Article from:

ARCH 2013.1 Proceedings

August 1-4, 2012

Douglas Bujakowski, Jed Frees, Margie Rosenberg
Technology Enhanced Learning for Actuarial Science Education

Jed Frees, Margie Rosenberg, and Doug Bujakowski

University of Wisconsin-Madison

Partially Sponsored by SOA CAE grant
Objective

To develop technology enhanced learning (TEL) tools to provide new ways for students to master classroom material

- Learning enhancement, not distance education
- Tools available anytime and anywhere
- Tools freely available for the public
The TEL Project Website

http://instruction.bus.wisc.edu/jfrees/UWCAELearn/default.aspx

Includes:
1. Video clips for exam questions
2. Video clips for learning R and applied statistics
3. Video tutorial for creating videos in Camtasia
4. Learning modules for actuarial mathematics
Video Clips for Exam Questions

- Society of Actuaries posts practice questions for each exam on their website
- Suggested solutions
  - Are concise
  - Utilize the quickest method of solving each problem
- Video clips provide
  - More explanation
  - Guided instruction
Video Clips for Exam Questions

- Benefits include
  - Another way of solving the problem
  - Voice and graphs
  - Ability to rewind and replay
- Quality Assurance
  - Clips have been reviewed by team members
  - Pilot testing in class
- Currently supporting exams P, MLC, MFE, and C
Video Clips for Applied Statistics

- Supporting R Commander
  - A GUI interface for R
  - 11 video clips that demonstrate how to use this package
  - A great way for new users to learn R
- 36 video clips that show how Excel can be used for data analysis
Creating a Video in Camtasia Studio

- All videos are created in Camtasia Studio
- Learn how to record, edit, produce, and share your own videos!
  - Our step-by-step instructions to produce video tutorials
  - TechSmith video Camtasia tutorials
Learning Modules (New!)

Resources include:

• Review Modules
  - Formula and symbol summary sheets
  - Flashcards
  - True/False and multiple choice questions

• Chapter Modules
  - Notes and graphs in an outline format
  - Audio and video explanations
  - Examples and exercises

Currently, we only have chapter modules for Actuarial Mathematics II.
Work for Academic Year 2012 - 2013

• Finish videos for exam problems
• Create learning modules for P, MLC
• Complete booklet of written tutorials for learning R as aid for applied statistics
• Create applications linking applied statistics to MLC and C
Thank you!