



Teaching Notes

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Editor: Bill Hill, CETL Director Co-Editor: Linda Noble, CETL Associate Director

CETL's Growing!!

Linda Noble, CETL Associate Director

Hello from the CETL House! I wanted to use this first issue of the 2004-2005 Newsletter to introduce myself in my new role. After 19 years at KSU, the last 10 in academic administrative positions, I am thrilled to be contributing to the professional development opportunities for our faculty. CETL has a rich history and working with Bill and the wonderful CETL staff and Faculty Fellows will be a real pleasure. I thought I might take a few moments and share with you the types of programs I'll be working on as Associate Director.

One of my areas of responsibility will be assuming the coordination of our New Faculty Orientation Program at the beginning of each academic year and the yearlong New Faculty Success Workshops. Bill has done a great job with this program and continuing that tradition will be my goal. KSU has hired many new faculty over the past three years, and having CETL provide support to help them be successful is something to which I am very committed. KSU has been quite successful in attracting some outstanding faculty to KSU and contributing to their retention is important for the future of this university.

Other areas in which I will be developing new programs include resources for post-tenure faculty, adjunct faculty, and working with Dr. Rascati, Associate Vice-President of Academic Affairs, CETL will provide professional development for KSU department chairs. As you already know, CETL has launched two new grant opportunities for post-tenure faculty (the start/restart grants and the faculty leave program), and we would like to expand support programs for our senior faculty to help them be successful in a dynamic institution, one that may have changed quite a bit since they were hired. We recently established a Senior Faculty Advisory Council to help identify the professional development needs of senior faculty at KSU. Our institution also relies heavily on adjunct faculty and we are interested in finding ways to support the success of these faculty as well. This is a national issue, so my first step will be to identify best practices at other institutions to determine what we will do at KSU. Finally, CETL will be serving in a support role to Dr. Rascati and the KSU Chairs Council. I believe department chairs have one of the most challenging roles on campus and I am looking forward to helping KSU support Chairs in ways that will contribute to their success and the success of our academic departments.

Having me at CETL will not only allow us to expand professional development for senior faculty, adjuncts, and chairs, but it will give Bill a chance to expand CETL in some directions he's been wanting to go for a while. Our long-term goal is to make CETL a nationally recognized leader in faculty development! I look forward to working with many of you to make that happen. If you have any ideas or suggestions you would like to share, please feel free to contact me (lnoble@kennesaw.edu).

Welcome to Our New CETL Faculty Fellows

Robert Hill

CETL Faculty Fellow for Scholarly Discourse Across Disciplines

Bob is Professor of English at KSU. He earned his B.A. and M.A. from the University of North Carolina, Chapel Hill and his Ph.D. from the University of Illinois, Urbana, with a dissertation on the poetry of James Dickey and Theodore Roethke. He taught at Converse College, Erskine College, and Clemson University, joining KSU to become English Department Chair from 1985-1996. At Clemson, he co-edited the *South Carolina Review* and currently co-edits, with Robert Barrier, the online literary journal *Kennesaw Review*. He has co-authored a book of literary criticism, *James Dickey*, with the late Richard Calhoun, and published articles on modern poetry, fiction, and movies. His poetry has appeared in *Southern Review*, *Southern Poetry Review*, *Shenandoah*, and *Cold Mountain Review*. At KSU, he has been an activist for wider recognition of faculty scholarship. His teaching and scholarship display interdisciplinary, eclectic, and global interests in movies and literature, especially poetry.

Tom Kolenko

CETL Faculty Fellow for the Reflective Practice of Teaching

Tom is an Associate Professor of Management. He earned his Bachelor's from General Motors Institute, a MBA from Michigan State University, and his Ph.D. from the University of Wisconsin. Prior to joining KSU in 1980, Tom held managerial positions in the Chevrolet Motor Division and taught at the University of Wisconsin and Wake Forest University. He has been a finalist for the KSU Distinguished Teaching Award and chosen as a faculty mentor by the Outstanding Management Department students. Tom also serves as the KSU-SHRM Chapter advisor. He has been active in the Academy of Management and the Southern Management Association (SMA) and was elected Chair of the Management Education & Development Division of the Academy of Management. He has presented at the Organizational Behavior Teaching Society's annual meetings and the SMA's Doctoral Consortiums. His publications and presentations have addressed both traditional academic topics and pedagogy.

Lewis VanBrackle

CETL Faculty Fellow for the Scholarship of Teaching & Learning

Lewis is Professor of Mathematics at KSU. He received B.S. and M.S. degrees in physics from the Georgia Tech and M.S. and Ph.D. degrees in statistics from the Virginia Polytechnic Institute and State University. Lewis was employed in oil-field engineering in Venezuela and Brazil, at Bell Telephone Laboratories, and at Bell South before joining KSU in 1984 as an Instructor of Mathematics. In 1988, he left to pursue a Ph.D. in statistics, returning in 1991. He served the Department of Mathematics as Assistant Chair, in 1998-99 and 2003-2004, and Interim Chair, 2000-2002. Lewis was a Visiting Scientist at the Centers for Disease Control and Prevention in the summers of 1995 and 1996. His professional interests are statistical education, statistical process control, quality improvement and consulting. His consulting activities, both within the university and externally, have led to publications and presentations in such diverse areas as epidemiology, neural science, and informatics education.

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Statistical Thinking Across the Curriculum

Lewis VanBrackle, CETL Faculty Fellow for the Scholarship of Teaching & Learning

When the Lord created the world and people to live in it – an enterprise which, according to modern science took a very long time – I could well imagine that he reasoned with himself as follows: “If I make everything predictable, these human beings, whom I have endowed with pretty good brains, will undoubtedly learn to predict everything, and they will thereupon have no motive to do anything at all, because they will recognize that the future is totally determined and cannot be influenced by any human action. On the other hand, if I make everything unpredictable, they will gradually discover that there is no rational basis for any decision whatsoever and, as in the first case, they will thereupon have no motive to do anything at all. Neither scheme would make sense. I must therefore create a mixture of the two. Let some things be predictable and let others be unpredictable. They will then, amongst many other things, have the very important task of finding out which is which.

E. F. Schumacher

As we teach, most of us try to make connections between the material being presented and knowledge our students have gained from previous coursework. Doing so reinforces the previous knowledge and provides the students with a framework within which to fit the new material. Using past knowledge from courses similar to the one we are teaching is relatively easy, but we can challenge our students and help them get more from our courses by making connections to courses outside our own disciplines. As an example, I refer to the above quote by the economist E. F. Schumacher and to my own discipline, statistics.

As the Schumacher quote suggests, there are times when deterministic thinking is appropriate, but there are also times when probabilistic thinking is needed. The real trick is to tell them apart! In many disciplines, it is important to recognize that uncertainty is natural and that we must respond to it wisely. Most of a student's education relies on deterministic thinking skills. However, many students here at KSU take a statistics course, either as a major requirement or as part of their General Education program. These students can benefit from having connections made between the rest of their coursework and concepts they learn in their statistics courses, especially the concepts of likelihood and critical thinking.

Students, and the population in general, are often unaware of the likelihoods of events that can affect their lives. In discussions of important issues, many people list terrorist acts as a major concern. However, the likelihood of being involved in such a situation is quite small. Many people are concerned about the adverse effects of medications they take, while the likelihood of the most serious of these side effects is low. Often people don't realize what a 30% chance of precipitation means in terms of taking an umbrella when they leave the house. I have found that many students have an unrealistic view of the likelihood of winning the lottery. Misunderstandings of the likelihoods of events can be addressed in discussions in many disciplines.

We are often warned of the consequences of actions we take, individually or as a society; but how likely are those consequences? How dangerous are global warming, dependence on foreign oil, or development of weapons of mass destruction by other nations. While the probabilities of many of these consequences are impossible to calculate, we can, and should, encourage the discussion of their likelihoods using a combination of subjective and objective approaches.

Critical thinking is another area that can be reinforced by making connections to statistical ideas. We want our students to

be critical, but not cynical, thinkers. In introductory statistics classes we teach students to question not only the conclusions drawn from data, but also the source and quality of the data itself. Making connections back to the concepts of confounding and the proper design of data gathering will help to reinforce the critical thinking skills that are always important in decision making, but especially so in an election year. By referring back to ideas students learn in their statistics course, we can remind them to think about how data were gathered, what populations were involved, how sampling was done, and how large the margin of error is. By reminding students of some things they learned in their statistics course, we can reinforce the statistical concepts and help them to become better critical thinkers.

CETL Web Site

<http://www.kennesaw.edu>

We invite you to visit the CETL Web site. Over the last year we have expanded the resources and links available. Some current and upcoming resources are listed below.

Current Web Resources

KSU Faculty Development Grants

This Website includes descriptions, application criteria, and forms, and deadlines for all current KSU faculty development grant programs. Grants listed on this page include: CETL Travel Grants, Scholarship of Teaching & Learning Resource Team Grants, Post-Tenure Faculty Vitality Grants, and KSU Incentive Grants for Scholarship.

Calendar of CETL Events & Workshops

This Web site lists upcoming campus workshops and events sponsored by CETL.

CETL-Sponsored Conferences

CETL annually sponsors or co-sponsors several regional and national conferences on teaching. Details on conferences, including proposal submission information are available at the site.

CETL Publications

This Web site offers links to online, archived copies of all issues of *Reaching Through Teaching* and past issues of *Teaching Notes*.

KSU Faculty Awards

This Web site provides detailed information on the criteria and selection processes for all of the major KSU faculty awards. In addition, there are links to Web sites listing all past award recipients.

Regional and National Conference Calendar

This site provides an extensive list of conferences and workshops on all aspects of teaching and student learning (e.g., technology, advisement, assessment, online teaching, academic integrity), with links to each conference Web site. A new addition is a listing of discipline-specific conferences on teaching.

Upcoming Web Resources

Faculty Mentoring Resources

This new Web site will include resources for senior faculty, adjunct faculty, department chairs, and new full-time faculty.

Journals on Teaching

This site will list a wide variety of interdisciplinary and discipline-specific peer-reviewed journals on teaching, including links to journal Web sites.

Current and Future Research Trends: The Blending of Two Traditions?

Harriet Bessette, Department of Educational Leadership

At the Annual Meeting of the American Educational Research Association this past April, I engaged in discussion with a colleague from my former university. His research typically focuses on studies representative of scientific or quantitative inquiry, a process in which investigators move inductively from observations to hypotheses and then deductively from the hypotheses to the logical implications of the hypotheses and use data that “speak” in terms of numbers and statistics, rather than words. To my surprise, he was there to present research which represented a more naturalistic or qualitative approach to inquiry. Using non-traditional data sources (student drawings), it was his intent to unveil students’ perceptions of the contexts in which they were taught. My former perception of this colleague as a quantitative researcher—that is, one who was principally concerned with the discovery of “social facts” devoid of subjective perceptions or intentions—naturally clashed with this current perception. My curiosity was further piqued upon discovering that this researcher had been collecting qualitative data for over a decade!

Qualitative inquiry differs from the quantitative approach to the study of social and behavioral phenomena in its rejection of the argument that the aim and methods of the social sciences are, at least in principle, the same as the aim and methods of the natural or physical sciences. It relies on data sources such as field notes, observation, open and closed question interviews, reflections from self and “other,” video and audio tapes, archival written records, and products (i.e., photos, drawings, collages, etc.) derived from participants, in order to portray the complex pattern of what is being studied in sufficient depth and richness so that one who has not experienced it can understand it.

Helping one understand others’ lived experiences is the ultimate goal of qualitative inquiry. More importantly, perhaps, it argues that inquiry is always value-bound and that inquirers must be explicit about the roles that values play in any given study. The quantitative researcher, on the other hand, strives to ensure that values and beliefs will not contaminate data, and in essence is driven to provide strong assurance that the inquiry is value-free. Although looking for themes, consistent beliefs, feelings, patterns, ideologies, or discovering what makes others “tick” which demand involvement and interaction of inquirers and respondents that produce rich data, qualitative research has traditionally been criticized for producing findings that are often biased, opinion-laden, and slanted. More significant than the gulf that has existed between these major research traditions, however, has been a reluctance to unite and coalesce the approaches in an effort to capture the richest data possible.

My observation of the trend to “blend” these inquiry traditions at the world’s largest and oldest educational research organization was confirmed by my colleague, Dr. T.C. Chan, who points to the current effort on the part of researchers to provide qualitative “flesh” to the quantitative “skeleton” of data within all the social sciences. As evidenced in several presentations I attended at the meeting, the impetus to mix methodologies was robust.

What, then, ultimately brought my colleague, a staunch proponent of scientific inquiry, to this different methodological assumption and the antithesis of quantitative inquiry? I suppose, as a proponent of qualitative methods, I could have simply asked.

Some Strategies for Time-Effective Grading

As we all know, grading can be a time-consuming process. Walvoord and Anderson (1998) made the following suggestions for increasing your grading efficiency, while at the same time providing feedback to students about their performance.

- Separate commenting from grading in evaluating student work. Some assignments may require only comments and need not be graded (e.g., paper draft or other preliminary work). Also, do not add comments unless they contribute to student learning (e.g., comments on final exams are often unnecessary).
- All students do not need the same level of feedback. Customize your comments to the needs of the student. Some students may benefit from a “preliminary grade” on draft work that does not actually count towards the final grade.
- Customize the number of grade levels to your needs. Do you really need the 13 levels of a plus/minus grade system? Using fewer levels may increase grading speed.
- Consider what comments mean to the student. Comments on drafts or the initial papers during the semester, if there are to be a series of papers, are more likely to be read and have an impact on subsequent performance than comments on a final paper. Try to make comments as specific as possible, including examples.
- Use comments judiciously. If you comment on every error, the student may either be overwhelmed or focus on fixing each error and lose sight of more global concerns about content or organization.
- Consider developing a grading checklist or rubric and completing it for each student. This also helps maintain grading consistency.
- Read through the papers without making any comments on them, but making a list of the types of mistakes students are making. If you note that many students are making the same errors, consider writing a summary list of comments on these errors. You can code the comments by number and simply reference the code number on papers rather than writing out the same comments repeatedly.
- Consider whether it may be more effective to provide oral feedback rather than writing all of your comments. You can either meet individually with students or provide it to the class as a whole.
- Require students to organize their work to increase your efficiency in grading. You might provide a checklist that specifies things such as the order of the parts of the assignment, whether you want the assignment stapled or they can use a paper clip, where the name should appear, whether it is typed, etc.
- Develop a checklist that students can use in doing the assignment. The checklist may include the steps involved in doing an assignment, identifying the expected content and organization, and the organization of the final product (see above). You can also ask students to complete and submit the checklist with the assignment.
- Consider methods by which you can use technology to increase grading efficiency and improve feedback. Some examples might include using a spreadsheet program for your grade book or audio taping your comments on a blank tape provided by the student (you can say more in a given time than you can write).

Walvoord, B. E., & Anderson, V. J. (1998). *Effective Grading: A tool for learning and assessment*. San Francisco: Jossey-Bass.

Using Technology to Increase Student Interest, Motivation, and (Perhaps) Learning

Bill Hill, Randy Smith, & Marco Horn

A classroom student response system (SRS) is a technology that allows instructors to record students' responses to multiple-choice questions presented in the classroom and then to instantaneously summarize and visually present the data to the class. Appearing in the early 1970s (see Whitehead & Bassett, 1975), the original systems were hardwired into panels at student seats, costly to install, and limited in their availability to the average instructor because they were generally available only in large auditorium multimedia classrooms, which were few in number. Over the last few years, the SRS technology has evolved to an affordable, wireless, portable, and user-friendly system that is easy to use in any classroom with a computer and projection technology and can be seamlessly integrated into presentation formats such as PowerPoint.

Although some psychologists have conducted research on the impact of incorporating the SRS into large classroom lecture sections (e.g., Brewster, 1996; Stoloff, 1995), the majority of studies have been in the hard sciences such as physics, chemistry, and biology (e.g., Cox & Junkin, 2002; Hake, 1998). The majority of these studies used the SRS in large classroom settings to assess student understanding of lecture material through administering ungraded quizzes, providing instantaneous student feedback to the instructor in a teaching situation that often had little opportunity for individualized student responses before a graded test (e.g., Hake, 1998; Stoloff, 1995). Based on the results, instructors could immediately address content that students understood less well. Although most studies reported positive student attitudes toward using the SRS, the results with respect to student learning are somewhat mixed with some studies reporting a positive impact, as measured by subsequent test results (e.g., Hake, 1998), and others weak or no impact (e.g., Brewster, 1996).

Brewster (1996) also described using the SRS to gather anonymous responses to sensitive issues (e.g., self-reports of having a social phobia) and opinions on issues. She reported that students were more likely to indicate having a social phobia anonymously via the SRS than to disclose it in a traditional classroom. Further, viewing the class results also contributed to increased discussion on the topic.

Because previous research has primarily focused on using the SRS as a tool to assess understanding after a presentation of content to students, we decided to explore further Brewster's observation that the SRS is an effective tool for introducing a content area and stimulating discussion and student involvement. We adapted a number of demonstrations and activities for teaching social psychology from several instructor's manuals to be administered using the SRS. In a typical classroom, instructors would present these activities either in survey format for scoring between classes or simply require individuals to raise their hand to respond to each of some set of questions.

Method & Results

The same instructor taught three sections of General Psychology (mean enrollment of 65) over three consecutive semesters (Fall 2002, Spring 2003, and Fall 2003), using the same text, PowerPoint presentations, and exams. The critical addition was SRS-intensive coverage of social psychology for the third exam in the Fall 2003 semester. Students used the SRS to respond to surveys, activities, and sample test questions related to the lecture content and course topics. The instant availability of the class responses allowed student feedback to the instructor on content comprehension as well as discussion on lectures topics related to class surveys and activities presented with the SRS.

The three classes were equivalent on SAT means (range 1024-1039). The classes differed significantly on the third exam, $F(2, 168) = 4.78, p = .01$, with the SRS group scoring highest (Fall 2002 $M = 78\%$, Spring 2003 $M = 74\%$, Fall 2003 $M = 81\%$).

Fall 2003 students ($N = 47$) completed a survey on usage of the SRS. Using a scale of 5 = *Strongly Agree* to 1 = *Strongly Disagree*, they rated their perspective on the use of the SRS as a teaching tool in class. Students reported that they were more likely to express an opinion using SRS than either a show of hands or verbal responses. In addition, they said that using SRS increased their interest in the topic and their interest and participation during class, they believed that they learned more and understood more about a topic using SRS, and they wished that more classes used SRS. They did not believe that SRS was just another distracting gadget. Although the instructor did not keep attendance records, his anecdotal perception was that attendance in the SRS section was higher than that of the earlier classes. Further, the instructor observed higher levels of student involvement and discussion around SRS-based topics. It appeared that making a SRS response and then instantaneously "seeing" their responses compared to everyone else in the class may have stimulated students to become more actively involved in the subsequent discussion on the topic.

Conclusions

Although these results provide only weak evidence that using the SRS significantly impacted student test performance, the SRS provides the instructor with several advantages over more traditional paper-and-pencil and oral methods of using in class demonstrations and activities. First, the students clearly enjoy using the SRS and report greater involvement and interest in topics that incorporate the SRS. In addition, the SRS reduces the time involved for instructors to hand out, take up, and then score data from surveys and allows for a instantaneous administration and discussion of a demonstration or activity that can be adapted to the SRS.

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(NOTE: This research was presented as a poster at the 2004 annual meeting of the American Psychological Association. For additional information on SRS, vendors, or this research, contact Bill Hill.)

Call for Proposals 12th Annual Georgia Conference on College & University Teaching February 11-12, 2005

Sponsored by CETL and the KSU Division of Continuing Education, this interdisciplinary conference is designed to provide faculty with an opportunity to discuss and share experiences and innovative teaching techniques. The proposal deadline is November 1, 2004. For additional details on the conference and proposal submissions, visit the conference Web site at <http://www.kennesaw.edu/cetl/gaconf12.htm>