



# THE MANTLE

*Center for Excellence in Teaching and Learning*

## **Alicia Bouldin: *Not Yammering Yonder But Lighting Learning Lamps***

by Johnny W. Lott, Director

The teaching philosophy of Dr. Alicia Bouldin succinctly summarizes (in alliterative haiku!) many of her feelings about how and why teaching should be done on a university campus. And this philosophy comes through very distinctly when one begins to talk about her work in teaching. However, that work did not come early in her career.

A Kosciusko native and a University of Mississippi product, Bouldin says, "Learning toward our potential sometimes takes a round-about path through diverse experiences." A liberal arts major piqued many different undergraduate interests from music, English, psychology



*Dr. Alicia Bouldin*

and biology. Her junior year found her fascinated by a psychology course on brain science and made her wonder how drugs actually "do what they do." A second degree in pharmacy answered some of those questions for her but did not yet lead her to teaching. It was only after a stint in clinical research for Eli Lilly that she came back to graduate school and became a research assistant and a teaching assistant that she was hooked on teaching.

Like many young students, she had previously resisted any and all ideas of a teaching career such as that enjoyed by her grandmother and both parents. But lecturing in large classes and specifically one-on-one tutoring convinced her that teaching was her special calling. Her department's faculty members, such as Dewey Garner, Mickey Smith and others, were collegial, allowed any questions to be asked, and provided an incubator for ideas. The entire staff acted as mentors along the path. She still describes the School of Pharmacy as a special place for faculty members.

Currently teaching a core communication course for the Department of Pharmacy Administration, Dr. Bouldin is living her teaching philosophy. Teaching assistant development and facilitation of faculty development are roles that she fulfills for the dean's office. She talks about the school being one of the very early adopters of technology on campus, including such now-commonplace equipment as electronic podia, videoconferencing and a totally wired auditorium. Her beginning work for the school included helping faculty

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**DR. BOULDIN'S PHILOSOPHY:**  
**NOT**  
yammering yonder,  
windy words without wisdom;  
wretched wrathful rant

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**BUT RATHER**  
guiding growing gifts,  
heaping hearty helpful hope;  
lighting learning lamps

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<b>INSIDE</b>	Expert and Novice Learners . . . . .	<b>2</b>	Students and Office Hours . . . . .	<b>4</b>
	Teaching Tips, Resources . . . . .	<b>3</b>	Tests as Learning Tools . . . . .	<b>5</b>

# Honoring Differences Between Expert and Novice Learners

by Susan Mossing, Assistant Director

The mission of the University of Mississippi is “to produce graduates who have the breadth and depth of knowledge to be lifelong learners, to be successful in their discipline, and to be good citizens.” To accomplish this goal, faculty members must attend to the content and process of education. Studies show that differences exist in both of these facets of education when comparing expert learners to novice learners. This article outlines (1) the differences between expert and novice learners in terms of cognitive processes used in learning and the mental representations those processes generate and (2) a set of active-learning pedagogies honoring the differences.

## Mental Schema

Students take in information through their senses and construct mental representations of that information. The mental representations (schemas) of expert learners look very different than the schemas of novice learners. Expert learners have intricate, nuanced schemas. In a concept map representing an expert’s schema, the fundamental elements upon which knowledge is built may be obscured by a rich web of interconnections. Information depicted in the concept map would be too complicated for novice learners to understand.

In contrast, novice learners have a more simplistic, yet fragmented, conceptualization. Their initial efforts are aimed at understanding and positioning the fundamental elements of their mental models. Only after they understand these concepts can they begin to add layers of complexity to their schemas by establishing and testing connections among elements. While experts can instantly recognize superfluous information; novice learners must process all information to determine what is important.

## Cognitive Processes

Education is not simply the transfer of knowledge from the professor to the student, but is a construction process. Expert faculty deconstruct knowledge and offer it to students to be reconstructed. This deconstruction/construction process is accomplished through the use of a set of tools, which must also be built. For reconstruction, expert learners use higher-ordered cognitive processing skills such as analysis, synthesis, and evaluation, while novice learners tend to use lower-ordered skills such as recall and simple application.

Expert learners often do not understand how their higher level cognitive processing skills developed and how to facilitate this development in novice learners. Active-learning pedagogies can provide guidance in this endeavor.

## Active Learning Systems

Three commonly used active-learning systems include:

*POGIL*. Process-oriented guided inquiry learning (POGIL) offers a clear structure in which students are placed into small self-managed groups. Each group member plays a role: manager, recorder, reflector, technician, and presenter. Groups are given carefully crafted problems that lead them through a three-phase learning cycle: exploration, concept invention, and application. Professors monitor groups for effective learning and facilitate appropriate reasoning. Careful construction of problems and learning activities ensures that course content is learned as students actively build schemas and interconnections. Accompanying social learning ensures that students exercise important cognitive processing skills, actively developing tools needed to continue to construct and refine schema. As class ends, the recorder hands in completed assignments, and readings covering the day’s lessons are assigned as homework. Typically, a short quiz covering the reading is given at the start of the next class day. Outcome studies show significant improvements in student learning when POGIL is employed.

*PBL*. Problem-based learning (PBL) is much less structured and requires that students be equipped with a higher problem-solving skill set when they enter the classroom. Here too, students work in groups, but with less structure in the content to be learned and the cognitive processes to be employed. Often used in professional education, students are given case studies or problem scenarios and must collaborate to find solutions. They determine what they need to know and how to find the information. Examples are seen in the University of Mississippi Medical School. The learning environment is more ambiguous and outcomes are less controlled. Outcome studies show mixed results.

*PLTL*. Peer-led team learning (PLTL) is conducted outside of the classroom and without the professor. Similar to Supplemental Instruction (SI), an undergraduate or graduate student is employed to conduct workshops for students in

specific classes. Typically, these students have taken the class previously and have been successful. During the semester in which they lead the workshops, they work closely with the professor who serves as a content resource and guide. Teaching and learning professionals train peer leaders in problem-solving skills and collaborative learning techniques. They also serve as resources and guides in the area of learning process. An example is seen on campus in the Departments of English and Psychology. PLTL utilizes the strengths of social learning activities and moves learning from a passive activity to an active one. Outcome studies generally show favorable results for PLTL and SI processes.



## References

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Eerlein, T., Kampmeier, J., Minderhout, V., Moog, R. S., Platt, T., Varma-Nelson, P., White, H. B., (2008). Pedagogies of engagement in science: A comparison of PBL, POGIL, and PLTL. *Biochemistry and Molecular Biology Education*, 36, 262-273.

## Teaching Tips

- Faculty Focus published five things that college professors can learn from K-12 educators including teaching, assessment, and other important items. See <http://www.facultyfocus.com/articles/five-things-college-professors-can-learn-from-k-12-educators/?c=FF&t=F81105> .
- Watch The Student Today on <http://www.youtube.com/watch?v=dGCJ46vyR9o> . There are several lessons here from students to faculty members.

## Teaching Resources

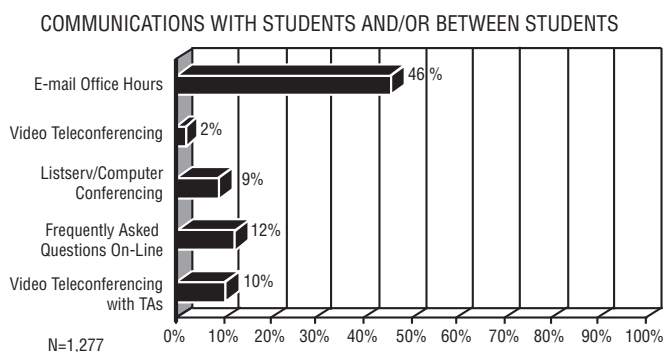
- Information Age Publishing recently (2009) released the book *Evaluating Electronic Portfolios in Teacher Education*, edited by Pete Adamy and Natalie B. Milman. Though written about teacher education, there is much food for thought about electronic portfolios for all.
- The National Council of Teachers of English recently released the report “Writing in the 21st Century”. There are important messages about writing at all levels. See [http://www.ncte.org/library/NCTEFiles/Press/Yancey\\_final.pdf](http://www.ncte.org/library/NCTEFiles/Press/Yancey_final.pdf) .
- The Phi Delta Kappan (March, 2009) contained the article “When Educators Learn, Students Learn: Eight Principles of Professional Learning”. See [http://www.pdkintl.org/kappan/k\\_v90/k0903hir.htm](http://www.pdkintl.org/kappan/k_v90/k0903hir.htm) .

# Students and Office Hours—How, Where, and When?

by Johnny W. Lott, Director

A continual issue for most university faculty members is what, when, and how to handle office hours. At the University of Houston, a posted policy is the following: “The number of office hours will vary depending upon the nature of the individual’s assignment and upon how many student advisees are assigned to him or her, normally 6 hours per week in a regular semester.” Regardless of policy, a common faculty complaint is, “It doesn’t matter when I post office hours; students never come anyway.” And a set of common student complaints is, “Why should I go to the office? No one is ever there. And if the prof is there, there are phone calls and people interruptions so that I can’t ask a question.” If those complaints are realistic, then what can be done to make interactions more positive for both groups? Some suggestions follow.

**Use electronic office hours:** In 1995, the University of California released the following graph concerning communications between faculty and students:



And today at Boston University, we find the following about not just email office hours but also about electronic office hours in general:

*Faculty may consider setting aside a subset of their office hours to electronic office hours. Faculty can use instant communication systems such as instant messaging from AOL or course management discussion boards/chat rooms from WebCT or CourseInfo to be available to students online for an hour each week. This is a useful way for faculty to use their time reaching students directly.*

Not only must office hours be established, but to be effective, there are other considerations:

**Use common etiquette:** Lemos writes in “Etiquette for the Professoriate”:

“...treat them [students] as you would treat guests visiting your home. Honor appointment times with students... Give the student your full attention.” The message is clear: when students come to your office hours (in whatever form), they become the priority!

**Use non-traditional office hours and methods for interaction:** If students are not coming to your office, then consider how you can bring your office to them. Experiment with an hour once per week in Johnson Commons, the Student Union, or the Williams Library.

**Use The Answer Place in Fall, 2009:** When the Center for Excellence in Teaching and Learning moves to Hill Hall in the fall of 2009, consider holding one office hour per week in The Answer Place. When implemented, with faculty and graduate instructor assistance, The Answer Place will be open to teachers and students for question and answer sessions. A general plan is to have areas set aside in the room with placards on tables indicating the subject area expertise of the faculty member and allowing students to enter the area, find the desired subject specialty person and to engage in conversation and questions. If teachers donated one hour per week to the area, they could not only see their own students, but also help to answer questions from students who are not “theirs.” The Answer Place can only help the University of Mississippi students learn and will allow them to meet different faculty than those they might normally encounter.

Look for announcements about The Answer Place during the fall semester and consider how you can make your office hours more a part of the education of students.

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- Retrieved April 1, 2009 from <http://www.ucop.edu/planning/survey.html>.
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# Tests as Learning Tools

by Nancy Wiggers, Learning Specialist

Traditionally, testing is a practice utilized to gather information for program evaluation, student evaluation, and even instructor evaluation. Tests provide the foundation for educational decisions interpreted against some pre-selected criteria. For students a test can be more than a tool through which they relay information for a grade; it can be a tool through which they learn.

In today's educational environment, the prevailing learning theory underlying discussions relative to curriculum development and instructional methods is constructivism. Learning is not the result of absorption, but results from interaction with the environment both socially and cognitively. Consequently, problem-based learning techniques are utilized in many classrooms as the focus moves from simply acquiring knowledge to using knowledge. Educational goals for students involve their building an informational framework by which they integrate new information with what they already know using cognitive skills which they can generalize for other purposes.

The primary purpose for tests, in this context, shifts from instructors' tools for awarding grades to students' tools for learning. Students require time and sometimes guidance for meaningful reflection. Having the opportunity to review a test allows a student to identify the strengths and weaknesses not only with content knowledge, but also with the techniques they use to study and complete tests. Moreover, as students are not always equipped with the skills and knowledge to identify strengths and weaknesses, getting good diagnostic feedback is imperative to their learning and development. Whether they do well or poorly, students need to know what contributed to their successes in order to repeat it or to their failures in order to change it. In one study related

to student use of assessment for their own learning, the majority of the students reported that they appreciated feedback which explained mistakes and provided suggestions for improved performance. Moreover, they valued diagnostic comments concerning their skills for argumentation and analysis and their critical thinking skills (Higgins, et al., 2002).

Surprisingly many students do not consider testing as a crucial step of learning. Perhaps they do not recognize the test as an important learning tool, but simply view it as one more task to complete and put behind them. If a test grade is good, it is a job well done with some hope that more good grades will follow. If the grade is bad, it is a negative reflection on them as students resulting in their hesitation to do anything further to improve it. Instead of conducting post-test analysis, students default to "it is just a matter of studying"; they presume that they need only "study harder". This typically translates to doing the same things, just doing them longer, and hoping for the best. However, the period following a test is a crucial time for learning to take place. Only with time and guidance do students see tests not just as tasks to provide information for grades, but as resources to develop a better understanding of content as well as a better understanding of their own skills. Armed with these understandings, students can take control of their own learning and depend on themselves to do what is necessary to succeed, not just hope.

## References

Higgins, R., Hartley, P., & Skelton, A. (2002, February). The conscientious consumer: Reconsidering the role of assessment feedback in student learning. *Studies in Higher Education*, 27(1), 53. Retrieved April 8, 2009, from Academic Search Premier database.





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P.O. Box 1848 • University, MS 38677 • 662-915-1391 • [tlcenter@olemiss.edu](mailto:tlcenter@olemiss.edu) • [www.olemiss.edu/depts/cetl](http://www.olemiss.edu/depts/cetl)

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### Bouldin continued from Front Cover

to learn to use the equipment and adopt it for effective teaching methods. Some learning technologies tried during that time, such as Silicon Chalk<sup>®</sup>, proved to be too expensive for the campus but in many ways resembled WIMBA<sup>®</sup> now being used here.

More recently blogging has become one technological tool that allows her to work with students on reflective learning. Blogging, as used by Bouldin, allows students not only to reflect on course concepts but to apply them to their environment outside the classroom. Currently her students blog twice per week; the entries do not have to be long, just relevant. In a recent evaluation by students, the technique/tool was found to be a positive experience for most, not so much “busy work” but a learning enhancement. For Bouldin, the development of the tool took help from the IT staff in pharmacy and required a new rubric for evaluation refined over a 3-year period.

The academic year 2009-2010 will present new challenges as Bouldin’s class size will more than double during a transition year as the School of Pharmacy re-sequences the curriculum. She is developing a “Scholar’s Session Guide”

learning tool to aid her classes. Using a variety of information presentation techniques, along the lines of a “How to for Dummies” book, the guides are designed to serve diverse learning styles, while facilitating student interaction by reducing the need for Powerpoint that at times can encourage passivity in large classes. With clear learning objectives for each day, the daily guides will allow her to reach the metacontent goals of communication by facilitating in-class exercises and active listening alongside note taking. Preliminary work with the guide in Fall 2008 looked promising, according to student feedback regarding the tool.

When asked for advice for less experienced teachers, Bouldin becomes somewhat shy. Though clearly an award-winning teacher and a veteran in thinking about teaching, she says only, “Keep learning; share your own experiences rather than give advice; try and make a difference in students’ lives.” If, as her teaching philosophy indicates, you can help someone to become a creative problem solver, light someone’s learning lamp and not quench a flame, and encourage students to pursue their potential, you will have made a difference here.