

Course Title: Technology Applications for Teaching and Supporting the Struggling Reader

Instructor: Dr. Angie McQuaig

Presenters: Margaret Bausch and Ted Hasselbring

Length: 15 hours

Dates: Rolling admissions

Prerequisites: Bachelor's Degree

Number of credits: 1

Course Description: Too many students are entering middle and high schools with deficits in literacy skills that prevent them from participating in grade-level learning. Students with low-literacy skills quickly fall into a cycle of failure, often resulting in dropping out of school. This need not be the case. Over the past forty years, research in the cognitive and neurological sciences has helped us to better understand how the human brain is restructured during the process of learning to read. In this course, Drs. Hasselbring and Bausch discuss how to leverage this knowledge to facilitate the use of technology to enhance literacy instruction for all readers, and especially struggling readers. They provide specific examples of technology that teaches and supports literacy skills. The course is enhanced by screen shots, product walkthroughs, interviews, and footage of students at computers and in classrooms. The course also includes a panel discussion among experts in the field.

Course Objectives:

After completing this course, educators will know:

- How the brain learns to read
- How the brain's memory systems work
- What basic skills all readers need to learn and in what sequence
- Technological tools to assist struggling readers
- Methods to assist reading comprehension

Learning Outcomes:

After completing this course, educators will be able to apply the following in their classrooms:

- Facilitate the brain's process of learning to read
- Facilitate the transfer of information from working memory to long-term memory
- Assist students to word level automaticity
- Assist students to fluency
- Employ the FASST model to build automaticity and fluency
- Employ guided practice when appropriate
- Facilitate independent practice when appropriate
- Assist in the development of comprehension skills
- Employ video anchors to help students developmental models
- Utilize Read 180 and System 44 to assist struggling readers

- Employ text-to-speech programs, visual learning tools, abridged text, alternate text, picture text, and supported text to assist struggling readers
- Describe the ideal 21st century classroom for all students
- Employ technology to build students' expertise
- Facilitate cooperative learning
- Reflect on their roles as educators in the digital age

Session Topics (8):

1. The Brain and the Process of Reading
2. The Process of Learning to Read
3. Technology for Learning to Read
4. Building Reading Comprehension
5. Read 180 and System 44
6. Technology to Support the Struggling Reader, Part 1
7. Technology to Support the Struggling Reader, Part 2
8. Responding to the Needs of 21st Century Learners: Expert Panel Discussion

Presenter Overviews:

Margaret E. Bausch, assistant professor in the Department of Special Education and Rehabilitation Counseling at the University of Kentucky, earned a Master of Science Degree in Special Education Learning Disabilities and a Ph.D. in Special Education Technology from the University of Kentucky. Dr. Bausch spent nine years as a teacher of students with learning and behavior disorders before devoting her efforts to research and development projects in assistive and instructional technology. She has served as a co-principal investigator of the National Assistive Technology Research Institute, a federally funded project designed to examine factors related to the planning, development, implementation, and evaluation of assistive technology services in schools. Currently, Dr. Bausch is serving as the principal investigator of the Kentucky Assistive and Rehabilitative Technology Training grant that is providing scholarships to prepare personal from varying fields to integrate instructional and assistive technology into the school curriculum, post-secondary education, employment situations, and the daily lives of persons with disabilities.

Ted Hasselbring has conducted research for the past 30 years on the use of technology for enhancing learning in students with mild disabilities and those at risk of school failure. Dr. Hasselbring was a special education teacher in New York. In 1977, he began his career in higher education as an assistant professor at North Carolina State University. In 1982, Dr. Hasselbring joined the faculty of Peabody College of Vanderbilt University where for eighteen years he served as the co-director of the Learning Technology Center and conducted research on using technology to provide instruction in reading and mathematics. This research resulted in several widely used computer-intervention programs for struggling learners, including READ 180, FASTT Math, and Simon SIO. In 2000, Dr. Hasselbring moved to the University of Kentucky as the William T. Brian Professor and Endowed Chair in Special Education Technology. While at Kentucky, he also served as the executive director of the National Assistive Technology Research

Institute. In 2006, he returned to Vanderbilt to resume his research and development activities in computer intervention.

Methods of Instruction:

Methods of instruction will include

- Individual sections (8)
- Video lectures (8) (15 hours)
- Interactive study guide sessions (8)
- PowerPoint presentations (8) (60 to 100 pages)
- Transcripts and handouts (100 pages)
- Graded post assessments (8)

Texts and/or Other Materials:

- Transcripts, handouts, and PowerPoint presentations (200 pages)

Assignments

- Post assessment Q&A sessions (8)
 - 10 True and False Multiple Choice Questions (graded, feedback including correct response)
 - 5 Interactive Study Guide Questions (Open-ended with feedback, including suggested responses)

All steps listed under each topic must be completed to receive credit for the course. No partial credit will be given.

Due dates:

Online, self-running programs can be started and completed at participants' own leisure within two months from the day they begin the course.