduates who will be better citizens, more competent and capable of generating something that this country doesn't have: competitiveness."

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