

## Foreword

As an Associate Editor-in-Chief of the *Journal of Technology and Teacher Education (JTATE)*, I have the pleasure of reviewing some of the top published articles that address the role of technology in preparing teachers. The foundation of research for the field has grown immensely. There are authored works that cover almost every aspect of technology, ranging from virtual reality and mobile computing to games and simulations for preparing teachers.

There is one area of research where we are still lacking—online education. It is naïve to suggest that such articles do not exist. I have seen such articles in *JTATE*, and many of the authors of the chapters in this book have themselves published research, theory, and practice articles about the use of Web 2.0 and 3.0 tools to improve teaching and teacher education. However, online learning as a field is relatively new. Although the construction of online programs at all educational levels began in the 90s, it never really gained traction until the mid 2000's. This has meant a relative dearth of research articles specifically on practices within said programs. Such a lack of foundational knowledge has correlated to a lack of teacher preparation in this important area.

Perhaps the best evidence of this argument is to examine such existing practices. Many colleges of teacher education still only require one or two courses in technology—with many of these courses having topics like desktop publishing and spreadsheets for in classroom use. One could also explore state and national standards for online education. Most states do not have online education as a part of their certification process. And national agencies are struggling to create standards for teaching and learning online.

The most troublesome findings come from Rice and Dawley, colleagues at Boise State. They found that most teachers who were teaching online received little to no instruction prior to their online experience. Some who did receive training were given access long after the course had started and through a face-to-face medium. Finally, many teachers who were teaching online had never taken an online course themselves.

This lack of participation does not, however, correlate with what is happening in the field. An estimated two million P-12 students took online classes last year in the United States. All fifty states have some sort of legislation regarding online learning. And, some sources suggest that in ten years, a majority of classes will be online.

In sum, you have an exponential growth of online practice mixed with a relatively poor response by many who are preparing teachers. This is one of two reasons this book is so important. A collection of research related to online education and teacher preparation will help form the foundation by which colleges and other preparatory in-service or pre-service programs can rethink their efforts and meet real world demands.

A second reason relates to policy efforts. Legislative conversations about online learning and teacher professional development are happening globally. For instance, in the state of Ohio, legislators spent the last year examining best practices related to online education. One topic of discussion was the research showing teachers matter when it comes to online success. If teachers matter, what policies should be put in place to reform how they are prepared? Legislators should be able to point to a foundation of best practice research that guides their thinking. This book will help support that research effort.

The term online education mixed with teacher preparation means at least four things.

1. Preparing in-service teachers through online professional development
2. Preparing pre-service teachers to teach online
3. Using online tools to prepare both in-service and pre-service teachers
4. Using online delivery to prepare both in-service and pre-service teachers to teach online

The importance of this book is that it touches on all four areas. It does so directly at times, and at other times indirectly while discussing the latest technology or a specific educational approach. The book is divided into seven sections, ranging from collaboration to delivery options. However, it is important to note that there are two other critical themes that run throughout this book.

The first theme is **innovation**. Some of the tools discussed and presented are on the cutting edge of educational technology research. More importantly, the editors have done an important task in getting authors to think about the present and the future. What is technology and teacher preparation going to look like in five years? Ten years? The second theme is **pedagogical content knowledge**. If knowing math is different than knowing how to teach, and both are different than knowing how to teach math, then surely teaching math online or with online tools is also different. This book recognizes that in covering various content areas.

This book is an important step in preparing colleges of education and teacher educators to think critically about the role of online tools and online education in preparing teachers. It is my hope that such a book leads to changes where teachers are prepared differently. I look forward to a present and future where pre-service teachers have opportunities for blended or online internships, and where pre-service teachers get just-in-time collaborative help from mentors far away. The research presented in this book suggests that this not only can happen and does exist, but that it can happen ubiquitously.

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