

# MountainRise

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**Teachers Must**

Joe Mills  
North Carolina School of the Arts

Each fall when the new grapes arrive,  
we sift and evaluate them,  
trying to determine how best  
to help them be what they can be.  
Some are thin-skinned and delicate,  
others gruff and independent.  
Some need oak, others stainless steel.  
No single process works for all,  
so first we must identify  
the grapes for what they are, not what  
we wish they were. We also must  
believe that careful attention,  
time, and the right environment,  
can help develop character,  
complexity, balance, and depth.  
But, most of all, we must have faith  
that even when we can't see them  
fundamental transformations  
bordering on miraculous  
are bubbling under the surface.

**Casting**

Joe Mills  
North Carolina School of the Arts

A student stops by my office to say  
he missed class because he was in New York  
at an audition for *As the World Turns*  
which is also why his work will be late;  
in fact, he doesn't know if he can do  
much of anything until he finds out.  
I'm surprised when I realize he's not there  
to apologize or see what he missed,  
but simply explain, and before he leaves,  
he stops and says, "Pray for me, Professor."  
It's a brilliant tactic, one that pulls me  
off balance, because I have braced myself  
against an extension request or plea  
for extra credit since he's missed so much  
more than just last week. For a moment I  
consider possible ways to respond.  
Should I point out that if he came to class  
more often he might know I'm not the type  
to pray, and, even if I was, I would  
be economical in my requests,  
so it's doubtful I would use one to try  
to land a student a role on a soap?  
But maybe he does know this. Maybe it's  
a dead-pan joke, an ironic put-on.  
After all, he is an actor. Perhaps  
I've failed to recognize a complex wit  
behind that beautiful B-movie face,  
but, no, even after years of training,  
he can't control his emotions, his awe  
at life's amazing opportunities,  
his excitement at all the adventures  
ahead. His sincerity and belief  
that I care as much as he does makes me  
feel old and irritable. I'm annoyed  
with him, with myself, with the way we keep  
swallowing those dangled hooks that always,  
no matter how they look, have the same bait:  
"You have been chosen because you're special."  
I want to warn him not to bite too hard,  
to say the best that I can hope for him  
is a director, a boss, a lover  
who practices catch and release; instead  
I hold up crossed fingers, that secular  
equivalent of prayer, and say, "Good luck.  
Let me know how it turns out. And please try  
to get me your work as soon as you can."

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**The Online Small Group Analysis (OSGA):  
Adapting a Tested Formative Assessment Technique for Online Teaching**

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**Abstract**

The purpose of this article is to describe a newly developed investigative technique for the formative assessment of online teaching efficacy – the recently-piloted, seven-step Online Small Group Analysis (OSGA). While the basic tenets of the time-proven Small Group Analysis in face-to-face settings remain, it has become necessary to add three additional components and adapt the original model to suit specific characteristics of the online learning environment. The aim of this article, therefore, is to share with practitioners in other institutions this formative model used for assessing the efficacy of online teaching and learning. To fulfill such an aim, this report provides the background and rationale supporting this method, a description of methodological procedures, quantitative and qualitative results from assessments recently undertaken, a discussion of lessons learned, and indications of where these lessons lead for implementation on an institutional scale.

## Introduction

As educators worldwide are challenged with the transition to computer-networked instructional course delivery, the need for formative assessment of instructional efficacy has become broadly felt. Many veteran teachers, experienced in traditional delivery modes and reasonably confident about the effects of their work on students, are suddenly finding themselves in unfamiliar territory, where they must not only embrace new technologies, but also face new ways of thinking about course design, instructor and student roles, and perhaps even the very goals of instruction. Instructors are likely to feel unsure about what students are learning and about how course activities are perceived by students. Without the direct interactions afforded by the face-to-face classroom environment, instructors must make do without the clues offered by students' facial expressions and body language, as well as their direct, on-the-spot questions and comments—all of which serve, in essence, as forms of informal assessment of students' responses to instruction. Although we believe that formative assessment should be valued in *all* instructional settings, we suggest that it is particularly important with the advent of online course delivery, due to the relative infancy of the mode as well as the fact that the online environment does not afford as much natural ongoing feedback for the instructor.

The development and selection of effective methods for assessment of online learning is challenging, as has been noted (e.g., Hosie, Schibeci, & Backhaus, 2005). Within the already-rich body of literature on course assessment in higher education, an increasing number of researchers are focusing on e-learning environments, and various methods have been proposed. For example, Naidu and Järvelä (2006) discuss the use of student transcript analysis to assess student learning. Other authors (e.g., McGinty, Santos, LeBaron, and Crow, 2007) have suggested specific online adaptations of popular classroom-based assessment techniques such as those proposed by Angelo and Cross (1993). Formative assessment may also be conducted using a formal evaluation instrument that addresses specific features of course design and delivery, such as the Online Course Evaluation Tool (OCAT) recently developed at our institution (for a description, see McGinty et al., 2007).

In this paper, we describe a recently developed formative assessment technique, the seven-step Online Small Group Analysis (OSGA), piloted in 2007. Based on the Small Group Assessment (SGA) method that has long been used by faculty developers as an evaluative technique for enhancing

instruction in face-to-face course environments, the OSGA maintains the basic tenets of the SGA technique. Through this adaptation, the OSGA has become a seven-step formative assessment method useful for indicating the pedagogical/andragogical quality of online learning. The OSGA method places an Instructional Developer as an objective third-party interviewer in a virtual course setting. The interviewer conducts structured conversations with small student-groups regarding their perceptions of teaching and learning in the course. In addition, the facilitator assumes the position of a consultant who, based on experience and expertise with pedagogy, teaching, and learning, is able to suggest possible instructional changes for enhancing student learning. In the sections that follow, we provide (1) background and rationale behind this method, (2) a detailed description of the procedure as implemented at our institution, (3) a description of outcomes from the piloting of the procedure, and (4) a discussion of challenging issues associated with it, and how these challenges might be addressed.

### **Background and Rationale**

Faculty often require richer feedback about their instruction than what standard end-of-course student evaluations, routinely used within academic departments or even whole institutions, provide. The sole use of such evaluations neither improves mid-stream instructional efficacy nor encourages instructors to gauge student views related to unique course intentions. Answering the call to construct deeper, more naturalistic methods for ascertaining course efficacy, Abma (2007) proposes disinterested third-party engagement with students in structured interview settings to ascertain perceptions related to instructor intentions and student concerns. Additional literature outlines methods for using structured interviews to assess learning in traditional classroom settings (Billings-Gagliardi, Barrett, & Mazor, 2004) as well as using expert neutral agents as conduits for student feedback (Lorenzetti, 2005).

The Online Small Group Assessment method is modeled on a similar assessment strategy routinely used in traditional, face-to-face courses. This method, the four-step Small Group Assessment (SGA) technique, was first used in 1980 and is described by Bain (2004). Another similar technique, known as Small Group Instructional Diagnosis (SGID), has been used by the Air Force Academy to help instructors improve their teaching as well to guide curriculum revision (Millis, 1999). As with the OSGA, an instructional developer generally acts as the third-party facilitator of the procedure. The purpose for the

SGA is to help faculty members address the questions, “What are my strengths and challenges as an instructor?” and “How can I improve the teaching and learning environment for my students?”

The original four-step Small Group Assessment model begins with scheduling an evaluation date. Next, the facilitator conducts the evaluation with groups of students without the instructor present in the classroom. The third step involves meeting with the course instructor. During this meeting, the instructor is given a written report containing a summary of the findings, as well as suggestions and recommendations for instructional improvement based on the students’ feedback. Finally, the fourth step is to encourage the faculty member to analyze and probe the responses, discuss these suggestions with the students, and make reasonable changes.

In 2007, this assessment process was piloted in an online course environment for the first time. The OSGA model grew out of the collaboration between Faculty Fellows for eLearning and an Instructional Developer – all of whom operate under the larger umbrella of the Coulter Faculty Center for Excellence in Teaching and Learning at Western Carolina University. Today, although the basic features of the original SGA remain, the technique is being applied to the online learning environment, and through adaptation, has become a seven-step formative assessment procedure useful for indicating the pedagogical/andragogical quality of online learning. The OSGA can be conceptualized as a formative, qualitative measure for enhancing learning, due in large part to the assumption that if faculty members are provided with student suggestions and recommendations for course improvement, then students will benefit.

The OSGA differs from other student and course evaluations in several ways. First, the assessment is performed midway through the semester, rather than at the end. This time frame gives the faculty member time to implement suggestions and recommendations arising from administration of the technique. Second, the procedure is nondirective; there are no predetermined items to “rate,” in Likert-fashion, the instructor. A third and major difference in this type of evaluation compared to other student evaluation methods is the oral component. Students verbalize their responses in a live online setting, which results in group dialogue. Finally, a major feature setting OSGA apart from other evaluation techniques is the involvement of an instructional developer, whose role is not only to conduct and



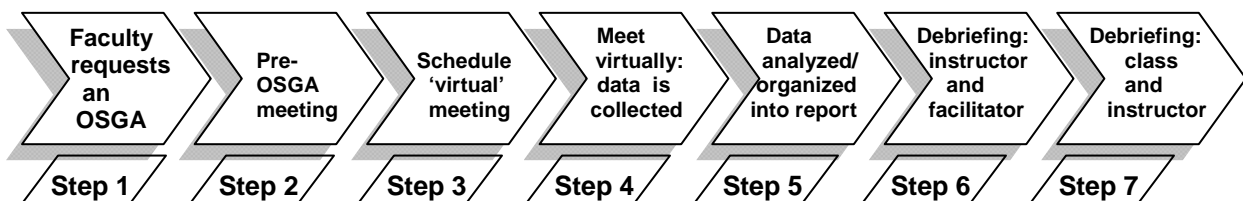
transcribe the interview(s), but also to offer to the instructor suggestions and recommendations for course improvement based on the student feedback obtained.

Aligned with the assertion that robust faculty-student interaction results in improved levels of student satisfaction (Tello, 2004), this assessment procedure falls within the parameters of the “context-bound” approach described by Hosie, et al. (2005). Context-bound assessment includes ascertaining the strengths and weaknesses of pedagogy/andragogy, resources, and delivery strategies. Also known as interpretive evaluation, it is administered in context and is directly related to the experience of the student. As such, it is consistent with Abma’s (2007) assertion that evaluation necessarily be tied to practice in a way that is more concrete, interactive, relational, and action-oriented. The OSGA is grounded in this context-bound framework; it provides both concrete and timely feedback to the instructor, who interacts with the instructional designer to generate specific suggestions that can be acted upon to improve teaching and learning in the course.

Online Small Group Analysis is thus a promising assessment strategy through which naturalistic yet critical analysis can be achieved. It provides a feedback mechanism for assessing the efficacy of course design and delivery, as well as for providing data that practitioners may use to enrich the quality and depth of their online courses.

### **Online Small Group Assessment: The Procedure**

The seven-stage process of the OSGA ideally begins before the midpoint of the semester at the behest of the faculty member (Appendix A). The timing of the procedure is supported by Seldin’s (1993) recommendation that “if course evaluations are to be used to improve teaching, they should be given within a semester so that instructors have a chance to adjust their teaching” (p. 2) [see Figure 1].



*Figure 1. Seven-stage model for the Online Small Group Analysis (OSGA)*

Step 1. First, the faculty member initiates an OSGA request. It should be emphasized that the faculty member participates voluntarily, with no pressure from his/her respective department or dean.

Administration of this technique is undertaken only with the explicit, unsolicited invitation of the faculty member. The OSGA procedure is promoted as a faculty development service, offered to faculty by the Coulter Faculty Center. One of the key features of the procedure is that confidentiality and anonymity are assured.

Step 2. Once contact has been made, a meeting is convened between the faculty member and the Instructional Developer (also called the “facilitator” in this paper). During this meeting, a brief overview of the process is presented to help express and clarify expectations. This initial meeting takes approximately one hour. This meeting can occur online, in person, or via the telephone.

Step 3. The next step is for the faculty member to inform his/her students that the Online Small Group Assessment will take place and that they should expect to be hearing from an instructional designer who will schedule appropriate and convenient times for the students to meet online. The logistical issues are normally worked out via email correspondence. The scheduling component [Figure 2] is complex. In a traditional face-to-face classroom, a Small Group Analysis session can take place with as many students as are enrolled in the course. The Online Small Group Analysis, however, allows only a limited number of students to participate synchronously since the online voice chat room where the technique is administered works at an optimal number of four or five students per chat.

Step 4. The OSGA interview session begins when the group of students has logged in to the course management system at the appointed time using an interactive voice tool (e.g., the *Horizon/Wimba™ Voice Direct* tool, which is used at our institution). Once the students have activated their USB-enabled headsets, the facilitator begins the interviewing process. The online voice exchanges occur in a special course created by the CMS System Administrator that lies outside of the academic course in which the student is enrolled, therefore making the students’ comments anonymous to the course instructor (see Figure 2).



Figure 2. Organization of virtual meeting spaces.

The first part of the OSGA interview poses this question to the students, “What aspects of this course and/or instruction are helping you learn?” (Appendix B). Students either type text-based responses to this question, or are given the “microphone” so that their voices can be heard/recorded and, subsequently, formatted into audio (.wav) files to be archived until the analysis phase. Each student has the opportunity to provide a response. Once the individual responses have been offered, the floor is opened for additional comments and responses by students. This is done by reiterating the first question and passing the “microphone” to the group members wishing to comment. Through this step, the facilitator attempts to bring the group to consensus in identifying the most significant features thought to contribute to their learning in the course.

The second question, “What aspects about this course and/or instruction would you recommend be changed to help your learning?” also prompts students’ individual responses. Afterward, the facilitator probes for group input to the question in an effort to elicit constructive feedback the faculty member can then use to remediate obstacles believed to be hampering successful learning. The goal is to identify common strands of reflective elements that the students believe may enhance their learning processes.

Finally, students are given the opportunity to respond to specific questions related to the instructor’s explicit intentions for student learning. For example, questions about teaching procedures, the learning content, instructional activities, etcetera, are negotiated between the instructor and the facilitator

prior to the student interview so that part of the resulting feedback addresses methods and resources expressly applied by the instructor to meet the suggestions emerging from the course review.

Throughout the session, the facilitator acts strictly as a neutral intermediary – a sounding board for the students. The facilitator should strive to clarify ambiguous statements, asking for examples to elaborate each case-in-point.

Step 5. The fifth stage is the analysis and reporting phase, which occurs only after all groups have met in their respective virtual meeting spaces. Depending on the number of students enrolled in the course, the analysis and reporting can consume a large amount of the instructional developer's time to complete. Transcriptions of the individual students' statements (verbatim) are compiled into a list for the report. In addition, the group consensus feedback is transcribed (verbatim) and included in the report. The instructional designer then performs a qualitative analysis of the responses using the constant-comparative method (Glaser, 1967) to articulate any themes or major areas of focus that emerge from the data. The report is finalized when the analysis of the data leads to suggestions for improvement and other strategic recommendations that will enable the faculty member to make the necessary instructional changes in a timely manner (i.e., before the course concludes).

Step 6. A follow-up meeting is then scheduled, which allows the requesting faculty member and instructional developer an opportunity to discuss the findings and suggestions offered for course improvement. Specifically, at our institution we follow the advice of Millis (1999), who suggests that, in the post-analysis phase, the resulting report should incorporate the headings of "Things to continue," "Things to consider changing," and "Other suggestions."

A particular strength of the OSGA is the use of a pedagogical expert, the instructional designer, as evaluator/facilitator. Support for this practice can be found in the literature on faculty development (Ramani, 2006). Ramani concludes that consulting with experts when designing instruction helps to minimize deficits in performance. Thus, with the OSGA, the instructional designer serves as a neutral intermediary between students and the instructor, while also applying his/her expertise to assist the instructor in determining how conclusions drawn from student feedback might be acted upon to enhance instruction in the course.

Step 7. In the seventh and final stage, the faculty member meets with his/her students. It is at this point in time that he/she discusses with the class conclusions resulting from administration of the technique. This is also the point at which the faculty member should implement the ideas he/she received, through feedback, for improving the course.

The complete process of conducting an OSGA involves several key stakeholders: the facilitator, the students, and the faculty member. Each player has a direct impact on the others. The faculty member plays the role of one striving for improvement in the realms of scholarship and practice. Students take on the perspective that constructive feedback can only serve to benefit their own learning experience. The facilitator functions as the neutral observer, recorder, and reporter, as well as a consultant to the instructor with regard to enhancing the teaching and learning experience.

### **Results of the Pilot**

The OSGA was piloted in 2007 on two entirely online graduate education courses, *Curriculum Development* and *Assessment Methods*. Each course was taught by different veteran online instructors. The courses were offered in a mid-sized, regional comprehensive university located in the southeast. The role of the facilitator was performed by an instructional designer who was a full-time staff member of the Coulter Faculty Center for Excellence in Teaching and Learning, in addition to holding faculty status at the institution.

Reactions to the newly-piloted OSGA process were highly favorable on the part of both the instructors and the students. As one of the instructors explained:

I requested the assessment because I was feeling uncertain about the course—it was one that I was in the process of redesigning. I was using some new activities that I hadn't tried before, at least not in that form. I had the feeling things were going well in the course, but I guess I just didn't trust that feeling. The OSGA evaluation was great, for several reasons. It pretty much confirmed my feeling that the course was working, which of course made me feel a lot more confident about it. What was even more helpful was that it told me which specific activities the students thought they were learning a lot from...so it helped me identify some things that I definitely want to keep doing in future versions of the course as I continue to develop it.

The other instructor expressed an equally positive response:

The OSGA offered me a unique insight into my students' perceptions that augmented feedback garnered through scaled surveys and other feedback-gathering procedures. I intend to continue capitalizing on OSGA as a formative opportunity to improve my teaching while my courses remain in progress.

These remarks are consistent with reports of faculty reactions to similar assessment processes in the face-to-face setting. In an example from the literature, a faculty member who recently requested a Small Group Assessment said, "Speaking from personal experience, the SGA provided me with the most helpful and productive feedback I have ever received from my normally closed-mouthed students" (Ceraso, 2006, p. 3).

In the previously-mentioned report, students, too, expressed positive reactions to the process. In particular, they seemed to appreciate the opportunity to interact with a concerned, neutral third party. One student response was that "[The facilitator] made me feel comfortable about expressing my thoughts on the class. It was easier for me to talk to a stranger than directly [to the faculty member]." When this particular group of students was asked whether or not they thought the SGA was worthwhile, they responded with an enthusiastic "YES!" One student followed-up by stating, "It was great. No one ever asks us what we think. It was really cool to have someone listen to our opinions on the class." This positive anecdotal evidence is aligned with Coffman's (1998) assertion that "exposure to the technique itself demonstrates to students that their opinions are valued" (p. 2). As Barab et. al. (2002) have noted, the process builds trust between instructors and students insofar as it conveys the signal that teaching efficacy matters as much to the instructor as does the student perspective about it. A trusting climate is known to promote student learning.

According to Coffman (1998), students' feedback in face-to-face small group evaluations generally falls into seven broad categories: 1) testing and grading, 2) course procedures, 3) instructor's characteristics, 4) instructor's teaching techniques, 5) activities and interaction, 6) course content, and 7) written assignments and readings (p. 3). Using Coffman's framework as a basis for investigating categories of students' responses, a combination of qualitative and quantitative analyses were performed on students' verbatim comments from a single selected case. A case-based method of analysis was chosen since the technique has only been recently piloted, and a critical mass of reviewed courses had not yet been developed. Interestingly, while five of the seven categories germane to student feedback for traditional, seated classrooms were reflected in the responses, two additional categories emerged. Specifically, students made additional remarks related to: 1) technology tools, software, and applications, and 2) self-referencing comments. The "Self-Reference" category was the most-cited category of

response, and comprised one-third of the total response. Two categories, "Testing & Grading," and "Reading & Written Assignments" were not reflected in any of the online students' responses.

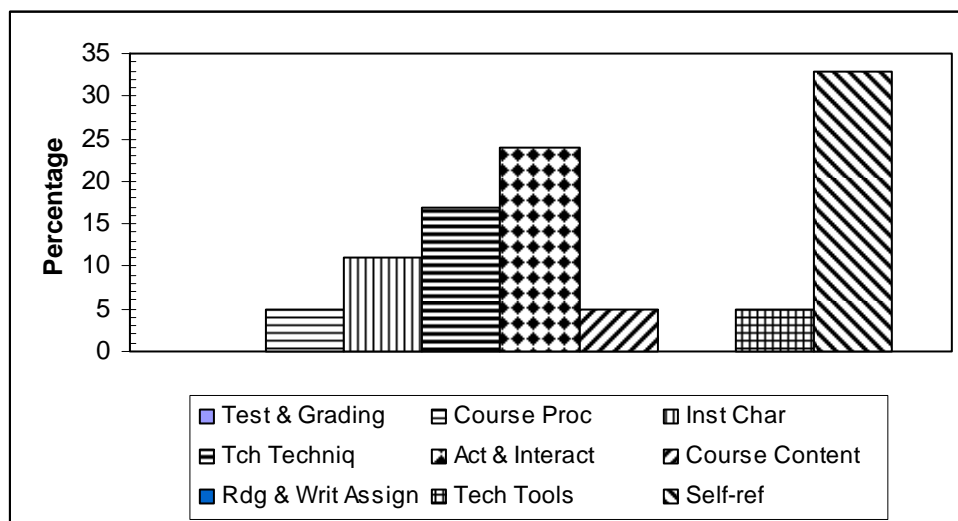


Figure 3. Categories of students' feedback.

### Issues and Challenges

In piloting the OSGA technique, we identified several issues, largely logistical rather than philosophical, that pose challenges in implementing the method, particularly on a large scale. One obstacle to overcome in this process stems from the requirement of transcribing voice comments that have been archived into sound files from the discursive process. Such transcription is a laborious task. Because this study was designed as a pilot investigation, timely turnover for transcribing the audio files was not a problem. However, one can visualize large numbers of faculty requesting to have an OSGA performed during midterm or other time when there is a high demand for timely results; under those circumstances, the transcription process could become bottlenecked.

A second challenge is scheduling the OSGA interview sessions. Because online students are geographically disparate, deciding on a meeting date and time proved to be one of the most difficult challenges in our pilot study; the enrolled students had registered for a course that was to be primarily asynchronous. In each of the courses, multiple dates/times were offered for the group interview sessions. This was deemed necessary in order to not only provide flexibility for the students, but also to keep the group size manageable. Herein lies one difference between OSGA and its face-to-face counterpart: Interactive voice tools are sometimes cumbersome to use with a large group, so separate interview

sessions must be held with subsets of the class membership. A suggestion to alleviate some of the pressure arising from the scheduling process is to begin the logistics early in the semester. Another suggestion is to preempt a regularly-scheduled live voice chat session in the reviewed course. Late starts in arranging the schedule only delay the procedure; this, in turn, delays the feedback that is required to make any substantive changes before the close of the semester.

In addition, instructors who use OSGA must decide how best to encourage participation. In the face-to-face SGA, the facilitator drops in on a regular session of the class; students are already in attendance and do not have to go out of their way to participate. With OSGA, however, students who participate must first respond to the facilitator's request to schedule an interview session, then actually "show up" in the virtual interview session at the appointed time. In one of the courses in our pilot study, student participation was considerably lower than desired. The instructor speculated that this was due primarily to the students' difficult schedules on weekday evenings; many students in this course were school administrators who often had to attend extracurricular events in the evenings. In addition, the instructor noted that the students had just participated in a series of live audio sessions for a role-play activity that was required for the course; perhaps the students had just had too many live online commitments in the week or two that preceded the evaluation. Participation in the OSGA by students was completely voluntary in this course. Instructors should carefully consider their own positions on whether participation should be required, whether incentives should be used to encourage voluntary participation, or neither. In making this decision, instructors should also consider the ethical implications of each alternative.

A final question that arises is that of the students' perceived level of anonymity in the OSGA. Although we have no indication that students did *not* feel anonymous in the pilot study, one has to wonder if perhaps the fear of non-anonymity might account for low participation despite the fact that anonymity and confidentiality were expressly assured by the facilitator. In a face-to-face SGA, the students can clearly see that the instructor is not in the room. In the online environment, some students may fear that the instructor is "lurking" invisibly in the virtual interview room, or that the audio archives of the session will be made available to the instructor, who might recognize their individual voices. This is clearly an area in



which further research is needed; students should be surveyed and asked directly about their perceptions of anonymity or lack thereof.

### **Conclusions**

This professional development technique is equally beneficial to faculty who are novices or veterans in online teaching. Recommendations and suggestions obtained through the OSGA process provide just-in-time insight that can then be used to modify or adapt instructional practices. Given that the process is intended to take place during the midpoint in a semester, the online instructor has time to adapt his/her practice based on the suggestions and recommendations received. In fact, we believe that the most important role of the faculty member in the OSGA process is in following through and implementing the recommendations that result from the assessment.

Using this assessment procedure on a broad institutional scale will depend on further refinement of the technique. Some of the rather lengthy components will need to be streamlined, as has been indicated in the previous section. In order to assess the efficacy of the OSGA method itself, a survey of past participants needs to be conducted. This survey will bring to light answers to at least three important questions: 1) Have you made changes to your instruction? If so, how?, 2) To what extent did your class improve as a result of having the technique performed?, and 3) Did the technique have an impact on your students' learning? The findings may reveal additional strengths and weaknesses inherent in the procedure not yet revealed. The findings may also indicate how the procedure might better serve both the faculty member and his/her students.

In conclusion, the OSGA offers another measure of instructional quality in an era marked by a rapid growth of online course offerings. It complements the use of other assessment techniques, such as the Online Course Assessment Tool (OCAT) (McGinty, et. al., 2007), implemented to promote quality instruction and other best practices for online course design and delivery. These measures are utilized to ensure that online instruction is equally as robust as the community-based learning that takes places in the traditional face-to-face classroom, if not more so. The Small Group Analysis technique, long used to assess the strengths and weaknesses of conventional classroom instruction has now been formally

introduced into the world of online teaching and learning as a feedback mechanism and a measure for quality control.

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Appendix A: Guide for implementing the OSGA procedure.

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#### 7 Steps involved in conducting the Online Small Group Analysis

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1. Faculty member requests the OSGA – the request is made to the Faculty Center; an instructional developer is assigned to administer the assessment
  2. Pre-OSGA meeting – the requesting faculty member and instructional developer meet to discuss the procedure and determine whether additional, course-specific questions should be added to the survey document (Appendix B)
  3. Schedule “virtual” meeting – an email request for participation is sent to participants (students) inviting them to meet in the LMS-based virtual chat room
  4. Meet “virtually” – the facilitator and participants meet in the virtual space; data is collected that will later be transcribed into a formal report
  5. Data is transcribed and analyzed – a formal report is written; report is comprised of a list of students’ anonymous verbatim responses to the open-ended survey prompt questions; suggestions and recommendations emerging from the responses is also included within the report
  6. Debriefing meeting – the requesting faculty member and instructional developer meet to discuss the results of the survey
  7. Results/findings are discussed – the requesting faculty member leads a conversation with his/her students addressing the findings of the analysis, and subsequent changes and adaptations to instruction suggested in the formal report
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**Seeking Insight: Critical Incidents,  
Collaboration, and Cyber-Reflection in Higher Education**

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**Abstract**

Education is about insight—both giving and gaining. While higher education typically affords students a great deal of access to faculty insight, it less reliably provides faculty with similar access. Faculty committed to developing student insight have long sought resources to do so within the context of course topics and pedagogies. This study invited undergraduate students to participate in a wiki-based Critical Incident Questionnaire (Brookfield, 1995) to exchange insights on learning with instructors and classmates. Findings suggest the importance of cultivating a golden mean of supported dissonance and hospitable complexity within higher education curriculum. This includes structure and spontaneity; generalizable patterns and generative exchange. Cultivating the golden mean demands that faculty concurrently serve as content experts and as scholars of teaching and learning—in order to construct collaborative insight.



## **Seeking Insight**

Insight: every professor has some degree of it. Typically, students have ample opportunity to access professorial insight by actively engaging in course readings and class meetings. Developing and communicating insight—whether bliss inducing, equivocal, or poignant—may be among the most valuable and memorable outcomes that higher education affords, as insights contain the potential to inform, negotiate, and even transform attitudes, beliefs, and behavior (Mezirow, 2000).

Insight, though, is of course not only present within professors. Students, too, possess insights that may both challenge and edify faculty perspectives. Student insights contain the potential to inform, negotiate, and even transform professorial assumptions, habits of mind, frames of reference, and pedagogical practices (Cranton, 2006). Oddly, professors have comparatively limited access to student insights—due to the expert-centered paradigms and pedagogies that tend to prevail in higher education. These paradigms generally situate professors in the role of speaker and students in the role of listener. Whether communicating as sages on stages or as guides on sides of classrooms, professors more often than not are those pontificating insights in higher education classrooms. In contrast, student communication of insights is generally limited to that which is specifically solicited in content-centered curricular assessments.

And still, according to Williams (2003), etymologically, assessment means to “sit beside” a learner, in order to listen, observe, measure, and evaluate the degree to which the learner communicates understanding.

So, if students gain access to professorial insights by regularly sitting in the presence of professors, how regularly do professors have the opportunity to practice such authentic assessment with students?

While some professors enjoy student-to-faculty ratios and campus climates that facilitate such regular exchanges of insight, many do not. While myriad mundane exchanges of information regularly occur, traditional course structures seldom support the authentic exchange of insights between students and faculty. Closer to the truth is that professors are exposed to a good deal of informal student feedback, but much of this falls under suspicion of obsequiousness or is characterized by disgruntled venting of academic frustration.

In some cases, formal course evaluations provide opportunity for students to share insights beyond Likert scale responses. But even these narrative insights arrive too late to be contextually

directive, as students are protected in their speech to the extent that faculty receive candid student feedback only when the semester is finished and students have moved on.

In light of these observations, it would seem that something is missing from higher education's repertoire. That something is a process for discovering student insights—including metacognitive and epistemic feedback—whereby faculty learn from and about the learning experiences of students.

## **Literature Review**

### ***Developmental Rationale***

According to Daloz (2000), students in late adolescence are beginning to metacognate—or to critically reflect on the extent and limitations of their own knowledge. Piaget (1970) suggested that in this formal operations stage, students can synthesize a variety of concrete experiences in order to abstractly reason about their own larger epistemological perspectives. Kegan (2000) added that transformation away from less sophisticated forms of thought toward more accurate and dependable forms of thought “ordinarily takes the first two decades of living” (p. 61).

The arrival on college campuses of students who are developmentally prepared to engage reflective and insightful practice provides a critical intersection of the learner and potential for deep and meaningful learning. The *Chronicle of Higher Education* (2000) identified that students in their late teens constitute the most common demographic in higher education. They are primed to develop and communicate insights related to what Wiggins and McTighe (1998) refer to as perspective and self knowledge, through exercises in articulating what they know, how they know it, what they do not yet know well, and why this may be the case.

This self-knowledge and insight is, in part, constructed from considering ideas, experiences, and learning relationships from multiple perspectives with transformative learning aims—which Daloz (1990) describes as enabling proactive thinking, incorporating multiple perspectives, and encouraging dialogue and construction of knowledge.

### ***Curricular Convictions***

Faculty committed to fostering student perspective transformation have long sought resources for scaffolding and soliciting student insight and self-knowledge within the context of course topics, pedagogies, and interactions. One such resource, which has been used in higher education for more than a decade, is Brookfield's (1995) Critical Incident Questionnaire (C.I.Q.), which invites student

reflections, perspectives, and insights on what constitutes powerful learning. Brookfield's C.I.Q. invites students to respond to the following questions in relationship to course experiences:

1. At what moment in the class this week did you feel most engaged with what was happening?
2. At what moment in the class this week did you feel most distanced from what was happening?
3. What action that anyone (teacher or student) took in class this week did you find most affirming and helpful?
4. What action that anyone (teacher or student) took in class this week did you find most puzzling or confusing?
5. What about the class this week surprised you the most? (This could be something about your own reactions to what went on, or something that someone did, or anything else that occurs to you.) (Brookfield, 1995, p. 115.).

### **Core Relationships**

The C.I.Q. is a tool designed to stimulate and exchange student insights relating to what Elmore (2007) calls the "instructional core" of learning. The instructional core, according to Elmore, consists of relationships between teachers and students in the presence of content (p. 221).

Utilizing the C.I.Q. within the context of a course of academic study provides students with structured opportunities for introspection through which to reflect on what has constituted powerful learning in relationship to teachers and students in the presence of content. The C.I.Q. probes content-specific, pedagogical, environmental, and relational sources of engagement, disengagement, excitement, and anxiety. In essence, the C.I.Q. supports what Brookfield (1995) calls "critical conversation" among students, for the purpose of becoming increasingly aware of choices that foster and impede democratic processes in the classroom (p. 111). Brookfield further explains that administering the C.I.Q. regularly throughout a course of study can assist students in exploring and sharing insights that expose thematic clusters of understanding and confusion, empowerment and disorientation (1995). Because these reflections are wiki based (or based on collaborative, ubiquitous, and archived knowledge construction technology), they can serve as sources of longitudinal student introspection as well as sources of faculty insight into student learning.

### ***Technological Opportunities***

While perhaps the most visible wiki is Wikipedia—nefarious in the minds of some due to its function as an encyclopedia that may be freely edited by any registered user—myriad less popularized wikis may serve reflective C.I.Q. purposes better, as they allow a site administrator to design knowledge-construction activities in an environment of increased accountability and restricted access by means of invited user authentication.

### **Method**

In Fall of 2007 and Spring of 2008, a total of 104 preservice teachers who enrolled in an education psychology course at a public university of 10,000 students were invited to respond to Brookfield's (1995) Critical Incident Questionnaire through wiki-based technology. Of the 104 students invited, 54 elected to participate in this wiki-based C.I.Q. A wiki within the free Modular, Object-Oriented, Dynamic Learning Environment (Moodle) course management system was chosen—due to its ability to host collaborative, archivable knowledge construction within the relative security of an authentication-based online environment.

The aim was to better understand students' perspectives on the educational value of the pedagogies, interactions, and course activities within an undergraduate education psychology course. The purpose of this line of inquiry was to support collaborative metacognition—in order to develop and communicate insights that could enrich student and faculty understanding.

### ***Research Questions:***

1. Which pedagogies, exchanges, and learning scenarios were *most effective* in helping teacher candidates understand how to effectively use learning theory in support of meaningful student learning?
2. Which pedagogies, exchanges, and learning scenarios were *least effective* in helping teacher candidates understand how to effectively use learning theory in support of meaningful student learning?

### ***Survey Instrument:***

Brookfield's (1995) C.I.Q. served as the basis for soliciting student insights. In order to better understand students' perceptions of the larger effect of multiple weeks of class experiences, Brookfield's C.I.Q. was modified by framing the following questions in terms learning events from the first half of the semester rather than from a particular week.

Critical Incident Questions:

1. At what moment in the class this semester did you feel most engaged with what was happening?
2. At what moment in the class this semester did you feel most distanced from what was happening?
3. What action that anyone (teacher or student) took in class this semester did you find most affirming and helpful?
4. What action that anyone (teacher or student) took in class this semester did you find most puzzling or confusing?
5. What about the class this semester surprised you the most? (This could be something about your own reactions to what went on, or something that someone did, or anything else that occurs to you.) (Brookfield, 1995, p. 115.).

After student responses were collected through a secure, Moodle-based wiki, these responses were analyzed through phenomenological thematic clustering, in search of the essence of the learning experience (Moustakas, 1994). This qualitative approach was designed in order to gather and analyze critical incident insights, for the purpose of informing pedagogies and andragogies that foster transformative learning.

### Findings

Fifty four undergraduate education psychology students elected to participate in this wiki-based C.I.Q. As participating students were assured a degree of anonymity, it was not feasible to match responses (or “edits” in wiki terminology) with respondents. For this reason, the unit of analysis was individual responses rather than individual respondents as wiki participants. Participants posted a total of 321 wiki responses across five C.I.Q. questions over two semesters. For example, 54 participants posted 81 responses to question one; thus, these 81 responses were the object of analysis. Responses were coded looking for commonalities and anomalies with and across responses. These commonalities in individual responses were developed into more substantive descriptions, or themes. Pattern analysis of these 321 wiki C.I.Q. responses suggested the following emergent themes, which are displayed in Tables 1 through 5 to correspond with the above C.I.Q. questions.

Table 1 identifies patterns in students' perceptions of engaging class experiences.

**Table 1. Patterns of Frequency for Engaging Class Experiences**

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Question 1: At what moment in this class this semester  
did you feel most engaged with what was happening? (80 responses)

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Pattern	Frequency	Percentage	Emergent Theme
Major Pattern	37	46	Students reported feeling most engaged when being challenged to explain the theoretical bases for professional decisions when questions were clearly communicated in a context of ample wait time, pedagogical structure, and classroom rapport.
Secondary Pattern	27	34	Students reported feeling engaged when experiencing scenarios, role plays, and demonstrations.
Other Responses	16	20	Range of varying responses.

---

As identified in Table 1, students reported feeling most engaged when being challenged to explain the theoretical bases for professional decisions when questions were clearly communicated in a context of ample wait time, pedagogical structure, and classroom rapport.

Table 2 identifies patterns in students' perceptions of distancing class experiences.

**Table 2. Patterns of Frequency for Distancing Class Experiences**

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Question 2: At what moment in this class this semester  
did you feel most distanced from what was happening? (66 responses)

---

Pattern	Frequency	Percentage	Emergent Theme
Major Pattern	44	67	Students reported feeling most distanced when they perceived themselves to be put on the spot in the absence of sufficient metacognitive space, time, and classroom rapport.
Secondary Pattern	7	10	Students reported feeling distanced by a lack of apparent connection between course topics and individual professional aims.
Other Responses	15	23	Range of various responses.

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As identified in Table 2, students reported feeling most distanced when they perceived themselves to be put on the spot in the absence of sufficient metacognitive space, time, and classroom rapport.

Table 3 identifies students' perceptions of actions that were most affirming and helpful.

**Table 3. Patterns of Frequency for Affirming and Helpful Actions in Class**

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Question 3: What action that anyone (teacher or student) took  
in this class this semester did you find most affirming and helpful? (61 responses)

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Pattern	Frequency	Percentage	Emergent Theme
Major Pattern	33	54	Students found most affirming and helpful receiving instructor and peer feedback on how they're performing as critical thinkers.
Secondary Pattern	13	21	Students found affirming and helpful a learning environment that established respectful rapport.
Other Responses	15	25	Range of various responses.

---

As identified in Table 3, students found most affirming and helpful receiving instructor and peer feedback on how they're performing as critical thinkers.



Table 4 identifies students' perceptions of actions that were most puzzling or confusing.

**Table 4. Patterns of Frequency for Puzzling or Confusing Actions in Class**

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Question 4: What action that anyone (teacher or student) took  
in this class this semester did you find most puzzling or confusing? (58 responses)

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Pattern	Frequency	Percentage	Emergent Theme
Major Pattern	29	50	Students found most puzzling or confusing the feeling that the instructor demonstrated insufficient empathy for their struggles as new professionals attempting to engage in the intimidating process of critical reflection.
Secondary Pattern	7	12	Students found puzzling or confusing the feeling that they would not leave class with all the answers to be model professionals.
Other Responses	22	38	Range of various responses.

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As identified in Table 4, students found most puzzling or confusing the feeling that the instructor demonstrated insufficient empathy for their struggles as new professionals attempting to engage in the intimidating process of critical reflection.

Table 5 identifies students' perceptions of the most surprising aspects of class.

**Table 5. Patterns of Frequency Of Most Surprising Aspects of Class**

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Question 5: What about this class this semester surprised you the most?  
(This could be something about your own reactions to what went on,  
or something that someone did, or anything else that occurs to you.) (56 responses)

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Pattern	Frequency	Percentage	Emergent Theme
Major Pattern	34	60	Students found most surprising the appeal and sense of empowerment that they discovered when critically reflecting on the working assumptions that have often tacitly shaped their thinking about their education profession.
Secondary Pattern	7	13	Students found most surprising the degree to which effective professional practice is supported by strong theoretical and professional insight.
Other Responses	15	27	Range of various responses.

---

As identified in Table 5, students found most surprising the appeal and sense of empowerment that they discovered when critically reflecting on the working assumptions that have often tacitly shaped their thinking about their education profession.

## Discussion

### ***Student Insights***

Students felt drawn in to scrutinize professional assumptions when sufficient time was allotted and care was demonstrated in creating a learning environment that explicitly established and

verbalized mutual respect. Students felt most engaged when they were informed in advance with critical thinking questions, or when course pedagogies provided space and time for students to reflect on their emerging understandings, in order to be able to share their developing insights.

These findings suggest the need for faculty to further develop and sustain learning environments that students perceive to be hospitable to risk taking. These findings also challenge faculty to make increasingly overt the processes that Newmann & Wehlage (1995) call discipline-based inquiry—or “substantive conversations” inquiring into the “deep knowledge” central to the “complex understandings” associated with one’s profession (p.17). The challenge, of course, is to do so in the context of organic yet scientific inquiry. This is likely to be no small challenge—demanding both structure and spontaneity; generalizable patterns and generative exchange.

Conversely, students felt distanced or less engaged in complex course concepts when pedagogies failed to bridge the gap between less reliable frames of reference and more reliable frames of reference, so that students could develop and articulate emerging understandings and course-related insights.

This finding suggests the importance of selecting pedagogies and developing classroom interactions that structure metacognition in the context of interpersonal engagement. Doing so not only leverages Bruner’s (1978) concept of scaffolding—or constructing supportive learning frameworks—but also models depth of thought developed through interactions with experienced others.

Vygotsky (1978) suggested that this sort of capacity building requires scaffolding strong enough to support learners’ readiness as well as the difficulty of their learning task. Kegan (2000) further suggested that such learning is, “a gradual traversing of a succession of more elaborate bridges” (p. 61). These developmental perspectives point to the need for faculty to design cognitive and affective interactions sufficient to foster multi-domain learner development. This too will likely demand that faculty reconceive of themselves as not only content experts, but also as students of the scholarship of teaching and learning.

Moreover, as do professors (and other folks as well), students value feeling valued. Students communicated that it is important to them to hear and feel process affirmation, in order to continue to take the academic risks associated with constructing understanding and hazarding insights. These findings reflect the human needs analysis offered by Maslow (1954). Belonging and esteem are

important, in students' perspectives, if they are to devote time and energy into critical analysis of the presence and limitations of their knowledge and insights as emerging professional decision makers. Concretely, then, when students report not feeling affirmed or valued in language or expression that fits their schema of what affirmation typically sounds or feels like, they may become puzzled or confused about the validity of their perspectives—thereby undermining their foundational deficiency needs and compromising their development as individuals who engage in critical discourse and actualization of being needs.

Finally, students admitted feeling oddly engaged when applying their emerging academic understandings to the complex world of professional decision making. The risky yet rewarding cognitive, affective, and psychomotor work of interpreting, characterizing, and articulating their new professional insights brought expressions of feeling increasingly empowered to respond to the complex demands of skillful professionalism in postmodern educational environments. These expressions of odd satisfaction may be signs of perspective transformation that frees students from continued subservience to unsubstantiated notions, norms, and assumptions in favor of consciousness building, perspective, and self-knowledge.

Central to consciousness building is critical reflection on one's own personal and societal assumptions. Sorting through assumptions requires an individual to reflect upon the discrepancy between justifiable and unjustifiable worldviews. Sorting through discrepancies is an element of Jung's (1971) notion of being at variance with one's self. Being at variance with one's self suggests a constructive and potentially transformative internal dissonance that stirs the cognitive and affective processes within an individual—in order to more authentically self-author one's way of being in the world—a process of emancipation from uncritically assumed frames of reference.

### ***Scholarly Opportunities***

While these findings are unlikely to surprise professional educator-scholars, they may serve to remind those who teach with transformative intention that student perceptions and professor perceptions of what constitutes supportive environments, instructive feedback, and sufficient scaffolding for critical analysis likely differ. The above may also serve as an opportunity to problematize by whom, how, and why such perceived needs might be addressed in classrooms that do not so much seek to transfer knowledge and power but instead to create conditions in which knowledge and power may be developed and used as tools of epistemological and perspective

transformation. Moreover, these findings may serve to advance data-driven pedagogical decision making—informed by student perspectives and insights. Regarding such multidirectional exchanges of insight and consciousness building in higher education, Rogers (1994) concluded, “We have been asking for something less, and we have been getting something less” (p. 21).

How, then, can faculty nurture student C.I.Q. insights within the constraints of busy teaching, service, and research commitments? Surely, it would seem that already overextended faculty simply cannot continue to invest more time and energy into their teaching responsibilities without compromising additional professional commitments to the other demands of advising, service, research, and publication.

Clearly, when considered in isolation, each of these dimensions of effective professionalism demands the better part of faculty attention. Yet, in isolation, as Yeats (1919) warned, “Things fall apart; the centre cannot hold” (p. 276). Even the most well-intentioned faculty simply cannot excel in each of these categories separately in a sustainable manner. Attempting to do so is at least unwieldy and perhaps untenable. But most importantly, it is unnecessary and even unproductive to separate these commitments to teaching, learning, and scholarship from each other.

Considered collectively, the relationship between scholarship, teaching, and learning reveals symbiosis. Important scholarship is educative; meaningful education is instructive; valuable instruction feeds learning; and authentic learning is connected to disciplined, scholarly inquiry. As observed by Elmore (2007) it is imprudent to expect meaningful accretions to the instructional core of teaching and learning without enriching insights and understanding of scholarly best practice.

### ***Further Scholarship***

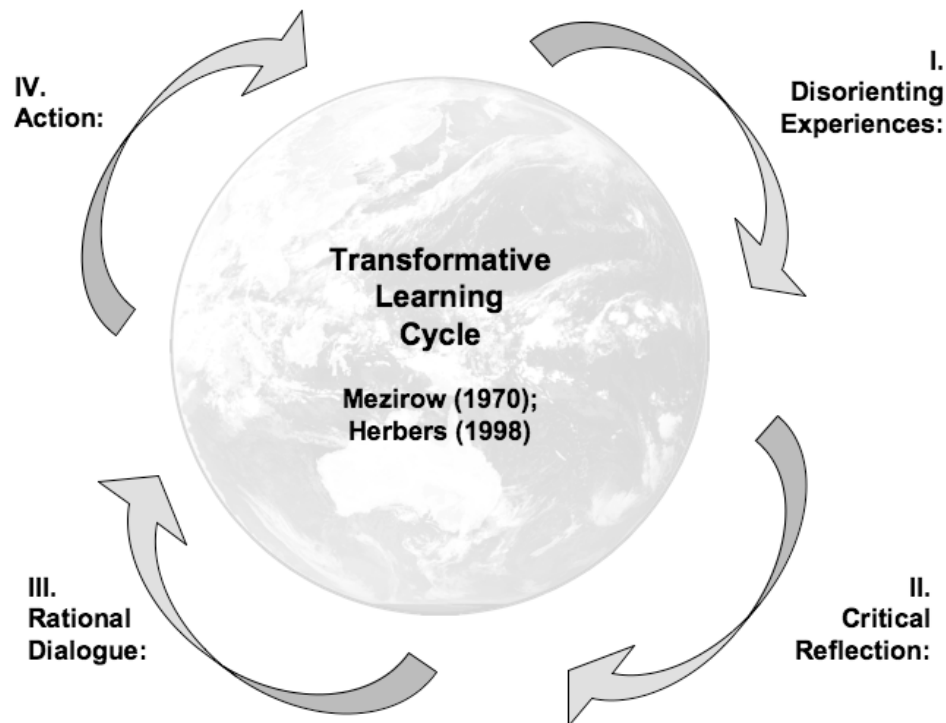
While the above findings provide student insights into critical learning incidents, some important questions remain unanswered for those who teach with transformative intentions.

In order to better understand the degree to which transformative learning is taking place within the curriculum of this education psychology course, in Fall 2008, 50 education psychology students will pilot a modified wiki-base questionnaire, born from Brookfield's (1995) C.I.Q. The prototype will probe what Elmore (2007) calls “blank spaces in critical places” (p. 190). These blank spaces are associated with students' experiences with the major elements of Mezirow's (1970) transformative learning theory, which Herbers (1998) distilled into four quadrants as listed below (Also see figure 1):

- I. Cognitive dissonance of disorienting experiences

- II. Critical reflection on assumptions that contribute to dissonance
- III. Rational dialogue on alternative perspectives
- IV. Directed action consonant with new understandings

**Figure 1: Four quadrants of transformative learning experiences**



The questions that remain unanswered are partially methodological and partially epistemological. They include:

1. What event(s) associated with this course have troubled your thinking or caused you cognitive dissonance?
2. What assumptions, beliefs, or perspectives about learning have you or others held that have contributed to this dissonance?
3. What other assumptions, beliefs, or perspectives about learning may suggest value in proceeding otherwise?
4. In what ways does what you think now affect and inform your choices and behavior?

While the modified iteration of this instrument is informed by study and application of Brookfield's (1995) model, this modification is piloted with the conviction that further experience,

research, dialogue, and greater understanding of transformative methodology will enrich, revise, or redirect its design, language, structure, and use.

With the worthy aim of better understanding student insights into core teaching and learning relationships, such continued investment suggests the possibility of informing, negotiating, and even transforming faculty and student insights through the symbiosis of scholarship, teaching, and learning.

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## **“We Are Scholars”: Using Teamwork and Problem-Based Learning in a Canadian Regional Geography Course**

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### **Abstract**

This pedagogical reflection recounts the implementation of a team-based and problem-based learning format in a regional geography of Canada course at a Canadian university. Regional geography courses, popular in many collegiate geography departments, often rely on the “transmission” mode of learning, which relies on the presentation of factual information about regions and its recitation in examinations. This format tends to reify existing regional divisions, whether political or otherwise, and makes it difficult for students to comprehend the dynamic, historical and constructed nature of regions. Team-based and problem-based learning was deployed in this third-year course to enliven and enrich the study of regional geography through the use of learning groups which produced regular research products during a series of thematic modules. Based on student feedback and the instructor’s reflections, the article highlights key benefits of teamwork in terms of learning outcomes and student personal development.

*Hey there my fellow groupmates! I know others have done this, but good job on the briefing note... We are scholars!!! Keep up the good work! Good luck with the source searching.<sup>1</sup>*

“We are scholars.” How often during an undergraduate degree does a student get to feel like a scholar? Not often enough, I suspect. This student expressed her powerful sense of self-direction and engagement with learning during a third-year Geography of Canada course organized around teamwork and problem-based learning. As the course instructor, tentatively experimenting with a new teaching approach, I was elated with her spontaneous response. It confirmed my belief that applying more active learning strategies in my classes would enhance students’ experiences. The following short commentary reviews my implementation of these widely admired but less widely applied approaches, drawing on student feedback to argue that they offer an exciting and rewarding opportunity to infuse dynamism and enthusiasm into some of the fustier corners of the human geography curriculum, notably regional courses.

Teamwork and inquiry-driven courses demand that instructors reduce their roles as content-providers and instead guide students through processes of discovery and skill-building. These approaches, whether implemented as parts of courses, entire courses, or across the curriculum, are characterized as “student-centred” pedagogy and embrace a more active role for students in achieving learning outcomes (Barr and Tagg 1995, Rheim 1998). The goal of problem-based learning (PBL) is to encourage students not just to acquire content, but to discover, filter and integrate information, in order to practise what Benjamin Bloom (in his famous taxonomy of learning) categorized as “higher-order” thinking skills (Bloom 1956). Although not necessarily used in tandem, teamwork and PBL strategies are often implemented together. Advocates of team-based learning similarly suggest that student learning is enhanced and deepened through sustained collaborative interactions with peers, often while engaged in solving a research problem (Michaelsen 2002).

Geographers have increasingly embraced student-centred approaches not only for their perceived enhanced learning outcomes, but also for their potential to promote student “empowerment.”

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<sup>1</sup> This post, dated February 5, 2007, is from a WebCT discussion board used by one of the groups described in the paper. The author was addressing teammates after the completion of the first module. The student’s name has been withheld to preserve anonymity.

Team-based, active learning facilitates “learner empowerment, in which encouragement [is] given to students to take responsibility for their own learning outcomes,” Healy et. al. (1996) suggest. Indeed, the notion of empowerment emerges repeatedly in the geographical pedagogy literature, connoting not only personal responsibility for learning, but some student control over the learning process (Burkill 1997, Stanier 1997, Spronken-Smith 2005). It must be noted that the goals of fostering students’ sense of empowerment are often in tension with the oft-cited concern of students about “sharing” grades or losing control over their work in team-based modules (Livingstone and Lynch 2000). Nevertheless, while frankly acknowledging students’ practical concerns and emotional barriers regarding collaborative learning strategies, geographers have generally concluded that a well-designed group learning experience, with opportunities for team skills development and reflection on the learning process, can boost both student engagement and retention of concepts (Livingstone and Lynch 2000, Chappell 2006, Scheyvens et. al. 2008). Team-based learning similarly requires a change in the strategies, attitudes, and preparation on the part of instructors; however, it has been suggested that the geographical traditions of fieldwork, group work and interdisciplinarity make teamwork and PBL well-suited to geographers’ research own practices and pedagogical goals (Pawson et. al. 2006, Spronken-Smith 2005).

My own adoption of team-based learning strategies for the geography of Canada course aimed not only to increase student engagement and empowerment, but also to enhance the delivery of key geographical concepts and approaches that typify “regional” courses. Debates within the discipline of geography reveal a paradox surrounding “regional” content in the curriculum. On the one hand, regional geography is seen by many outside the discipline (and some within) as geography’s *raison d’être*: the exploration of the defining cultural, political or physiographic features of various parts of the earth, or what geographers sometimes refer to as “areal differentiation.” Other the other hand, recent trends have seen a decline in regional offerings in many North American post-secondary programs (Halseth and Fondahl 2003) and a declining emphasis on regional approaches in human geography generally. For instance, the textbook I use for a second-year cultural geography course, *Introducing Human Geographies* (Cloke et. al. 2005), contains few references to regions and omits the term entirely from its glossary (although cf. Norton 2004 and Knox et. al. 2004, which preserve some “regional” content). Nevertheless, recent discussions of regional geographical teaching suggest that regional courses can be an important vehicle

for getting students to think not just about “where things are” but also for “getting them to think about the *why behind the where*, or the factors that account for the patterns they see in the world” (Fournier 2002, Halseth and Fondahl 2003, Wade 2006).

The standard model of the “Canada” course taught in geography departments across the country generally reflects the traditional “transmission” mode of teaching and learning. Typically, such courses proceed through a series of thematic and/or regional lectures, with varying amounts of discussion time or tutorials/activities. The major textbooks used in these courses (Bone 2005, McGillivray 2006, Warkentin 1997) reflect this structure, one that remains the template for most instruction in the physical and human sciences. This mode is not without merit. It preserves the role of the professor as content expert. It provides students with clarity, certainty and comfort about course expectations and about what they are supposed to take away from the course. For instructors, such courses are simple to conceptualize and, once delivered, relatively easy to repackage and update as necessary.

These apparent advantages, however, also induce the major shortcomings of this model. This approach places the instructor in the role of authoritative, active speaker for most if not all of class time, often limiting student interaction to listening to the *bon mots* of the class eager beavers during question sessions. It rewards the passive reception of factual knowledge (however glossed with conceptual or theoretical material) and its regurgitation on quizzes and exams or in reports. Lectures alone do not usually engage students in all four quadrants of the Kolb (1984) learning cycle: the reflective and active experimentation components are frequently omitted (Healy and Jenkins 2000). This format also relies heavily on instructor-selected reading tagged to lectures; it offers little opportunity for students to engage in self-directed and -defined research and analysis. Finally, as an approach to teaching regional geography, it tends to reify existing regional divisions, whether political or otherwise, and makes it difficult for students to comprehend the dynamic, historical and constructed nature of regions (Wade 2006; Fournier 2002).

### **Learning Context**

Keen on avoiding these pitfalls in my new regional geography of Canada course, I adapted approaches from several team-based learning information sources.<sup>2</sup> At Memorial University, this one-semester course caters to both physical and human geography majors, as well as to various other constituencies, including education and Canadian Studies students. Team-based learning advocates stress that the course format and structure should reflect the course goals and objectives for students; for this course, I determined that these included: improving research and writing skills; promoting sustained and meaningful collaborative work; and introducing students to the critical insights provided by human geography into the study of Canada. Thus, I constructed the syllabus around four research modules, plus introductory and final synthesis modules. Each two-week research module (summarized in Table 1) revolved around investigating a major Canadian issue from a geographical perspective (the issues were: Aboriginal Canada, environmental challenges, population and settlement geographies, and national unity). In groups, students were asked to produce a backgrounder (essentially, an annotated bibliography) and a briefing note (a short report) identifying and analyzing the most critical aspect of these issues for their respective regions. During each module, full-class discussions and breakout groups allowed the students to share their regional perspectives with other teams. For the final module, students produced an individual synthesis paper on one of the four issues, using the regional briefing notes produced by the class groups as their baseline research.

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<sup>2</sup> Useful open-access resources for the design and implementation of team-based learning I used included the University of British Columbia Centre for Instructional Support Wiki Site ([http://ipeer.apsc.ubc.ca/wiki/index.php/Centre\\_for\\_Instructional\\_Support\\_-\\_Wiki\\_Site](http://ipeer.apsc.ubc.ca/wiki/index.php/Centre_for_Instructional_Support_-_Wiki_Site)) [Accessed 4 July 2007] and the University of Oklahoma Team-based Learning Website (<http://www.ou.edu/pii/teamlearning/index.htm>) [Accessed 4 July 2007].

**Table 1: Geography 3405 Module cycle**

**Module Topics: Aboriginal Canada, Environmental Challenges, Population and Demographic Change, National Unity**

<b>Week 1 activities (50-minute class periods, M-W-F)</b>	Readiness Assessment Test (RAT)	Lecture/Team Meeting/Discussion of RAT results	Backgrounder Due; Discussion/Activity
<b>Teaching/Learning Strategies and Outcomes</b>	Individual and group test on background readings to promote individual accountability and team co-operation	Lecture provides introductory “frame” for module. In-class time for team research co- ordination*	Preliminary exploration of regional research problems through full-class discussions /activities
<b>Week 2 activities (50-minute class periods, M-W-F)</b>	Lecture/Team Meeting	Team meeting	Briefing Note Due; Presentations and Discussion
<b>Teaching/Learning Strategies and Outcomes</b>	Opportunity for co- ordination and discussion of Briefing Note; lecture models “geographical approaches” to research problems	In-class time for team co-ordination and discussion. Instructor facilitates and assists in group problem- solving.	Synthesis and comparison of research outcomes through full-class discussions/ activities

\* Note: team interaction and co-ordination was also facilitated through the creation of online discussion groups using WebCT courseware.

The high registration (45 students) and the regional nature of Canada aided the creation of research teams. After conducting a brief survey, I divided the class into eight groups (seven regions and one “Canada” group), ensuring a balance of gender, major, and university experience. As recommended by Michaelsen (2002), students spent the entire course in these teams, to provide opportunities for



sustained interaction and bonding. The introductory module included lectures and activities providing students with a rationale for the course structure and an introduction to collaborative learning. We also collectively explored some of the opportunities, pitfalls and “best practices” associated with group management. Although each subsequent module included lectures, significant class time was devoted to meeting in groups, sharing sources and ideas, and preparing submissions. To facilitate group interaction, the course included a WebCT online courseware component to allow for asynchronous communication and file sharing.

### **Student responses**

The challenge of working in teams provoked both the greatest satisfactions and deepest anxieties for students. In feedback solicited on team-based learning, summarized in Table 2, students identified interpersonal interaction and sharing as the strongest elements of the course. “The number of ideas and the group collaboration helps spark better ideas and opens your mind to a different perspective,” wrote one student; “the research products we compiled reflected diverse strengths and perspectives,” noted another. Students identified trust-building, intellectual compromise and personal support as key elements of positive group interactions. Since there were always pressing deadlines and much information to be worked through, class attendance was very high. On the university-administered Course Evaluation Questionnaire (N=33), students scored 4.0625 on a five-point scale (strongly agree=5) in response to the statement, “Team-based learning enhanced my experience of the course.” Spontaneous comments about group learning on the same questionnaire also elicited 15 positive and 7 negative mentions of teamwork.

Inevitably, problems and criticisms arose from teamwork. Scheduling meetings and making deadlines – a major challenge for today’s busy students – proved difficult for many teams, in spite of the use of the WebCT online discussion boards. Most problematically, many students felt that with team assignments “you are not controlling your own grade.” The course incorporated an iterative peer review process and module pre-tests to help enforce individual participation and preparation, but many students remained concerned that their grades suffered due to the “free-rider” problem. In a couple of instances, I was asked to intervene to help mediate group conflicts over workload distribution and the fulfilment of responsibilities. In spite of sharing tasks with team-mates, students found the workload very high and at times felt stressed or burdened by the tight module schedules. As Chappell noted in deploying PBL in

physical geography, students often struggle emotionally with the unfamiliarity of the emergent, even chaotic process of inquiry-based learning (Chappell 2006).

**Table 2: Summary of student feedback**

*This feedback was solicited in conjunction with the final peer review component of the course, after module 4. Students were asked “What are the main benefits and drawbacks of team-based learning as practiced in this course?”*

Benefits	Drawbacks
<ul style="list-style-type: none"> <li>• facilitated exchange of opinions and insights</li> <li>• positive social interactions</li> <li>• combination of diverse strengths and backgrounds in teams</li> <li>• shared workload</li> <li>• interdependency promoted adherence to deadlines and schedules</li> <li>• fostered debate and compromise</li> <li>• improved retention of course material</li> <li>• built trust relationships amongst group members</li> <li>• enhanced leadership skills</li> </ul>	<ul style="list-style-type: none"> <li>• difficulty co-ordinating schedules for group meetings</li> <li>• inequitable distribution of workload and/or performance</li> <li>• group sharing of grades</li> <li>• communication problems/breakdowns</li> <li>• difficulties with collaborative writing and editing process</li> <li>• workrate and schedule set by group, not individuals</li> <li>• group size too large</li> </ul>

In terms of content, team-based learning also entailed compromises. Teams developed expertise in regional issues and perspectives, and working in regional teams the entire semester allowed them to build a sense of identity with teammates and their regional perspective. In spite of the lectures, full-class discussions and other inter-group exercises, students sometimes struggled to understand other regions and get a sense of the “big picture” of Canadian geography. “I think the average student will retain more in this course, because of the interaction, but on the whole they are presented with less general information,” one perceptive student noted. Students enjoyed the module topics, but these clearly did not

cover the full scope of Canadian human geography. The trade-off, however, was that students were encouraged to become “scholars,” actively investigating and synthesizing information, helping them to develop skills that will serve them well in future studies and in the workforce. As a Team Newfoundland and Labrador member commented, “I feel that I have learned a lot, and not just about Canada or Newfoundland, but I think that I have improved my reading and writing skills.” The research-driven process also produced important pedagogical outcomes for students of human geography. During an in-class course reflection activity at the end of the course, students commented on how their perceptions of both geography and Canada changed: “Before this course I never thought of Canada as having different geographical regions that have many interrelated issues,” according to one comment. Similarly, “this course has ... change[d], inform[ed] and influence[d] on all aspects of Canadian geography by taking a more multidisciplinary approach to the traditional way of studying geography.”

#### **Reflections on team-based learning and regional geography**

The power of team-based learning, its advocates suggest, is that it is a *transformative* process, one that not merely informs students, but acts as a catalyst for their intellectual and personal growth (Michaelsen 2002). In this sense, the emphasis on student “empowerment” – itself a nebulous term – as an outcome of collaborative learning was confirmed in this course. This class represented not merely a chance to show students the regional diversity of Canada or the excitement of using human geography to understand this country, but also an opportunity for students to discover themselves, their peers and their own intellectual horizons. Rather than receive and recite content, students were enrolled as “co-producers of learning” (Barr and Tagg 1995): they were challenged to generate information, to define and wrestle with problems, and to articulate their findings. Many students found their research skills enhanced by the emphasis on the iterative production of research products within each module cycle. Friendship, collegiality and collaboration emerged as important positive values of group interaction. I was also struck by the potential for teamwork to promote student personal development through social interaction, group problem-solving and the development of leadership skills. While some individuals articulated frustration with collaborative learning, the direct participation in scholarship, for more than one student, meant that “this learning experience [was] the best one I’ve had since I’ve been here at Memorial.”

Preparing and delivering this course also transformed my ideas about teaching and leadership in the process, pushing me towards a deeper engagement with my students even as I moved from center stage to a more collegial, mentoring role in the classroom. It reinforced my growing sense that the learning process should not be subordinated to course content, but rather that content – framed as research problems – should be used to stimulate individual and collaborative learning engagements. This approach also entailed a reorientation of the traditional classroom hierarchy (and, indeed, the physical layout of the classroom), forcing me to de-center my own position as the class “expert” and trust that students could mobilize and articulate valid geographical perspectives, and provide the evidence to support them (Barnes 2006). Preparing and delivering a course in this fashion was somewhat more demanding than perhaps a traditional lecture course would be; it will be useful to review whether future iterations of the course prove less burdensome for me as the instructor, which may limit my (and others’) ability to integrate these approaches across the curriculum.

If, as Wade (2006) suggests, regional courses provide an important vehicle for teaching geographical concepts and analysis, integrating teamwork and problem-based learning approaches make excellent strategies for revivifying this oft-maligned disciplinary tradition. As a “nation of regions,” Canada’s geography has traditionally been explored through the regional approach, but the increasing disfavour of regional courses in North American universities suggests regional geography requires some re-imagining. My experience suggests that the collaborative learning approaches and student-driven research projects are well-suited to the “new” regional geography, with its focus on “regional formation as a dynamic historical geographical process” (Pudup 1988).

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