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## Reader's Response: What is a SoTL?

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### **Abstract**

A response to, "SoTL Commons Conference: A Spirit of Inquiry" by Margaret Davis, Kera Watkins, and Deborah Allen, *International Journal for the Scholarship of Teaching and Learning*, Volume 3, Number 2 (July 2009).

### **Keywords**

SoTL

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## Reader's Response

A response to, "[SoTL Commons Conference: A Spirit of Inquiry](http://academics.georgiasouthern.edu/ijsoTL/v3n2/invited_essays/_DavisWatkinsAllen/index.htm)" < [http://academics.georgiasouthern.edu/ijsoTL/v3n2/invited\\_essays/\\_DavisWatkinsAllen/index.htm](http://academics.georgiasouthern.edu/ijsoTL/v3n2/invited_essays/_DavisWatkinsAllen/index.htm) > by Margaret Davis, Kera Watkins, and Deborah Allen, *International Journal for the Scholarship of Teaching and Learning*, Volume 3, Number 2 (July 2009)

## What is a SoTL?

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I can be described as a "hardcore" natural scientist with a background in biology and chemistry. By growing up in laboratory environments for about 20 years, my understanding of science and the scientific method is solid. However, I was never really instructed on how to teach and thus went with some anecdotal knowledge into the classroom when my scientific career at UPR started as an Assistant Professor in 1996. Maybe the fact that my parents were both teachers and that I was exposed to some pedagogic ideas helped a little, but really, I largely had no clue – and I do believe that this is not uncommon when new professors enter the university.

I did believe in certain concepts – interaction with students in the class, assessing student knowledge during the class, looking carefully at the outcome, etc., but I was largely on my own and was left me alone because I headed a successful research group with good productivity and grants. But, research in the laboratory is not teaching in the classroom. Interacting on a one-on-one basis with graduate students and guiding their research is complex and difficult, but the outcome is very well defined in the sciences and is called peer-reviewed papers. It is very different from conveying learning content and concepts to students in the classroom. And so it continued until 2007.

In 2007 I became head of the Department of Chemistry. Suddenly I had to deal with overseeing undergraduate education which obviously included assessing our effectiveness and developing new strategies in sectors where I felt that we could be doing better. I knew that some of my colleagues were active in an area called "Research in Chemical Education" and became interested in what this actually involved. In that context I started reading educational papers, discussing their research, and went to seminars they organized. I started to become educated on assessment tools and methods, the value of good rubrics – even concepts like peer-mentoring and tutoring, among many other subjects. Development of a grant to the U.S. Department of Education MSEIP program helped too and we got it funded in 2008 ("Long-range Improvement of Chemistry Education at UPR-RP").

But still, did I really understand what a SoTL is? Well, the true nature of the species *Sotalensis curiosus*\* still had not entered my brain, but the grant obviously forced me to get involved even further and try to really understand [Note: I am still trying!]. On that occasion I learned about a certain SoTL conference in Georgia (USA) and decided it might be good to learn first-hand from scholars what SoTL actually involves. As a scholar, even

though in a different field, I decided to contribute and present some of our efforts together with a young colleague (Liz Diaz) – who was the lead in this endeavor and developed a very nice poster.

So, off to SoTL to learn. The essay in the July 2009 issue already highlights many events important to the colleagues who wrote it and I second their views. However, I will add some of my personal impressions as a SoTL newbie. First of all, SoTL people are very inviting to newbies and never make you feel like a semi-educated fool. We were invited with open arms and Liz's and my views were appreciated in discussions. Second, the talks by scholars during the conference were extremely instrumental to me in focusing my efforts on areas of importance. SoTL is a very broad area – too broad to cover all aspects and also containing aspects out of my personal sphere. But in many presentations certain SoTL aspects returned in different form and shape. After a while, I identified assessment and assessment tools in qualitative and quantitative manners as some of the most important aspects of SoTL. Well, for a natural scientist this is expected because any outcome needs to be measurable – what surprised me, however, is the complexity and the tremendous effort necessary to remove as much bias as possible from the data.

Other issues involved the mode of learning and teaching, and the psychology involved in the process (the scary sounding word “metacognition” also presented itself repeatedly in this context). There were some pearls to be found. For example, and this might surprise you to hear from a person who published about 100 peer-reviewed papers; **peer-criticism** with the help of good rubrics as an efficient learning tool was a new concept to me. SoTL pointed me in that direction and we are building this up here in Puerto Rico. We now have a group of about 30 undergraduate students developing and implementing new laboratory experiments and helping faculty in the laboratories. Qualitatively I already judge this as a success because students – in particular freshmen – feel much less intimidated by peers than by profs. They ask more, interact much better than before, and the peers serve as confidence builders. Other examples of SoTL pollination exist.

In conclusion, many scientists have an idea of scholarship, but not of SoTL. It can not be overestimated what exposure of SoTL to new faculty can do to improve their teaching and learning. The SoTL conference opened my eyes to additional, exciting research area next to my “traditional” laboratory research in the areas of biochemistry / biotechnology / nanotechnology. To answer my initial question: the *Sotalensis curiosus* (in short SoTL) is a species born out of curiosity, lives on learning and teaching, and never stops trying to convince others belonging to the species *Homo sapiens* that being a SoTL is important and fun. That is what **a** SoTL is.

\*The first organism I worked with was the brown bacterium *Chloroflexus aurantiacus* (the “golden flexible phototroph”) and I am very fond of the polish novelist Stanislaw Lem (1921-2006, [http://en.wikipedia.org/wiki/Staniław\\_Lem](http://en.wikipedia.org/wiki/Staniław_Lem)) who used fictional species names frequently in his sci-fi stories. I borrowed this idea from him as he asked before: What is a Lem?