

TLC EXCHANGE

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The Newsletter of the Teaching & Learning Center at Wake Forest University

December 1997

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Letter from the Director

Dear Colleagues,

Welcome to the first issue of the TLC Exchange, a newsletter from the Teaching and Learning Center that is designed to encourage a dialogue about teaching at Wake Forest and to offer you information about the Center's activities. You'll note that the two main articles are written by members of the faculty. We invite you to be a future contributor. Is there an issue related to teaching that you would like to discuss? A particular success or problem that you have had in teaching that you would like to share with your colleagues? An event or resource related to teaching that you would like to publicize? If so, please let us know. This is your forum.

It has been a busy fall here at the Center. Our official opening was October 3rd and we were heartened by the enthusiastic turnout. Our first workshop was November 12th when about fifty faculty attended a workshop on first year seminars that was co-sponsored by the First Year Seminar Committee. The experience reminded me again of the value of interdisciplinary dialogue about teaching and how much we can learn from each other. Additional workshops are being planned for the spring semester along with a series of brown bag discussions on a variety of issues, including curriculum reform, promoting group discussion, writing across the curriculum, using technology, and gender differences in the classroom.

Please take a moment to fill out the faculty information form at the back of the newsletter and return it to the Center. Your input will help us know what services you want the Center to provide and how you would like to be involved with the Center's activities.

I'm looking forward to working with all of you.

Katy Harriger

Can There Be Too Much Technology in the Classroom?

Results from One Experiment in Economics¹

By Spring 1997 (if not earlier), an Introductory Economics class at Wake Forest University could readily contain a more-than-manageable dose of computer technology. Students could be expected to use email and web browsers on a regular basis. They could often be asked to learn at least passive use of Excel and Powerpoint files. Teachers increasingly moved away from the hardcopy syllabus and the chalkboard toward on-line assignments and computer-generated presentations.



Perry Patterson,
Dept. of Economics

¹ These remarks summarize my paper "Dilemmas of Abundance: Choosing the 'Right' Technologies for the Introductory Economics Class," available on file in the TLC.

Calendar of Events

Wednesday, December 3, 1997

12:00 noon, BROWN BAG DISCUSSION
Wingate 210

“Creation and Curriculum: A Multimedia
Event”

Led by John Collins, Religion and Mathew
Miller, Class of 2000



Tuesday, December 9, 1997

12:00 noon, BROWN BAG DISCUSSION
TLC (330 LIBRARY)

“Promoting Meaningful Class Discussion”
Facilitated by Bob Evans, Dept. of Education



Friday, January 9, 1997

9:00 AM-12:00 WORKSHOP
LOCATION TBA

“Developing a First Year Seminar Proposal”
(lunch will be provided for participants)



January 1997

TLC/CELI Workshop
“RETHINKING THE WAY WE TEACH”

CELI Workshop
“USING THE WAKE FOREST TEMPLATE”

*For more information on CELI
(Computer Enhanced Learning Initiative)
contact Leah McCoy, Dept. of Education
at Ext. 5498 or mccoy@wfu.edu or visit
their website at www.wfu.edu/CELI

Standard textbooks could be ordered with a student “workbook” in the form of a computer diskette. In some cases, the entire textbook itself could be purchased by students on CD-ROM, and could be used as an input to Powerpoint and other presentations.

In my own classroom, beginning last spring, I made extensive use of Powerpoint presentations and made the presentation files available on the course “home page” at <http://www.wfu.edu/~patterson/ecn150/index.htm>. I estimate that approximately one-half of course time was conducted using such presentations. Occasional presentations of calculation-intensive items such as present value and money multipliers were given using Excel. Students were asked on a few occasions to go to specified web sites, such as the National Debt Clock, as part of homework/discussion questions. Optional exercises with the computerized “workbook” were also regularly suggested. The course home page contained a full set of old lecture notes and old tests in addition to links to other web sites.

In short, one could hardly ask for more or better technological possibilities. The questions to be addressed here, therefore, are:

- How much is enough?
- How much is too much?
- If too much is likely, what considerations motivate choices among available technologies? And
- How is all of this increased technology working from the point of view of the average student and of differing groups of students?

To begin answering some of the above questions, I surveyed two sections of my Spring 1997 students as part of the regular end-of-semester course evaluations. Forty-six surveys were returned from a group of fifty-seven students enrolled in the course. Among those responding, slightly over half were first-year students. Most of the rest were sophomores. Nearly two-thirds were male. Nearly two-thirds owned a Thinkpad (thus reflecting many voluntary purchases by non-first-year students). About two-thirds had their own ethernet connection to the campus network and the web. About two-thirds reported earlier experience with Excel, about one-quarter with Powerpoint, and all but two students had used Netscape before taking the class. It thus seems fair to expect that future student cohorts can be relied on to possess considerable useful software knowledge in addition to the needed hardware.

Questions were designed to elicit degrees of student satisfaction with individual technologies used, to probe their desire for more or less use of particular components, and to learn of any particular difficulties they might be experiencing with the classroom and campus computer environment.

Overall Successes and Failures?

The broadest result of this survey is clearly an overwhelmingly positive student vote for the use of at least as much technology as was employed in an already technology-laden course. The vast majority of students was either “satisfied” or “very satisfied” by overall technology use in the course. At worst, only three out of forty-six respondents expressed a desire for less use of Excel. For all particular technologies, about two-thirds expressed the desire to keep current usage levels, while roughly twenty percent requested that even more be used.

When asked whether there were any problems with classroom conditions and the in-class use of Powerpoint, most reported no difficulties. However, nineteen replies contained concerns, some of which require pedagogical change, some that point to technical fixes, and some that lead to suggestions for changes in student study and note-taking habits. Thus, nine

students referred to my tendency to speak faster and/or to flip through the slides too quickly for note-taking. Three noted the need to download the files in advance to simplify note-taking. Four students mentioned difficulties seeing the projection screen clearly. One said the classroom was too hot, one said that the darkened room induced sleepiness, one said that the technology lowered class participation, and one noted cryptically that he/she did not have Powerpoint.

When asked to report any other technology difficulties experienced in the course, two-thirds reported none. However, fourteen individuals reported some problems. Seven students had difficulties downloading the available Powerpoint presentations (a fact that seems to come in part from a combination of software/hardware incompatibilities). Four students reported difficulties due to their lack of a computer or good access to the network from off-campus. In addition, one student each complained of difficulties with the “workbook” software, of “too many symbols,” of the failure of the on-line files to substitute fully for a missed class, and of my tendency to talk too fast in class.

When asked for general comments on the use of technology on the broader Wake Forest campus, sixteen students gave no response and eight gave fully positive assessments. The most common hardware problem cited concerned dysfunctional campus printers (five responses).² Three suggested more training/documentation needs. One student each voiced concerns about classroom screen quality/visibility, the use of Lotus Notes software, and the fate of classroom interaction. Three called for more technology usage than at present. One complained of easy access only to a Macintosh lab. Perhaps the most negative comments were: “I never use it [technology?];” “Its’ [sic] scary how computers are beginning to play such a large part in our society;” and “To be brutally honest, students just don’t use the Thinkpads for much that is constructive. Mine certainly has enhanced my computer gameplay but isn’t good for much else.”

Technology in a Diverse Classroom?

Among the possible concerns about an environment with rapid changes in the use of new computer tools is that the net benefits of the new environment might not be shared equally by all community members. The survey data allow us to investigate some of these concerns.

Are male and female students equally happy with the increasing use of computers?

My survey reveals no particularly strong pattern. While two men claimed to be “somewhat dissatisfied,” unlike any of the women,

² As of Fall 1997, this problem has been alleviated by issuance of individual student printers.

and while 88 percent of the women were either satisfied or very satisfied vs. 77 percent of the men, it is also true that a higher percentage of the men claimed to be very satisfied. Certainly, any concerns that high usage of computers in this course would have adverse gender effects are not obviously borne out by these data.³

Are students with better initial computer skills more or less satisfied with the high classroom usage employed in this course?

As I do not possess direct evidence regarding students’ initial computer skills, I make the probably common assumption that newer student cohorts are likely to have better skills than their more senior peers. Thus, I investigate course technology satisfaction by class.

In general, it would indeed appear that first-year students are more likely than their peers to be satisfied with the sort of hefty technology component included in this course. For example, 88 percent of first-year students reported themselves satisfied or very satisfied, as compared to 70 percent of sophomores and 50 percent of the (small group of) juniors and seniors combined.

Does Thinkpad ownership affect overall satisfaction with technology use?

My survey shows no clear pattern.

Does Thinkpad ownership affect the desire for more or less use of Powerpoint presentations?

Again, I see no clear pattern.

Does access to the campus network (ethernet connection) affect overall satisfaction with technology use?

Here, I show some overall evidence of higher satisfaction levels among those students well connected to the campus network. That is, 28 percent of students without Ethernet connections claimed to be neutral or somewhat dissatisfied, whereas among those with Ethernet connections, only 15 percent made similar claims.

Are good students more or less satisfied with the new technology than poor ones?

To gauge this, the student sample is divided into three

³ As Katy Harriger has pointed out, there are important self-selection possibilities to be considered here, too. Perhaps this is the sort of course or field that has already selected out a group of men and a smaller group of women who are more prone to value such technologies. However, it would seem at a minimum that there is no indication here of a tendency to further skew the gender mix among those students who continue on to upper-level Economics courses.

approximately equal groups of “high,” “medium,” and “low” overall GPA’s.⁴ The survey appears to reveal no simple correlations. In particular, the largest group of students reporting neutral or somewhat dissatisfied reactions to the technology use came from the “medium” GPA group, rather than from either end of the GPA spectrum.

Are students who most frequently downloaded the available Powerpoint files more satisfied than those who did not?

Yes. The pattern here seems quite clear. If one third (33%) of the “never download” group was either somewhat dissatisfied or neutral, this fraction falls to one seventh (14%) for the “occasionally download” group, and to one in fourteen (7%) for the frequent users. Note also that of the fourteen frequent downloaders, ten were first-year students. The rest were all sophomores.

Conclusions

When I taught this course in Spring 1997, I decided to plow ahead with a level of in-class and out-of-class computer usage that I perceived to be quite high relative to that in other courses and in other sections of the same course. At the time, I worried that this would be seen by the students as a bit of overkill. However, the survey results seem to indicate a high degree of satisfaction with the technologies employed. If anything, it would appear that the students want even more! This seemed especially true among the newer student cohorts.

There are, of course, important limits to the conclusions one may reach based on the above survey. To the degree that my course offering last spring was simply an unusual experience for students, it may be that the novelty factor dominated their perceptions and that the same experience would be less well received if most other courses were also similarly laden with high-tech applications. Similarly, to the degree that Wake Forest is currently more high-tech than other institutions and may indirectly attract a high-tech student population at present, one can imagine that future student populations at Wake Forest would not be as keen on the particular methods described here.

I suspect that, as technologies become ever more abundant and their use becomes more common, we will all increasingly be forced to pick quite carefully among available tools. Already, last spring, I did not find it appropriate to spend much time on the textbook’s student software, or to recommend that students purchase the text in CD-ROM format. In the former case, I found the particular software to be a bit simplistic relative to the text. In the latter case, I

found it unlikely that students could effectively read the necessary page counts in such a format.

I also was not able to find the time to use Excel as much as I might have liked. In part, this was due the use of Powerpoint as the primary presentation vehicle. However, I would note that Excel could itself be used as a fine (though less flashy) presentation device.

There remained times when the good old chalkboard remained my favorite technology. It is still much faster to produce complex graphs by hand. Moreover, as is well known in my Department, students must be encouraged to draw by hand as many graphs as possible in order to fully assimilate the course material. Thus, even if one could readily draw the most complex graphs in either Excel or Powerpoint, it would probably remain best for the moment to stick to hand drawings in many cases.

I continue to have certain concerns about the use of either Excel or Powerpoint in class on a regular basis. As would be true with any set of lecture notes, it seems quite possible that such presentations could be seen as stale or “canned” if repeated year after year, or if not well rehearsed immediately prior to each lecture. (I would not be inclined to make an entire set of notes available to students at the outset of the course.) Care must also be exercised that the faculty member know which precise versions of various software packages are available to each student, so that all students have full access to all materials. Finally, one must make sure that the darkened classroom not separate students further from the instructor. Even in a small classroom, it is easy during a presentation to lose eye contact with students in the back rows. However, there is also a benefit of this technology—unlike the chalkboard presentation, one is at least always facing the students. The technological solution to the dark classroom would seem to be more clear and powerful overhead projection devices, or dimmer switches that could produce a lighting level compatible with seeing both the screen and one’s own handwritten notes.

In sum, I have found the current array of computer hardware and software to be very valuable additions to the learning environment for the introductory Economics classroom. I suspect as well that such tools would be equally useful in upper-level Economics courses and many others throughout the University. I also hope that regular, seemingly effortless computer use by instructors will stimulate our students to pick up such skills on top of the theory content of our courses. Discretion is advised, however. We now have more tools available than time, and instructors must plan carefully to prevent the technology component of a course from overwhelming or distracting from basic content.

⁴The “high” GPA group had GPA’s running from 3.2 to 4.0; the “medium” group had GPA’s equal or greater than 2.7 but less than 3.2; the “low” group had GPA’s greater than or equal to 1.91 but less than 2.7. There were 16 “high” GPA’s, 19 “medium” GPA’s, and 10 “low” GPA’s. It proved difficult to generate a more equal three-way division of the group, due to a large number of students who reported the same 2.7 GPA figure.

1997 Teaching Award Winners

The Reid-Doyle Prize for Excellence in Teaching is awarded each spring at the Founders' Day convocation to a faculty member at the Assistant or early Associate Professor level. The winner is selected by an anonymous committee of students and faculty. The Reinhardt award is presented at the fall Opening Convocation to a senior faculty member chosen from nominations by alumni who completed their undergraduate work ten years earlier.



Reid-Doyle Prize Winner
Helga Welsh,
Department of Politics

Helga Welsh joined our faculty in the Fall of 1993. She teaches comparative politics, with a focus on Europe. According to student assessments, Dr. Welsh is "very knowledgeable... intellectually challenging, and always enthusiastic." One student, who wrote a letter of support, said, "She is a perfect example of Wake Forest's 'teacher-scholar' ideal. She emanates enthusiasm—for the material, for her

research, and for life... She told me once, when I was clearly frustrated, that 'I am grading you as an undergraduate but looking at your work as a colleague. This comment exemplifies her dedication to teaching every student... She is a radiant person, an example of integrity, and an inspiration to all those who meet her.'

"She is the perfect example of Wake Forest's 'Teacher-Scholar' ideal."

Helga said that winning the award was "one of the very special moments of my life." She enjoys teaching at Wake Forest because classes are small and she can have the kind of personal contact with students that enhances learning and makes teaching enjoyable. "Having come from teaching at large public universities," she said, "this has meant a lot to me." Her goals in teaching are for students "to gain a heightened sense of intellectual curiosity, to be open and tolerant of other ideas, and to see the world as a complex place where simple answers are to be avoided. If I can do this in a way that they find challenging and rewarding, then this is rewarding for me as well."



Reinhardt Award Winner
Marcellus Waddill,
Department of Math and
Computer Science

Marcellus Waddill, who retired this spring, taught at Wake Forest for thirty-five years in the math and computer science department. The former students who nominated him all noted the attention he gave each of them. One student wrote, "When you work with Dr. Waddill, you know he is focusing in on you. Time is never important, but what you learn is. His door is always open, whether for an academic or personal reason... His steadfast support and friendship

throughout undergraduate school and graduate school made those years even more satisfying, enjoyable, and educational" than they otherwise would have been. "Another student talked about the influence Marcellus had on him outside the classroom as the advisor of his fraternity. He wrote, "[He] influenced my academic development by showing me what real leadership is and by encouraging me to strive for [ambitious] goals... He is as high-minded an individual as I have ever met."

"Teaching was the most important thing that I did at Wake Forest - the most important thing we all do. It is the most important thing to students as well."

Marcellus was particularly pleased to win the award because of his friendship and deep admiration for its namesake, John Reinhart, who he described as "an outstanding teacher who was always involved with students both inside and outside the classroom." He said, "Teaching was the most important thing that I did at Wake Forest - the most important thing we all do. It is the most important thing to students as well. Research and service are important but teaching is the most important. That's what made my experience at Wake Forest a happy one. This is what we ought to try to do best."

Mid-Term Evaluations Help Keep the Class on Track

The Benefits of Mid-term Evaluations



Genevieve Brock,
Dept. of Romance Languages

Mid-term evaluations by our students are a useful way to keep a class working well. They allow us to get student feedback and to make changes before the semester is over. While I was a Teaching Assistant at the University of Virginia, I took advantage of the Teaching Resource Center offer to have a consultant administer a mid-term poll in my classes. I was very pleased with the results of the procedure and found it much superior to my usual end of the semester fill-in-the-form technique.

During the 1996-1997 year, I worked for the TRC and had the opportunity to conduct many mid-term polls in various departments. This gave me the chance to experience the “other side” of this technique, and I became even more convinced of its beneficial qualities. The fact that the poll is administered by a person other than the instructor, an outside and neutral facilitator, allows students to express themselves freely. Students discuss the course among themselves and realize that they don’t necessarily all want or need the same things, and that the instructor can’t please them all. They also sometimes become aware of the fact that they themselves need to make changes in order for the course to function better. Students always appreciate their instructor’s willingness to open a line of communication, and as a result, they usually take a greater interest in the class. Instructors find most student’s comments very useful, and are grateful for the suggestions and positive feedback they often receive.

Some of us in Romance Languages have tried this method and have found it very helpful. Professor Sally Barbour thought that it “provided a rich opportunity for exchange,” and Professor Luis Gonzalez declared that it is “a wonderful tool,” and he will use it “for all [his] classes in the future.” Professor Rebekah Morris wrote that it “really opened up communication with my students,” and that as a result “they have felt freer to ask questions, make comments, and to participate in class.” Professor Candelas Newton expresses the same opinion: “This exchange immediately has a positive effect in the atmosphere of the class.” Professors Newton and Tina Swain have one reservation: they find the process time consuming. It takes about thirty minutes to conduct the poll, usually the last thirty minutes of a class period, and ten or fifteen minutes for the follow-up consultation.

How to Conduct the Poll

When the facilitator arrives in the classroom, the instructor introduces him/her, briefly explains that this person is here to conduct a mid-term evaluation, and leaves. The facilitator makes sure that the students understand that the poll is done at the request of the instructor and is entirely anonymous and confidential; no students’ names will be mentioned to the instructor.

The facilitator divides the students into groups of four to six, and asks each group to discuss three points: 1.) what works in the class; 2.) what impedes learning; 3.) what suggestions for change. Each group has a note taker. This group discussion should last no more than eight minutes.

When the discussion is over, the note takers copy their notes on the board, under three columns entitled: what works, what impedes, suggestions. When the copying is done, the facilitator goes over each point in each column with the whole class. Items that do not have the support of the majority are discarded. If the class is evenly split, this item is kept but it is noted that this is only a 50% opinion. After going over each column, volunteers in the class can copy down the points that remain on a piece of paper. The board is erased.

As soon as possible after the poll the facilitator meets with the instructor to deliver the sheets and offer any explanations that seem necessary about what it written there. The instructor should go over the results at the next class meeting, announcing what changes they are willing to make and explaining why they can’t or won’t make certain changes.

Editor’s Note: The Teaching and Learning Center will offer this service for the Spring 1998 semester. If you would like to use the service and/or act as a facilitator for a colleague, please let us know (X4559).

TLC Exchange

TLC Exchange is published twice a semester by the Teaching and Learning Center at Wake Forest University, 330 Z. Smith Reynolds Library, Wake Forest University, Winston-Salem, NC 27109. The goal of the newsletter is to encourage dialogue about teaching at Wake Forest and to offer information about the Center’s activities.

Director Katy Harriger
Contributing Writer Perry Patterson
Contributing Writer Genevieve Brock
Technical Consultant, Layout, Design . . Ken Lobingier

We welcome your comments regarding the newsletter or the Center. Please feel free to drop by M-F 9:00 - 5:00 or you can contact the center by phone (910) 758-4559.

SELECTED RESOURCE LIST

The TLC has a small but growing library of resources on college teaching. Most of them are available to be checked out. Stop in and browse, have a cup of coffee or tea, and see what's new in teaching research.

Here's a list of some of the books and journals available now.

Journals (current issues are in Current Periodicals Room):

College Teaching, 1985-1995
The Teaching Professor, 1989-1995
Chronicle of Higher Education (TLC subscription)

Books:

Thomas A. Angelo and K. Patricia Cross, Classroom Assessment Techniques: A Handbook for College Teachers, 2nd ed. (1993). Compiled by two of the foremost authorities on classroom assessment, this extensive manual offers fifty classroom assessment techniques to use in order to assess whether you are meeting your goals in the classroom. Also contains a helpful section with 12 examples of successful assessment efforts in a variety of disciplines.

Peter J. Frost and M. Susan Taylor, Rhythms of Academic Life: Personal Accounts of Careers in Academia (1996). A series of essays that examines the various paths that academics take during their careers. Topics range from getting published and getting tenure to becoming a department chair or administrator.

Ira Shor, editor. Freire for the Classroom: A Sourcebook for Liberatory Teaching (1987). A group of essays that consider how to apply the theories of Paulo Freire (*Pedagogy of the Oppressed; A Pedagogy for Liberation*) various classroom settings.

William H. Willimon and Thomas H. Naylor, The Abandoned Generation: Rethinking Higher Education (1995). A provocative book that looks at the larger societal factors that have shaped this generation of college students and argues for new approaches to college teaching.

New Directions for Teaching and Learning is a series of paperback books published by Jossey-Bass that contain articles that analyze and offer examples of new practices in college teaching. Some of the books we have in the series include:

Kris Bosworth and Sharon J. Hamilton, editors. Collaborative Learning: Underlying Processes and Effective Techniques (1994).

Clark Bouton and Russell Y. Garth, editors. Learning in Groups (1983).

Linc. Fisch, editor. Ethical Dimensions of College and University Teaching: Understanding and Honoring the Special Relationship Between Teachers and Students (1996).

Nira Hativa and Michele Marinovich, editors. Disciplinary Differences in Teaching and Learning: Implications for Practice (1995).

Ann F. Lucas, editor. The Department Chairperson's Role in Enhancing College Teaching (1989).

Jean MacGregor, editor. Student Self-Evaluation: Fostering Reflective Learning (1993).

Tracey E. Sutherland and Charles C. Bonwell, editors. Using Active Learning in College Classes: A Range of Options for Faculty (1996).

Maryellen Gleason Weimer, editor. Teaching Large Classes Well (1987).

Luann Wilkerson and Wim H. Gijsselaers, editors. Bringing Problem-Based Learning to Higher Education: Theory and Practice (1996).



Room 330 of Z. Smith Reynolds Library is the new home of the Teaching & Learning Center at Wake Forest University

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TLC *Exchange*

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