A new education model for bilingual science teachers

Over the past 25 years, the number of public school students participating in English language learning programs has increased by more than 500,000 in the United States. Throughout New York City and Long Island, an increasingly diverse student body has challenged educators and policy makers to develop innovative pedagogical approaches suited to multilingual environments.

In 2011, a trio of Adelphi professors—Tracy Hogan, Ph.D., associate professor of education; Daryl M. Gordon, Ph.D., formerly associate dean of research and evaluation in the School of Education; and Corinne Donovan, Ph.D., formerly assistant dean of research and evaluation in the School of Education—received funding from the New York State Education Department’s Project BEST to create an ambitious education model for bilingual science teachers. “There were two separate classes [a science class and a bilingual class] between the sciences and bilingual teaching. “There were classroom collaboration to create a successful dialogue,” Dr. Hogan and Dr. Gordon emphasized the importance of overall data collection and evaluation of information that yielded a promising look into the future of teacher training. “This gave us a chance to reexamine both of our syllabi.”

The professors worked with teacher candidates to deepen their learning on the importance of particular vocabulary used in the classroom, Dr. Gordon added. “It’s thinking about how science can be taught using simpler English and shorter sentences,” she said. “We worked toward a merger of science methods and TESOL [teaching English to speakers of other languages] methods.”

The program provided a unique opportunity for the candidates to spend a year at their school site. “The New York state grant allowed our grad-student teachers to be paid a stipend while both learning to teach effectively under mentors [and] providing additional instructional support to the student population at the school sites,” said Dr. Hogan. “This allowed for a full immersion experience, including a chance for participants to serve as substitute teachers; it also supplied useful data for Dr. Donovan’s research. “Because they were in the schools for longer than our typical teacher education students, I wanted to look at it from a comparative perspective against our other programs that did not have students fully immersed for a whole year,” she said.

Trainees found the program demanding yet rewarding. Dr. Donovan reported, “It was a pretty heavy load in terms of both the curriculum and the immersion in the schools for a full year at the same time, but what that yielded was a very rich education,” she said. “They all felt prepared to go into the schools immediately and be able to teach. I think that was absolutely beneficial to them.”

This program offered invaluable lessons for the structure of clinically rich teacher preparation models, particularly regarding the relationships between Adelphi graduate students, partnering school districts, teacher mentors and the K through 12 students they are all here to serve.

“I’m thinking about how science can be taught using simpler English and shorter sentences.”

Tracy Hogan, Ph.D., works with teachers in underrepresented communities to improve science teaching in order to increase learning and promote active citizenship. She has managed both state and federal grants aimed at supporting preserve science education and has published in both psychology and educational journals. Prior to earning her Ph.D. in Educational Psychology, she was a middle and high school science teacher in Iowa and New York City.

Daryl M. Gordon, Ph.D., focuses her research on gendered second-language socialization, the impact of trauma on refugee second-language learning, and naturalization education and national belonging. As a President’s Leadership Fellow, she has investigated ways Adelphi can integrate campus internationalization efforts.

Corinne Donovan, Ph.D., formerly the assistant dean of research and evaluation for the Ruth S. Ammon School of Education, has a background in industrial and organizational psychology and more than 15 years of applied program evaluation experience in education as well as corporate settings.