

## Chapter 19

# Improving Assistive Technology Training in Teacher Education Programs: The Iowa Model

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### ABSTRACT

*Teacher knowledge of and comfort with assistive technology (AT) has a profound effect on the use of this technology by students with disabilities. Currently, very few teacher preparation programs effectively address AT with their students. This chapter will discuss how to improve AT training at both a preservice and continuing education level for teachers by focusing on the innovative initiatives being undertaken by the Iowa Center for Assistive Technology Education and Research in the preservice teacher education program at the University of Iowa. By the end of this chapter, readers will understand the pressing issues in AT training for teachers and what is being done to create a new generation of AT savvy teachers by improving overall AT knowledge and comfort levels.*

### INTRODUCTION

The University of Iowa's College of Education created the Iowa Center for Assistive Technology Education and Research (ICATER) in 2006 to respond to the stated need of increased preservice AT teacher training by those across the state who worked with AT on a regular basis. Assistive tech-

nology services in Iowa are provided by an Area Education Agency. The state is divided into ten Area Education Agencies (AEAs) each covering large areas and containing numerous school districts (Iowa Department of Education, 2009). Each AEA has an AT team, however, these teams are small; especially when the physical size and number of districts served within each AEA are considered. Some AEA's have over 3,000 students with AT written into their Individualized Education Plan, yet

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have fewer than ten AT professionals to work with these students. These constraints make it impossible for the AEA AT professionals to work with every student with AT needs on a regular basis.

Many teachers in these schools either do not have the required knowledge to effectively use the technology with the students as needed, or are not comfortable incorporating and using AT in class. Without the support and willingness to follow through of the classroom teachers, the work done by the AT professionals often leads to improper use, limited use, or AT abandonment (Cook & Hussey, 1995; Phillips, B., & Zhao, 1993). Thus, it was identified that not only is it important to provide professional development training opportunities to teachers in the field, but it is critical to create a new generation of teachers, both general and special education, that are not only knowledgeable in the use of various types of AT, but also comfortable enough to properly incorporate them in the classroom environment. To do this, it is imperative to incorporate AT education and training into preservice teacher education programs.

Although proficiency in AT for preservice teachers is emphasized in the 2001 Council for Exceptional Children (CEC) technology standards, only a few articles exist describing instructional methods for integrating AT into teacher education programs (Van Laarhoven, Munk, Zurita, Lynch, Zurita, & Smith, 2009). The Iowa Center for Assistive Technology Education and Research took this relative vacuum of information on providing preservice teacher AT training as an opportunity to create a new model program involving a combination of both obtaining information through lectures and meaningful hands-on experiences with AT commonly found in school settings. This chapter will focus on these innovative initiatives being undertaken at the University of Iowa to improve teacher's knowledge of and comfort with AT.

## **ICATER'S APPROACH TO PRESERVICE AT EDUCATION**

Upon its creation, ICATER's preeminent goal was to incorporate AT training and education into the curriculum of each of the college's four departments; Teaching and Learning, Educational Policy and Leadership Studies, Counseling, Rehabilitation and Student Development, and Psychological and Quantitative Foundations with a focus on the Teaching and Learning program. The one constraint given was that due to an already crowded curriculum of required classes, a mandatory AT class could not be created. To meet the AT education need, ICATER has worked with faculty in each of the departments to create an AT lecture series addressing various AT topics in classes that College of Education students are required to take. The lecture series' level of specificity is tailored to the needs of each individual group of students. The goal for each group is the same—to become aware of AT's existence, its benefits, the barriers preventing successful use in K-12 schools, how the most commonly used devices and software packages in K-12 schools work, and who might benefit from the different types of AT. Even though the goals are the same, they are arrived at differently. For example, those majoring in special education will receive more AT training than those in general education. The training received by special education majors is also more specific than just an overview and introduction of the field. Those in general education receive training that is framed differently than those in administration programs. Those in the administration programs are given an overview of AT followed by a discussion of the administrator's role in the AT process. Each group will receive training in the areas of AT most important to their future careers.

To increase AT usage in schools, not only must general and special education teachers understand how to use various AT solutions, they also must be comfortable using such devices with students.

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