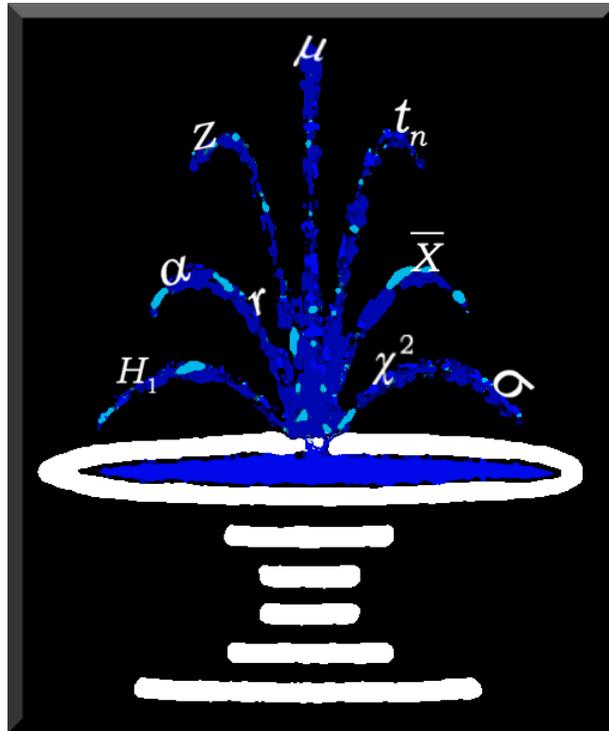


Faculty First Grant Report --- 2014

THE SOURCE



**“Math 115 Statistics at your fingertips, an
interactive online learning module”**

Bob Guest

Senior Lecturer
Math 115 Course Coordinator

College of Arts and Sciences
Department of Mathematics

Course title and description: Math 115 Introduction to Statistical Reasoning. This course is an introduction to probability and statistics without calculus, generally taken by non-stem majors to meet the quantitative reasoning distribution requirement.

THE SOURCE, is an interactive webpage resource primarily designed to help the various groups on campus that provide free tutoring to students in math 115 know exactly what is being taught in the course and what is expected of the students.

Number of students effected: Approximately 1500 students take math 115 annually.

Semesters the course has/will be taught: There are 20 - 25 sections of this course taught every fall and spring semester as well as 3 – 5 summer sections.

The product of the Faculty First program: The first live iteration of the Captivate module, THE SOURCE, was launched in late October of this year with 157 pages of content.

The webpage can be viewed at: www.math.utk.edu/~bguest/thesource

iPad users go to: www.math.utk.edu/~bguest/thesourceipad

Student evaluation: THE SOURCE was launched in late October of this year to allow tutors and other users start to get familiar with it. Initial feedback although anecdotal has been very positive. I have witnessed several of our tutors in the Math Tutorial Center use it successfully when helping students. I have introduced it to students (not in my sections) in the Math Tutorial Center and their reactions have been universally positive. I even had one of my students comment on it in their SAIS course evaluation “Continue to promote the new website with the chapters and examples. It is really neat.”

Project benefits for the department and UT: THE SOURCE, is an interactive webpage resource primarily designed to help the various groups on campus that provide free tutoring to students in math 115 know exactly what is being taught in the course and what is expected of the students. These tutoring services are provided by the Math Tutorial Center, the Office of Multicultural Student Life, the Student Success Center and the Thornton Center.

As anticipated, a side benefit is that THE SOURCE is also usable as a study aid for those that are currently taking the class. An unforeseen benefit, at least at this stage of refinement, was that one of graduate students teaching

115 for the first time brought the webpage up in class and used it as the basis of her lecture for a couple of topics.

As with all 100 level math classes, Math 115 is a bottleneck course that often has to be repeated by students. THE SOURCE will help students better succeed in this course the first time having a positive impact on 4 year graduation rates which is a huge part of the universities top 25 goals.

Being a public resource this also benefits the department in its' efforts to maintain consistency from section to section for the 100 level courses being taught by a large number of people. Not only does it allow for a consistent message by the tutoring resources on campus, the fact that this information is being held out to campus as the course standard helps keep instructors on the same page knowing that their instruction needs to be consistent with what is already out there.

Conclusion: This is a continuation of a 2013 project. In that first we encountered a tremendous amount of technical difficulties in learning how to mesh all of the software output being used to create the examples. With the help of Steve Chastain I solved those issues and also developed the structure and styling of the Captivate module.

This year the Susannah Finley coordinated the project for OIT. She has been an incredible resource to me on this project as have the two graduate students, Kelsey and Katie that did a ton of the creation of the actual module example pages.

My goals for THE SOURCE are enormous, to the point where at some future point I see it as a potential flipped course standalone delivery system. These goals are very ambitious and as such will take an enormous amount of work to achieve. However, the static version that exists now does meet my first large goal of creating a unified source of information for everyone involved in helping a math 115 student succeed have at their fingertips.

I would still like to accomplish: I have started production of videos that will demonstrate how to use the allowable calculator functions that will be added to THE SOURCE soon. A few other content pages are under construction to be added by early next semester. Finally a comprehensive set of instructional videos will be produced and added in periodically when available.