PROCEEDINGS

from the
Eighteenth Annual Conference

January 10-11, 2008

Proving and Improving Teaching and Learning

Carroll Community College
Westminster, Maryland

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Effective Learning Strategies for Teacher Certification Courses

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The mission statement of the Maryland State Board of Education reads "To ensure, through certification standards, that each student is served by professional educational staff who possess the minimum essential knowledge and skills needed to achieve outcomes for public education declared by the State Board of Education (MSDE)" (http://www.marylandpublicschools.org). This means that all Maryland public school teachers must complete a number of certification courses and successfully pass the Praxis tests (teachers may hold a provisional status for a limited time).

Teaching these teacher certification courses poses a number of specific challenges due to the highly heterogeneous nature of the student body. The experience of the educator and the order in which s/he has taken the certification courses influence the prior teaching and learning knowledge brought to the course. The teacher's content area affects the instructional strategies, forms of assessment, and other aspects traditionally used in the class as well as the learning materials used. Some teachers come from affluent schools and have various technological tools at their disposal; others are from underprivileged areas and struggle to obtain basic materials. Furthermore, regular and special education teachers have to fulfill the same certification criteria. Hence, experiences vary greatly among teachers in any given class (see Table 1). Organizing course content so that objectives are reached and each teacher gains a valuable learning experience with practical application potential for his/her content area is a daunting task.

Years of Teaching Experience	% of students
0	11 (n=3)
1	7 (n=2)
2-5	52 (n=14)
6-10	4 (n=1)
11-15	11 (n=3)
Unknown	15 (n=4)

Content Area	% of students
Art	1
Biology	1
Chemistry	2
Computer Science	1
English	4
Family & Consumer Sciences	1
Foreign Languages: Modern	1
Geography	1
Government	2
History	2
Math	1
PE	5

Social Studies	1
Trades & Industry	1
NA	3

Table 1: Student population sample for a certification course

When introducing the course content, it is important to clarify the aim of the course. Teachers need explicit explanation of the pay-off of these courses; i.e., clarification that the aim is to improve their skill of balancing content and pedagogical knowledge, regardless of their content area or grade level. The introduction needs to address not only the *what*, but also the *how, when* and *why* of the course.

Teachers need to be actively involved in their learning during these courses. They need to be provided with opportunities to apply the concepts and ideas to their own content area and think critically about them (Howell, 2006). Mini-lectures are alternated with whole class and small-group discussions, during which teachers are encouraged to go beyond information given in the textbook and to make connections to their own teaching and/or learning experiences. Question-generation plays an important role to help teachers find similarities and differences of the general textbook content and the specific classroom applications of various content areas. Exercises and assignments need to go beyond college contact hours, where in-service teachers can experiment with the implementation of ideas between class times. Opportunities also need to be created for those who are not currently teaching.

Given the heterogeneous nature of the class, meeting learners' needs is of primary importance. Course content is offered through a variety of instructional means: lectures are supported by PowerPoint presentations and videos, which help the teachers identify the main ideas and concepts. Pedagogical techniques are introduced using modeling throughout the courses. Teachers are assisted with outlining, developing and creating graphic organizers in order to facilitate acquisition of new concepts, as well as making connections to prior knowledge. Additional materials and links are available for those who need extra background information or wish to expand even further on the topic.

The differences in learning/teaching experience the teachers bring to the classroom provide an excellent atmosphere for interdependence. Students need to have opportunities to share their views on the successfulness or lack thereof of pedagogical techniques. Discussions need to be facilitated to go beyond a simple "I like/hate to…," but become an in-depth exploration of the variables that contribute to the success or failure of the applied techniques. These courses provide teachers with a safe environment to explore new techniques and receive peer feedback from other teachers, either within or from a very different content area. Group activities, therefore, always demand careful grouping. Content areas, levels of interest, motivation, and experience need to be mixed to enhance learning and create a way to use individual differences as a resource (Stigler & Hiebert, 1999).

Assessment of learning requires careful planning to provide teachers with opportunities to demonstrate higher-level thinking and application of learned content. Since teachers' application of content results in varied outcomes, it is important to create assignments that leave room for

these differences and are still comparable; i.e., all must meet the course objectives. Apart from providing clear directions and examples, the use of rubrics is hence a must. Rubrics force the instructor to carefully consider goals and assessment criteria as well as: 1) make the goals of the assignment clear and set the scope of the evaluation prior to beginning, 2) set unambiguous directions and expectations, 3) provide guidance, and 4) offer a valuable means of self-assessment (Beauchamp *et al,* 1996).

In conclusion, with careful planning, incorporating opportunities for active involvement in learning, making connections to prior knowledge, varied learning strategies, and careful assessment, the heterogeneous nature of the student body in certification classes brings an added value to the learning experience.

Works Cited

Beauchamp, L., McConaghy, G., Parsons, J., & Sanford, K. (1996). *Teaching From the Outside In*. Edmonton, Alberta: Duval House Publishing

Howell, C. L. (2006) *Student Perceptions of Learner-Centered Education.* Paper presented at the 2006 Annual Conference of The Northern Rocky Mountain Educational Research Association October 12, 2006. ED494914

Stigler, J. W. & Hiebert, J. (1999). The Teaching Gap: Best Ideas from the World's Teachers for Improving Education in the Classroom. New York: Free Press.

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Student Learning Outcomes Assessment (SLOA) at the Program and Course Levels: Comprehensive Projects That Work Across All Disciplines

T. Bidle, C. Dove, M. Jozik, V. Stein, N. Thorpe

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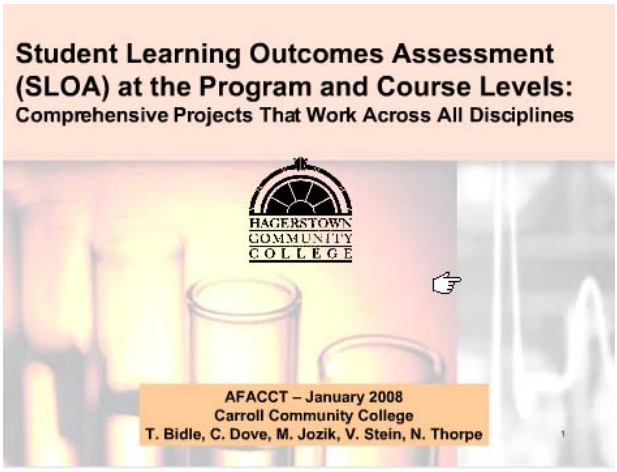

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Enhancing Student Assessments

Faith Breen, Ph.D.

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Assessing student performance is a sensitive issue for faculty for a variety of reasons. For example, the perception is that existing student assessment instruments lack the ability to differentiate between the effectiveness and quality of faculty instructional techniques. Most importantly, there is concern that the end of semester student assessments measuring students' ability to both master and retain knowledge may become a surrogate measure for implementing accountability standards for faculty effectiveness.

Unfortunately, I do not have a solution. However, Blackboard and our book publisher's test banks now offer faculty an opportunity to transfer the locus of control for student learning and control of the assessment/exam schedule to our students. This may help address the continuing student problem of having several major exams at the same time, and it is possible that this may result in increased student achievement.

About two years ago, Dr. Andrew (Drew) Habermacher told me about the advantages/disadvantages of loading the book publisher's test bank cartridge into a Blackboard course. One advantage is that faculty could offer students an opportunity to take an exam that covered the same material, but with different questions, multiple times. In other words, from a large pool of questions, Blackboard could randomly select questions and create an exam based upon faculty parameters such as the specific chapters covered by the exam and the number of questions per chapter. Since each exam is randomly created, if a student wants to take a specific exam on material (say chapters 6-11) multiple times, it is possible that in addition to assessing student achievement, the exam process may actually increase student mastery of the material.

Up until Spring 2007, I had been very comfortable with my 5, 10, 15 week exam schedule. However, as I went over the course syllabus on the first day of class, an adult student raised an interesting question. The student asked, "Since each exam is unique, would it be possible for you to open all three exams now and close them as they come due?" I was taken aback and asked the entire class about their strategy for taking exams. For example, I asked:

> *If you have an exam coming up, do you first study for the exam and then take it? It seems to me that if you do this, it will minimize how much time you spend taking the exam. Or, if you know you can take the exam multiple times, do you just take the exam, check your grade and then determine how much more studying you need to do before taking the exam again?*

Intrigued by their responses, I decided to give Drew's suggestion serious consideration and use Blackboard to survey my students on how they would like to have their exams scheduled. At the end of the Spring 2007 semester, I created a survey. Sixty-six (66) out of 76 students responded to this survey. So there was an 86 percent response rate. The survey was anonymous and administered through Blackboard at the end of the course. The questions and results are as follows:

Question 1: True/False

The best way for me to master this information would be to have mandatory quizzes that do not count but that build towards my exam.

Answer	Percent Answered
True	48
False	52
Unanswered	0

Question 2: True/False1[1]

The best way for me to master this information would be to have mandatory weekly quizzes that count and build towards my exam.

Answer	Percent Answered
True	70
False	30
Unanswered	0

Question 3: Opinion Scale/Likert1[2]

The best way for me to master this information is to have one (1) exam that can only be taken once over one weekend.

Answer	Percent Answered
Strongly Agree	3
Agree	15
Neither Agree nor Disagree	16
Disagree	29
Strongly Disagree	35
Not Applicable	0
Unanswered	1

Question 4: Opinion Scale/Likert

The best way for me to master this information is to have one (1) exam that can be taken multiple times over one weekend.

1[2]
Totals may not add up to 100 percent due to rounding.

Answer	Percent Answered
Strongly Agree	38
Agree	30
Neither Agree nor Disagree	9
Disagree	17
Strongly Disagree	6
Not Applicable	0
Unanswered	0

Question 5: Opinion Scale/Likert

The best way for me to master this information is to take an exam that can be taken multiple times over a weekend and then retaken later in the semester – like over Spring break.

Answer	Percent Answered
Strongly Agree	38
Agree	20
Neither Agree nor Disagree	16
Disagree	16
Strongly Disagree	9
Not Applicable	0
Unanswered	0

Question 6: Opinion Scale/Likert

The best way for me to master this information is to have all exams available at the beginning of the semester that can be taken multiple times but are due at the end of the semester.

Answer	Percent Answered
Strongly Agree	33
Agree	16
Neither Agree nor Disagree	15
Disagree	26
Strongly Disagree	9
Not Applicable	0
Unanswered	0

Question 7: Opinion Scale/Likert

The best way for me to master this information is to have all exams available at the beginning of the semester, can be taken only once, and are all due at the end of the semester.

Answer	**Percent Answered**
Strongly Agree	3
Agree	12
Neither Agree nor Disagree	8
Disagree	38
Strongly Disagree	39
Not Applicable	0
Unanswered	0

Question 8: Essay

Please explain why you feel the answer you selected works best for you.

This is a sample of the wide range of student responses to this question:

I believe that by taking the exam over it helps to make you learn the information more. I also feel as though if we were given the right answers after we take the exam then we would be able to learn the information better. We can learn in this way by the saying "learning from our mistakes."

Well, I'm a person that cannot multi-task and having all three exams due at the end would put me in a lot of pressure and I probably would have done worst.

I believe that if something counts towards my grade, I will take it very seriously. Therefore, if I had to do a weekly Quiz, I would study hard for it. Also, having a lot of exams due at one time can be overwhelming. I am a last minute person, so I don't believe I will actually take the test until the deadline.

I feel a weekly graded quiz would work best for me. It would encourage me to do my required weekly reading on schedule, increase points toward my grade (depending upon how well I perform), and help me in preparing for the exam. For me personally, I do not believe in multiple attempts at exams; it seems unethical to me. I took each exam once, for better or for worse. You are only allowed one attempt in a course that meets on-campus. Why should an online course be any different? Thanks for listening!

The ability for me to take the exam multiple times does not motivate me to really study the work. I am a hands-on person and learn best with practical application of anything in theory.

I think that by allowing students to retake the test multiple times just means that they are going to take the test without even opening the book at first just to see if they could pass it that way. I don't think people are really learning anything by doing it that way. I also don't think that this is a good way to prepare people for going into a 4 year college, which many of these students are trying to get into I would think. I am not really sure, and I could be wrong, but if most of these students are trying to go to a 4 year program afterwards, then allowing them to retake tests would not be preparing them at al. Which would only make it harder for them in the end.

I think that the best way for me to be able to master the information is to be able to take the tests multiple times and be able to go back later in the semester and retake the exams because then I can see where I actually stand with the information and if I don't get it, being able to take it later gave me a larger initiative to catch up with the information even if I didn't quite get it.

Conclusion:

Based upon this survey, students prefer mandatory weekly quizzes that count toward their grade and build toward exams as a learning approach. Students believe they learn best having multiple opportunities to take an exam; however, they are more comfortable with a structured exam schedule rather than an open-ended exam schedule that ends with the semester. Although some students voiced valid concerns about whether we would be doing students a disservice by allowing them to take the exams multiple times, the majority seemed to agree with the following student's comment:

I feel that having the flexibility to take the exam multiple times (especially when the exam changes each time you take it) allows the student the opportunity to increase their knowledge base and improve their score. Even when I took the test the first time, it's not that I didn't do well (I typically received an A or B) but because I had the flexibility to take it multiple times made me strive to get a 100%. I'm not sure if quizzes would be helpful if they counted towards the final grade, but they would certainly be useful as learning tools as the semester progresses.

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SmartView Notes

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I. SmartView with the computer is relatively easy to use. The mouse clicks on everything just as you would depress the keys of the calculator. It is possible to use the keyboard, but I find the mouse is easier to use. There is a Help key which you can use to learn about all of the features. You can see three screens simultaneously, you have your choice of six screens, you can create a script that will automatically play for you, you can take a screen shot, and you can change the size and color of your SmartView calculator. Now, let us see how you do all of this and then try some more complicated ideas.

II. If you plan to use the feature where you use the actual calculator to depress the keys instead of the mouse, your TI 84+ Silver Edition must be connected with the black cord to the computer via the USB port. The calculator must have OS 2.40 or above and the application SmartPad. To find out the Operating System (OS) on your calculator, hit 2nd MEM and the About key. If you upgrade the OS of the calculator, it will delete all the programs that you have stored in the calculator unless you archive them before you upgrade. With SmartView on the monitor and with your calculator connected to the computer, find the application SmartPad and depress ENTER. You can now use the calculator to depress keys, but there a disadvantage to this feature. As you can see, you must look at the computer screen or the Data Projector screen to see what you are doing. For some of us, this is distracting and difficult to do.

III. Next, you need to have three windows open on your computer screen. The windows should be SmartView itself, TI Connect, and your browser should be at www.education.ti.com. You will also need two cords connected to the computer, depending upon what you want to do that day.

IV. Anything you download on SmartView may be deleted depending upon the situation at your college.

V. Using TI Connect (under MATH Applications at the TI site), you can download any programs or applications that are on you calculator or at the TI site to use on SmartView. To find the applications at the TI site, click on DOWNLOADS, then Pick-Up Window, then Study Card Stacks for the TI 84 plus Family. Note that the Study Cards are in two files. Download the files that you want to your Desktop, one at a time.

VI. To place these on your calculator, you must now connect it to with the silver TI Connect cord which should be connected to one of the computer's ports. Now, use TI Connect and click on TI Device Explorer. Simply drag and drop the application from the Desktop to the TI Device Explorer. At this point, you should Archive or Delete all applications (Apps) and Archive all programs, or the RAM memory will be full, and you will not be able to load other programs and

applications that you would like on your calculator. It should be noted that the default for Apps is Archive. To Archive programs, go to 2nd Mem, 2, 7, enter to Archive, and enter again to Unarchive.

VII. To place these on the SmartView calculator, you must have SmartView on the monitor and then go to File, Load File, Desktop, and then click on the file that you want to load. If the "memory is full" comes up, you must again Archive or Delete all applications and Archive all programs on SmartView.

VIII. If you have some programs on your calculator that you would like to place on SmartView, then use TI Connect and the silver cord and TI Device Explorer. Drag your program to the Desktop, load it as in VII, and it will be placed into your program file on the SmartView Calculator.

IX. You may leave the APPS archived and still use them, but you must un-archive the PRGMs in order to use them. The easy way to do this both on the calculator and in SmartView is to go to 2nd MEM, Mem Mgmt (2), Prgm (7), and depress the ENTER key for each program you would like to un-archive.

X. It is also possible to drag and drop the screens from SmartView to a Word document. The SmartView software will not reduce to a partial screen, so you must drag it over the Word document on the taskbar, wait until the document comes up, and then drop it in the document, not on the taskbar.

XI. Intersection and Trace do not show on the SmartView graph. It does show on the calculator, so you must drag and drop the calculator window to the Word document or take a Screen Shot and then copy and paste it into the document. If you decide to drag and drop it, the resulting screen may be out of focus, unless the calculator window is large and the monitor has an appropriate resolution.

XII. This item does not deal with SmartView but is something that I found out if we are concerned about the applications and programs on calculators. This only works on the TI84 series of calculators that have OS 2.40 and above. If you turn on a student calculator while holding down the left and right arrow keys, it will disable all applications and programs except the Finance application. To re-enable all applications and programs, you just have to transfer (via the Link key) any list.

Many items that we covered today can also be found on the handout that you will now be given free of charge. Remember that SmartView in general will only be loaded on the Instructor stations. TI only sells this to educators and will not sell anyone a site license.

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Universal Design for Assessment (UDA)

Anitra Butler

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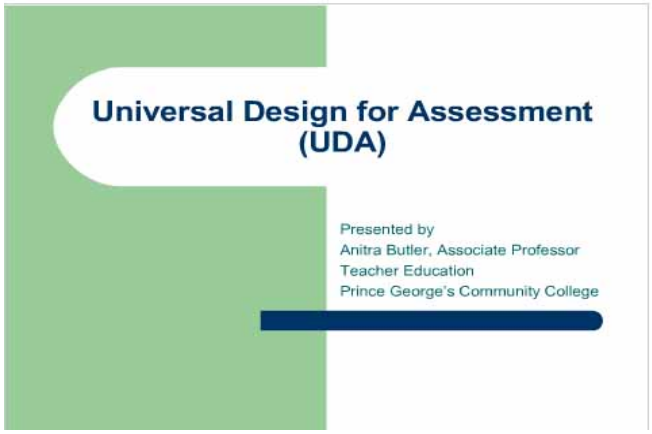

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Approaches Getting Everyone on the Same Page: Learning Outcomes and Other Tools

Kirsten Casey and Jason Barbour

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Adapting Process Writing for ESL Composition

Jeanette Gerrity Gomez
and
Elizabeth Holden Wagenheim

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The process approach to teaching composition has been wholeheartedly adopted by teacher-training faculty, textbook publishers, and TESOL researchers; however, it poses challenges for ELL instructors. The five-step process (planning, drafting, workshopping, and revising) is effective in producing good writing. However, as instructors, how can we overcome the obstacles and teach our students to effectively use it? As colleagues, we have engaged in an ongoing dialogue about what has and hasn't worked for us in our ESL classrooms at Prince George's Community College.

The challenges to the process approach can be discussed in two categories: those that are specific to English language learners (ELLs), and those that are inherent in any classroom context. Language and cultural differences in multicultural classrooms present some challenges to the process approach. ELLs' developing language skills often do not include vocabulary needed for giving and receiving constructive criticism. Unless explicitly taught by the ESL instructor, the lack of these skills can result in a reluctance to offer feedback or misunderstandings between students in terms of tone or intent. ELLs with developing language skills can also experience frustration in the basic exchange of information—speaking and understanding the feedback at all. In a multicultural classroom, students of different sexes, ages, and educational backgrounds may face discomfort in taking and giving criticism resulting from the differing cultural expectations. For example, a female student from an Asian country may be reluctant to voice criticism to an older male student.

A challenge that is not unique to the ESL classroom is lack of academic preparedness. Many students arrive in our classrooms without the appropriate foundation in academic skills. Planning and its importance in achieving a well-developed paragraph or essay frequently are misunderstood by students. When given a writing assignment, many begin writing immediately, without intention of revision. It is essential then that our instructors provide specific and discreet instruction on planning, brainstorming, and outlining. These skills, once adopted, can be used by the students in whatever academic arena they find themselves in the future.

Another difficultly facing ESL students is misunderstanding the conventions and expectations of American-style academic writing. It is helpful to the students, and often empowering, to point out these differences, acknowledge the existence of other styles, and encourage acceptance of American academic writing standards. Most notable of the following expectations:

- ✓ focus on third person usage

✓ sentence structure – complex sentences often not as effective; use of transitions to show logical connections and aid the readers' comprehension

✓ linear structure (get to the point!)

✓ less repetition of ideas

✓ requirement of paraphrasing and citations

Jeanette Gerrity Gomez's underlying belief is that planning is the key to all good writing. In order to aid students in adopting this practice, she does the following explicitly in her writing classroom:

✎ *Instructs on brainstorming techniques for specific types of writing.*

In order to aid students in developing techniques for planning for future assignments in a variety of classroom settings, I offer different suggestions for pre-writing techniques. Brainstorming techniques vary on the type of writing that is assigned. For example, using a T-diagram is especially effective in compare/contrast writing.

✎ *Has students peer review brainstorms, outlines, and initial drafts.* Students complete peer review sheets which target understanding of various organizational requirements, desired content, and opportunities for constructive criticism.

✎ *Identifies personal editing needs through constructive criticism.* I work to develop the idea that all writers require editors, even those most acclaimed and admired. I encourage students not to be overwhelmed by concerns or difficulties, but to identify areas in which they might need additional attention after the first draft is written. Ensuring that identified concerns become resolvable enables the student to have more confidence in their final product.

✎ *Evaluates brainstorms & outlines and incorporate as part of overall grade.* In order to have students understand the importance of the planning aspects of writing, I require the evidence of brainstorming and outlining. While some students have difficulty in the beginning with these practices, eventually all students have the ability to produce the desired pre-writing activities and have the understanding of their importance.

✎ *Expects students to incorporate ideas from peer review and teacher's comments.* I look specifically for corrections based on suggestions made not only by me, but also by peer editors (if made and appropriate). I dialogue with students regarding their work after the peer review and my initial comments in order to make sure the comments are clear.

Elizabeth Holden Wagenheim's underlying belief about workshopping is that it is of far greater benefit to the student editor rather than the author. To this end and to circumvent some of the language and cultural problems inherent in giving and receiving feedback, workshopping does not occur in pairwork. Instead, the following modifications are made to the process approach:

- *Drafting and organizing idea are modeled on a regular basis*. Before I assign a topic, I lead the class in the brainstorming and organizing stage of the process. I gather ideas from individual students and put them on the board, and the class works together to plan the writing. Sometimes students then write a practice thesis statement or outline individually based on the classes.

- *Written rather than oral feedback is given*. Student editors are given a checklist of objective, yes/no questions that analyze the organization of the writing such as, "Does the author include a clear, effective topic sentence?" "Does the writer meet the length requirement in the body of the paper?" The editors gain from targeted and specific points to look for in the paper. They receive a grade on the accuracy of their checklist answers, thereby holding them accountable for their thoughtful reading of the author's work.

- *Whole-class discussions of model student writing are held for each assignment*. Because I believe that students learn best from each other and from analyzing authentic student writing, I reproduce one or several good examples of writing done by students in that class. We workshop the writing together, noting strengths and offering suggestions in areas that I have targeted.

- *Students are expected to develop an idea of their individual strengths and weakness as writers.* Several teaching techniques are based on this expectation. I have students pose a specific question (written on a post-it note affixed to their draft) that they would like me or student editors to investigate when reading their drafts. For example, a student who struggled with the conclusion may ask the editor to offer suggestions on that part of the writing. As a result, students' self-identified needs are driving the editing process. Similarly, I ask students to identify something they are proud of in their writing and then write the student's name with the corresponding strength on the chalkboard. That student then becomes the resident expert in that area, and students who see a need in that skill approach the other student.

- *Proofreading can be taught*. As the last step of the process before submission, I encourage proofreading—a hard skill for anyone, let alone an ELL—by the frequent use of highlighter pens. Students are required to buy a highlighter as a supply for my writing classes. Before they submit a draft, I select one grammar point or structure on which to focus. Students are instructed to read their writing and highlight every incidence of that grammar point or structure (verbs for verb tense usage or logical connectors for punctuation/comma usage to name two.)

Learning the technique and benefits of process writing enables our students to acquire the tools necessary to produce high quality writing for their coursework in the future. While our approaches to the process writing approach differ because of our individual beliefs about writing and teaching, encouraging the awareness and application of process writing is a necessary part of academic readiness for ELLs. Our personal adaptations currently work for us, but there are as many ways of approaching process writing as there are ELL teachers. We continue to question our own methods and learn from each other's modifications.

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Hooking the Adult Learner: Multimedia Approaches

Elizabeth G. Honaker

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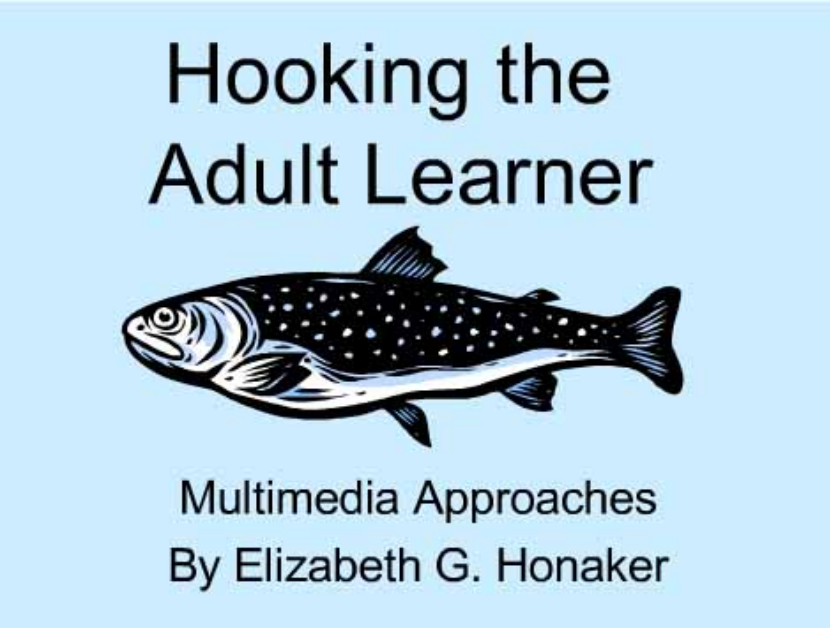

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The Importance of Early Field Experiences With Emphasis on Field Experiences As a Recruiting Tool

Laura Hutton

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DEFINITION OF EFE – Early field experiences (EFE) is a term which refers to any field experience which occurs prior to student teaching.

Most teacher education programs include at least one early field experience (Meyers, 2006; Passe 1994).

PURPOSES OF EFE

Clarifying aspirations – San Felice and Barnett propose that EFE help education majors clarify their aspirations including whether or not they want to become teachers (2004). Passe emphasizes the need for higher education faculty to be involved in the evaluation of prospective teachers during EFE to help these students determine their potential for teaching (1994).

Increasing competency – Li and Zhang summarized research that shows that EFE "are effective in shaping professional beliefs and practices" (2000, p. 1). Passe proposes that this happens when prospective teachers can apply the skills they learn in their college classrooms in their field experiences and when mentor teachers effectively model appropriate techniques (1994). Research completed by Curtner-Smith and Sofo shows that combining carefully constructed coursework with an early field experience encourages reflective practices and increases attention to the technical aspects of teaching (2004). Similarly, Silverman conducted research that shows that physical education majors are likely to shift their philosophy of physical education to one which focuses "on the promotion of student learning" after effective EFE (1998, p. 6)

Improving retention – Woullard and Coats discuss the potential for EFE to improve the retention of beginning teachers by helping prospective teachers adjust to the realities of the classroom while still under the supervision of an experienced teacher (2004).

PROBLEMS WITH EFE

Anderson surveyed students involved with EFE and their mentor teachers to identify the biggest challenges involved with EFE.

Planning time – The problem which is ranked number one by both mentor teachers and EFE students is a lack of time to plan and work together.

University involvement – Cooperating teachers rank a lack of guidance and assistance from faculty at the institution of higher learning as the second biggest problem with EFE.

Students' hesitancy – According to cooperating teachers, the third biggest problem with EFE is that their EFE students are uninterested in getting to know the rest of the school faculty. Interestingly, 74% of the EFE students state that they want to get to know the rest of the school faculty.

Lack of clear guidelines – Many EFE students believe their cooperating teachers do not understand the goals and objectives of the EFE (1993). Passe conducted a review of the research and similarly concludes that higher education faculty often fail to provide cooperating teachers with guidelines for early field experiences or provide guidelines which are excessively vague (1994).

Anderson concludes that "cooperating teachers perceived to a moderate degree that they have problems in the supervision of early field experience students" (1993, pp. 611-612).

Quality mentor teachers -- Another problem identified by Passe is obtaining high quality cooperating teachers. Teacher education departments often have little or no control over the assignment of cooperating teachers, particularly for EFE. The challenge of finding high quality cooperating teachers is increased by the implementation of EFE as a much larger number of cooperating teachers are now required. Passe's research found that only 55% of higher education faculty believe that the cooperating teachers used for their EFE are always or usually quality role models. As a result, EFE students are often placed in classrooms where few of the practices recommended in their coursework are being implemented. Research has indicated that students faced with such a dilemma are likely to replace the concepts and skills taught in their coursework with those observed in their field placements (1994).

BEST PRACTICES FOR EFE

After completing a literature review, Passe identified **ten best practices** related to EFE:

1. Prospective teachers should actually teach lessons to the children in the field placement.

2. Prospective teachers should practice the instructional and management techniques they are learning in their college classes.

3. Prospective teachers should help select the content of the lessons they teach.

4. High quality mentor teachers should be selected.

5. Mentor teachers should observe the teacher that candidates teach.

6. Prospective teachers should receive feedback on their performance in the field placement.

7. Prospective teachers should be guided to reflect on and analyze their performance.

8. Faculty from the institution of higher learning should observe prospective teachers in the field placement.

9. Faculty should actively evaluate prospective teachers and help them determine their suitability for teaching.

10. Field experiences should be linked to coursework and include formal discussions of prospective teachers' experiences (1994).

Silverman concurs stating that EFE should be "well supervised and structured . . . integrated with course work and include opportunities to reflect." (1998, p. 6)

A variety of research emphasizes the importance of assignments which encourage **self-reflection** during EFE (Hamlin, 2004; Meyers, 2006; Passe, 1994). Hamlin presented six questions from Posner's Field experience: A guide to reflective teaching. Hamlin states prospective teachers should focus on these six questions when journaling about early field experiences.

"Why did it happen?"

"What was my role?"

"What beliefs did my actions reflect?"

"Did my actions reflect beliefs and assumptions about which I was not aware?"

"Did the consequences of my actions raise doubts or reinforce my beliefs?"

"How should I act in the future on the basis of what happened?" (2004, p.173)

The importance of **high quality mentor teachers** has been reiterated in much of the literature. San Felice and Barnett state that the most effective cooperating teachers "exhibited several key characteristics: flexibility, open-mindedness, a can-do approach, and a passion for teaching" (2004, p. 7). Li and Zhang found that EFE are most likely to have a positive impact on prospective teachers' beliefs about the effectiveness of teachers if the prospective teachers perceive their cooperating teacher to be effective (2000).

EFE FOR FRESHMEN AND SOPHOMORES

While the term EFE includes field experiences which take place during a student's junior or senior year, an increasing emphasis is being placed on earlier EFE. These **earlier field experiences can also be used as recruiting tools**. (Woullard & Coats, 2004)

After conducting research with middle school teachers and teacher candidates, Moore & Leonard emphasize the importance of "additional and varied earlier participatory-type field experiences." (1990, p.138)

Woullard & Coats researched the beliefs of freshman and sophomore education majors before and after EFE. They found prospective teachers are significantly less concerned about entering the teaching profession after completing EFE (2004).

Western Illinois University restructured its teacher education program to include EFE starting during the freshman year. After researching the performance of prospective teachers in both the old and new programs, they found that "students in the redesign groups are doing at least as well as, and in some cases, are doing significantly better than, our students still in the traditional teacher education program" (Godt, Benelli & Kline, 2000, p. 5).

Theriot, Alcala and Denson describe an EFE designed to attract students to the profession of middle school teaching. This course, typically taken by freshman, is widely publicized across campus. Theriot, Alcala and Denson have found that it helps recruit teacher education candidates and increases awareness of the benefits and challenges of teaching middle school (2004).

San Felice and Barrett describe an EFE designed to recruit teachers of science, technology, and mathematics. This program targets community college students majoring in science, technology, or mathematics. San Felice and Barret state that 51% of students completing the EFE decide to pursue teaching while only "some" had planned to do so prior to the EFE (2004, p.16).

HARFORD COMMUNITY COLLEGE'S PROGRAM

Maryland has created an Associate of Arts in Teaching degree (AAT). This degree requires a minimum of 45 hours of early field experiences. Harford Community College's AAT degrees include two 30 hour field placements completed in combination with introductory coursework. The first 30 hours are completed in a regular education classroom, and the second 30 hours are completed in a special education classroom. Starting spring 2007, HCC administered surveys to these EFE students to evaluate the impact of the EFE on the students' aspirations. Data collected so far (see tables 1 & 2) show that:

EFE are effective ways to help students clarify their teaching goals.

EFE in special education appear to be an effective way to recruit prospective teachers to the field.

Table 1 (Results of Spring 2007 Survey)

	Regular Education Field Experience (38 completed surveys)	Special Education Field Experience (35 completed surveys)	Combined Results
Students changed their mind about a career in teaching	8%	6%	7%

Students changed their minds about the grade level band(s) at which they want to teach *	18%	6%	12%
Percent of students who were considering becoming a special educator prior to the field experience	8%	17%**	12%
Percent of students who were considering becoming a special educator after the field experience	16%	37%**	26%

* Students were identified as having interest in teaching at one or more of the following grade levels: pre-kindergarten through grade three, grades one through five, middle school, or high school.

** This change includes two students (6%) who were previously considering a career in special education but no longer are and nine students (26%) who were not previously considering a career in special education but now are.

Table 2 (Results of Fall 2007 Survey)

	Regular Education Field Experience (103 completed surveys)	Special Education Field Experience (34 completed surveys)	Combined Results
Students changed their mind about a career in teaching	6%	0%	4%
Students changed their minds about the grade level band(s) at which they want to teach *	22%	15%	20%
Percent of students who were considering becoming a special educator prior to the field experience	31%**	18%***	28%
Percent of students who were considering becoming a special educator after the field experience	40%**	56%***	44%

* Students were identified as having interest in teaching at one or more of the following grade levels: pre-kindergarten or kindergarten, grades one through three, grades four or five, middle school, or high school.

** This change includes four students (4%) who were previously considering a career in special education but no longer are and 13 students (13%) who were not previously considering a career in special education but now are.

*** This change includes no students (0%) who were previously considering a career in special education but no longer are and 13 students (38%) who were not previously considering a career in special education but now are.

References

Anderson, N. A. (1993, Summer). Problems encountered in an early field experience. *Education, 113*(4), 606-614.

Curtner-smith, M., & Sofo, S. (2004, March). Influence of a critically oriented methods course and early field experience on preservice teachers' conceptions of teaching. *Sport, Education & Society, 9*(1), 115-142.

Godt, P. T., Benelli, C., & Kline, R. (2000, February). *Do preservice teachers given "early field experiences" and "integrated methods courses" do better than students in the traditional teacher education program?: A longitudinal plan to evaluate a university's redesign of its teacher education program*. Chicago, IL: Paper presented at the Annual Meeting of the American Association of Colleges of Teacher Education. (ERIC Document Reproduction Service No. ED439129)

Hamlin, K. D. (2004, June). Beginning the journey: Supporting reflection in early field experiences. *Reflective Practice, 5*(2), 167-179.

Li, X., & Zhang, M. (2000, April). *Effects of early field experiences on preservice teachers' efficacy beliefs: A pilot study*. New Orleans, LA: Paper presented at the Annual Meeting of the American Educational Research Association. (ERIC Document Reproduction Service No. ED444973)

Meyers, E., Jr. (2006, Summer). Using electronic journals to facilitate reflective thinking regarding instructional practices during early field experiences. *Education, 126*(4), 756-762.

Moore, B. D., & Leonard, R. (1990, Fall). Consolidating perceptions of middle school teaching through participatory-type early field experiences. *Education, 111*(1), 133-138.

Passe, J. (1994, May). Early field experiences in elementary and secondary social studies methods courses. *Social Studies, 85*(3), 130.

San Felice, F., & Barnett, L. (2004). *Expanding minds, exploring futures: Teaching scholar partnerships: Models linking community colleges with K-12 science and mathematics education*.

Washington, DC: American Association of Community Colleges. (ERIC Document Reproduction Service No. ED494027)

Silverman, S. (1998, January). How can an early field experience influence preservice teachers' conceptions of teaching? *Journal of Physical Education, Recreation & Dance, 69*(1), 6.

Theriot, S., Alcala, A., & Denson, L. (2004, Winter). Implementation of an early middle level field experience: A teacher education recruitment solution. *Childhood Education, 81*(2), 83-86.

Woullard, R., & Coats, L. T. (2004, August). The community college role in preparing future teachers: The impact of a mentoring program for preservice teachers. *Community College Journal of Research & Practice, 28*(7), 609-624.

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A Learning Gap: Why Aren't My Students Learning?

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Many of us have taught students who were not successful in our classes. We've searched for ways to help them, only to conclude that they were either lazy or unable to learn. When Helen Irlen, an educational psychologist in Long Beach, California, worked with students who couldn't learn, it was like trying to put together a puzzle with missing pieces. She did not accept that her students were lazy or unable to learn. Rather, she believed something else was preventing them from learning. In 1980, using a grant from California State University, Long Beach, she set up a literacy program for adults and searched for the missing pieces of the puzzle. Out of that program came a profound discovery—a visual perception dysfunction that affects 12-14% of the general population around the world (Zuccone 2006-2008). Originally, Irlen called the dysfunction Scotopic Senstivity Syndrome; however, encouraged by her colleagues, she renamed it Irlen Syndrome.

What is Irlen Syndrome?

Irlen Syndrome is a problem with the brain's ability to process visual information. It is not an optical problem that can be diagnosed with a regular eye exam. The problem tends to run in families and is not currently identified by standardized educational or medical tests.

Individuals with Irlen Syndrome experience difficulty with reading and writing activities. Although the percentage of the general population who experiences Irlen Syndrome is relatively small, Carol Zuccone, a licensed psychologist, agrees with Helen Irlen that the number of individuals with Irlen Syndrome increases to almost 46% for those with reading, learning, or attention problems (Zuccone).

What causes Irlen Syndrome, and is there a cure?

We do not know the exact cause of Irlen Syndrome. It is suspected that the problem is either in the retina of the eye or in the visual cortex of the brain. In 1991, Dr. Margaret S. Livingstone of Harvard Medical School published research that offered a medical explanation of this disorder. Her hypothesis is that Magnocellular and/or Parvocellular visual processing pathways are malfunctioning. The Parvocellular pathway does not see color, but it discerns movement, depth, and high contrast images; while the Magnocellular pathway does see color, fine details, and low contrast images. The malfunction causes an overlap of images that persists even when the eye moves on to new information ("Irlen Syndrome"). As a neuropsychiatrist for the past 24 years, Dr. Daniel G. Amen, Assistant Clinical Professor of Psychiatry and Human Behavior at University of California, Irvine School of Medicine, has amassed more than 21,000 brain scans related to behavior. Amen searched its database of scanned images and clinical data to

determine if the Irlen Syndrome could be identified. "What I found was pretty amazing!" (Amen 2004) exclaimed Amen. In one particular study, he looked at 42 people with the syndrome and compared them to 200 age-matched people without any evidence of Irlen Syndrome. To a highly significant degree, areas were documented of increased activity in the brain's emotional and visual processing centers and decreased activity in the cerebellum, an area that helps to integrate coordination and new information (Amen).

No cure is available for Irlen Syndrome; however, Helen Irlen has developed an effective method of managing the syndrome. When colored, filtered overlays and lenses are used when reading, the symptoms of Irlen Syndrome are decreased. The use of the overlays and lenses do not teach reading and do not replace reading instruction, regular eye appointments, etc.; however, they do remove a barrier so one can read.

What are the most common symptoms of Irlen Syndrome?

Irlen Syndrome can affect many different areas, including:

- Academic and work performance
- Behavior
- Attention
- Ability to sit still
- Concentration

The Irlen Syndrome can manifest itself in multiple ways. Each person experiences different arrays of symptoms. On the Irlen Institute website, individuals can take a self test to screen for symptoms of Irlen Syndrome (Irlen Institute). Symptoms include:

Reading Problems

- Poor comprehension
- Misreads words
- Problems tracking from line to line
- Reads in dim light
- Skips words or lines
- Reads slowly or hesitantly

- Loses place
- Avoids reading

Math Problems

- Sloppy, careless math errors
- Misaligned numbers in columns
- Grades do not reflect the amount of effort

Discomfort

- Strain and fatigue
- Tired or sleepy
- Headaches or nausea
- Fidgety or restless
- Eyes that hurt or become watery

Attention and Concentration Problems

- Problems with concentration when reading and doing academic tasks
- Often people can appear to have other conditions, such as attention deficit disorder.

Writing Problems

- Trouble copying
- Unequal spacing
- Unequal letter size
- Writing up or downhill
- Inconsistent spelling

Depth Perception

- Clumsiness

- Difficulty catching balls
- Difficulty judging distances

Other Characteristics

- Strain or fatigue from computer use
- Difficulty reading music
- Ineffective use of study time
- Lack of motivation

(www.readingandwriting.ab.ca/judypool/irlen.htm)

Do any organizations or branches of the government recognize Irlen Method?

Agencies that officially recognize the Irlen Method include Illinois Department of Rehabilitation Services and Office of Vocational Rehabilitation, Michigan Vocational Rehabilitation Services for the Blind, Nevada Vocational Rehabilitation Services, SAT, ACT, and LSAT, the International Dyslexia Association, and the Learning Disabilities Association of Canada.

Perceptual processing difficulties associated with Irlen Syndrome are published in academic and scientific journals, including the Journal of Learning Disabilities and Journal of Research and Reading.

The U.S. Naval Air Warfare Center Weapons Division has also conducted research of the Irlen Syndrome. At the 15th International Civilian and Military Combat Stress Conference 2007, their research findings were presented in a PowerPoint presentation titled "Reducing Combat Stress Irlen Syndrome." Their conclusion was that "While certainly not a panacea for all combat stress, screening for and addressing Irlen Syndrome will reduce stress in those with the disorder. Reducing the visual onslaught will improve performance, attention & concentration, energy, mood and the ability to cope with life" (Irlen 2007).

On July 6, 2007, the National Education Association published and adopted "New Business Item 35" which stated the following:

> NEA will inform its members through its website and publications, such as NEA Today, regarding Irlen Syndrome/Scotopic Sensitivity, a visual perception problem caused by sensitivity to light that results in serious reading difficulties for many thousands of school children. Information so disseminated will include a clear explanation of the condition, its symptoms, and its proven remedy (color filtration). Reporting should include highlights of credible research, legislation, and selected accounts of students who have met with success following appropriate assessment and treatment. A list of resources should be provided in order to enable all interested parties to become well informed about

Irlen Syndrome and to take action for the benefit of students (News from the NEA Annual Meeting).

While educators, psychologists, and physicians try to find the cause and cure for Irlen Syndrome, people around the world are being helped. Australia, Great Britain, and New Zealand, and Italy are just a few of the countries that have established Irlen clinics.

Although the Irlen Method has helped thousands of people, Helen Irlen and her colleagues do not claim that it teaches reading skills or cures learning problems. It simply removes a barrier that prevents readers from reading and learning efficiently. It is only a piece of the puzzle, but it is a very important piece!

Works Cited

Amen, Daniel G. "Light and the Brain." Brain in the News. 30 June 2004. Amen Clinic. 8 Jan. 2008 <http://www.amenclinic.com>.

Irlen, Helen, Andrew G. Yellen, and Robert Dobrin. "Scotopic Sensitivity Syndrome and Its Relationship to Combat Stress." Continuing Education Central. 2007. Psycho-Legal Associates, Inc. 7 Feb. 2008 <http://www.ContinuingEducationCentral.com>.

"Irlen Syndnrome." Reading & Writing Consultants. Irlen Institute. 8 Jan. 2008 <http://www.readingandwriting.ab.ca/judypool/irlen.htm>.

"National and International Research Studies." Reading and Writing Consultants. Irlen Institute. 8 Jan. 2008 <http://irlen.com/index.php?s-research>.

Zuccone, Carol F. "Irlen Syndrome." Carol F. Zuccone, Ed. D. & Associates/Irlen Clinic. 2006-2008. Irlen Institute. 8 Jan. 2008 <http://www.zuccone-irlen.com/irlen.html>.

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Critical Thinking in the Classroom: Experiments in Curriculum and Assessment

Andrew Keyser* – *History
Jeannine Stonestreet* – *Education
Patricia Williams* – *LPN
Trudy Gift* – *Technology Computer Studies
Cynthia Dove* – *Anatomy and Physiology

Hagerstown Community College

Traditionally, many courses, such as those within the history discipline, have been driven by content and content-based assessment. This standard approach does not typically test student skills or the student's ability to apply critical thinking to course content and themes. As our classrooms adapt to a modern world, we struggle to revise our course curriculum and assessment tools to meet our student's needs and to fulfill the outcomes that are integral to general education. This presentation will show how some instructors from a variety of disciplines at Hagerstown Community College are attempting to meet this challenge by making critical thinking an integral part of course outcomes.

There are many strategies for developing a student's critical thinking skills. Some general classroom methods that might be utilized are:

1. Finding analogies and other kinds of relationships between pieces of information

2. Determining the relevance and validity of information that could be used for structuring and solving problems

3. Finding and evaluating solutions or alternative ways of treating problems

The specific methods, however, will likely vary across disciplines and even within disciplines. Following, are three examples of teaching strategies that Hagerstown Community College instructors are currently utilizing in the classroom to promote critical thinking.

World History – Source Analysis and Evaluation (Andrew Keyser

Background: History courses have traditionally been taught with an emphasis upon content. Instructors of World History classes at Hagerstown Community College have begun focusing on student skill development to compliment content. Students learn to critically analyze and evaluate source materials, identify important information within those sources, and illustrate how the source materials relate to the historical content. Critical thinking skills are developed and utilized throughout this process.

Critical thinking and skill development is assessed through a variety of means. Random in-class open book critiques of source readings are implemented throughout the semester and a video documentary critique is also utilized. Examinations in the first of the two course sequence introduce students to primary source excerpts or visual materials that they have not seen previously in the classroom. Students are required to analyze these sources on their own merit and then connect them to the history that they have been studying. Examinations in the second course, which focuses more on secondary sources, introduce students to new historical interpretation thesis statements which they must support with historical facts and then suggest valid (and well-supported) alternative theories which challenge the original.

Outcome: Students are responding well to the new course format. Typical feedback has noted the challenging nature of exams. Instructors have noticed that most students demonstrate steady progress throughout the semester and through the two course sequence. Data is still being collected, but students who have been tested with the CAPP Critical Thinking Exam are typically scoring well above the national average and these scores seem to correlate to the grades given in the classroom.

Psychology – Jigsaw Cooperative Learning Lesson (Jeannine Stonestreet)

The goal of an educator is to reach all students learning styles in the classroom, to actively engage all students in the learning process and to assist students in taking ownership of their education and knowledge. Providing opportunities for the students to engage in higher level thinking activities while in the classroom gives students an opportunity to construct meaning of various concepts while the teacher takes on the role of facilitator. The jigsaw cooperative learning activity created for an Introduction to Psychology course was an effective way to get the students thinking critically about psychological disorders and treatment.

The objectives were as follows:

* The students will research psychological disorders covered in the Introduction to Psychology course objectives and apply their knowledge by creating fictional clients.

* The students will research psychotherapy theories and will apply their knowledge by assigning therapeutic techniques appropriate for their fictional clients.

Step 1: Base Groups

* Assign students into **base groups**. Ideally, assign five students per one base group.

* Give each student in the base group a colored chip (red, blue, green, black & white).

Step 2: Expert Groups

* Have students get into their **expert groups** by assigning colors to different areas within the classroom.

* Hand each expert group three index cards assigning them three psychological disorders to research, criteria for creating a fictional client for each disorder and therapeutic options to be addressed.

* Allow 1 class period (75 minutes) for expert groups to research.

Step 3: Back to Base

* Students return to their original base group with their client notes.

* Assign each color a number.

* Student 1 shares client description #1 with the group. The group predicts the psychological disorder on a sheet of paper. Student 1 shares the answer. Student 1 reads a therapeutic technique to the group and the group predicts the theory the technique falls under. This cycle is repeated until student 1 has shared all three clients.

* Student 2 begins the cycle again.

Lesson Closure:

* When the activity has been completed we take a few minutes to discuss common areas of confusion.

Outcome: I have observed that overall students have performed better on the exam after I have incorporated this activity in my psychology classes.

Best Teaching Practice - Releasing Control of the Classroom (Trudy Gift)

Background: while working in an extremely controlled environment (a prison), I found the students to be so highly motivated that it was hard to keep everyone on the same page. I decided to let them teach the class. I took a chapter (relatively easy concepts to understand) and had each student sign up for several topics that they would present to the class. They would be responsible for lecturing, developing their own class activity to enhance the topic, creating their own handouts, PowerPoint, etc. I was going to be an observer.

Outcome: It was very interesting to see how the students took control. One student presenter was asking questions and getting no response. When someone finally, reluctantly, answered his question, the student was rewarded with a candy bar. I had forgotten how such a simple gesture could result in the Pavlov's dog reaction. Everyone was excited and wanted more questions. Class participation was awesome. Other presenters were equally good. It seemed the students appreciated listening to someone other than the instructor.

Some people might say that only works on a highly motivated, controlled group. I tried the same teaching technique on my college's campus. The results were just as rewarding. When one student could not get her sample problem to work correctly in class, it was interesting to see how

her classmates offered suggestions. The class worked together to achieve a workable solution. During all of this, I was just an observer.

The first several times, I did not grade this exercise. This past semester I developed a rubric and attached a grade to the activity. I was disappointed in the results. There seemed to more emphasis on getting a good grade than on teaching a concept. Students did not get as involved in the discussion. It was as though they were more concerned with doing well with their presentation than in learning. In the future, I am not going to grade this activity.

Allowing students to take over an entire class period is a scary concept. I tried it and couldn't believe the success.

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Why Grades Obstruct Learning - Things to Do About It

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The following is adapted and condensed from a PowerPoint presentation and discussion.

The objective is learning; grades undermine the objective. They inspire students to be anxious and timid. They work against the courage, experimentation, mistakes, failures, questions and playfulness that characterize what good learners do. How do we as professors and institutions demote grades and promote selfish and playful learning?

Thomas Jefferson imagined and worked to create the first secular university. It would bestow no degrees and give no grades. Students would come when they wanted, study what they chose, and leave when they felt educated. Classically educated, Jefferson may have been conscious of Plato's assertion that "a free man ought not to learn anything under duress. Compulsory physical exercise does no harm to the body, but compulsory learning never sticks to the mind." Much more recently (2006) Harry R Lewis, retired Dean of Harvard College, wrote that the keep-their-noses-to-the-grindstone rationale for grades is simply anti-educational: "Reliance on grades to make students work hard is bad teaching" (130). Lewis also asserts that, "The greatest loss results when students avoid risky courses in any field because they opt to protect their grade-point average rather than to learn something new" (144). The object is learning and grades work against that objective. Curiosity, play, independent synthetic thinking that takes risks with skills, information and ideas beyond the course are peripheral, silly, impractical. "Is it going to be on the test?" We and they know they have learned because they passed our test. They have learned..... to pass our test. Much that passes for learning is just passing. "Knowledge prepared for others is not knowledge" (John Dewey).

Premise: Learning happens at the intersection of the known and the new. We take what we have been taught, set it in relation to something else, and make something for ourselves that we have not been taught. At that point learners are preparing their own knowledge and so it is knowledge. How do we evaluate that in a way that does not discourage it?

Speaking as a teacher, Robert Frost said it was hard for him to know if a man had come close to Keats.

> I have lived with some boys a whole year over some of the poets and have not felt sure whether they have come near what it was all about. One remark sometimes told me. One remark was their mark for the year; had to be—it was all I got that told me what I wanted to know. And that is enough, if it was the right remark, if it came close enough. I think a man might make twenty fool remarks if he made one good one some time in the year. His mark would depend on that good remark. (Education by Poetry)

So much for objective equal application of grading standards. Actually, Frost's description does not much exaggerate recommendations of some current research and thinking which asserts that grade curves and cumulative grading create an anti-educational academic environment.

In "Making the Grade: What Benefits Students," Thomas Guskey surveyed "the multitude of studies – and their often incongruous results and found that researchers agree on 5 points." One of those points is that, "Grading and reporting are not essential to instruction. Teachers do not need grades or reporting forms to teach well. Further Students don't need them to learn (Frisbie and Waltman 1992)." Guskey offers a practical guideline: "Use grading and reporting methods to enhance, not hinder, teaching and learning." Cumulative grading or averaging grades "falls far short of providing an accurate description of what students have learned" (17).

In this Guskey agrees with Ken Bain's conclusions about grades after he surveys teaching practices in What the Best College Teachers Do. "Most extrinsic motivators damage intrinsic motivation" (Bain, 33; Kohn, 39). "People lose much of their motivation if they think they are being manipulated by the external reward … they lose … 'the locus of causality….'" If a behavior "is a way to get a particular reward," then people will behave that way only when they want those rewards. Remove the reward and it is human nature to "lose interest in that activity" (33). Bain says that the reward and punishment of grades encourage strategic instead of intrinsic learning.

Strategic Learners	Intrinsic Learners
Seek success in terms of grades Avoid challenges Fear mistakes Feel smart when the learning is easy Seek "right" answers Seek to please others	Feel intelligent when they do not understand and then figure out something new. Seek to accomplish learning goals and to master skills and knowledge

Strategic Learners: May be motivated to get good grades, but they are "seldom willing to grapple deeply enough to change their own perceptions" (Bain, 34) Strategic learners "will not solve problems as effectively, they will not analyze as well, they will not synthesize with the same mental skill…. They will not take on the same kinds of challenges. They will usually opt for the easier problems, while those who work from intrinsic motivations will pick up more ambitious tasks. The "strategic learner" focuses on doing well in school "avoiding challenges that will harm their academic record," and so learns less (Bain, 34).

Here is a brief list of some of the pressures that enforce anti-educational grading practices.

- Biggest and most obvious: Student expectations and years of functioning in and being manipulated by a grade-centered learning environment.
- Course evaluation questions "Is grading system clear and fair" Agree ↔Disagree
- Professional evaluations that expect a point averaged grade
- Grade report requirements for averages and points that allow administrators to "justify" grades when students complain
- Unconsidered assumptions that competition is good and drives people to achieve
- Unconsidered assumption that the reward of good grades motivates learning
- Unconsidered assumption that it is professional and possible to represent learning in a set of averaged numbers assigned to prescribed activities.
- If it can't be graded why do it?
- If it will not add up to points on the test why think about it?

WHAT TO DO

While there are seven or eight colleges and universities (two of them public) that allow students to opt out of grades or do not give them, we are not about to eliminate them at community colleges. So, as Ken Bain asks, can we evaluate with grades and "not cause students to feel they are being manipulated?" "What do the best teachers do to keep students from becoming grade grubbers?" How do they "stimulate intrinsic interest in the subject?" Bain says that the best college teachers do the following:

- Orient the course toward "learning goals and mastery"
- "Give students as much control over their education as possible."
- Give non-judgmental responses stressing ways to improve
- Stress student cooperation as opposed competition for grades on a curve
- Avoid using grades to persuade students to study
- Focus on the questions raised by and in the subject
- Focus on the promises that the study makes to the learner (36).
- Grade student course work based "on the knowledge and abilities they have developed by the end of the class rather than on the average of accomplishments displayed throughout the term" (36)
- Give students multiple opportunities and venues to demonstrate mastery.

My adaptations include the following:

- Go through syllabi and handouts and eliminate or deemphasize all statements concerning grades.
- Rephrase many course goals and objectives in terms of promises and regularly point out activities that are seeking to fulfill those.
- Start with efforts to learn and name what the learner knows.
- Ask students to assess their work and describe the learning they make.
- Portfolios and portfolio essays in which the student is responsible for describing the semester's learning that the portfolio represents.

I like a take-home final exam followed by a colloquium in which I do not sit a the table or speak. I am the secretary. I am listening for that remark Frost listened for.

None of the above are quick or easy. They are part of a slow reorientation to teaching and learning that subverts many cherished assumptions. The effort earns the punishment that comes to all good deeds. These days I hear little of the old buzz-word, "student-centered learning." Grades may well be a wet cold blanket on that sane pedagogy.

FINAL THOUGHT

Robert K Greenleaf's Servant Leadership principles have been adapted to curriculum theory.

"The best test is this: Do those served grow as persons? Do they, while being served, become healthier, wiser, freer, more autonomous, more likely themselves to become servants?"

Can grades pass this test? Can I?

Works Cited

Bain, Ken. What the Best College Teachers Do. Cambridge: Harvard University Press, 2004.

Guskey, Thomas "Making the Grade: What Benefits Students," Educational Leadership October 1994: 38-41.

Kohn, Alfie. "Grading: The Issue is Not How but Why." Educational Leadership, October 1994: 38-41.

Lewis, Harry. Excellence Without Soul. New York: Public Affairs,. 2006

Appendix

Some colleges without grades:

Reed College, Oregon

New College of Florida (NCF) in Sarasota.

> Last year The Wall Street Journal ranked the New College of Florida as the second-best public college or university in the country for sending grads to the nation's leading law, medical, and graduate schools.

Evergreen State College in Olympia, Washington

St. Johns College, Annapolis, Maryland

Brown University Offers Pass/Fail option that students can choose for all their courses

Antioch graduate programs

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The Art of Finding Examples in Mathematics

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When mathematics is taught, definitions, techniques, and theorems cannot be taught without support. We need to create examples that illustrate them. Often at a college level, there is not a lot of time for many examples. This means that the examples used must be carefully chosen.

When giving examples for definitions, we need to show both what conforms to the definition and what does not. This is one reason we teach relations so early in mathematics. For lower level math courses, the most important use, perhaps the only use, of a relation is to show the students something that is not a function.

Discontinuous functions often come at the beginning of calculus, not because calculus has many applications with discontinuous functions, but because we want to avoid them. It might strike a student as rather odd that in the course where we have no interest in dealing with step functions and piecewise defined functions we introduce them. Continuity is so important in calculus we must understand what it is and what it isn't.

Let us assume that one is teaching finding the percent of a number and calculators are not allowed. The rule is given: change the percent to a decimal and multiply that decimal by the number. A terrible example is finding 10% of something. Multiplying by 10 percent (as a decimal) is the same as dividing by 10. A student might easily be confused. Another terrible example is 79.368%. The student would be so involved in the details of the multiplication that he might miss what the problem was about. Any percent that has one non-zero digit which is not a 1 is a better example. 21% is a good example, because the multiplication is easy, and the student could concentrate on the technique, not the numbers.

Although I believe in teaching paired examples, that is, two examples that are slightly different, I would not give "Find 40% of " a number and "Find 4% of " a number as consecutive problems. The students might confuse the two and not remember the technique. On the other hand, after finding 40%, finding 7% of the same number would be a good problem. The students might even notice that 40% is larger than 7%.

The above example suggests two rules for finding examples to use in teaching. The examples should be simple enough so that they do not create problems and complicated enough so that they are general.

Most teachers create good examples automatically. Consider the following horrible example:

Given $f(x) = \frac{3x - x^3}{2}$ On what intervals is the function increasing? Answer $(-1,1)$ But does the student know that the x values vary from -1 to 1 or does he think y values vary from -1 to 1?

A good example of evaluating a function at a specific point is something like the following: Given $f(x) = 5+2x-x^2$, find $f(-3)$. The numbers are all small enough not to frighten students brought up on calculators. The $-x^2$ is put in because it is so often evaluated incorrectly.

Similarly, $f(x) = \frac{x+3}{x-4}$ is a better example to show characteristics of a function than $g(x) = \frac{3}{x-4}$ for two reasons. 1. Although the domain of f and g are the same, $f(-3)$ can be used to emphasize that the problem is zero in the denominator not in the numerator. 2. f shows that the argument can appear more than once.

Although it is acceptable to write a test question where the directions tell a student how to do a problem, it is usually better to find a test question where the method is almost forced. For example, I have used the following question in Calculus I:

Find where $y = 28x^4 - 15x^3 + 3x^2 + 3x - 7$ *is concave down.*

Students who graph this function find a roughly U shaped graph with no obvious parts concave down. Students who take the second derivative of the function and graph it find an equation which appears not to cross the x-axis when graphed in the standard window of a TI-84. However, the second derivative factors nicely. $336x^2 - 90x + 6 = 6(7x-1)(8x-1)$ gives an easy solution to the problem of $\left(\frac{1}{8}, \frac{1}{7}\right)$.

A similar trick can be used in precalculus. Often the student finds asymptotes by looking at them on a graph. But the graph of the function $y = \frac{x^2+1}{(8x-1)(7x-1)} = \frac{x^2+1}{56x^2-15x+1}$ appears to have a horizontal asymptote of $y = 0$ and one vertical asymptote. Algebraically, it is very easy to find the two vertical asymptotes of $x = \frac{1}{8}$ and $x = \frac{1}{7}$. Similarly, the horizontal asymptote hides in the x-axis, but is $y = \frac{1}{56}$. This also can be used as a classroom example to show students the need to do the problem algebraically.

Often the ability to compare examples is helpful. When teaching students about critical numbers or critical points in first semester calculus, I give the following three functions on a worksheet.

$$A(x) = (x^2-9)^3 \qquad B(x) = (x^2-9)^{\frac{4}{3}}$$

$$C(x) = (x^2+9)^3$$

The worksheet asks where the functions are zero, where the derivatives are zero, and where the derivatives are undefined. I ask where the functions are zero because some calculus students still have trouble with it. It also emphasizes the difference between a function and its derivative.

The first two have the same critical numbers, but at ± 3 the functions behave differently. In the first case, the derivatives are undefined and the second they are 0. The third function is thrown in as a contrast. Part of the exercise is to zoom in at x = 3 for A and B. Describing the difference will hopefully help them understand what happens with undefined and zero derivatives.

Notice that the algebra of finding the derivatives on these three problems is not difficult. It requires the chain rule, but is not tricky.

I do not mean to suggest that examples never should be difficult. Often it is a good idea to have an example that throws in a review of earlier mathematics

Even in so-called "easy" courses, examples should be picked carefully. The solution to linear equations or inequalities should include answers of zero. This is confusing to many people who know mathematics better than teaching, because from a mathematical point of view, the answers are easier. Nevertheless, students have problems solving equations that reduce to $-7x = 0$ or $-7x < 0$. In addition, students will correctly give the answer of x = $-\frac{4}{3}$ to $3x(17x + 13) = 0$ but forget the answer of x = 0.

Sometimes, examples of easy problems should be thrown in among the hard problems. $\int(\cos^3 x - \sin^3 x)dx$ is messy, particularly if the two trig functions are worked separately. However, $\int(\cos^3 x + \sin^3 x)dx$ is very easy. Pairing these examples suggests it is a good idea to look for shortcuts.

An example can be used to emphasize a point. Having students integrate $\int \sin x \cos x \, dx$ in three ways: 1. letting $u = \sin x$, 2. letting $u = \cos x$, and 3. substituting $\sin x \cos x = \frac{1}{2}\sin(2x)$ shows students the importance of the + C in integrating.

Another problem is finding examples that show students that the techniques they are learning are general. One of my colleagues who taught probability expressed it the following way: "Just because a student understands how many two letter 'words' can be made from 26 letters does not mean he understands how many ways two scoops chosen from 26 flavors of ice cream can be put on a cone." The best way to handle this might be to repeat a problem in different contexts. Consider the following three similar problems:

1. 26 coins, dimes and quarters, valued at $3.95. How many dimes and how many quarters?

2. Jog at 10 kph, bicycle at 25 kph and travel 395 k in 26 hours. How much time is spent jogging?

3. Mixtures of 10% acid and 25% acid are mixed together. There is a total of 26 oz. of mixture with 3.95 oz of acid. How many ounces is there of the 10% mix and how much of the 25% mix?

Students will not understand these problems are similar unless it is shown to them.

Some cases of bad examples are only done if the teacher is careless. If you want to distinguish between x^2 and $2x$, don't use $x = 2$. Comparing x^{-2} and $x^{\frac{1}{2}}$ should not be done for $x = 1$.

Examples should highlight common mistakes. Simplifying $\frac{x-1}{x^3}\,\frac{x}{x^2-1}$ is useful because students cross out to cancel and end up with $x^2(x+1)$ instead of its reciprocal. Examples showing the use of the quadratic formula should frequently have $b < 0$ and $a \neq 1$, because both are often evaluated incorrectly. $a \neq 1$ creates an error when calculators are used and $2a$ is not put in parentheses. The second occurs when the students evaluate -3^2 instead of $(-3)^2$. If students see this done correctly enough times, perhaps they will do it correctly.

This suggests what is perhaps the most important source of good examples. **Find examples by grading papers.**

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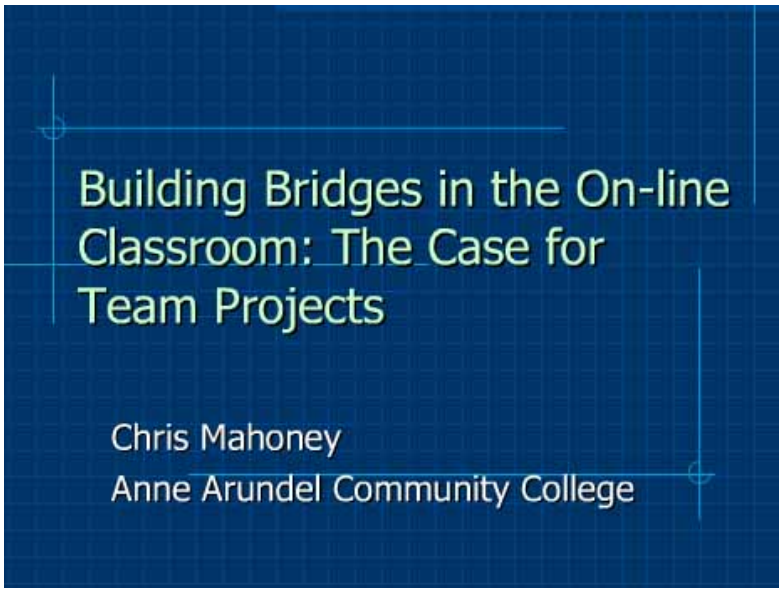

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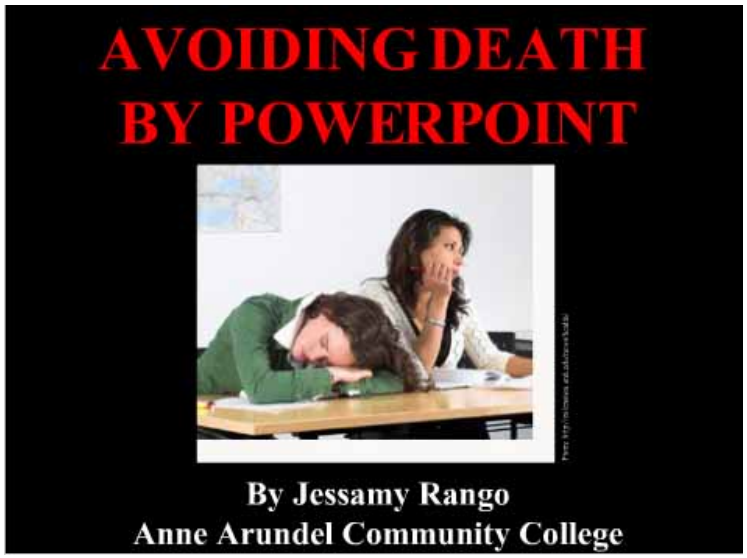

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Accelerated Learning Program

Cheryl Scott and Robert Miller

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Developing Science Writing Skills

Maureen Sherer and June Bronfenbrenner

Anne Arundel Community College

Abstract

With a little coaching, students can noticeably improve their skills in communicating scientific ideas. The aspects of coaching involve the design of the assignment and the rubric, as well as the teaching and feedback processes. The writing assignments include journals, essays, and lab reports. Students enhance their own understanding of chemical concepts as they organize their thoughts in writing, and they develop a marketable skill in communicating scientific ideas.

Introduction

Learning to write well in the sciences brings a number of benefits, including developing a useful skill and enhanced personal understanding. There are a variety of writing opportunities for students in the sciences, among them are journals, lab reports, and term papers. Each writing genre has specific styles and objectives about which it is important to acquaint students. Of course, effective writing requires reliable information. Acquiring this information is supported by assignments which develop scientific literature research skills. Through the use of well-developed assignments, relevant examples, descriptive rubrics, and frequent writing opportunities, students readily show improvement in writing skills.

Reasons for Learning to Write Well in the Sciences

One's own understanding is enhanced through the processes of organization, thinking, putting thoughts in one's own words, and revising. Also, writing well is a very worthwhile skill. It is personally fulfilling, and it is a credential of education. Especially in the sciences, it is a very marketable skill. Additionally, writing is an opportunity for collegial written discussion. Particularly with the use of rubrics, there is a feedback loop from the instructor to the student, making it truly a conversation. Collegial discussion is a hallmark of a college education.

Types of Science Writing Assignments

There are several types of writing assignments in science classes. Each has its particular purpose. For student journals or essays, the purpose is generally to enhance understanding. These tend to be short assignments. There are several of them during the semester, and altogether they account for about 10% of the student's overall grade. For laboratory reports, the purpose is communicating results. The length of a report varies depending on the experiment, but in general the report requires a substantial amount of effort on the part of the student. Laboratory reports taken together account for a significant part of the student's overall grade. In some science courses, term papers are appropriate. These tend to be capstone projects.

Coaching Student Writers

Giving general advice about writing helps students to focus and to get off to a good start. Students need to clearly know their objective. For example, the objective of a laboratory report is to communicate results. So, the results are reported right away in the abstract – as well as later in the report. Students are very used to writing in English class, for instance, a short story. Here the objective is to entertain – to build suspense and only reveal the conclusion after the climax. Some students will carry-over this style without some guidance.

Similarly students need to know their audiences. Writing about a scientific study is scholarly, and the style is formal. On the other hand, writing for a popular magazine or a student journal is informal. Students need to know the elements of formal style – avoiding first person pronouns, idioms, and contractions. Informal style has a more conversational tone, but is certainly not careless or sloppy. It is important to not mix the two different styles in one piece of writing.

Other pieces of good advice for the students are to seek confirmation early that they are on the right track, and to not wait until the last minute to work on the assignment.

Students benefit from knowing the context of the assignment – what they will be learning and why it will be useful. For instance, while journal writing helps students enhance their understanding of concepts, it is also an opportunity for them to learn about the top-down style for expository writing. This very effective communication style involves an introduction, the main body of information, and a summary. The assignment sheet for a journal assignment gives rather specific directions for each conceptual point to be discussed. This guidance helps a student to realize what is involved in thoroughly addressing the topic. It promotes understanding of course concepts, and teaches an effective writing method. Figure 1 shows an abbreviated version of a journal writing assignment used in second semester general chemistry.

Worksheets can serve to lead students into a writing assignment. They help students to get organized and to explore the significant components of an assignment. For example, the worksheet for writing an abstract for a laboratory report explains what an abstract is, lists its component parts, and presents an example abstract from a familiar experiment. Then, for an experiment the students have performed, each student jots down the purpose, briefly how it is accomplished, and the results. Having delineated these essential parts, the student puts them together as succinctly as possible in an abstract paragraph.

Scientific Literature Research

Another significant part of effective scientific writing is information retrieval. Learning this also promotes critical thinking skills as students discern the reliability and quality of sources. Additionally, students learn about appropriately citing sources, and they gain an appreciation of the way in which science advances by learning from others. In the scientific literature research assignment of general chemistry, students retrieve information about chemicals from print and electronic databases. They gather information about a specific question, for example, the sulfur cycle. They also research a scientific issue of their choice and produce an annotated bibliography.

Explanatory Rubrics

Developing explanatory rubrics serve as a checklist for student self-assessment, and correspondingly, more of the assignments are completed appropriately. The rubrics re-enforce desired learning outcomes with respect to content learning and writing. They also provide useful feedback for the student, and facilitate consistent grading. Figure 2 shows an abbreviated rubric for an organic chemistry laboratory report.

Interesting Writing Opportunities

Perhaps the easiest way for students to engage with their writing is to truly care about their topics. Students are interested in health, the environment, and other issues which are relevant to everyday life. In some cases students choose their topics, but it is probably best to give some suggestions and guidelines. One of the writing assignments in a sophomore organic chemistry class is to research an interesting organic compound. The student chooses the compound and obtains pre-approval from the instructor. Figure 3 shows an abbreviated rubric for this report. In the course Women and Minorities in Science, students write their own "science autobiography" to begin to explore socially constructed issues associated with learning science.

Another way to provide interesting writing opportunities is to develop a means to showcase exemplary student writing. At Anne Arundel Community College, the extracurricular chemistry club publishes its own newsletter, *The Condenser*, which features student writing.

Where do essay tests fit into the scheme of teaching science writing? They are an effective way to assess understanding of certain concepts. However, given the time constraints of a testing situation, they probably do not promote better writing.

Incentives for Student Effort

Perhaps surprisingly, students are willing to put significant effort into their writing activities. Many students gain the gratifying sense of becoming more effective writers. Some students welcome the chance to show their originality and/or creativity in a science course. Most students value the opportunity to be assessed in a way other than numerical problem solving or a timed examination.

Conclusion

Spending class time to teach writing and coaching students in their skill development pays off. Students do seem to write better when they are given some guidance. Additionally, it seems that overall learning of course content is advanced by the interplay of writing with the other learning activities.

Figure 1. Journal Assignment

Thinking in terms of the Collision Model, explain the molecular and statistical factors which determine reaction rates…

Paragraph 1	Introduction: briefly overview the topic.
Paragraph 2	How molecular and statistical factors (collisions, orientation, etc.) affect rate, and relate these to factors in the Arrhenius Equation.
Paragraph 3	How experimental parameters (e.g., concentration) relate to rate and factors of Arrhenius Equation.
Paragraph 4	Use of Arrhenius Equation. Perhaps show a sketch of a graph.
Paragraph 5	Conclusion – briefly restate main points.
References	Class notes, websites, (informal style)

Figure 2. Organic Lab Report Rubric

Title	
Abstract	3 points
Introduction	7
Procedure – simply cite pp of Lab Manual	
Discussion – including Error Discussion	7
Conclusion(s)	1
References – include your Lab Notebook,...	2
"Holistic"	(- points)
Maximum	20 points

Figure 3. Organic Compound Paper Rubric

Title
Introduction
Structure, Formula, Physical Constants, etc.
Spectral Data (IR, NMR where available)
History – early work on isolation, structure determination, etc.
Synthesis and Experimental Outline steps in synthesis. Comment on reactions you recognize. Give structures in all steps. Show stereochemistry where appropriate
Special chemistry (if any)
Physiological / biological importance
References

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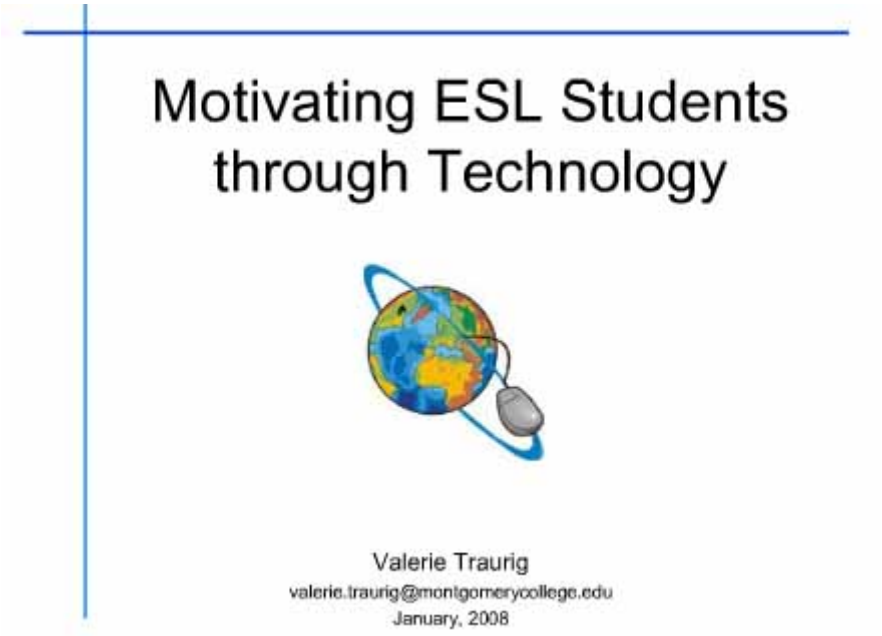
Motivating ESL Students through Technology

Valerie Traurig

Montgomery College



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Are Academic Librarians Being Prepared to Teach?

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Looking at the academic librarian, one sees a very different role since the infusion of technology into the library (Tenopir, 2002). No longer is the primary role for a reference librarian one where they retrieve information. Librarians must instruct users how to find authoritative information. Rather than produce books or documents for users, academic librarians are called to develop information literate users (Breivik, 2005; Breivik, 1999; Breivik & Gee, 1989). Academic librarians play a key role in helping users with their information needs, guiding and educating them on the importance of selecting and ethically using authoritative information. University and community college librarians use scheduled library instruction sessions, as well as one-on-one encounters, to show students how to navigate through the maze of information sources (Dupuis, 1999). These sessions go beyond the traditional library tour where users learned the layout of the library (Shirato, 1999). Academic librarians find that they are performing the role of teacher more often than before the days of the electronic databases and the Internet.

Key to preparing new librarians for this role is the graduate library school curriculum. The purpose of the study was to determine the current status of academic library education programs by reviewing curricula for library education in the U.S. region of the Middle States Commission on Higher Education.

Research Questions

The overarching question the study attempted to answer was *How do university library schools say they prepare academic librarians for teaching?*

Several sub-questions evolved. They were as follows:

Sub-question 1: What teaching and learning skills do the courses address?

Sub-question 2: How are the ACRL Standards for Information Literacy Competency addressed?

Sub-question 3: What are the requirements for field experience before awarding the master of library science degree?

Methodology

The study's design was based on a content analysis, a qualitative method for answering the questions above. The population selected for this study was university library schools in the United States region defined for the Middle States Association of Colleges and Schools. The

Middle States unit that performs the university accreditation process is the Commission on Higher Education. The region includes the following states in the United States: Delaware, Maryland, New York, New Jersey, Pennsylvania, and Washington, D.C. (Middle States Commission on Higher Education, n.d.).

The content analysis was shaped by preservice preparation programs' conceptual framework developed by Stark, Lowther, Hagerty and Orczyk (1986). Internal influences to program development were identified to be program descriptions, courses, and syllabi that prepared library school students for teaching. External influences included the Association of College and Research Libraries (ACRL) Standards for Information Literacy Competency, teaching and learning concepts, and the professional needs of practicing reference librarians.

The university library schools' Web sites were used as primary sources to glean information about library school programs. A focus group of practicing academic librarians responded to open-ended questions regarding their preservice preparation. Triangulation of the data was completed by using an expert panel to review the study's methods and findings.

Data Analysis – Web Sites and Documents

Research Question: The results of examining library school information available on Web sites, as well as program documents, revealed the majority of the library schools' course offerings address the topic in some way. The answers to the sub-questions gave further delineation. Mission statements or statements from the department's administrator implied a general strategy to prepare all librarians for the future.

Sub-question 1: Eleven programs included aspects of effective teaching and learning while developing information literate users. Two programs devoted an entire course to preparing librarians for teaching. The remaining nine included instructional strategies and teaching techniques as one module in the courses focused on information literacy or library instruction.

Sub-question 2: Results revealed only six library schools in the population studied included the ACRL Standards in any course available to academic librarians. The course titles offered were either information literacy or user instruction. One program had a general academic library service course which covered standards for academic libraries and accreditation.

Sub-question 3: All but one library school program offered a practicum, internship, or some type of field experience. The number of hours required for completing this requirement ranged between 120 and 150 hours, except for one library school; its program required only 100 hours. Four programs required students observe other teacher librarians in an information literacy instruction session.

Data Analysis – Focus Group

A focus group aided the study in producing additional data for the purpose of describing pre-service preparation of academic librarians for teaching information literacy. The members were chosen from students in ACRL's newest information literacy training program held in fall 2006.

Since the population for this study was university library schools in the Middle States Commission on Higher Education region, focus group members were selected based on attendance at one of the thirteen library schools in this accrediting region. Their responses were coded and a member-check performed.

Data from the focus group revealed prior to the turn of the 21st century, little or no pre-service preparation existed for academic librarians for teaching information literacy. Only one of the five participants indicated they had taken one course related to teaching philosophies. Another described her preparation to be assisting a librarian during a library instruction class. Almost all five described other activities that prepared them such as training as an actor; being a home-school parent; mentoring by and observing other librarians; on-the-job training; and taking ACRL Immersion workshops.

Final Input for Data Triangulation – Expert Panel

An expert panel reviewed the study's design, data collection process, findings, and analysis. Their input and responses to two open-ended questions provided the final input for triangulation. The expert panel reviewed the study's process and confirmed its soundness. Responses from the expert panel revealed the data gathering process was "appropriate" and "sound" for the purpose of the study. One member described that "a qualitative approach…provides for a richer examination of the data." Other assessment of this study included confirmatory statements such as the "focus group provided a plausible check of what library schools state they do against the experience of people who attended library school; and "based on the methodology I would trust the conclusions drawn." These members provided opportunities for enriching the study and gave ideas which can be interpreted as suggestions for further research.

Conclusion

Almost all library school programs in the population studied address teaching and learning concepts in the courses offered for user instruction or information literacy. The pervasive offerings were surprising--eleven of the thirteen library school programs included aspects of effective teaching and learning in their courses designed for user or library instruction.

While teaching has been emphasized, graduate library schools in the U.S. Middle States region do not appear to recognize the importance of the ACRL Standards for Information Literacy Competency. Except for one library school, students were made aware only that the standards existed. No discussion or assignment appeared to help them apply the Standards.

The final assessment of library school curricula showed all but one library school included a course giving students an opportunity for practical experience. The practicum or internship was listed as an elective in most of the schools. The amount of time required at students' selected sites seemed adequate for the graduate school level of expected outcomes. However, those schools that simply required students to observe others are minimally addressing the need for field experience.

Library schools appear to be embracing the new role for librarians in academic settings. The study's findings answer the problem statement that there *is* preparation being done to prepare academic librarians for the 21st century.

References

Breivik, P. S. (2005). 21st century learning and information literacy. *Change, 37 (2), 20-27.* Retrieved September 6, 2006, from ProQuest Education Journals.

Breivik, P. S. (1999). Take II – information literacy: revolution in education. *Reference Services Review, 27, 271-275.* Retrieved January 2, 2006, from, ProQuest Research Library.

Breivik, P. S. & Gee, G. E. (1989). *Information Literacy: Revolution in the Library*. Phoenix, AZ.: American Council on Education and Oryx Press.

Dupuis, E. A. (1999). The creative evolution of library instruction. *Reference Services Review, 27, 287-290.* Retrieved January 2, 2006, from, ProQuest Research Library.

Shirato, L. (1999). LOEX and library instruction. *Reference Services Review, 27, 214-218.* Retrieved January, 2, 2006, from, Proquest Research Library.

Stark, J. S., Lowther, M. A., Hagerty, M. K., & Orczyk, C. (1986). A conceptual framework for the study of preservice professional programs in colleges and universities. *Journal of Higher Education, 57, 231-258.* Retrieved September 2, 2006 from JSTOR.

Tenopir, C. (2005). Teaching student searchers. *Library Journal, 130(4), 33.*

Middle States Commission on Higher Education (n.d.). *Institution directory.* Retrieved May 15, 2006, from http://www.msche.org/institutions_directory.asp

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Meeting the Needs of Non-Native Advanced Beginners

John M. Zyck, Jr.

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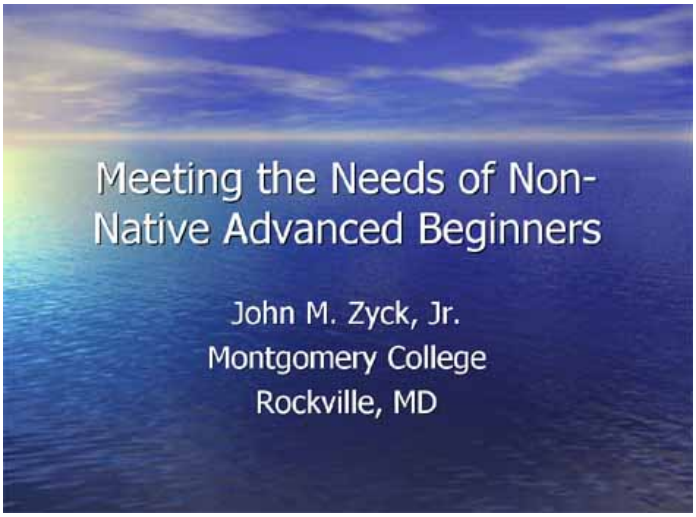

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