



NADE Digest

Promoting Communication among Developmental Education Professionals

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Editorial Comments

In the June **NADE Newsletter** NADE President-Elect Geraldine McBroom described NADE members as “servant-leaders with a commitment to the growth of people, recognizing ...a responsibility to do whatever is in [their] power to nurture the growth of others.” This certainly describes the authors of the valuable articles in this fall issue.

Jan Norton’s opening article “Losing Control: Conducting Studies with Comparison Groups” demonstrates that even though we don’t live in a research-perfect world, we can still compare two groups of students to examine the benefits of participation.

Penny Turrentine and Lucy MacDonald report on two yearlong tutoring online studies and synthesize what the studies suggest are best practices for this new environment in “Tutoring Online: Increasing Effectiveness With Best Practices.”

“Boosting Imagination: Incorporating Creative Play into the Writing Room” by Angela Nelson, Jamie Schmidt, and Chad Verbais explores how using unique activities in the writing lab or classroom can pique students’ interest and boost their imagination.

In “Go Figure! Using Quantitative Measures to Enhance Program and Student Success,” Leanne Frost and Gwendolyn Braun describe how gathering, analyzing, and sharing hard data has helped their department identify unmet student needs, discover trends, dispel myths about developmental education students, and add validity to the program.

Susan Dawkins describes strategies she has used to meet the needs of students with varying skill and confidence levels in a Composition and Rhetoric I course in “Reflections on Learning: A Composition Curriculum to Meet the Needs of At-Risk Writers.”

In “Persistence of At-Risk Students in a Developmental Reading Course,” Carrie Johnson and Cindy Stevens reveal three major themes they discovered in students’ decisions to return to the university and succeed in a course they had failed the previous semester.

William Coe details how mathematics review courses have proven to do an accurate job of initial student placement and dramatically improved the retention rate for succeeding courses in “Improving Placement and Retention Rates with the Use of Mathematics Review Courses.”

M. Therese Gallegos closes this issue with “Leading Thirsty Horses to Water,” an article that provides a strategy for instructors concerned about students not completing assigned readings.

We hope you will consider sharing your experience and knowledge with our readers in a future issue.

Jane McGrath & Laura Villarreal
Co-Editors

NADE Digest

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Losing Control: Conducting Studies with Comparison Groups

JAN NORTON

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Studies in education often report the differences between participants' and non-participants' test scores, course grades, retention, and other criteria. When participants' average performance is higher, it can be difficult to attribute the improvements to participation. Comparing participants and non-participants on other measures can strengthen the argument that participation had a positive impact when the two groups are otherwise similar in relevant ways. Reviewing students' demographic characteristics, incoming ACT/SAT scores, previous grades, and placement results can establish points of comparison; specific statistics can also assist in identifying similarities and differences between groups.

In a research-perfect world, there would be control groups. We would review the pass rates in College Algebra according to whether students took a developmental math course or were denied such preparation. We would evaluate the effectiveness of tutoring by comparing grades of tutored students with those who were not allowed to receive assistance. We would randomly select participants for Supplemental Instruction so we could be more certain that SI attendance, not student motivation, had an impact on higher grades.

However, for most educators, such denial of services is ethically unacceptable. We believe that services like the above have a positive impact on student success, even if we can't prove and replicate results with the supposed predictability of traditional control-group research design. But an alternative is possible – and increasingly necessary – in education. Although we may not randomly select a group of students to participate in a study and a control group of students who do not

participate, we can still compare the two groups in order to examine the benefits of participation.

A comparison group is simply a group of non-participating students who are similar in one or more important ways to the group of students being studied. Unlike a traditional experimental control group which is established prior to a study, comparison groups can be determined after the participants have self-selected by attending tutorial sessions, taking a developmental course, or becoming involved in the program or activity being evaluated. Assessing and reporting relevant similarities between participants and non-participants strengthens an argument that differences in other measures (e.g., improved grades or retention rates) may be due to participation.

Before looking at comparing students, it is worth noting that even in traditional control-group research, members of the control group – those who do not participate or receive the “treatment” – should be examined to determine whether they are comparable to those who did participate (Isaac & Michael, 1995). While random selection usually assures that key characteristics in both groups are equivalent, sometimes they are not. Looking at characteristics to determine group similarity is a legitimate part of traditional research methodology.

There are several ways to compare groups of students, and the characteristics you select depend on both the information available and the focus of your study. Many similarities can be examined using student demographics such as age and gender. You can also compare students using measures such as their ACT/SAT scores or their high school ranks. Comparisons based on grades in a course being studied can also reveal similarities between participants and non-participants. Most of these comparisons can be established using simple averages, but when the percentiles or means look dissimilar, some calculations such as t-tests and analysis of covariance can usually determine whether differences between groups are statistically significant.

COMPARISON GROUPS BASED ON DEMOGRAPHICS

One way to compare groups of students is to examine one or more demographic characteristics. In general, demographics provide a measure of normalcy: you can use characteristics such as age, ethnicity, residency, gender, etc. to determine whether your participants and

non-participants represent the student population overall. For example, if 30 percent of the participants are male, you could check to see if approximately 30 percent of the non-participants are male. Are the two groups comparable in age and/or socioeconomic status? Reviewing the demographic characteristics of successful participants also helps you discover whether different groups of students benefit equally from tutoring or developmental coursework or other assistance models.

There are numerous student characteristics that may be worth examining for the program you want to evaluate, as long as the demographic characteristics selected are meaningful. That is, the points of comparison must be relevant to the program being assessed (Fraenkel & Wallen, 2003) as well as the campus as a whole. For example, if returning adult students on your campus tend to earn better grades and you discover that participants in your math tutoring program earn better grades in College Algebra, you would want to examine the ages of your participants and non-participants in order to determine whether the two groups are comparable.

COMPARISON GROUPS BASED ON INCOMING MEASURES

Most campuses collect academic information on students during the admissions process. If your institution requires ACT or SAT scores, each of these measures yields one primary score and several test scores that may be relevant. ACT scores include an overall composite and four test scores (English, Math, Reading, Science); the SAT Reasoning Test yields a total score that combines three test scores (Critical Reading, Math, Writing). For students without ACT/SAT scores, placement tests can also establish an incoming measure of a student's academic preparedness.

With any measurement instrument, select the most relevant score or subscore for your study. In the previous example about College Algebra in which you would review ages of participants and non-participants, ACT or SAT math scores would provide another basis for comparison. If you think that a voluntary common reading for students in a developmental reading course will result in better course grades, you might choose to use a reading test score as a point of comparison between the students who chose and those who declined the

common reading experience. If you want to examine the impact of a service learning experience upon the students' evaluations of their freshman seminar, you would probably choose a more general composite or total score.

Keep in mind that the point of examining the scores is to establish whether the students who received the services and those who didn't are comparable in this specific way. Once you have selected the most relevant score to work with, calculate the mean scores for both participants and non-participants. If the means match or nearly match, you can reasonably assume that your results for participants and non-participants are not based on the students' existing abilities (as measured by the test). That is, you are reporting results for two groups of students who are, at least by this measure, equivalent in their overall academic abilities prior to the program or assistance you provided.

For example, in a Supplemental Instruction (SI) program that supports a chemistry course, grade differences are often the only data shared about the students in the course, as shown in Table 1.

Table 1

Course and ACT Scores by SI Participation

	<u>Mean Chem grade</u>	<u>Mean ACT Science score</u>
SI participants	3.15	21.2
Non-participants	2.63	20.9

Table 1 shows the standard $\frac{1}{2}$ to 1 letter grade higher that is typically expected for SI participants. A frequent explanation for the grade differences argues the following: motivated students tend to perform better in classes; SI participation demonstrates motivation; therefore those students did better in the course. But adding the ACT science score to the overall picture shows that the level of preparation and motivation to learn science prior to the course was roughly equivalent for both groups. The ACT score similarity does not rule out the impact of motivation on grades, but it does minimize it somewhat. Additional comparisons could serve to further reinforce the similarity of the two groups.

If your institution collects students' high school ranking for course placement or program eligibility, that measure could be used as a relevant point of comparison. However, it is a relative number: students' abilities at one school may place them at the middle of their class, but those students' skills might qualify them as valedictorians in a less competitive environment. To a slightly lesser degree, high school GPAs are also relative and may vary widely in their ability to predict student preparedness for college. High school information is also less relevant for returning adult students.

Other incoming measures can contribute a more qualitative comparison of student characteristics. Noel Levitz's extensive *College Student Inventory* (CSI) provides a wealth of information on incoming freshmen, from measures of dropout proneness and predicted academic difficulty to a series of motivational scores including study habits, desire to finish college, and receptivity to support services (Stratil, 2004). The *Study Behaviors Inventory* (SBI) measures eight areas (e.g., time management, notetaking, writing, and faculty relations) to yield a score on three factors: academic confidence, short-term study behaviors, and long-term study behaviors (Bliss, Kerstiens, & Marvin, 1995). The *Learning and Study Strategies Inventory* (LASSI) yields a set of ten scores relevant to students' personal characteristics and their perceptions of their skills including motivation, time management, notetaking, and stress management (Weinstein, Palmer, & Schutte, 1987). Because an important difference between randomly selected control groups and self-selected groups is the motivation to participate in a treatment (Campbell & Stanley, 1963; Isaac & Michael, 1995), a motivation score from the LASSI or CSI could be a powerful point of comparison. While these three inventories are typically given during students' freshman year, the LASSI and SBI could be administered as part of an evaluation or research study.

COMPARISON GROUPS BASED ON COURSE GRADES

If you are seeking to determine whether an educational intervention (tutoring, change in course delivery, SI, workshops, etc.) had an impact, you could look at grades in a previous course, if there is a clear relationship between the content of the two courses. For example,

if the students in Math 2 also took Math 1, it is fairly reasonable to assume that their Math 1 grades provide some insight into their level of performance expected for Math 2, the next course in the sequence. In Table 2, both groups of students earned higher grades in Math 2 than they earned in Math 1; those who participated in tutoring received noticeably higher Math 2 grades.

Table 2

Math Course Grades by Participation in Tutoring

	Mean Math 1 grade	Mean Math 2 grade
Students who participated in Math 2 tutoring	2.75	2.89
Students who did not participate in Math 2 tutoring	2.42	2.57

While it may be tempting to focus only on the Math 2 grades, it looks as if the tutoring participants in Math 2 were going to do better in the class anyway: after all, their grades in Math 1 were higher. Did tutoring help? Yes, probably, but because the participants and non-participants weren't equal to begin with, it's harder to argue for the positive impact of tutoring.

However, in Table 3, when the Math 1 grades are comparable, the difference in the Math 2 grades appears to be more dramatic. The figures don't prove that tutoring had a positive impact, but it's a more believable argument than the figures in Table 2 would support.

Table 3

Math Course Grades by Participation in Tutoring

	Mean Math 1 grade	Mean Math 2 grade
Students who participated in Math 2 tutoring	2.38	2.89
Students who did not participate in Math 2 tutoring	2.42	2.57

Similar comparison groups can be examined using grades within a course. For example, if students take their first quiz in Economics before the learning center offers a workshop on “Taking Notes in Economics,” the first quiz scores provide a baseline performance in the class. If after the workshop, those who attended score noticeably better on the second quiz, the first scores help support the claim that the workshop was genuinely helpful.

GOING BEYOND MEANS

In many comparisons between participants and non-participants in a study, there will be one or more measures that can demonstrate how comparable the groups of students are. When the results of participation clearly show a difference and the comparison measures are clearly similar, those measures help support the contention that the participants’ improved scores are due to the intervention they received. But sometimes the similarities or differences between the groups of students are not easily discernable. In these circumstances, there are several additional steps you can take: calculate a t-test, calculate an analysis of covariance, or replicate the evaluation or research study.

Sometimes mean scores will look so close that it appears as if there are no measurable performance differences between two groups of students. When that occurs, a statistic known as the t-test may be able to indicate whether there are statistically significant differences between two means. Another statistic that may be useful is the analysis of covariance (ANCOVA). By incorporating additional information and statistically equalizing some of the differences in those factors, ANCOVA may be able to demonstrate meaningful differences in results even when the baseline measures are not similar. There are specific circumstances in which a t-test or ANCOVA is appropriate, and it is beyond the scope of this article to examine those subtleties. It is nevertheless important to be aware that even if a measure such as mean test scores or course grades do not seem to indicate that an intervention had any kind of impact, a t-test or analysis of covariance may help to establish a statistically significant difference.

At times the best way to demonstrate that students benefited from participation is to repeat the study. Even a minimal improvement

for participants is made more meaningful when it can be achieved multiple times with different groups of students.

CONCLUSION

Opportunities for traditional control group research are rare in education. There are significant ethical questions about withholding assistance or avoiding new instructional techniques in order to establish a control group, but there are also ethical concerns about providing services for which there is no assured benefit. For most classroom instructors and program administrators, a simple valuable compromise requires going beyond noting an improved performance by students who participate in a study. Establishing that participants and non-participants share key characteristics can substantiate the positive results achieved by participants.

REFERENCES

- Bliss, L., Kerstiens, G., & Marvin, R. (1995). *Study behaviors inventory*. [Inventory]. Torrance, CA: Andragogy Associates.
- Campbell, D. T., & Stanley, J. C. (1963). *Experimental and quasi-experimental designs for research*. Boston: Houghton Mifflin.
- Fraenkel, J. R., & Wallen, N. L. (2003). *How to design and evaluate research in education* (5th ed.). Boston: McGraw-Hill.
- Isaac, S., & Michael, W. B. (1995). *Handbook in research and evaluation: For education and the behavioral sciences* (3rd ed.). San Diego: Educational and Industrial Testing Services.
- Stratil, M. (2004). *College student inventory*. [Inventory]. Iowa City: Noel Levitz, Inc.
- Weinstein, C. E., Palmer, D. R., & Schutte, A. C. (1987). *Learning and study strategies inventory*. [Inventory]. Clearwater, FL: H & H Publishing.
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Tutoring Online: Increasing Effectiveness with Best Practices

Is tutoring online more than just email? Two yearlong studies explored tutoring online in two different modes. One, from Atlantic Community College in New Jersey, looked at asynchronous (not real time) tutoring online using a discussion board. The other, at Pima Community College in Arizona, used synchronous (real time) online software. The combination of these two studies suggests best practices for this new environment.

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In using technology to provide tutoring online, new studies are suggesting that the important element may be the definition of the process of tutoring in the new cyberspace environment more than the choice of the technology. As John Couch, Apple's vice president of education suggests, "teachers tend to look at technology as a tool, whereas students look at technology as an environment" (Fryer, 2003). Although electronic tools are needed to deliver tutoring online, a definition of the online process and its best practices may be needed first in order to help select the appropriate technology or, in the words of Frank Christ (2002), put "pedagogy before technology." This article will review the evolution of online tutoring and discuss the best practices suggested by the studies.

THE BEGINNING

Historically, online tutoring began with email. In this format, a student sent a question to the tutor with the expectation that the return email would contain "the answer." Instead, what happened was a disconnection: The tutor, being a good guide, sent back a Socratic answer with more questioning prompts; the student, expecting "the answer," became frustrated. Although the student may expect a give and take interaction in a face-to-face tutoring session, the email format suggested to the student that the question should be

answered with a direct answer. This illustration is an example of using technology without fully developing the concept of tutoring in the online environment.

THE EVOLUTION OF ONLINE RESOURCES

Although initial tutoring online models begin with email, there has been an emergence of new models as new tools became available, both in asynchronous and synchronous formats. The following models are presented in the context of the specific tool used, for example, Blackboard or NetTutor.

From Frequently Asked Questions to Tutoring

Jeanne Franco, accounting faculty at Paradise Valley Community College (PVCC) designed one of the first successful models of tutoring online (J. Franco, personal communication, 1997). This model grew out of a partnership between the PVCC Learning Support Center and Jeanne Franco. Her design included web pages and the use of an asynchronous discussion forum, called WebBoard. As an instructor, she began the web page by listing all the chapters in the accounting textbook and the frequently asked questions (FAQs) for each chapter. Students could refer to the answers to the FAQs before making contact with a tutor. Tutors could follow up on questions for everyone on the WebBoard or chat individually with a student. This resource became so popular that students outside of the college soon started to use it. Eventually the decision was made to limit access to the online tutoring section to only PVCC students, but to leave the FAQs open to all. Finally, the model was moved to Blackboard and limited to PVCC students. However, this initial model spawned 19 more content-specific online tutoring sections with a variety of designs, specific to each content area and designed by faculty in conjunction with the Learning Support Center (Paradise Valley Community College, 2006).

Online Tutoring for Online Classes

Barbara Speidel at Southwest College in California designed the next model that emerged. She initially tried to follow the PVCC model. “However, I encountered enrollment glitches and instructor support problems, so I went to plan B... to embed academic support

within each online class....” (B. Speidel, personal communication, November 2003).

This model included a direct link to Academic Support within the online psychology class on Blackboard. A button labeled *Academic Support* on the left side Table of Contents, between *Staff Information* and *Communication*, led to a page which included such headings as:

- How Does it Work?
- What Is Available?
- Academic Support Documents and Links.

The section *What Is Available* had four links:

- Academic Support Documents and Links
- Psychology Web Resources
- Online Writing Center
- Campus Tutoring.

Students clicking on *Campus Tutoring* would get a page specific to the course, called *Meet Your Psychology Tutors*. Although this model began as academic support inside online classes, it soon grew to content specific support for face-to-face students and finally for college skills tutoring for hybrid courses (B. Speidel, personal communication, November 2003).

Transitioning to Real Time Chat in WebCT

Howard Community College’s nursing program developed a specific group-tutoring program for their nursing students. Besides using faculty-developed study guides, the group-tutoring program provides for real time chats in WebCT. Using both the study guides and the chats, students are able to practice application of concepts and learn to work together in productive study groups (Sipe, 1998).

WebCT’s chat feature is also used at The Community College of Baltimore County, which offers Cyber Tutoring for a variety of courses. Faculty can indicate that they want online tutoring available to their class and students are automatically enrolled in the tutoring section for that class. This helps facilitate student access to the tutoring sessions for that particular class (Community College of Baltimore County, 2006).

From Asynchronous to Synchronous

The previous models have used asynchronous (not real time) tools. The next level of tutoring online looks at using synchronous models, where students and tutors can interact simultaneously. One of the earliest synchronous models was with the use of NetTutor for math tutoring at Utah Valley State College. This tutoring is called MathLab Online and described as "...a chat room designed for doing math" (Utah Valley State College, 2004, Online Tutoring, para. 1).

NetTutor as a tool includes an interactive whiteboard with clickable math symbols. For example, no longer do students have to type in the words "square root" to indicate the symbol. They can simply click on the symbol and have it appear on the whiteboard and move directly to questions on the operation itself. This integrated whiteboard is changing the way math and science tutoring takes place online. However, there is a learning curve involved and like all new tools, users tend to want to use all the features all at once.

The online tutoring model at Pima Community College also used NetTutor to provide academic support for its students. The online tutoring service was originally conceived as a means to provide assistance for students enrolled in distance learning classes. However, before its launch, the program was opened up as a free resource available to all Pima students. Tutoring is provided in writing, math, and accounting. Students who wish to use the service obtain an access code from their instructor or the West Campus Learning Center. Students may choose to communicate with a tutor in real time or may leave questions and retrieve the tutor's response at a later time. The program provides a number of options: one-on-one tutoring; group sessions led by a tutor; and sessions that include groups of students, their instructor, and a tutor for support. As online tutoring continues to grow, there is an expectation that more academic subjects will be added to the service. After Pima's yearlong pilot project, the tutors are now developing best practices, which focus not on the technology itself, but on the development of the whole online tutoring environment.

Expanding Tutoring Services

While NetTutor typically uses tutors from the local institution,

some institutions may want to expand their tutoring pool and use Smarthinking, which provides professionally trained tutors, with their service. Both the University of North Dakota (University of North Dakota, 2004) and the Art Institute of Washington (Chediak, 2005) use Smarthinking along with their local tutors.

In a study completed in 2004, the California Virtual College and Smarthinking found that adoption and utilization were lower than expected (Doherty & Atkinson, 2004). One of the major factors was the lack of institutional and faculty experience with online tutoring, both of which had negative impact on student use. As a company, Smarthinking has recognized the need to develop the culture of online tutoring and to this end, now provides sample online tutorials for a variety of subjects, from writing to math, from accounting to economics and even math tutoring in Spanish (Smarthinking, 2006).

Publishers are also offering a number of hours of online tutoring bundled with textbook adoptions. For example, Houghton Mifflin (n.d.) bundles Smarthinking online tutoring with specific texts and Addison-Wesley Higher Education Group Service provides The Tutor Center. The Tutor Center provides one-on-one tutoring in over 20 disciplines from statistics to American government, from astronomy to human anatomy and physiology. The service comes packaged with the student's textbook and once a student is registered, "the student is entitled to contact The Tutor Center three times per night" (Addison Wesley, 2006).

BEST PRACTICES IN ONLINE TUTORING

From the two yearlong studies that were the basis for this article we have gleaned the following best practices for online tutoring.

Defining the Parameters

Prior to using technology, the climate of tutoring online must first be developed by addressing the questions: what is it and how do we use it? For example, Hughes at the University of Wisconsin (UW) helps clarify the parameters for his writing center by posting on the web site what the tutoring center cannot and can do: "we do not edit and proofread papers;" instead, the goal of the Writing Center is "to teach you to do these things for yourself so that you can become a better, more confident

writer” (UW Madison Writing Center, 2004, About Proofreading and Editing, para. 2). Students are then referred to the web site’s Writer’s Handbook for more writing resources.

Moreover, part of establishing the online tutoring environment is to establish the expectations and the parameters for students. Fullerton College Tutoring Center, for example, provides samples of appropriate and inappropriate questions for tutoring in English and math. They also coordinate online and on-campus tutoring policies: “We cannot do Online what is against our policies in a live [sic] tutoring session” (Fullerton College, 2005).

Creating the Online Tutoring Climate

Once online expectations are laid out, the online climate for tutoring must be created. Part of the difficulty of tutoring online without the benefit of video is “interfacing with the faceless” (P. Turrentine, personal communication, May 25, 2005). However, the human interface can be developed on a web page by including tutor pictures and biographies. For example, at PVCC (2006) tutors are listed by the subjects they tutor along with a photo, brief biography and work schedule.

If photos are not possible, tutors at Pima suggest that, “a cartoon figure might be used to represent the tutor as a means of assisting in establishing some rapport” (P. Turrentine, personal communication, May 25, 2005). Also, Atlantic City Community College (ACCC) students recommend that the tutor introductions include “a human dimension” (S. Miller, personal communication April 21, 2001).

In addition, when designing the online environment one needs to create specific strategies to deal with the lack of body language and eye contact. Tutors at Pima, having completed a yearlong tutoring online project, describe the climate as a sense of transparency. “Do not use the computer screen as a mask. Instead, make it a window. The students should ‘see’ a smiling, helpful, understanding person with whom they can communicate without having to wait for the moment of ‘unmasking’” (P. Turrentine, personal communication, May 25, 2005).

Greeting the Students

The initial contact in online tutoring is very important. Miller’s (2001) list of *Best Practices in Tutoring Online* emphasizes the need to establish contact immediately. Tutors at Pima recommend that greetings must

come first—before the tutoring process begins. “Greet students and introduce yourself in a way that makes the student feel welcome before inviting them to share the problem...” (P. Turrentine personal communication, May 25, 2005). Note the use of the word “invite” which speaks of establishing a social climate of tutoring online.

This means, “both online tutoring intake personnel and online tutors should check their email/bulletin boards daily” (S. Miller, personal communication, April 21, 2001). In a synchronous environment, a verbal nod of the head recognition may be necessary, even though students may be able to see where they are in the queue. Acknowledgement of who is in the online tutoring environment should be part of the design.

The Tutoring Process

Working in the online environment is still new for both tutors and students. Miller recommends “trying to encourage the students as much as possible because they often tend to feel quite lost, alone and discouraged. Let them know that the online procedure is new and will get easier” (S. Miller, personal communication, April 21, 2001). Students using a synchronous tutoring system, like NetTutor and Smarthinking may need an overview of the tool itself, before participating in the online tutoring environment. Tutors at Pima who used NetTutor recommend to “keep it simple.” The format of communicating online (no matter how transparent the tutor attempts to make the session) requires that everything be simple to understand” (P. Turrentine, personal communication, May 25, 2005).

Best practices of face-to-face tutoring in Socratic mode also apply to online tutoring. However, some students resist the guided discovery learning process. Miller suggests that “it’s important to communicate to the student why you’re doing it this way and that it won’t take long before they get it on their own” (S. Miller, personal communication, April 21, 2001).

If a white board is not available in the specific online environment, it is extremely important to give extra illustrative examples. Those in a synchronous environment must realize that pauses in communication can be caused by any number of factors. For example, a student may be taking notes, may be thinking of how to phrase a response, or may not understand the concept. The critical factor here as recommended by Pima tutors is “Check for the student’s level of understanding of your

instruction and go back, if necessary. PATIENCE! [sic]" (P. Turrentine, personal communication, May 25, 2005).

One of the differences in the online environment versus the face-to-face environment is the effect of tone and word usage. In the online environment, without the assistance of body language or eye contact, the tone comes across much stronger. Tutors need to recognize this and either strive to soften the tone of written responses or add emoticons (text smiley faces) or phrases, such as "smiling helpfully," "hold on," or "we're ½ way there." ACCC recommends that tutors "avoid words that might be taken in a negative way" (S. Miller, personal communication, April 21, 2001). Providing body language cues in print may take some practice for tutors who are not used to communicating everything in writing.

Feedback becomes even more important in this environment. If essays are returned in editing mode, then students will think that online tutoring is an editing service. Miller recommends, "the tutor should include a note that gives some positive feedback" (S. Miller, personal communication, April 21, 2001). Pima tutors suggest an ongoing tutoring relationship by recommending to tutors: "Be very specific in the praise you give students and point out specific things that the two of you should continue to work on (P. Turrentine, personal communication, May 25, 2005). Also, "the more positive regard that the tutor can include in their remarks and interactions with the students, the more likely it is that the student will continue to seek the tutor's assistance" (P. Turrentine, personal communication, May 25, 2005).

CONCLUSION

The evolution of online tutoring has showed us that success may not depend so much upon the tool selected, but on the development of an appropriate culture for online tutoring, an understanding of the process and parameters involved.

REFERENCES

- Addison Wesley. (2005). *The Tutor Center*. Retrieved September 20, 2005 from <http://www.aw-bc.com/tutorcenter/index.html>
- Chediak, M. (2005, August 16). Online tutoring part of growing trend market for web education matures. *Washington Post*. Retrieved September 20, 2005, from <http://www.smarthinking.com/static/aboutUs/newsAndEvents/articles/presart104.cfm>

- Christ, F. L. (2002, February). *Achieving student retention, satisfaction, and success through online pedagogy*. A presentation at TechEd, California State University, Long Beach.
- Community College of Baltimore County. (2006). *Cyber tutoring*. Retrieved September 27, 2005, from http://www.ccbcmd.edu/tutoring/essex/cyber_tutoring.html
- Craig, A. (2006). CPC Dunwoody Campus Instructional Support Services. Retrieved April 25, 2006, from <http://www.gpc.edu/%7EEduniss/>
- Doherty, B. & Atkinson, M. (2004, Spring). A pilot study of online tutoring using Smarthinking. PowerPoint presentation. Retrieved June 15, 2004 from <http://www.smarthinking.com>
- Fryer, W. (2003, June 30). *John Couch: Delivering measurable achievement*, NECC Presentation. Retrieved April 24, 2006, from <http://webpages.acs.ttu.edu/wfryer/necc2003/couch.html>
- Fullerton College Tutoring Center. (2005). *Email tutoring*. Retrieved September 2, 2005, from http://tutoringcenter.fullcoll.edu/email_examples.htm
- Houghton Mifflin. (n.d.). *Online study center*. Retrieved September 1, 2005, from <http://college.hmco.com/students/index.html>
- Miller, S. (2001). Tutoring online to retain students and promote success. In Dalziel and M. Payne (Eds.), *Student services: Vol. 2. Quality enhancing practices in distance education*. Washington, DC: Instructional Technology Council.
- Paradise Valley Community College (2006). *Math center tutors in the Learning Support Center*. Retrieved September 2, 2005, from http://www.pvc.maricopa.edu/lsc/services/tutors_math.htm#anthony
- Sipe, P. R. (1998). NU 101 Introduction to Patient Needs and Nursing Actions. In *Welcome to online group tutoring*. Retrieved September 10, 2005, from Howard Community College: <http://www.howardcc.edu/online/NURS101N/default.htm>
- Smarthinking. (2006). *Sample tutorials*. Retrieved on September 14, 2005, from <http://www.smarthinking.com/static/sampleTutorials/>
- University of North Dakota Learning Center. (2004). *Smarthinking*. Retrieved September 3, 2005, from <http://www.und.edu/dept/ULC/smarthinking.html>
- Utah Valley State College. (2004). *Math Lab*. Retrieved September 10, 2005, from <http://www.uvsc.edu/mathlab/tutoringservices.html>
- UW-Madison Writing Center. (2004). *Overview of individual instruction*. Retrieved September 1, 2005, from <http://www.wisc.edu/writing/Individual/index.html>

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Boosting Imagination: Incorporating Creative Play into the Writing Room

Incorporating creative play in the writing lab or classroom is a unique way to pique students' interest and boost their imagination. Exercises varying from describing Hershey's Kisses®, to using tape recorders for discussing voice, to using magnetic poetry to practice grammar are all ways that stimulate learning through the lens of play. Play theorists assert the value of incorporating play in all levels of education due to its appeal, especially to visual and tactile intelligences. Play also adds a sense of ease and leisure to a classroom atmosphere that can boost creativity and shift the learning paradigm while still conveying complex concepts to students.

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L. S. Vygotsky (1978) stated that “In play a child always behaves beyond his average age, above his daily behavior; in play it is as though he were a head taller than himself” (p. 102). This concept of play is valuable far beyond the elementary school playground. Instructors who incorporate the principles of play theory into classrooms, even at the college level, can facilitate an environment that inspires students to new heights.

In addition to the benefits of heightened learning, both children and adults often view play as a form of relief from, or as a reward for, work. Since the habits we began in childhood carry over to our professional lives, we naturally find ways to incorporate play into our daily routines; we treat ourselves to a trip to the coffee shop or reward ourselves with a few minutes to surf the Internet after completing a rigorous task. At the end of those few minutes, we find that we feel renewed and relaxed and ready for the next project. It makes sense that the same concept could be successfully adapted to the college writing lab or writing classroom.

However, before incorporating play into the classroom or lab setting, it is important to consider that play should be used to reinforce or introduce a lesson rather than simply fill time in the day. Play also needs to be used in a way that utilizes an individual's ideal learning style. Howard Gardner expanded on Jean Piaget's views to detail several intelligences that shape how an individual learns. According to Gardner (1983), a tactile or kinesthetic learning characteristic is "the capacity to work skillfully with objects, both those that involve fine motor movements of one's fingers and hands and those that exploit gross motor movements of the body" (p. 206). Visual learners are similar in that by seeing an activity in a concrete way, abstract concepts become clearer. Ultimately, and obviously, a tactile learner will benefit the most from play, but all learning styles can find benefits from a few moments of fun.

Lieberman (1977) stated in her book *Playfulness: Its Relationship to Imagination and Creativity* that "being able to accept fantasy assimilation in the young child expands his cognitive horizon and will stimulate original products" (p. 132). Expanding the cognitive horizon is the goal of any educator and so play can easily be seen as beneficial in this way; however, for writing instructors creating original and stimulating texts is an equal aspiration. Such creativity can obviously create interest in not only the project at hand, but future projects as well. Play, in this sense, is a precursor for creativity and understanding. In a writing center or classroom, play can help students be creative and expand their thoughts. By allowing a student time to play, creative forces could likely be engaged and result in a more original text.

More importantly though, according to Sutton-Smith (1997) in the book *The Ambiguity of Play*, when a student and teacher/consultant play, their relationship immediately changes: "it is not the play alone that causes the upward change in the children's competencies; it is, rather, the new and special relationship with the tutor" (p. 40). Students will see the learning environment in a new way and thus see the teacher or consultant in a new light as well – stress will thus be reduced and creativity will be allowed to flow more freely.

CREATIVE PLAY IN THE WRITING CENTER

Some students differentiate the concrete act of putting words on paper and the abstract nature of rhetorical strategy. This disconnect often inspires great anxiety about the writing process. Therefore, students often come to writing classrooms and writing centers in a somewhat stressed state, which can be exacerbated by a hostile environment. Introducing an element of fun can help people relax and take their minds off their problems. For example, the consulting tables in the Southern Illinois University Edwardsville Writing Center contain toys that offer visual or tactile learner tools to bridge the gap between writing concepts and play. Sometimes during a writing center consulting session, a consultant uses matchbox cars to visually outline the composition of a paragraph for a student. The Center also uses toys and objects to help students relax. Once during a visit a student, for example, continuously picked up a water tube and rolled it in her hand as she talked. She was apprehensive about her writing, and this activity seemed to help her relax. At one point she said, "This thing is awesome. It really helps relax me and focus my thinking."

Not every student is immediately going to like the idea of trying to make writing fun and informal, especially students coming to the writing center for the first time who expect a certain degree of formality. These students may even be shocked and initially might resist to a degree at first when consultants are seen using toys during sessions; however, most come to appreciate the new environment and embrace the chance to expand their creativity with a few moments of play.

GETTING STARTED WITH CREATIVE PLAY IN THE CLASSROOM

Teaching descriptive and narrative writing in the developmental writing classroom is difficult at times, especially with students who have not read much as children. That is why incorporating creative play is important in order to add relaxation. Unfortunately, students often view descriptive writing as "work." However, we can convince students that writing can be fun. Using the essay "In the Laboratory With Agassiz" (Spears, 2006) introduces students to the technique of description writing with the senses. The essay entails a young scientist's first experiment in a laboratory in which his professor allots

him an entire week to study the same haemulon fish. After growing a bit peeved at this assignment, the student finally sees the worth of truly studying an object for a long enough period of time.

Immediately after reading this essay, students participate in a similar exercise that encourages playfulness. Students are given some Hershey's Chocolate Kisses® and are asked to study their piece of candy just as though it were a haemulon. The exercise typically provokes laughter, and allows them to have fun with an assignment. Students read aloud the responses that they free write during the exercise. The following example is from Justin Dallavis, a developmental writing student at Southern Illinois University Edwardsville:

Like a garrisoned fortress, this foil encased chocolate stands before me. Its flag is raised to symbolize its occupants are ready for battle. This beautiful structure, with its wide base and tall tower, gives occupants a 360-degree view of its surroundings. The flag whips back and forth at any gust of wind. Unbeknownst to the lovely chocolate milk tower I have brought an army 10,000 times its size. The closer I come, the strong scent invades my nostrils. My men want to taste its blood, invade its walls and turn it into ruins.

The rest of the students in the class delighted in trying to come up with creative verb choices in free writing about chocolate, and this excitement seemed to transfer to their next writing assignment.

After the chocolate exercise, instructors lecture on techniques professional writers use when writing with detail such as writing with the senses, using similes and metaphors, and using compare/contrast. Often students are surprised to see that what they freewrote in class used professional writing techniques.

Another playful technique that helps transition fun into learning in the writing classroom and helps open up students to discussion is to incorporate images from modern magazines and popular culture in order to dissect issues such as: How does an advertisement deal with gender, age, race, and class? Who is the intended audience? Does the advertisement use persuasive language to attract customers? On what criteria can a student base the conclusion that an advertisement is effective? The Adbusters Media Foundation, which publishes *Adbusters* magazine, is a helpful tool; the group often uses imagery

from Calvin Klein and cigarette advertisements to make statements on social issues in its “spoof ads” (“Spoof Ads,” para. 4).

Yet another activity that may teach about writing while also engaging students in some level of play involves using a tape recorder. When discussing voice, students may tape each other and then analyze how their writing voices compare to their speaking voices. They may note whether their voices change in speed or tone depending on topic matter, whether active stories told use shorter sentences, and whether emotion enters a person’s voice. While having students record each other’s voice engages them in a short energetic activity, it also encourages them to think about the importance of understanding and developing their own voices in their writing process.

In the writing classroom, one issue that often crops up when discussing hurdles in the writing process is the idea of writer’s block. Goldberg (1986), author of *Writing Down the Bones*, has several playful suggestions for free writing assignments that encourage students to work and develop their writings into narrative essays. Goldberg (1986) suggests having students write about their grandparents, the streets of their cities, or people they have loved, among other topics. She also asserts that if students simply cannot find a topic to write about, to simply write, “I don’t know/I don’t know/I don’t know.” Usually no one writes more than a line or two of I don’t know’s before an idea strikes.

TECHNIQUES FOR TEACHING GRAMMAR USING CREATIVE PLAY

Once the content writing of an essay has begun, the student faces the challenge of incorporating grammatical competence. Teaching grammar skills creatively always presents a challenge for instructors. Some developmental writing instructors choose to begin with simple grammatical concepts such as the parts of speech and sentence patterns, which help students understand more complex grammar. Instead of learning through traditional instruction using worksheets and blackboard practice, students can benefit from the use of magnetic poetry, which consists of small magnets with words on them that can be rearranged. This activity gives them hands-on experience with how grammar works.

In order to teach the eight basic parts of speech, instructors can follow up lecture by hands-on work using magnetic poetry. The instructor should divide the students into small groups of about four or five. Prior to this lesson, it is helpful to request that students bring dictionaries to class for the exercise. Each group receives a box of unsorted magnetic poetry and a magnetic dry-erase board. Students then divide the board into the eight parts of speech and place the pieces of poetry into the appropriate sections. If they do not know the grammatical function of a specific word, they will use dictionaries to determine the most common use. This exercise provides opportunities to discuss how some words can be used as nouns or verbs depending on context (i.e. spring as a time of year or as an action verb) and how pieces of poetry representing word endings, specifically *-ly*, can change some adjective words into adverbs. At the end of the allotted time, students place the magnets into sealable bags labeled with the parts of speech and save them for another lesson. Traditional and non-traditional students of all ages have reported enjoying this small group activity and say that the departure from “boring” methods of grammar practice to ones associated with play increases satisfaction with the classroom experience and helps them visualize grammatical concepts in concrete ways.

In addition to understanding the parts of speech, students must understand sentence patterns so they can learn more complex grammatical constructions. To practice sentence patterns, students divide into small groups of four or five, and using the bags of magnetic poetry that were divided into parts of speech in the previous lesson, they use the poetry to generate creative sentences that contain the four basic sentence patterns. This activity helps students learn how nouns can become part of sentence patterns, functioning as subjects or direct objects depending on placement in the sentence. Physically moving the pieces around the board also helps the student correct common errors in sentence pattern creation, such as substituting prepositional phrases in place of true direct or indirect objects. Once the students have created examples of the four sentence patterns within their groups, groups can exchange magnetic boards and judge whether or not the sentences have been constructed correctly. For added interest, groups may choose the best or most creative sentences from the class.

Magnetic poetry works well with a variety of other grammar lessons including lessons on pronoun case, allowing students to substitute subjective, objective, and possessive case pronouns into sentence structures to see in a concrete way how the words work. For these exercises, the instructor should usually create sample sentences beforehand leaving blanks for the correct pronoun to be placed. All of these methods are creative tools to bring a playful attitude into the learning environment.

CONCLUSION

Just as drawbacks to incorporating play exist in writing centers, they also exist in the writing classroom. Some students may not be interested in participating in playful activities, and they may actually do better when participating in more structured and serious lectures and discussions. However, once they realize that there is a deeper meaning behind a playful activity, these students are often also more willing to try it next time. Plato (1968) once stated, "You can discover more about a person in an hour of play than in a year of conversation." As writing professionals, it should be important to get to know the writer you are working with so you can help encourage his or her inner voice. Play is a wonderful way to get to know the writer on a deeper level and takes only a few minutes of time in each session. As populations continue to grow and change, a familiarity with play might become essential to our work in reaching new students in the future. More importantly though, it is a method we can experiment with right now – and have fun while trying.

REFERENCES

- Adbusters. *Adbusters Media Foundations*. Retrieved May 14, 2006, from <http://www.adbusters.org/home/>
- Gardner, H. (1983). *Frames of Mind*. New York: Basic Books.
- Goldberg, N. (1986). *Writing Down the Bones*. Boston, MA: Shambhala Publications.
- Lieberman, N. (1977). *Playfulness: Its Relationship to Imagination and Creativity*. New York, NY: Academic Press.
- Plato. (1968). *The Republic*. (Bloom, Allan, Trans.) New York: Basic Books.

Spears, D. M. (Ed.). (2006). *Developing Critical Reading Skills* (7th ed.). New York: McGraw-Hill.

Sutton-Smith, B. (1997). *The Ambiguity of Play*. Cambridge, MA: Harvard UP.

Vygotsky, L.S. (1978). *Mind in Society: The development of higher psychological processes*. Cambridge, MA: MIT Press.

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Go Figure! Using Quantitative Measures to Enhance Program and Student Success

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Using quantitative assessment, Montana State University—Billings substantially improved and expanded its developmental education program and learning center during the past five years. Student-centered questions drove the research efforts. By gathering, analyzing and sharing hard data, the department identified unmet student needs, discovered trends, dispelled myths about developmental education students, and added validity to the program while gaining administrative support.

Five years ago, Montana State University (MSU)—Billings reorganized its developmental education program by combining separate math and writing tutoring centers into one comprehensive learning center and creating an administrative team to oversee the learning center and the instruction of three developmental education courses: English 100, Math 101 Introductory Algebra, and Math 105 Algebra for College Students. Under the new structure, the program thrived. The total number of developmental education sections offered increased 40 percent, from 40 sections in Fall 2001 to 56 sections in Fall 2005. In addition to the main learning center, tutoring services expanded to include a learning center on the satellite College of Technology campus in Summer 2004. A partnership with the local public school district resulted in an adult education classroom opening at the College of Technology in Fall 2004. Math 085 Math Fundamentals was created and offered for the first time Fall 2005. Fall 2006 marks the beginning of a developmental education reading course, and an English 085 is being developed for Fall 2007.

In addition to expanding course offerings, the learning center expanded its services from assistance with math, writing, and reading to include tutoring in anatomy and physiology, business, psychology,

foreign languages, accounting, chemistry, physics and other specialty areas for specific majors and programs. Student visits to the main campus learning center average 600 a day. At the College of Technology, student visits to the new tutoring center reached 100 a day after just one year in existence. Both numbers are remarkable considering MSU–Billings’ total enrollment hovers around 4,000, with approximately 1,000 students at the College of Technology.

What lies behind the growth and success of MSU–Billings’ developmental education program and learning center? Quantitative assessment. Facts gleaned from this assessment form the foundation of every decision. Gathering and analyzing data enables the administrative team to identify unmet student needs, discover trends, dispel “myths” about developmental students, and add validity to the program to gain administration support.

USING QUANTITATIVE MEASURES TO IMPROVE SERVICES

In Lewis Carroll’s *Alice in Wonderland*, Alice meets the Cheshire Cat in the woods and seeks direction. After finding out Alice does not care where she goes, the Cat replies, “Then it doesn’t matter which way you walk.” But, retorts Alice, “I want to get somewhere.” “Oh, you’re sure to do that,” smiles the Cat, “if you only walk long enough” (Carroll, 1957, p. 57). Developmental education programs operate on too few resources and have too little time with students to wander through a forest, hoping to get somewhere. As Hendriksen, Yang, Love and Hall (2005) wrote, “...at a time of shrinking budgets, growing enrollments, and changing student demographics, we can no longer assume that we are meeting students’ needs” (p. 57). Using quantitative measures in decision-making not only establishes an end goal, to provide students with the best program possible to prepare them for academic success, but also helps administrators identify which paths to take to achieve those goals, even creating signposts when forks in the road appear.

Without actual figures as a foundation, decisions are nothing more than educated guesses at best and ill-conceived whims at worst. Yet, a survey by Boylan, Bliss, and Bonham (1997) found that only 25 percent of four-year universities engage in a systematic assessment of their programs. When the developmental education program at MSU–Billings reorganized five years ago, the department began gathering data to evaluate the program and make needed changes, resulting in its growth. But, how does one determine what data to gather?

Gathering Data

Deciding what data to gather, like Alice deciding which path to take, begins with knowing the desired outcome. Unlike Carroll's Alice, we know our desired destination. We want to ensure that students receive an opportunity to succeed by having their needs met through developmental education courses. Placing the student, instead of the program itself, at the center of the assessment keeps the result focused where it should be: on providing the best assistance to students. Too often research concentrates on the program or tutoring center instead of the student (Simpson, 2002). Asking questions such as, "Are students prepared for future academic success?" and, "Are the students' needs being met?" places the student at the core of the research.

Using student-centered questions to guide the assessment moves data collection beyond the traditional measures. Historically, studies have measured course completion rates, college retention rates, and grade point averages (Boylan & Saxon, n.d.). However, those measures only capture part of a larger picture. Data collection needs to take a longitudinal look at the student and ask: What can we do to meet student needs before they enter the program, what can we do to help students succeed while they are in the program, and how can we tell if the students have succeeded after they have left the program?

To determine the answer to the first two questions, MSU-Billings relies heavily on the COMPASS placement exam to gather scores in math, writing, and reading during new student orientations, which begin in the spring and continue throughout the summer. In addition to placement scores, we collect information about students' academic standing before, during and after their developmental education experience. To determine if student needs are being met and if students are being prepared while enrolled in the developmental education courses, we collect diagnostic exam scores, gain scores (improvement from pre-developmental education to post-developmental education), midterm grades and final grades. Collecting course withdrawal information and the effects of retention efforts, such as contacting all students who did not attend the first two weeks of class, sending letters to students failing or in danger of failing at midterm, and contacting students who can no longer possibly pass a class prior to the withdrawal deadline, provides information about student retention.

A student's performance after completing developmental education

courses measures a program's true effectiveness. Post-developmental education course grades; future academic standing, such as probation, suspension, and honor roll; graduation rates; and student honors and awards help answer the final question: Are students succeeding after they leave the program? At many universities and colleges, a statistician or student database already holds much of the information needed for analysis. If such resources are not available, databases and spreadsheets can be created using standard software packages, such as Excel®.

Analyzing Data

“Number-crunching” remains the first step in analyzing data after it is collected. Calculating percentages, such as the percentage of students withdrawing or receiving Ds and Fs, reveals what happened in a particular course during a particular term. However, data analysis needs to address the “why” as well. As Simpson (2002) states, the “why” question digs at the reason, the underlying cause that can be changed to improve student success. For example, examining the percentage of students not successfully completing a course leads to the question, “Why are these students not succeeding?” Administrators, educators, and researchers can then begin to look for information that can answer the deeper question. For example, did those students not succeed because of lack of ability or poor attendance? What were those students' placement scores? What was their attendance behavior: Did they attend class regularly; did they stop attending after midterm? One analysis leads to another, creating a pathway that can lead to changes.

Enhancing Program and Student Success

Collecting data and endeavoring to answer the “why” questions while analyzing the data improves the program by identifying unmet student needs and justifying program changes. At MSU–Billings, the combination of questions asked and data gathered led to a close scrutiny of placement scores. Were the placement scores appropriate for our population? Analyzing pre- and post-developmental education placement scores and course completion data showed that certain portions of students were not successfully completing the courses. As a result, we adjusted the placement scores and created additional courses.

Specifically, in both math and English, the lowest-scoring students were not passing the developmental English 100 or Math 101. We compared placement exam scores to course grades and found a correlation existed.

Not surprisingly, the higher the placement score, the better the grade. However, we found a certain placement score below which virtually no students passed the courses. Also, to better serve the students, we created a partnership with the school district and opened a satellite adult education classroom on the College of Technology campus. Advisors directed students scoring below a 23 on the writing portion of the COMPASS placement exam to adult education to improve their skills before attempting English 100. On the math side, advisors directed students scoring less than a 35 on the pre-algebra portion of the COMPASS exam to adult education. Thus, the very low-performing students could increase their skills for free with adult education before attempting the developmental education courses and improve their capacity for success in those courses. In addition, we created a Math 085 course to instruct students scoring between 36 and 100 in pre-algebra or 0 to 15 in algebra to better prepare them for success in the Math 101 course. We also increased the placement score to enter Math 105 from a 21 to a 27 COMPASS algebra score, effectively placing more students in Math 101. Students scoring between 21 and 27 proved more likely to fail Math 105 without completing Math 101 first. They were not yet prepared for the coursework. After adjusting the math COMPASS entrance scores, the standard deviation of improvement in the math classes decreased, meaning more students were experiencing the same amount of improvement.

An examination of student gain scores revealed the need for a lower level English course, English 085. The standard deviation was much greater for English 100 than the revised math courses. Students in English 100 were not consistently improving their performance. Why? Without English 085, students scoring a 23 on the writing portion enrolled in the same English 100 classes as students scoring an 86 (an 87 is required for entrance to a non-developmental education English 150 course). Instruction geared to preparing students for English 150 left many lower-performing students behind. Struggling students needed more basic grammar and sentence structure instruction, while the majority of the class engaged in writing essays in specific formats. Work began on developing an English 085 course to meet those students' needs.

An analysis of the completion rates and retention efforts revealed the need to direct extra attention to one particular group of students: those attempting multiple times to pass a course. Students enrolled in courses

for the second or third time seemed to be more resistant to intervention efforts than were those attempting the course for the first time. For example, a lower percentage of multiple-attempt students responded to midterm warnings than those enrolled in the class for the first time. The multiple-attempt students were more likely to receive a failing grade even though they had been through the course before. The data also revealed that early intervention worked best. The earliest interventions succeeded more often than subsequent efforts. Combining those two pieces of information led us to add personal phone calls and “hall visits” with multiple-attempt students early in the semester instead of just sending the standard letters.

Another example of using quantitative assessment to identify and meet student needs started with a student-centered “how” question. How were students with low reading scores performing? The university had collected COMPASS reading scores but had not analyzed the data. Statistical calculations revealed a positive correlation between reading score and GPA. In addition, by comparing reading scores to retention data, such as persistence semester to semester, GPA, and academic standing, we found students who scored below an 80 on the COMPASS reading exam were significantly more likely to experience academic failure after the first year than students who scored above an 80. Because we had the objective data, the university’s administration approved the implementation of a reading course designed to help students improve their college reading ability and performance. We had more than a “hunch” and more than instructors’ anecdotal comments about their students’ poor reading abilities to justify the expense of a new course.

Sharing Data

After gathering and analyzing data, the last step in using quantitative assessment to enhance program and student success is to share the data. Share the information with instructors, tutors, and administrators. Help them see the importance and success of developmental education. Dispel myths by sharing the information with other academic departments, especially those who matriculate with the program. Build support by sharing the information with other support services: advising, housing, campus security, financial aid, and other student programs. The advising staff, for example, appreciates the tracking of multiple-attempt students. Housing and financial aid personnel display particular interest in students’ attendance patterns.

Furthermore, the importance of using quantitative assessment to gain administrative support cannot be overstated. When the battle begins to rage between departments for funding, when universities stretch to increase retention efforts, when dollars and jobs are on the line, departments built on a bedrock of quantitative assessment can withstand the buffeting squalls and torrents. When certain university factions declared MSU–Billings’ developmental education department was not adequately preparing students for subsequent classes, we dashed that misconception by rolling out the numbers: 52 percent of students with a previous developmental education math course achieved a C or better in subsequent math courses compared to 48 percent of students in the same courses who had not taken a developmental education math course. In addition, 55 percent of students with a previous developmental education English course achieved a C or better in the non-developmental education college composition class compared to 45 percent of students without a developmental education English course.

Hard facts dispelled other myths. Opponents said developmental education students could succeed at the developmental education level, but they could not survive through graduation. Again, because we had been gathering and analyzing data, we could show that 18 percent of the bachelor and post-bachelor May 2005 graduates had completed at least one developmental education course. The number rose to 21 percent when the master degree candidates were removed. In fact, not only did these students survive, they thrived. For the May 2005 commencement exercises, 57 percent of students nominated for student awards had enrolled in at least one developmental education course during their academic careers; furthermore, 26 percent of the students who earned individual awards had enrolled in at least one developmental education course. The 2005-2006 vice president of the student senate began his academic career as a developmental education student, and the 2006 student senator for the College of Technology previously completed developmental education math and English courses. The data showed that developmental education students survive, thrive and benefit the university community when provided with the necessary foundation.

CONCLUSION

Having the data builds credibility. Using the data builds a better program and improves student success. The high ranking achieved by

the Academic Support Center on a recent campus-wide Noel-Levitz student satisfaction survey highlighted the program's success. During a recent accreditation committee meeting, the committee chair noted the quality of the quantitative assessment conducted by the developmental education department and urged other departments to follow suit. Carefully gathering, analyzing and sharing data paves a program's path through the somewhat dense and often tangled developmental education forest of identifying and serving diverse student needs. As we say, "If the numbers are right, you can't go wrong."

REFERENCES

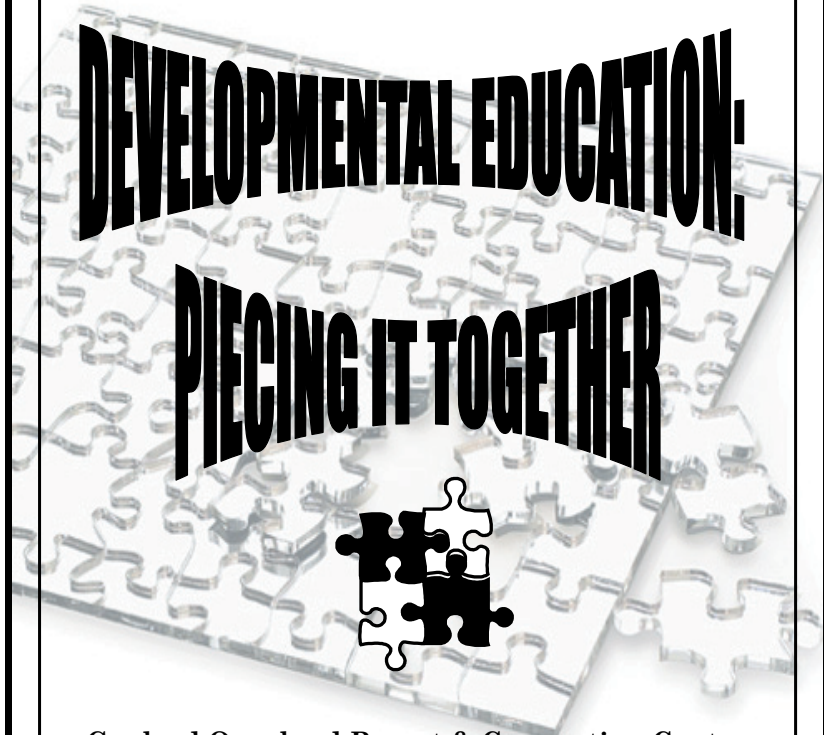
- Boylan, H. R., Bliss, L. B., & Bonham, B. S. (1997). Program components and their relationship to student performance. *Journal of Developmental Education, 20*(3), 2-8.
- Boylan, H. R. & Saxon, D. P. (n.d.). Outcomes of Remediation. Paper prepared for The League of Innovation in the Community College. Retrieved February 8, 2005, from http://www.ncde.appstate.edu/reserve_reading/Outcomes_of_Remediation.htm
- Carroll, L. (1957). *Alice in wonderland*. Philadelphia: The John C. Winston Company.
- Hendriksen, S. I., Yang, L., Love, B. & Hall, M. C. (Spring 2005). Assessing academic support: The effects of tutoring on student learning outcomes. *Journal of College Reading and Learning, 35*(2), 56-65.
- Simpson, M. L. (Winter 2002). Program evaluation studies: Learning delivery model suggestions. *Journal of Developmental Education, 26*(2), 2-10.
-

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NATIONAL ASSOCIATION FOR DEVELOPMENTAL EDUCATION
2007 ANNUAL CONFERENCE

The background of the central text area is a 3D-rendered scene of numerous white puzzle pieces scattered on a light surface. Two pieces in the lower center are joined together, forming a small black silhouette of a person.

**DEVELOPMENTAL EDUCATION:
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The **NADE Digest** is a publication of the National Association for Developmental Education. We invite articles of interest for Developmental Education professionals including developmental educators, learning assistance personnel, academic counselors, and tutors who are interested in the discussion of practical issues in post-secondary developmental education. Articles should relate to issues that inform and broaden our understanding and practice of teaching and learning in developmental education. The subject of the article may emphasize innovative approaches, best practices, how meaningful research affects teaching and learning, or techniques to enhance student performance.

1. The manuscript must not exceed 10 pages, including references, tables, and figures. The body should be double-spaced with one-inch margins, 12 point font. Only the title of the article and the page number should appear on each page. Author(s) name(s) should not appear on any body pages.
2. Manuscript and references must adhere to *APA 5/e* guidelines.
3. The manuscript cover page must include the title of the article (maximum 75 characters), the name(s) and institutional affiliation(s) of all authors, and an abstract (maximum 125 words).
4. The lead author must provide work, home and email addresses, and phone and fax numbers. All correspondence will be with the lead author.
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Reflections on Learning: A Composition Curriculum to Meet the Needs of At-Risk Writers

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One challenge faced by many writing teachers is meeting the needs of students with varying skill and confidence levels. This article describes strategies used in a Composition and Rhetoric I course to meet the needs of basic and college-level writers. Sample assignments focusing on the theme of literacy and learning are provided, including an effective pre-writing strategy called the Literacy Lifeline. The practices described are supported by Bartholomae and Petrosky's course framework in Facts, Artifacts, and Counterfacts (1986) in addition to other sources.

Sometimes it is not until we reflect on a past experience that we realize all that has been gained from that situation. – Composition Student

One of the joys of teaching first-year composition is also one of its greatest challenges: the diversity of backgrounds, attitudes, and skills students bring to the class. At my institution, like most, our students have varied backgrounds – some first-generation college students, some from urban areas while others are from rural areas, some upper or middle class while others come from working class families. These students also come to our institution with diverse attitudes toward course content – some who love writing and reading, and others who hate it.

In our first-year composition courses, students have varying writing skill levels. In this situation, teaching writing is much like driving: one has to steer, accelerate, watch oncoming vehicles, be aware of pedestrians, and make quick decisions all at once. Likewise, a composition teacher has to work simultaneously with basic writers, competent writers, and excellent writers, trying to challenge each level without leaving anyone behind. Because of these challenges, this article focuses on a curriculum

developed to address the range of abilities in a first-semester composition course.

Since the university offers only one level of first-year composition, I need a variety of strategies to meet the needs of underprepared students without alienating students with the prerequisite skills for college-level writing. To begin, I revisited Bartholomae and Petrosky's (1986) description of their six-credit Basic Reading and Writing (BRW) course in their seminal text, *Facts, Artifacts, and Counterfacts*. According to their syllabus, BRW "is a course for beginning college students that is modeled after a course for advanced graduate students. That is, it is a course where students are expected to develop their own ideas on a subject... and to report what they learned to others" (p. 47).

Depending on class demographics, Bartholomae and Petrosky use topics such as adolescence (for classes of traditionally aged students) and work (for classes of mostly non-traditional students). The course sequence is divided into three sections:

1. Students discuss their experiences (based in part on their reading about adolescence or work).
2. Students read a set of case studies and make observations and generalizations.
3. Students synthesize the above and conduct research with traditional secondary sources (Bartholomae & Petrosky, 1986).

I selected literacy as our topic because of its universal appeal and the belief it would help students develop confidence as writers and learners. Belasco (2001) defines this term intentionally in the plural form, literacies: "the many different sets of reading, writing, thinking, listening, and behavioral skills that make up the numerous communities of the academic world and beyond" (p. 2). Many students, in their first semester of college, think of literacy as the act of decoding and encoding written language. By assigning readings that support Belasco's definition, students can begin to understand literacy as a much broader concept. In selecting this theme and the readings, I hoped that students would identify themselves, regardless of their perceived skill levels, as lifelong learners and as participants in the academic world they were just beginning to navigate.

In developing the sequence of writing assignments, I tried to attend to the needs of basic writers enrolled in the course. According to Wall (1986), "What is 'basic' about basic writers and readers is not simply

their lack of control over the conventional rules of written discourse; it is a kind of naiveté born of their inexperience with what it means to try to sound educated” (p. 105). What better place than English composition, regardless of students’ ability, to address the skills and conventions needed to succeed in academia? And what better way to begin than by positing that the students are already experienced learners?

Salvatori (1986) explains that “as long as [students] think about themselves in these terms [of skill deficiency], they will continue to act as if they were incapable of learning to read, to write, and to think, our first pedagogical move is to demonstrate that they know more than they think they know” (p. 138). To facilitate students’ recognition of their own knowledge base, I begin by adopting the tenets of narrative therapy and asking them to discuss personal learning experiences.

According to Deming (2001), “People understand their lives in terms of stories, or narratives. Narrative therapy helps clients to replace problem-based stories (dominant stories) with ‘preferred stories’ that focus on the person being in control of or overcoming the problem” (p. 32).

The use of the term “narrative therapy” might make more than one composition teacher hesitate to embrace this pedagogy – after all, we are not therapists. However, we do help students to bring order and clarity to the experiences they render in writing. Others in our field might argue that “personal” writing does not help students develop the expository writing skills they will need in future courses. With this model, though, the personal essays students write and revise form the basis for later assignments that require more intentional critique, analysis, and synthesis. What follows is the sequence of assignments I use, beginning with a prewriting activity that provides the foundation for the first two assignments.

I begin the personal narrative assignments by asking students to map significant events in their education. I refer to this prewriting activity as a *Literacy Lifeline*. I caution students that this information will be shared with me and with peers and give them permission to share as much or as little as they like. As a team building activity, each person in the group maps out significant life events—limited to the theme of learning—on a line, sharing as much or as little as preferred. In the group, the goal is for the team members to get to know each other. My goal is a bit different. The assignment is:

Literacy Lifeline

Chart the significant events of your education on a lifeline. Education here is defined to include experiences in traditional classrooms (learning to write in kindergarten) as well as experiences outside of school (learning to skydive). Experiences may be good (the book that changed your life) or not so good (the mean teacher in second grade). Start with your birth and end with the present time. You can share as much or as little as you like. Remember, much of what you write will be shared with others in the class as well as with me.

This activity is challenging for students who have been told repeatedly to avoid first-person writing. To lessen resistance, I participate in this activity with my students, by putting my lifeline on the board as an example. This simple act has a number of benefits: it humanizes me to the students, provides examples for students who get “stuck” trying to think of or remember events, and shows it is OK to express negative thoughts as long as they are honest. Sometimes, I will provide newsprint and markers for students, many of whom enjoy color-coding for different types of events or drawing pictures in addition to using words. This activity gives students a visual image of their learning and literacy accomplishments, one that forms the basis of the first two assignments:

Essay Assignment 1:

Identify a positive moment in your life as a learner. It could be something that happened in school (a favorite subject, significant class, a teacher, a book) or something you learned outside of the classroom (how to play guitar). Develop an essay about your experience, demonstrating an appropriate focus and thesis statement.

Essay Assignment 2:

Return to your lifeline. This time, identify a learning experience in which you had to overcome a challenge or obstacle. Develop an essay in which you discuss how you overcame that obstacle. Refer to the feedback you received from me and from your peers on the first essay in order to improve your writing on this assignment.

Once students complete the first two essay assignments, we discuss revision strategies. As we know, it is challenging to help students see revision as more than simply editing. To overcome this challenge, I require students to frame the third assignment, a revision of one of the earlier essays, with a prospectus outlining their plans for a revision and an abstract summarizing and assessing their changes. Both parts of the

assignments require at least some degree of reflection and planning, as shown in the following assignment:

Essay Assignment 3:

Select one of the first two essays to revise. In class, we will discuss and practice the improved use of description, figurative language, introductions, and conclusions in addition to our usual weekly discussion of grammar and punctuation points.

There are three parts to this assignment, all of which you must complete for full credit:

1. Prospectus: Each of you will write a prospectus before submitting a new essay. You will explain which essay you chose to revise, why you chose to revise that particular assignment, and how you will improve upon the original.
2. Revised essay.
3. Abstract: After completing your revision, you will write a reflective summary about the process, explaining not only the content of the essay but what worked well and what was challenging about the revision.

Please keep in mind that your revised essays will be read by the entire class as part of our next assignment. Again, share personal information accordingly.

Given the last sentence of the third assignment, students expect that they will have to share papers in groups or that I will distribute copies. The latter is true, but I use Bartholomae and Petrosky's method of distributing the essay in book form. I simply compile the essays in an effective order (generally making sure two essays on a similar topic, such as learning to play soccer, are not side-by-side), print a cover, write a table of contents, and take the students' work to our university print shop.

The design of the book is no small detail. When I first used this strategy, I just asked the print shop to put the essays together in any order and put a cardstock cover on it, with no images, no title, and no table of contents. Later, I became more creative with the design and developed a title for the collection such as *Reflections on Learning*. Student response to this technique has been positive. The last time I taught this course, students received the book right before Thanksgiving break and expressed eagerness to take it home to show it to their parents. One student, after the semester was nearly over, and he did not technically "need" the book anymore, asked if I could provide an extra copy because he misplaced his

own. It meant a great deal to the students to see themselves in print, as a legitimate community of writers. The more attractively bound the essay collection was, the more it legitimized their sense of accomplishment.

This collection serves as the beginning of the next assignment, the goals of which are to help with synthesis strategies and transition from narrative to expository writing, the second stage of Bartholomae and Petrosky's structure. The fourth assignment is:

Essay Assignment 4:

Read *Reflections on Learning*, written by you and your classmates. What common patterns and experiences do you observe in the essays? Take your observations and develop a theory about factors that contribute to a positive learning experience.

This assignment requires students to generalize from their classmates' experiences as well as their own, and to provide support for their own theories. In reading assignments to this point, students have read and compared literacy narratives (or at least excerpts of them) from authors such as Frederick Douglass, Helen Keller, Richard Rodriguez, and Margaret Mead. They have had experience in contrasting how different writers experienced language learning and they have analyzed the strategies these and other writers used to render their experiences for a reading audience. This background, however brief, provides students with a context for developing working theories about learning and with experience in analyzing and synthesizing their reading—the difference is that the authors under consideration are peer writers rather than traditionally anthologized literary figures.

Since my institution does not require library research until the second semester, this next library research assignment is an option I use if there is time remaining in the semester. Given that we are working with the theme of literacy, it is important that students begin or continue their development in library research, including related issues of academic integrity (such as citing sources, avoiding plagiarism, and the consequences of academic dishonesty). The following is an example of a library research assignment to help students develop information literacy skills:

Essay Assignment 5:

Use library sources to support your theory about learning experiences, described in Essay 4. First, write an annotated bibliography (to

be defined and discussed in class, with examples) of seven to ten sources. Then, write a persuasive essay using the course artifacts, personal experience, and traditional secondary sources.

The benefits of this course, based on Bartholomae and Petrosky's (1986) framework for a basic reading and writing course, are many. Student-centered content and validation of student experience improves student confidence and challenges basic and advanced writers alike. The course integrates critical reading and writing skills, still allowing plenty of time for sentence-level grammar, punctuation, and style instruction. Student comments from one section speak to their reaction to assignments and to past learning experiences:

"I really liked this assignment as a whole because it was my personal experience."

"As I was writing and reliving this experience, I had a chance to not only better my paper but take time to reminisce [sic] on my life. This was a good outcome to the process."

"I have never had a positive learning experience in school, but I have learned a great deal from life experience.... So far this class has shown me that writing can be fun, not always torture."

The student comments reflect the benefits of this curriculum. As one student improves her paper and reminisces on her life, she implies a willingness to see academic and personal improvement as other than dichotomous. Validation of out-of-classroom learning is significant, as we see in the student who realizes that writing no longer has to be "torture." One of my hopes is that students' reflections will continue beyond our fifteen weeks together—but if it doesn't, those fifteen weeks provide students with opportunities to see connections among their learning successes and the benefits of the challenges they have faced.

REFERENCES

- Bartholomae, D., & Petrosky, A. R. (Eds.). (1986). *Facts, Artifacts, and Counterfacts: Theory and Method for a Reading and Writing Course*. Portsmouth, NH: Boynton/Cook.
- Belasco, S. (2001). *Constructing Literacies: A Harcourt Reader for College Writers*. Boston: Heinle & Heinle.

- Deming, M. P. (2001). Narrative therapy and college basic writers. In J. L. Higbee, D. B. Lundell, I. M. Duranczyk & D. Banerjee-Stevens (Eds.), *2001: A Developmental Odyssey* (pp. 29-45). Warrensburg, MO: National Association for Developmental Education. Retrieved August 5, 2005, from <http://www.nade.net/documents/Mono%2001/monograph01.pdf>
- Salvatori, M. (1986). The dialogical nature of basic reading and writing. In D. Bartholomae & A. R. Petrosky (Eds.), *Facts, Artifacts, and Counterfacts* (pp. 137-166). Portsmouth, NH: Boynton/Cook.
- Wall, S. (1986). Writing, reading, and authority: A case study. In D. Bartholomae & A. R. Petrosky (Eds.), *Facts, Artifacts, and Counterfacts* (pp. 105-136). Portsmouth, NH: Boynton/Cook.
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Persistence of At-Risk Students in a Developmental Reading Course

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Developmental programs exist throughout postsecondary education institutions. The CHANCE program at Northern Illinois University targets the needs of inner city students to support them in becoming successful college students. This study sought to understand the reasons that CHANCE students who had failed a required reading course returned to the university and succeeded in passing the course the second time. The study revealed three major themes in the students' decisions to return and continue their education: personal motivation, role of the mentor, and the role of the instructor.

RELATED LITERATURE

The importance of the first year of college has been the focus of much research in recent years. Postsecondary administrators have recognized that the transition into the first year of college affects the persistence of students continuing to graduation. Students choose within the first few weeks whether they will pursue higher education in a serious manner (Gardner, 2001). Once the anticipation of going to college and the expectation of college life fade, many first year college students begin to feel overwhelmed and disappointed with the challenges of college (Skahill, 2002). In fact, the student's perception of college plays a big role for developmental students (Dominick, Stevens, & Smith, in press). Students who fall into the category of feeling overwhelmed or not ready for college tend to experience more pressure and stress in school. These factors are dangerous culprits in the quest for increasing retention.

The Illinois Board of Higher Education (1997) defines remediation as "coursework that is designed to correct skill deficiencies in writing, reading, and mathematics that are essential for college study" (p. 1).

During the past decade, public institutions of higher education have received criticism and concern about offering remedial coursework (Arendale, 2001). Critics express educational and financial concerns over remediation. Despite concern, the necessity of remediation is present. It is estimated, according to a national study done by Roueche, Baker, and Roueche (as cited in Fielstein & Bush, 1998) that 30 percent to 40 percent of the entering freshman are “deficient in college-level reading, and writing with math deficiencies even greater” (p. 41).

Progressively, professionals in higher education are steering from a deficit model of remedial education and moving towards a more comprehensive model of developmental education to assist all students in reaching their academic potential (McCabe, 2001). Arendale (2001) considers it vital that all of developmental education shifts from a remedial/developmental model into one that encompasses more of a learning assistance academic model to benefit the learner.

The first year is particularly critical for at-risk students who are less likely to persist when presented with obstacles (Cohen & Brawer, 2003). Research shows that developmental programs that integrate placement testing, coursework, and counseling, are the most beneficial in retaining students and preparing them for academic coursework (McMillan, Parke, & Lanning, 1997). “For many of them [the developmental students] developmental education represents a launch pad not only to success in college but to a turnaround in their lives” (Boylan, 2003, p. 9). With the potential importance and power of developmental education for the student, it is necessary that insight into student’s perceptions occurs to understand persistence issues.

CHANCE PROGRAM

To help at-risk students, Northern Illinois University (NIU), developed the CHANCE (Counseling Help and Assistance Necessary for a College Education) program for students who do not meet one or more of the admission criteria of NIU. After identification and screening of eligible students, the CHANCE program provides ongoing retention-based counseling services such as individual academic counseling, tutoring, financial aid counseling, special work-

shops, courses to enhance academic skills, and other services designed to enhance academic success.

The CHANCE program has a long and impressive history with over 3,000 students admitted through the CHANCE program having graduated from NIU (CHANCE Program Alumni, 2006). Placement testing is a requirement for admission into the program and is essential to determine if students are in need of any remedial coursework. NIU currently offers developmental courses in reading, English, communications, study skills and mathematics. While the developmental courses that some CHANCE students are required to take during their first year at NIU are designed to provide them with skills to be successful college students, some students do not pass these courses. When this happens, the students typically do not return to the university. The purpose of this study was to understand why students returned to NIU and retook the College Reading course after not passing it the first time. It was our desire to hear the experience directly from the student in order to understand what he/she gained from the CHANCE program, and specifically the reading course offered through the Literacy Education Department.

PURPOSE AND RESEARCH QUESTIONS

The purpose of this study was to identify the factors that influence students who elect to repeat a required developmental reading course after failing to pass it the first time.

The study was guided by two questions:

1. What impacts a student's choice to register for this course a second time, at his or her own expense, rather than withdraw from the University?
2. What impacts the student's success when taking the course the second time?

Clearly, the views of the students hold significant importance in understanding the factors contributing to the retention of at-risk students.

METHODOLOGY

Using a phenomenological approach, this study was done in a manner to best illustrate the experiences from the point of view of the participants. Phenomenology seeks to understand the subjective

experience of those involved in a situation (Merriam, 2002). Data was collected through semi-structured interviews which were conducted with seven students who succeeded in passing LTRE 100 (College Reading) in the spring after having failed it the first time they took it in the fall. Sixty-five students failed the course during the fall semester and 43 of those students repeated the course in the spring semester. Twenty of those students returned to the university the following fall, and 7 of the 20 returning students participated in the study. In an effort to understand fully the experiences of the participants, the primary researcher conducted person-to-person interviews with nominal interference and structure (Merriam, 2002). Interviews were audiotaped, transcribed, and then analyzed and coded for themes by both the primary and secondary researchers.

FINDINGS

An analysis of the interviews revealed three recurring themes in the students' decisions to return and continue at the university: 1) the students own personal motivation to succeed in higher education, 2) the role of the mentor assigned to them through the CHANCE program, and 3) the influential role of their instructors in their success or failure in the course during both sections.

Intrinsic Motivation

Of the seven participants, six commented on their need to be in college. The students spoke of their own personal motivation to succeed in higher education. One participant stated, "If I don't stay in school, I don't have nothing [sic]. ...I'd do everything I could to get a second chance." Another participant noted, "I never thought about dropping out. I have to do this. I can't go home."

One young woman spoke of the need to stay in school for her infant son. "I need to graduate... I need to do this for him." Another student spoke of his need to continue at the university:

I never really thought about dropping out cause I just had to be here.... If I'm going to be successful, I have to be here. This is the only way that I can become something.... I can't go home.... I'm doing this for my mom. She is my rock.... There is nothing for me at home. We have it good here.

Role of CHANCE Counselor

Most of the participants acknowledged the influence of their CHANCE counselor in their decision to repeat the course. Five of the students identified a mentoring relationship that had evolved with their counselor that positively impacted their decision to repeat the course. Student comments in this area included, "My counselor told me this should not stop me from moving on... talking with him made everything alright." "After my son was born she helped me a lot.... She was the one that got me here. I don't know what I would have done if she didn't help get me here. She told me what I had to do and when I came here she gave me a lot of support."

Participants also noted that they liked the atmosphere at the university and felt that CHANCE program staff really cared about them and their success. One student commented on the services of the CHANCE program: "Northern [Illinois University] does a lot to help CHANCE students. Like they have free tutoring... I take advantage of that. It helps me stay here."

Role of the Instructor

A caring instructor appeared to significantly influence the students the second time they took the course. While the participants had a variety of instructors the first semester they enrolled in the class, they were all in one of two sections taught by the same instructor when they repeated the course. Each of the participants acknowledged receiving support and guidance from their second instructor that was not received the first time they enrolled in the course. For example, "And the teacher that I had—awesome.... She's a really nice teacher. She really made me want to do the work." Furthermore, the students noted that the second instructor chose literature that they felt a closer relationship with than they had the first time they took the class. For example, several participants mentioned the personal connection they felt to Malcolm X when reading *The Autobiography of Malcolm X: As Told to Alex Haley* (Haley, 1964). Students could relate to the poverty and adversity he experienced as a child and admired the way he overcame his humble beginnings.

Each student indicated that their first instructor had a negative

impact on their success in the course. One participant stated, "The teacher [first semester] wasn't like real clear [sic]...he didn't really explain things. We were like on our own." Another commented, "And my [first] teacher...didn't really explain the work clearly." Another student stated, "My first instructor told me that I just had to get to answers. Those were her exact words. ... I needed help getting the answers or I wouldn't have gone to her for help."

One participant compared the first instructor to the second. Describing the first instructor, he stated, "...and I really didn't get the feeling that it [the course] mattered. It didn't seem to matter to my teacher." Describing the second instructor, he added, "The teacher made it easier... the teacher that I had—awesome.... That was another reason why I did better the second time." Upon further probing, the participant was asked what he meant by "easier." He went on to explain how the instructor cared that the students learned the material, indicating that she was patient and explained things clearly. When another participant stated that the second class was "easier," the researcher again sought clarification. The reply was, "We really got into things in class. The teacher helped us understand. It was real interesting."

While one could argue that the students were more prepared to take this course the second time they took it, the participants did not emphasize this in the interviews. Although two of the students mentioned that they had a better idea of what to expect in terms of the amount of required reading the second time they took the course, they both indicated that they found their second instructor to be the inspiration and support that got them through the course and made it meaningful for them.

DISCUSSION AND IMPLICATIONS

Research has identified the importance of motivation in the classroom by engaging the learners and allowing them to express their thoughts (Strong, Silver, & Robinson, 1995). According to Fielstein and Bush (1998), developmental students that are motivated to succeed scholastically can prevail over their deficits. Various aspects of motivation positively influenced the developmental students within this study. Motivation within the student, motivation by

the CHANCE counselors, and motivation by the course instructor dominate the transcripts and highlight its importance.

Astin (1993) holds that association with academics, peers, and faculty enhances students' learning, satisfaction, and retention. Farquhar (2000) maintains that it is imperative for higher education staff to provide social support because students' original family and friends support is often absent. The frequency in which participants of this study mentioned their instructors and CHANCE counselor supports previous research in this area. It was obvious that the students found the CHANCE program, as well as their second reading instructor to be instrumental in their success at the university.

Reynolds and Werner (2003) challenge developmental educators to take a learner-centered approach to their instruction, noting that the individual needs of the learners are important due to the diverse population of American colleges. Simpson and Nist (2003) note that in order for instruction to be effective, it must be explicit and direct. Participants of this study responded to the expectations of their instructor when approached as individuals and when provided clear and explicit instructions.

This study also provides support for a student-centered approach to instruction from a faculty member who cares about the success of his/her students. The student-centered educator acknowledges that each student has different needs and abilities (Reynolds & Werner, 2003). "Responding to the individual student may be the most important way to improve your instruction. Appreciating the unique needs and characteristics of your students sets an educational environment that will better enhance learning by each student" (McKeachie & Svinicki, 2006, p. 151).

The participants in this study did not identify specific strategies that their second instructor used to enhance their learning. Rather, they noted the connection they felt with her and the respect she showed them. They noted that she met them at their level and encouraged them to learn. Brookfield (1990) describes the authentic teacher as someone that students see as a real human being. He suggests that instructors who share aspects of themselves that are not related to their teaching, by using appropriate self-disclosure, show their students that

they are genuine. This fosters a reciprocal relationship that produces trust and the ability to promote trust and self-expression.

LIMITATIONS AND IMPLICATIONS FOR FURTHER RESEARCH

This study only begins to look at the issue of educational persistence in students enrolled in developmental courses. While useful to begin a discussion about the needs of students enrolled in developmental courses, this study is not generalizable due to its small sample size.

Interviews with faculty and classroom observations could add to our understanding of the students' experiences, as the interaction between the students and their instructors appear to have had at least a perceived impact on the students' success. Additionally, it appears that the CHANCE counselors and the CHANCE program had quite an impact on these students. Further studies might include discussions with these individuals as well.

As colleges and universities continue to seek ways to improve their developmental study programs, as well as the retention and academic success of students in such programs, a variety of stakeholders opinions should be sought to increase our knowledge and develop successful programs. By continuing to seek the opinions of individuals working in these programs, as well as the students, we can create and maintain positive and productive learning environments that meet the needs of the participants.

REFERENCES

- Arendale, D. (2001). *Trends in developmental education*. (ERIC Document Reproduction Service No. ED461366)
- Astin, A. W. (1993). *What matters in college: Four critical years revisited*. San Francisco: Jossey-Bass.
- Boylan, H. (2003). Developmental education: What's it about? In N.A. Stahl & H. Boylan (Eds.), *Teaching developmental reading: Historical, theoretical, and practical background readings* (pp. 1-10). Boston: Bedford/St.Martin's.
- Brookfield, S. D. (1990). *The Skillful Teacher*. San Francisco: Jossey-Bass.
- Chance Program Alumni*. (2006). Retrieved May 26, 2006 from Northern Illinois University Chance Program website: <http://www.esp.niu.edu/chancealumni/>

- Cohen, A. M., & Brawer, F. B. (2003). *The American community college* (4th ed.). San Francisco: Jossey-Bass.
- Dominick, V.L., Stevens, C., & Smith, M.J. (2006). *Transition from high school to college: A qualitative study of developmental students*. Center for Research in Developmental Education and Urban Literacy Monograph, 6, 21-30.
- Farquhar, R. H. (2000, October). Preparing high school students for success in university education. Paper presented at the Annual Conference of the Organization for Quality Education, Toronto, Ontario. (ERIC Document Service Reproduction No. ED446601)
- Fielstein, L. L., & Bush, L. K. (1998). Remedial students' perceptions: Pre-college decision making, satisfaction with the freshman year, and self-perceptions of academic abilities. *Journal of first-year experience*, 10 (2), 41-56.
- Gardner, J. N. (2001). *Focusing on the first-year student*. ACG Priorities, No. 17. Washington, DC: Association of Governing Boards of Universities and Colleges.
- Haley, A. (1964). *The autobiography of Malcolm X* (as told to Alex Haley). New York: Ballantine Books.
- Illinois Board of Higher Education. (1997). The scope and effectiveness of remedial/developmental education in Illinois public universities and community colleges. (ERIC Document Reproduction Service No. ED411008)
- McCabe, R. H. (2001). What should we know about developmental education? *Southern Association of Community, Junior, and Technical Colleges Newsletter*, 35, 1-8.
- McKeachie, W. J., & Svinicki, M. (2006). *McKeachie's teaching tips* (12th ed.). New York: Houghton Mifflin Company.
- McMillan, V. K., Parke, S. J., & Lanning, C. A. (1997). Remedial/developmental education approaches for the current community college environment. In J. M. Ignash (Ed.). *New directions for community colleges: Implementing effective policies for remedial and developmental education* (pp. 21-32). San Francisco: Jossey-Bass.
- Merriam, S. B. (Ed.). (2002). *Qualitative research in practice: Examples for discussion and analysis*. San Francisco: Jossey-Bass.
- Reynolds, J. & Werner, S. C. (2003). An alternative paradigm for college reading and study skills courses. In N.A. Stahl & H. Boylan (Eds), *Teaching developmental reading: Historical, theoretical, and practical background readings* (pp. 86-95). Boston: Bedford/St. Martin's.

- Simpson, M. L., & Nist, S. L. (2003). An update on strategic learning: It's more than textbook reading strategies. In N.A. Stahl & H. Boylan (Eds), *Teaching developmental reading: Historical, theoretical, and practical background readings* (pp. 157-179). Boston: Bedford/St. Martin's.
- Skahill, M. P. (2002). The role of social support network in college persistence among freshman students. *College Student Retention*, 4(1) 39-52.
- Strong, R., Silver, H., & Robinson, A. (1995). What do students want (and what really motivates them)? *Educational Leadership*, 53, 8-12.
-

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Improving Placement and Retention Rates with the Use of Mathematics Review Courses

Anyone who has ever taught developmental mathematics knows there is a problem in course placement. Some students test well and place clearly above their level, while other students place below their real capability because they either have been away from math for a number of years, or did not prepare for the assessment test. In either case, they end up wasting their time and money. Montgomery College offers two review courses that cover the developmental math sequence of Prealgebra, Elementary Algebra, and Intermediate Algebra. These review courses have proven to do a more accurate job of placement. In addition to helping the placement effort, we have found that the retention rate has dramatically improved.

WILLIAM W. COE
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At nearly every community college, more freshmen place into developmental math than most educators and legislators think appropriate (Hoyt & Sorenson, 1999). Studies show that the percentage of entering freshmen that require remedial course work varies considerably. A recent study from the Stanford University Bridge Project places the figure at 63 percent (Venezia, Kirst, & Antonio, 2003). Is the problem that all these students are underprepared for math or just underprepared for their math placement test? It is probably a little of both, but both can be helped by taking a review course prior to being placed in a mathematics class. Whether the student has been away from math for only a year or as many as 10 or 20 years, students benefit by reviewing mathematical concepts before taking an assessment test (Scanlon, n.d.).

Without the review, we have students who guess well and are placed too high and those who panic because they have not looked at a math

problem in a long time and place lower than their true capabilities. If the student is placed at too low a level, they end up wasting a semester or two because they should have been placed at a higher math level. These students may become bored with the material, develop bad study habits, and miss classes—not good traits for the next math course they take. If the student is placed at too high a level, they quickly become overwhelmed. In the worst case, they drop the class and end up dropping out of college because they know they need a math class and don't believe they will ever get there because of their experience in the class into which they were placed. Whether placed at too high or too low a level, the student has wasted a semester or two, which carries with it a high cost.

COURSE DESCRIPTION

To address this problem of placement, Montgomery College has developed two review courses that cover the developmental math sequence of Prealgebra, Elementary Algebra, and Intermediate Algebra. The first review course covers Prealgebra and Elementary Algebra and is called Fast Track. The second review course covers Elementary Algebra and Intermediate algebra and is called Advanced Fast Track. The Elementary Algebra portion is common to both courses.

These non-credit review courses are optional and are offered by our Workforce Development and Continuing Education office. The courses are designed for students who have done well in math in the past, need a review of basic concepts, and would like a fast paced, intensive review. We emphasize to all students that these courses are review courses and this is not the time to learn the material for the first time. Those students who have not seen the material before are better served by taking the appropriate semester long developmental math course.

SCHEDULING

Each review course is generally conducted over 20 hours—two hours per day, Monday through Friday, for two weeks. The courses are offered in August, January, and June each academic year. This schedule is arranged so that the student can finish the Fast Track class and then start the next semester in the course into which they were

placed. The student is tested twice in each class and these tests are used to determine the placement level. If a student does not achieve an acceptable score on the test given at the end of the first week, they are counseled to spend the second week of the class reviewing the first week's material in the math learning center using the tutoring and video tape resources available there. Then, at the end of the second week, the student can retake a form of the first test to determine if they can advance one level. Students who score well on the first test continue with the second week of the review.

In the student evaluations of the course, one common concern is the length of time. Students want more of it! We emphasize that it is a review course and feel the time is appropriate. However, we have experimented with a course over 4 weeks. In January 2003 and again in January 2004, we began a course the week before the spring semester started and ran it for four weeks. The course was offered in the morning (9:00 to 10:50 am) on a Monday, Wednesday, Friday schedule (11 classes) and in the evening (6:00 to 8:30 pm) on a Tuesday, Thursday schedule (8 classes). At the end of the Fast Track class, students were either placed into Elementary or Intermediate Algebra.

Another option for students is to take the review course online. Prior to this option, if students couldn't attend the course in June, August, or January, they were out of luck. Now, if they cannot attend the traditional instructor-led course at the specified times, students can opt for the online version and work from home. The first offering of the online course was in August 2004 and we now offer it periodically throughout the year.

COURSE PREREQUISITES

The prerequisite for the Fast Track course is at least one year of high school algebra and a test score placing them into either Prealgebra or Elementary Algebra. The prerequisites for Advanced Fast Track are an A in the regular semester-long Prealgebra course, or a score on our standard placement test indicating a certain level of math knowledge, or satisfactory completion of the Fast Track course.

COURSE WORKBOOKS

The instructional materials used for these courses are two books developed specifically for the two Fast Track courses. The book for

the Fast Track course has 22 Prealgebra lessons and 20 Elementary Algebra lessons. The book for the Advanced Fast Track course has the same 20 lessons for Elementary Algebra that appear in the Fast Track course plus 18 Intermediate Algebra lessons. Each lesson is organized similarly, with discussion and step-by-step examples, followed by exercises for the student. Following the exercises are step-by-step solutions for the exercises. At the back of each book are extra problems for each lesson with answers, but not step-by-step solutions.

RESULTS

We are now in our sixth year of offering these review courses and have had 838 students take a Fast Track or an Advanced Fast Track course. Our results indicate that the student taking either one of the Fast Track courses improves their placement level, has a higher pass rate, and receives better grades than the non Fast Track student.

After taking the review course, the students are again tested. Table 1 shows the number of students who placed down one level, placed at the same level, or who were placed one or two levels higher than previously determined by their placement test.

Table 1

Placement Levels After Taking Fast Track

Placement level	Number of students	Percent of students
Placed down one level	8	1.0%
Placed at the same level	196	23.4%
Placed up one level	276	32.9%
Placed up two levels	105	12.5%
Placement undetermined	253	30.2%

Also shown are a large number of “undetermined” students. A student is in this category because there was no starting point available. That was the case for many students taking Fast Track in the first two years. These Fast Track students were not required to take the placement test before taking Fast Track since we gave them either the standard placement test (first year) or our own placement test (after

the first year). After the first two years, students who plan to take a course at Montgomery College are required to have a placement score on record with the college before taking Fast Track. However, we have found a number of students who take Fast Track do not plan on taking a Montgomery College math course. Some take it to review for the GRE test, others take it to review math before heading off to some other school, and still others take it so they can better help their high school son or daughter with their math homework! So, even though we strongly encourage students to have a current placement score, there are reasons when a score is not needed.

Since the second year of the Fast Track program we require the Fast Track student, who is planning to take a Montgomery College math class, to take our standard placement test prior to taking a Fast Track course and then we test them with our own tests at the end of the course to determine their placement level. In August 2003, we decided to see how a Fast Track student would do on the standard placement test after taking Fast Track and then compare that score to their placement score prior to taking Fast Track. In other words, we wanted to compare their two standard placement scores—prior to taking Fast Track and after taking Fast Track to see how much they improved their placement level.

The results were dramatic. The average score prior to taking Fast Track indicated a placement level of Prealgebra. After taking Fast Track, the placement level was Intermediate Algebra. So, on average, the student jumped past two developmental courses—Prealgebra and Elementary Algebra.

Referring to Table 1, our results show that about 45 percent of the students advance at least one level. However, if the undetermined category is left out, almost two-thirds (381 of 585 or 65 percent) of the students we measure, advance at least one level. The University of Texas El Paso has used review courses to assist in their placement efforts and have found a similar benefit. UTEP offers a shorter review course (6 hours versus 20 hours at Montgomery College) and has found that 29 percent of the students taking the review course improved at least one level (Flores et al., 2003). The experience at UTEP confirms our experience that a review course is beneficial to the placement process.

Looking at the placement level is one measure of the effectiveness of the Fast Track courses, but if the student doesn't perform well at that level, then the placement is inappropriate. So we have to look at how the Fast Track student did in the class into which she or he was placed and then compare that to how the non Fast Track student did. Table 2 shows the pass rate of the Fast Track/Advanced Fast Track (FT/AFT) student compared to the non-FT/AFT student. Note that the Fast Track/Advanced Fast Track student did better at each level—sometimes considerably better.

Table 2

Pass Rate of Mathematics Students

Course	Pass Rate FT/AFT Student	Pass Rate Non-FT/AFT Student
Prealgebra	60%	48%
Elem Alg	63%	44%
Interm Alg	65%	54%

The results in Table 3 show the percentage of students who received A's or B's. The results indicate that the FT/AFT student received grades of A or B at a higher rate than the non-FT/AFT student did.

Table 3

Percent of Students who Received a Grade of A or B

Course	FT/AFT Student	Non-FT/AFT Student
Prealgebra	75%	69%
Elem Algebra	66%	55%
Interm Algebra	71%	59%

RETENTION

Most students who start out in a developmental math course do not graduate either from a two or four year school (Laughbaum, n.d.).

Anything that we can do to improve the retention rate is beneficial. Our results show that the Fast Track student completes a college level math course at a significantly greater rate than the student population as a whole. For example, 64 percent of the Fast Track students have successfully completed a college level math class within three years after taking Fast Track. This compares to 34 percent of students who successfully completed Elementary Algebra and went on to complete a college level math class within three years.

REPLICATION

The dramatic results from our experience may motivate other schools to replicate the program. I have three suggestions for any school trying to set up a similar program. First, take some time to prepare the instructional material and customize them to fit your courses. Using standard textbooks for the two-week course would make the cost prohibitive for the student. Second, make sure you advertise the program well. Since the course is not required, many students may not hear about it or may not consider taking it. We put notices in the credit and non-credit section of the class schedule, distribute brochures to incoming freshman, hand out flyers to students taking the placement test, and even do some direct mailing to students. Third, get the support of your counselors since they are the ones who meet with each student and can advise them to take the course where appropriate.

CONCLUSION

The Montgomery College Fast Track review courses seem to put the students at a better starting level in math than a standard placement test, thereby saving the student considerable time and money. Additionally, the students taking a review course seem to stay in school and complete a college level math course at higher rates than those not taking a review course.

The success of the program has encouraged us to expand the program. By the fall of 2007, we hope to have the structure in place to require all students entering Montgomery College that test into developmental math to take the Fast Track program.

REFERENCES

- Flores, B. C., Renner Martinez, J., Knaust, H., Darnell, A., Romo, L., & Della-Piana, C. K. (2003). The Effectiveness of a Mathematics Review for Student Placement into College-Level Mathematics. *Proceedings of the 2003 American Society for Engineering Education Annual Conference & Exposition*. Retrieved April 28, 2005, from http://www.math.utep.edu/Faculty/helmut/ppapers/2003-2438_Final.pdf
- Hoyt, J. E., & Sorensen, C. T. (May 1999). *Promoting Academic Standards: The Link Between Remedial Education in College and Student Preparation in High School*. Retrieved May 5, 2005, from the Utah Valley State College website: <http://www.uvsc.edu/ir/research/hsfinal.pdf>
- Laughbaum, E. (n.d.). *Developmental Algebra with Function as the Underlying Theme*. Retrieved April 28, 2005, from http://www.math.ohio-state.edu/~elaughba/papers/dev_alg_with_function_as_underlying_theme.pdf
- Scanlon, D. (n.d.). Improving Student Achievement in Mathematics Through Math Enhanced Lessons in Agriculture. *Research Project Outline*. Retrieved April 28, 2005, from The Pennsylvania State University website: <http://research.cas.psu.edu/projects/PEN04047.pdf>
- Venezia, A., Kirst, M. W., & Antonio, A.L. (2003). Betraying the College Dream: How Disconnected K-12 and Postsecondary Education Systems Undermine Student Aspirations. *The Stanford Institute for Higher Education*. Retrieved May 18, 2005, from <http://www.stanford.edu/group/bridgeproject/publications.html>
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Leading Thirsty Horses to Water

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This article addresses the concern many instructors have about students who do not complete assigned work, particularly the reading. The author explains briefly why extensive reading is so important in developmental writing classes and discusses a multi-step approach she has been using successfully for years. A list of short novels and stories recommended for use in developmental writing courses is included in the Appendix.

Several years ago at an English department meeting, we were discussing the problem of getting students to do the assigned reading. One instructor said that it was like “leading a horse to water: you can’t make him drink.” This instructor’s solution to the problem was simply to not assign any readings. “Why bother?” he asked. “They’re not going to do it anyway.”

Perhaps we can’t make our students work any more than we can make a horse drink. But if the water looks clean and fresh and if the horse is thirsty enough before it gets to the water, it will drink. And we can get our students to read.

Although as an English teacher my principal responsibility is to teach writing, I believe, especially in my developmental writing classes, that one of the most important things I do is help my students become better readers. I won’t review the literature on the importance of reading, particularly as it relates to writing; that’s the topic of another paper. (For example, see Stotsky’s 1984 “Research on reading/writing relationships” for a discussion of the topic and related literature.) However, I will present my main arguments for requiring extensive reading in a writing course.

Most important, students’ ability to read forms a “ceiling” for their ability to write; they can’t write better than they read. So, if they can’t read, you can’t teach them to write no matter what you do.

In addition, what students can learn consciously about writing is limited (albeit, important); most of what they need to know about writing, (e.g., punctuation, spelling, syntax, and vocabulary) is best learned subconsciously through reading. Becoming a better writer is the almost inevitable consequence of extensive reading (Krashen, 1983; Krashen, 1989).

Another reason writing students need to read is so that they have something to write about. If they aren't being exposed to new ideas, they are forced to write about what they already know and generally already have opinions about, so their writing requires little or no critical thinking.

Finally, in college-level courses, most writing is reading-based, and our developmental writing courses need to prepare them for such tasks.

While it may be obvious that the best way to improve the reading ability of developmental writing students is to require extensive reading, simply *requiring* reading isn't enough. Developmental students lack many skills, including, in some cases, intellectual discipline; many have learned to give up as soon as an academic task becomes difficult. (This is not to say that our students are lazy: many work full time, have children, and care for aging relatives.) Therefore, the job of the English teacher is not just to require reading but to find a way to make students do it.

JOURNAL ASSIGNMENT

Like many teachers, I have always required that my students keep a journal, which, over the 16 years that I have taught developmental writing, has evolved from a minor task of minimal importance to the very cornerstone of my course. The multi-step approach that I use today has increased both the amount of assigned reading and the number of students who actually do the work. This approach consists of several steps, all of which are necessary for any one of them to be effective:

Step 1. Assign large amounts of interesting, relatively easy reading—primarily short novels and stories. Few developmental students can force themselves to read something that they find too hard, too long, or too boring.

For a list of titles appropriate for low-level developmental writing students, or even advanced ESL students, see the Appendix.

Step 2. Have students keep a journal in which they briefly summarize each story or essay and answer questions about it.

At some point very early in the semester, the teacher needs to show students how to do a summary, perhaps by asking them, as a group, to summarize a story they've already read. I do this by letting them dictate a summary to me. I write this on the board, providing feedback along the way so that they end up with a model summary.

Step 3. Quiz students at least once a week on the assigned reading, allowing them to use their journal but not the textbook with the assigned readings. In this way, students' reading, critical thinking, and note-taking skills are being developed, tested, and rewarded—not their memory.

Step 4. Collect the quizzes along with their journals after a reasonable amount of time and go over the quiz immediately. In general, don't give the answers; allow them to come out of class discussion even if the students need to use their books. Be reasonable about accepting alternative answers if the students can make a clear case, based on the reading (not on some logic external to the story). Their answer should show that they've read and understood the story. It is through this discussion—often heated, with students passionately defending their interpretation of a passage—that those who did not do the work realize that the assigned readings are interesting.

To prevent cheating, don't use the same quiz for multiple sections. Doing so encourages cheating; students from your earlier class will pass the information on to the later class. You might think you can prevent cheating by not going over the answers in the earlier class, but this would decrease the effectiveness of the activity.

To make the quiz more interesting for the stronger students, include at least one difficult bonus question. In this way you can challenge students without penalizing those who lack the intellectual or linguistic skills to "get" the hard questions. Furthermore, difficult questions stimulate the best class discussion, often from students who otherwise don't bother to speak up.

Finally, don't accept the quiz without the journal or the journal without the quiz. This discourages cheating. Those who copied someone else's journal assignment without having read the stories usually can't pass the quiz. I will, however, accept the journal early from students who know in advance that they won't be present the day that journals are due.

Step 5. Collect and grade journals every week, not at the end of the semester. To do a good job, students need feedback, especially at first, when you truly need to read the journals. Give feedback on content, not sentence mechanics; mark answers that are wrong, point out problems with the summary, (e.g., inaccuracies or too many/few details), and sometimes just comment on what they've written.

To keep the grading of journals from being too much work, the instructor needs to come up with a simple system. Don't grade or even mark the errors in mechanics. In my classes, students who make an honest effort (doing all the summaries and answering most of the questions) get full credit—10 points for the weekly assignment, with bonus points possible if readings are particularly long. (I generally assign 3 stories per week, with each story being worth 3 or 4 points, for a total of 10 points.)

Step 6. Make the grade matter. In my classes, students must have an average of at least 60 percent on both the journal assignments and reading quizzes in order to earn a C or higher in the course. (In a typical semester, all students who make an honest effort meet this standard.)

CONCLUSION

Since I've started using this approach, most of my students do the assigned work—both the reading and the journal writing. As I lug stacks of journals to class on Wednesday (I always return them the very next class day), I might grumble to other English teachers I pass in the hall, but that's only so that they can't see me gloat, especially when they say that none of their students turned in their work. That doesn't happen in my writing classes any more.

So maybe we can't "make 'em drink," but with the right approach, most of them will.

REFERENCES

- Krashen, S. D. (1983). *The power of reading*. Englewood, CO: Libraries Unlimited.
- Krashen, S. D. (1989, Winter). We acquire vocabulary and spelling by reading: Additional evidence for the input hypothesis. *Modern Language Journal*, 73, 440-464.
- Stotsky, S. L. (1984). Research on reading/writing relationships: A synthesis and suggested directions. In J. M. Jensen (Ed.), *Composing and comprehending* (pp. 7-22). Urbana, IL: NCTE.

Appendix

Suggested Readings

SHORT STORIES

- Sholom Aleichem, "The Passover Guest"
- Ray Bradbury, "There Will Come Soft Rains"
- Ray Bradbury, "The Naming of Names"
- Max Brand, "Wine on the Desert"
- Arthur Cavanaugh, "Miss Awful"
- Sandra Cisneros, "The Three Wise Guys"
- Roald Dahl, "The Landlady"
- Floyd Dell, "Christmas"
- Ernest Hemmingway, "A Day's Wait"
- O. Henry, "After Twenty Years"
- Shirley Jackson, "The Lottery"
- Shirley Jackson, "Charles"
- Harriet Jacobs, "Incidents in the Life of a Slave Girl"
- W. W. Jacobs, "The Monkey's Paw"
- Francisco Jimenez, "The Circuit"
- Jack London, "To Build a Fire"
- Nicolasa Mohr, "Princess"
- John Muir, "Stickeen"
- Edgar Allen Poe, "The Cask of Amontillado"
- Robert Silverberg, "Collecting Team"

SHORT STORIES (CONTINUED)

Isaac B. Singer, "Reb Asher the Dairyman"

Mildred Taylor, "The Song of the Trees"

George Toudouze, "Three Skeleton Key"

Yoshiko Uchida, "The Bracelet"

Richard Wright, "The Library Card" (excerpt from *Black Boy*)

Laurence Yep, "We Are All One"

SHORT NOVELS

Avi, *The True Confessions of Charlotte Doyle*

Louis L'Amour, *Down the Long Hills*

John Collier & Christopher Collier, *Jump Ship to Freedom*

Gary Paulson, *Hatchet*

Gary Soto, *Jesse*

John Steinbeck, *Tortilla Flat*

Barbara Robinson, *The Best Christmas Pageant Ever*

Elizabeth Borden de Treviño, *I, Juan de Pareja*

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To what extent is the program component using continuous and systematic assessment and evaluation to improve the services that it provides to students?

2. Advanced

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