

Will I do as well on the final exam as I expect? An examination of students' expectations

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Abstract: Immediately prior to an exam, it is common to hear students commenting on whether they anticipate doing as well on the exam as they expect (or, in other words, whether they anticipate performing as well on the exam as the standard at which they believe they should be performing). These anticipations have received little past research attention. In this study, students' performance anticipations are related to their past exam performances in the course, their performance expectations, several issues hypothesized to affect academic performance, and their actual performance on the final exam and for the course. The results, which were mixed, are discussed.

Keywords: student expectations, student performance, test anxiety, absences, self handicapping, exam preparation

One of the most enduring components of the education process is evaluation, and business education is no exception. Evaluation allows an assessment of students' comprehension of material in their courses of study. Although varying methods of evaluation are utilized, tests are the most commonly employed method (Bacon 2003; Keogh and French 2001). Indeed, grades in introductory courses are often based to a great extent on students' performances on a limited number of exams. In fact, Kelley, Conant, and Smart (1989) regard testing as an integral component of quality teaching.

Given the importance of the testing process in many courses, numerous studies have examined the form, validity, and rigor of testing. However, surprisingly little research has examined students' expectations (Anderson and Sauser 1995). For example, immediately prior to an important exam, it is common to hear students commenting on whether they "anticipate doing as well on the exam as they expect." At first glance, these statements by students appear confusing – since expectations are essentially anticipations, it appears that students are commenting on whether they "anticipate doing as well as they anticipate." Instead, these statements indicate that students anticipate the quality of their performance on an exam before they actually take the exam. Furthermore, these anticipations are relative to some individual standard (what students refer to as "expectations"). So, the actual issue appears to be whether students anticipate performing as well on the exam as the standard at which they believe they should be performing.

The objective of this study is to attempt to gain insight into students' anticipations of whether they will do as well on a final exam in a business course as the standard at which they believe they should be performing. This appears to be an important area of study since students' anticipations may affect how much time and effort they spend preparing for the exam. In this study, students' anticipations at the time of the final exam are related to 1) their subsequent performance on the final exam and in the course, 2) their grade expectations for the course, 3) their past exam performances in the course, and 4) issues which are often regarded as affecting exam performance (self-handicapping tendencies, anxiety at the time of the exam, number of absences during the course, and self-reported amount of time spent studying for the final exam). First, given the role played by attribution in students'

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performance expectations, attribution theory will be discussed.

I. Attribution Theory.

Attribution theory provides a basis for examining students' expectations of their performances on academic activities, including their performances on their final exams. According to attribution theory, individuals try to understand the causes of the outcomes of their behavior – understandings which affect their subsequent motivation (Hong, Chui, Dweck, Lin and Wan 1999) and, consequently, their behavior (Amichai-Hamburger, Mikulincer and Zalts 2003; Cemalcilar, Canbeyli and Sunar 2003). Similarly, in an academic context, students often attempt to develop reasons for their performances on exams (Ahles and Contento 2006; Graham and Folkes 1990). These attributions are typically viewed within a context of three dimensions: locus of causality (internal or external), personal controllability (controllable or uncontrollable), and stability (stable or temporary) (Weiner 1985). Students who attribute poor outcomes to external, controllable, and unstable causes (an optimistic attributional style) tend to experience positive motivational consequences leading to increased persistence in the presence of negative consequences. Students who attribute poor outcomes to internal, uncontrollable, and stable causes (a pessimistic attributional style), however, tend to experience negative motivational consequences leading to less persistence in the presence of negative consequences, and possibly a withdrawal of effort (Le Foll, Rascle and Higgins 2008). These relationships particularly hold when student's emphases are on performance (grades) as opposed to learning (Grant and Dweck 2003).

Weiner (1974) suggests that of the three dimensions of attribution, the locus of causality and stability factors are particularly important to the level of achievement experienced in education. The two dimensions lead to four factors (ability (internal and stable), task difficulty (external and stable), effort (internal and temporary), and luck (external and temporary) (Figure 1). The relative strengths of these four factors ultimately determine the level of success experienced in the academic environment. Specifically, students who experience high success will approach evaluation opportunities rather than avoid them because they believe success results from their ability and effort. Failure is regarded as resulting from bad luck or a poorly constructed exam. Students who experience low success, however, avoid evaluation opportunities because they either doubt their abilities, or regard success as resulting from luck or other factors beyond their control (e.g., the difficulty of the exam). The primary focus of attribution theory, therefore, is on how individuals attribute successes and failures – how a person attributes successes or failures determines subsequent behavior by affecting the amount of effort the person will expend on that activity in the future.

II. Performance Expectations.

Students' expectations of exam performance appear to an important area of concern – “accuracy affords predictability that may help persons cope with their social and physical environments” (Kruglanski 1989, p. 395). “Self-perceptions that are out of touch with reality not only reveal a lack of self-knowledge, but may also impede effective self-regulation and goal setting in academic, professional, and interpersonal situations” (Beyer 1999, p. 280). Relatively limited research attention, however, has been placed on the performance expectations of students (e.g., Beyer 1998, 1990). Furthermore, the value of much of the past research which has examined students' performance expectations is limited since most of the research is restricted to laboratory settings or to asking questions concerning generic, non-

course-specific knowledge (Hacker, Bol, Horgan and Rakow 2000).

Locus of Control	Internal	Ability	Effort
	External	Task Difficulty	Luck
		Stable	Stability Temporary

Figure 1. Attribution Factors.

The primary objective of most of the research which has examined students' performance expectations is assessing the accuracy with which students are able to predict the grades they will receive on exams. Research indicates that although students' performance expectations tend to be relatively accurate (Fitzgerald, Gruppen, White and Davis 1997), predictions of grades tend to be consistently overly optimistic (Burns 2007). Past research also suggests that students who are better able to predict their exam performances experience higher degrees of success in academia (Zlokovich, et al., 2003).

Although accuracy of prediction is an important issue of concern, it does not totally address the issue of performance expectations of each student – that is, it does not address whether students anticipate performing as well on an exam as the standard at which they believe they should be performing. Students possess individual standards for the exams which they encounter. Students' anticipations, then, are based on their expected performances relative to their own standards. Specifically, reflecting either a realization that exams are not perfect measures of assessment, that self-perceived preparation (effort)/knowledge (ability) for an exam is not a perfect measure, and/or a lack of luck (external locus of control), students often recognize that their exam performances will differ from what they perceive the performance would be if they possessed increased control over the situation (internal locus of control). Consequently, whether students perceive that they “anticipate doing as well as they expect” can be more precisely viewed as the degree to which they anticipate that their exam performances will accurately reflect their preparation (effort) and knowledge (ability). Therefore, the focus of this study is students' perceptions of how well the final exam reflects their preparation/knowledge.

Since students who are better able to predict their exam performance experience higher degrees of success in academia (as mentioned earlier), students who believe that their performance on the exam will accurately reflect their preparation/knowledge can also be expected to perform better by receiving higher grades on the final exam and for the entire course than those who do not.

H1: At the time of the final exam, students who “anticipate performing as well on the final exam as expected” (are more likely to expect that their performance on the final exam will accurately reflect their self-perceived level of knowledge and preparation) will perform better on the final exam and for the course than will students who do not anticipate that they will perform “as well as on the final exam as expected.”

III. Expected Course Grades.

Students enter courses with an expectation of the grade they will ultimately receive. At the beginning of a course, however, students possess limited information to accurately form such expectations. This is especially true for an introductory course since students possess little history taking courses in the topic. They also have not yet taken any exams in the course, and as a result, possess little experience onto which to base their anticipated performance in the course, particularly as it relates to the extent to which the final exam will ultimately reflect their preparation and knowledge at that time. (Although there is likely some degree of transfer of experience from other courses taken in other subject areas, the idiosyncrasies of each subject area and of individual faculty members will likely minimize the effectiveness of such transfer). There is little basis, therefore, to expect to find a relationship between students' course grade expectations at the start of an introductory course and their anticipation of whether their performance on the final exam will accurately reflect their self-perceived level of knowledge and preparation at the time of the final exam.

H2a: No relationship exists between students' grade expectations at the start of an introductory course and whether they "anticipate performing as well as on the final exam as expected" (believe that the final exam accurately reflects their preparation/knowledge) at the time of the final exam.

The situation, however, can be expected to differ when grade expectations at the time of the final exam are examined. Students with higher grade expectations for the course at the time of the final exam can be expected to be more likely to "anticipate performing as well as expected" on the final exam. By the time of the final exam, students have already taken midterm exam(s) and are acquainted with the form and the coverage of exams in the course. Through their experience with previous exam(s) in the course, students will likely possess an idea of the extent to which their performance on the final exam will accurately reflect their preparation and knowledge. Consequently, students who anticipate achieving a higher grade on the final exam at the time of the final exam will more likely believe that the exam will accurately reflect their preparation and knowledge than will students who anticipate receiving a lower grade.

H2b: Students who possess higher performance expectations at the time of the final exam are more likely to "anticipate performing as well as on the final exam as expected" (believe that the final exam accurately reflects their preparation/knowledge) than are students who possess lower performance expectations at the time of the final exam.

IV. Past Exam Performances.

It is logical to expect that the accuracy of students' exam performance expectations will improve as a course progresses. Each successive examination provides students with the opportunity to compare their exam performance expectations with actual outcomes, providing them with the feedback necessary to improve the accuracy of future exam performance expectations (Beyer 1999). Whether the accuracy of future exam performance expectations actually increase, however, has not been unequivocally established – empirical research provides mixed results. Several (e.g., Radhakrishnan, Arrow and Sniezek 1996; Sheppard, Ouellette and Fernandez 1996) have observed that the accuracy of students' exam performance expectations improve with each successive exam in a course, whereas Gordon (1991) and Powell and Gray (1995) did not. Interestingly, in a study involving students enrolled in several differing courses (two upper division courses and an introductory course), Beyer (1999) observed that the accuracy of students' exam performance expectations

improved only in the introductory course. Gilovich, Kerr and Medvec (1993) observed similar improvement in exam performance expectations in an introductory course including both lower- and upper-division students, suggesting that improvement in exam performance expectations may be characteristic of introductory courses, regardless of the level (upper-division or lower-division) of the students attending the course. In an introductory course, therefore, it would seem that performances on past exams may affect students' performance expectations on the final exam. Specifically, students who have performed well on the midterm exams in the course can be expected to anticipate performing similarly on the final exam. These students have a history of success on previous exams and can expect to experience continued success on the final exam.

Successful exam performances also typically provide students with a validation of their exam preparation activities and indicate to them that the exams were as expected and "accurately" assess their preparation and knowledge. Hence, these students would seem to be more likely to expect that their performance on the final exam will also accurately reflect their self-perceived level of preparation and knowledge, or that they will "anticipate performing as well as they expect" on the final exam. Similarly, students who performed poorly on the midterm exams can be expected to be less likely to believe that their performance on the final exam will accurately reflect their self-perceived level of preparation and knowledge. Hence, they will be more likely not to "anticipate performing as well as they expect" on the final exam.

H3: Students who perform better on the midterm exams in an introductory course are more likely to "anticipate performing as well as on the final exam as expected" (believe that the final exam accurately reflects their preparation/knowledge) at the time of the final exam than are students who perform relatively worse on the midterm exams.

V. Performance Hindrances.

Hindrances encountered in the preparation for the final exam, such as self-handicapping tendencies, anxiety at the time of the exam, limited amount of time spent studying, and a large number of absences, can be expected to adversely affect students' understanding of the degree to which they are prepared to take an exam. Consequently, it is logical to expect that the presence of these hindrances will prompt students to be less likely to believe that their performance on the final exam will reflect their preparation/knowledge for the exam.

A. Self-Handicapping.

Self-handicapping involves the use of excuses given prior to a possible negative performance (Baumeister and Scher 1988). These anticipatory excuses are given with the goal of shielding one from the negativity which could be associated with a deficient performance (Snyder 1990).

The self-handicapper, we are suggesting, reaches out for impediments, exaggerates handicaps, embraces any factor reducing personal responsibility for mediocrity and enhancing personal responsibility for success. One does this to shape the implications of performance feedback both in one's own eyes and in the eye's of others (Jones and Berglas 1978, p. 202).

Self-handicapping, therefore, involves protecting one's image of competence by proactively arranging for adversity (Higgins 1990). If a poor performance does occur, a ready excuse already exists (Martin, Debus and Marsh 2003).

Self-handicapping involves impression management, a specific aspect of attribution theory which involves individuals' attempts to maintain a favorable image to one's self and to others (Schlenker and Pontari 2000). Individuals' levels of self-esteem are directly connected to their behavior by a responsibility linkage (Snyder, Higgins and Stucky 1983). Self-handicapping acts to sever the linkage between an individual and a poor performance before the performance has been experienced by alluding to temporary issues, often through appeals to factors which supposedly have hindered preparation (effort) or poor fortune (bad luck). In the event of a poor exam performance then, self-handicapping can be used by a student as an attempt to absolve oneself of connections with and/or responsibility for this negative event in order to maintain self esteem (Martin, Marsh, Williamson and Debus 2003). The use of self-handicapping strategies in academia appears to be widespread (Midgley, Arunkumar and Urdan 1996; Urdan and Midgley 2001).

Substantial empirical exists attesting to success of self-handicapping in sheltering one's self from poor performances. Thompson and Richardson (2001), for instance, observed that individuals with low tendencies to self-handicap are more likely to internalize their success (internal locus of control) than individuals with high tendencies to self-handicap. Feick and Rhodewalt (1998) and Rhodewalt and Hill (1995) observed similar findings. These observations suggest that while self-handicapping succeeds in sheltering individuals with high tendencies to self-handicap from the negative effects of poor performances, it also suggests that individuals with high tendencies to self-handicap may shield themselves from the positive effects of successful performances. Murray and Warden (1990) suggest that, consequently, individuals with high tendencies to self-handicap may remain unsure of their true ability. Individuals with high tendencies to self-handicap do not appear to possess a fear of failure per se since their primary concern is not to avoid poor performance, but instead to avoid negative attribution resulting from a poor performance (Riggs 1992). Indeed, self-handicapping activity is thought to increase the likelihood of poor performances (Jones and Berglas 1978).

Although it seems that proclivity to self-handicap should be inversely related to academic achievement, the results of empirical testing have been mixed. Among competitive athletes, Rhodewalt, Saltzman and Wittmer (1984) observed such a relationship between proclivity to use self-handicapping and an index based on the individuals' GPA and SAT scores. Similarly, Rhodewalt (1990) observed a significant inverse relationship between proclivity to use self-handicapping and an index based on the individuals' GPA and ACT scores, as did Zuckerman, Kieffer and Knee (1998) and Urdan, Midgley and Anderman (1998). These findings, however, have not been found to be universal across the academic setting. Several studies (e.g., Feick and Rhodewalt 1997; Harris and Snyder 1986; Jung 1988; Rhodewalt and Davison 1986) reported that high self-handicappers generally perform as well as do low self-handicappers.

Since, within the realm of academia, the objective of self-handicapping is to sever or lessen the responsibility connection between one's self and a possible forthcoming poor performance, and given the evaluative nature of the testing process, it would seem likely that individuals displaying a high proclivity to self-handicap will be less likely to anticipate success. Indeed, by holding lower expectations, students will be less likely not fulfill their expectations – they will be more likely to experience success as measured by surpassing expectations. Individuals with a high propensity to self-handicap, therefore, will be less likely to express to themselves or to others that the final exam will accurately depict their preparation and knowledge, than will individuals with a lower propensity to self handicap. By believing that they “anticipate performing more poorly on the exam than expected,” individuals with a high propensity to self handicap provide for an “out” or an account if their performance is less than desired.

H4a: Students with higher tendencies toward self-handicapping are less likely to “anticipate performing as well as on the final exam as expected” (believe that the final exam accurately reflects their preparation/knowledge) than are students with lesser tendencies toward self-handicapping.

B. Test Anxiety.

In a testing environment, one's performances potentially have far-reaching effects (Spielberger and Vagg 1995). Within the academic environment, for instance, one's performance on exams can affect several issues, such as whether there is a need to retake a course, whether graduation will occur, whether admittance to graduate school will be obtained, and future employment (McKeachie 1951). It is not surprising, therefore, that anxiety about a testing situation (test anxiety) is viewed by many as a pervasive problem (e.g., Schwarzer and Jerusalem 1992; Tobias 1992).

The relationship between test anxiety and test performance was first examined by Sarason (1958, 1960) who reported observing negative relationships between them. Sarason also observed that highly test-anxious individuals are more self-critical and more likely to experience performance-interfering worry during examinations than are individuals who were observed to be low in test anxiety (1975, 1984). More recent research appears to support these contentions. Meta-analyses of research by Hembree (1988) and Seipp (1991), for instance, come to the same conclusions. Students experiencing high levels of anxiety at the time of an exam are apprehensive about their forthcoming exam performance. The apprehension that they feel involves the probability that their performance on the exam will be unsatisfactory. Individuals experiencing higher levels of anxiety at the time of the exam, therefore, will be less likely to “anticipate doing as well as expected” on the final exam than will students experiencing lesser levels of anxiety. In other words, students experiencing higher levels of test anxiety will be less likely to believe that their performance on the exam will accurately reflect their level of preparation/knowledge.

H4b: Students experiencing greater anxiety at the time of the final exam are less likely to “anticipate performing as well on the final exam as expected” (believe that the final exam accurately reflects their preparation/knowledge) than are students experiencing lesser anxiety at the time of the final exam.

C. Time Spent Studying.

Most classroom instructors and students alike assume that a strong positive relationship exists between time spent studying and performances on tests. Increased time spent studying would seem to allow students to better understand course material and to improve their memory of key concepts. Surprisingly little research exists, however, which would support this line of thought. Past research suggests that a weak, if any, relationship exists between time spent studying and exam performance (e.g., Gortner-Lahmers and Zulauf 2000; Michaels and Miethe 1989; Schuman, Walsh, Olson and Etheridge 1985). In a series of studies employing a variety of methodologies, Schuman, Walsh, Olson and Etheridge (1985) could not find a reliable relationship between time spent studying and exam performance. Rau and Durand (2000) observed that test performance may actually be more related to when students study and what they do when they are not studying than to the actual time spent studying. Michaels and Miethe (1989) and Plant, Ericsson, Hill and Asberg (2005) observed that the quality of the study environment affects student performance. Plant, Ericsson, Hill and Asberg report “it appears that the quantity of study time may only emerge as a reliable factor that determines performance when the quality of study time and the student's SAT

scores are also taken into consideration” (2005, p. 112).

Regardless of reality, students widely believe that a strong and direct relationship exists between time spent studying and test performance – a belief that likely affects students’ performance expectations. Students who perceive they have spent less time studying for an exam will likely perceive that they are less aware of what is needed to succeed on the exam. This uncertainty will likely affect how they view the upcoming exam – they likely perceive that they are less able to accurately gauge the adequacy of their preparation/knowledge. Consequently, it is logical to expect that students who perceive that they have studied relatively less for an exam will be less likely to believe that their performance on the exam will accurately reflect their preparation/knowledge.

H4c: Students who spent less time studying for the final exam are less likely to “anticipate performing as well on the final exam as expected” (believe that the final exam accurately reflects their preparation/knowledge) than are students who spent greater amounts of time studying for the final exam.

D. Absences.

Similar to time spent studying for the final exam, most classroom instructors and students alike believe that a strong relationship exists between attendance and exam performance – by attending class, students will gain greater exposure to course material and gain a better insight into what the instructor deems as important (and most likely to appear on exams). Unlike the issue of time spent studying, past research on the relationship of attendance, or number of absences, supports the general assumptions. For instance, Devadoss and Foltz (1996), Durden and Ellis (1995), Hammen and Kelland (1994), Plant, Ericsson, Hill and Asberg (2005), and Williams and Worth (2002) observed direct negative relationships between number of absences and academic performance. Shimoff and Catania (2001) observed that students with higher attendance rates received higher grades even on material not covered in class.

Similarly, it is logical to expect that a direct relationship exists between performance anticipations on the final exam and the number of classes missed. Students who have experienced a greater number of absences will be less aware of what is needed to succeed on the final exam. Consequently, it is logical to expect that students who have missed a greater number of classes will be less likely to believe that their performance on the final exam will accurately reflect their preparation/knowledge.

H4d: Students who missed a greater number of class meetings are less likely to “anticipate performing as well on the final exam as expected” (believe that the final exam accurately reflects their preparation/knowledge) than are students who missed a lesser number of classes during the course.

VI. Methodology.

The sample was comprised of students enrolled in Principles of Marketing classes at a medium-sized university located in the Midwest. The Principles of Marketing course was chosen since it is an introductory course to discipline of marketing – the focus of the class is to introduce a field of study to students to which they have not previously been exposed. To minimize bias resulting from differing teaching and/or testing styles, all of the classes were sections of a single course taught by a single instructor. Students’ grades were determined in the course primarily by their performances on two midterm exams (exam 1 and exam 2) and a final exam. The resulting sample was comprised of 353 students.

Students were asked to complete two short questionnaires during the course. The first

questionnaire was administered at the beginning of the course and included the Self-Handicapping Scale (SHS) (Rhodewalt 1990). Students were also asked to report their expected grade in the course through a simple question, similar to the method used by Campbell and Henry (1999). The second questionnaire was administered at the end of the course immediately prior to the start of the final exam. The students were asked to evaluate their anticipated performance on the final (also through a simple question similar to the method used by Campbell and Henry (1999) and to report the amount of time spent studying for the final exam. Furthermore, students' anxiety levels were assessed at that time. In addition, students were asked whether they "anticipated performing as well as they expect" on the final exam. In an attempt to minimize possible bias, students were expressly guaranteed anonymity as far as the course instructor was concerned. Finally, students' grades on the exams and actual number of absences were gathered from course records by an individual other than the course instructor.

The Self-Handicapping Scale is comprised of 25 statements designed to assess an individual's proclivity to display self-handicapping behavior. For each statement, students were asked to indicate their level of agreement on a six-point scale. Large group testing sessions indicate that the scale exhibits acceptable internal consistency (Cronbach's $\alpha = 0.79$) and test-retest reliability $r = 0.74$ after one month) (Rhodewalt 1990). The predictive ability of the scale is confirmed by a number of studies (e.g., Rhodewalt 1990, 1994; Strube 1986).

Students' expected and actual performance on the final exam and for the course, and their actual performances on the first two exams in the course were measured on a five-point scale based on letter grade (A, B, C, D, F) (Wong 2000). The exams were primarily multiple choice. Multiple-choice exams were used given the predominance of the use of this type of exam in the Principles of Marketing course (Aiken 1987; Weaver 1982).

To determine students' anticipation of performance, they were simply asked whether they anticipated performing as well on the final exam as expected.

Students' anxiety level at the time of the final exam is not an easy concept to measure (Ebel 1972). Initial attempts at measuring test anxiety relied on physiological measurements with the hope of developing an unbiased measure. Physiological measurements, however, have proven to be inadequate. When testing various types of physiological measures used to measure anxiety, Hopkins and Chambers observed "the physiological measures are essentially unrelated, and do not provide the basis for the identification of a preferred measure of anxiety" (1966, p 189).

Several attempts have been made to measure test anxiety via self-administered scales designed to specifically measure test anxiety. Several questions concerning the validity of such scales exist, however (Anderson and Sauser 1995; Bedell and Marlowe 1995; Hopkins and Chambers 1966). Tobias and Hedl (1972) suggest that test anxiety is actually a manifestation of general anxiety, and should be conceptualized and measured in that fashion. Evidence supporting this contention has been observed (Bedell and Marlowe 1995).

For this study, a general anxiety scale comprised of seven items was used (Table 1). Since the scale was administered immediately prior to the final exam, it was essential that the scale could be completed quickly and easily. The scale items were drawn from the State-Trait Anxiety Inventory (Spielberger 1983). For this study, items chosen included those scoring high on the anxiety-absent and state-anxiety-present factors of the state-trait Anxiety Inventory (Iwata, et al. 1998) and which would easily understood by a student sample. For each item, students were asked to indicate their level of agreement on a four-point scale. After accounting for reversed-scored items, respondents' answers were summed. An acceptable Cronbach's α was observed (0.865).

Table 1. General Anxiety Scale.

1. I feel calm.
2. I am tense
3. I feel upset.
4. I feel nervous.
5. I am jittery.
6. I feel content.
7. I feel over-excited and rattled.

VII. Results.

A series of one-way ANOVAS was used to test the hypotheses. The results are displayed in Table 2.

Table 2. Results.

		Number of Cases by Anticipated Performance	
Anticipated doing as good as expected		209	
Anticipated not doing as good as expected		144	
		F-Statistic	Level of Significance
H1	Actual final exam grade	2.870	0.091
	Actual course grade	1.059	0.304
H2a	Expected course grade at the start of the course	1.143	0.286
H2b	Expected course grade at the time of the final exam	15.246	0.000*
H3	Exam 1 performance	0.103	0.748
	Exam 2 performance	6.935	0.009*
H4a	Self-handicapping	5.292	0.022*
H4b	Anxiety at the time of the final exam	15.221	0.000*
H4c	Amount of time spent studying	0.046	0.830
H4d	Number of absences	0.230	0.632

* $p < 0.05$

No evidence was observed in support of Hypothesis 1. Students who “anticipated performing up to their expectations” on the final exam did not perform significantly (at the 0.05 level) better on the final exam nor in the course than did students who did not “anticipate performing up to their expectations.”

Support was observed Hypothesis 2. Students possessing higher grade expectations for the course at the time of the final exam were found to be significantly (at the 0.05 level) more likely to “anticipate performing up to these expectations” on the final exam than were students expecting lower grades for the course (Hypothesis 2b). Students with higher grade expectations for the course at the start of the course, however, were not found to be significantly (at the 0.05 level) more likely to “anticipate performing up to these expectations” on the final exam than were students expecting lower grades for the course (Hypothesis 2a). The results indicate that a relationship involving grade expectations exists only for the grade expectations with the greatest temporal proximity. No evidence was observed which would suggest that grade expectations at the start of the course are related to whether students “anticipate performing up to their expectations” on the final exam.

Partial support was observed for Hypothesis 3. Students scoring higher on exam 2 were found to be significantly (at the 0.05 level) more likely to “anticipate performing up to their expectations” on the final exam than students scoring lower on exam 2. The same result, however, was not observed when the scores received on exam 1 were examined. Support for Hypothesis 3 was observed, therefore, solely for the midterm exam with the greatest temporal proximity. No evidence was observed which would suggest that performance on exam 1 is related to whether students “anticipate performing up to their expectations” on the final exam.

Finally, support was observed for a portion of Hypothesis 4. Students possessing higher self-handicapping tendencies were found to be significantly (at the 0.05 level) less likely to “anticipate performing up to their expectations” on the final exam than were students possessing lesser self-handicapping tendencies, providing support to Hypothesis 4A. Similarly, students possessing higher levels of anxiety were found to be significantly (at the 0.05 level) less likely to “anticipate performing up to their expectations” on the final exam than were students possessing lesser anxiety supporting Hypothesis 4B. No significant relationships were observed, however, with amount of time spent studying nor number of absences (Hypotheses 4C and 4D).

VIII. Discussion.

Several conclusions can be drawn. First, it appears that temporal proximity has an effect on relationships involving whether students “anticipate performing as well as expected” on the final exam at the time of the final exam. For instance, performance on the second exam, which occurred roughly 50 percent closer in time to the final exam than the first exam, was observed to be significantly (at a 0.05 level) related to whether students anticipated performing as well on the final exam as expected, while such a relationship was not observed for exam 1. A closer examination appears warranted.

A visual examination of the grades received on exam 1 and exam 2 indicates that although students’ grades on exam 1 and exam 2 were significantly (at the 0.05 level) correlated $r = 0.543$ as would be expected, a substantial amount of “movement” occurred in the grades between the two exams (students either performing significantly better or significantly worse on exam 2 than on exam 1). Although exam 1 and exam 2 were identical in their construction (as indicated by the number, type, and source of questions included) and level of difficulty (virtually identical average grades implying that students’ performances should differ little), the fluctuation noted in grades from exam 1 to exam 2 is not atypical for the course.

The fact that a significant relationship was observed only between whether students “anticipated performing as well as expected” on the final exam and grades received on exam 2 suggests two possible courses of action for instructors who wish to increase the percentage of students who “anticipate performing as well as expected” on the final exam. First, it appears that they should focus attention on students who perform more poorly on exam 2. Efforts such as explaining to students the source and the rationale behind the questions which were missed on the exam may increase the likelihood that these students will “anticipate performing as well as expected” on the final exam. Second, given the lack of a relationship involving the first exam and the existence of a sizable degree of “movement” in grades from exam 1 to exam 2, instructors may also need to focus on students who perform well on exam 1 by stressing the need to approach exam 2 in the same fashion as they approached exam 1 with the objective of minimizing negative “movement” and improving performance anticipations on the final exam.

Similarly, course grade expectations at the time of the final exam were observed to be

significantly (at a 0.05 level) related to whether students “anticipated performing as well on the final exam as expected,” while such a relationship was not observed for grade expectations at the beginning of the course. This finding suggests that the relationships between grade expectations and whether students “anticipate performing as well as expected” on the final exam are more likely a result of experience during the course than an individually based phenomenon.

The results also suggest whether students “anticipate performing as well as expected” on the final exam at the time of the final exam is affected more by their mental states than their activities. Specifically, self-handicapping and anxiety were both found to be significantly (at a 0.05 level) related to students’ expectations whereas time spent studying and number of absences in the course were not. Although instructors can expect to have a larger effect on students’ activities than on their mental states, they can still affect the level of anxiety experienced by students and their self-handicapping tendencies. Specifically, the literature is full of recommendations that instructors can use to attempt to reduce the anxiety felt by students at the time of an exam. Furthermore, by reducing the level of anxiety perceived by students at the time of the final exam by lowering the perceived threat that it poses for a student’s self-esteem, the self-handicapping tendencies of students may also be minimized (Burns 2005).

Finally and surprisingly, no relationships were observed between students’ “anticipations of whether they will perform as well as expected” on the final exam at the time of the final exam and their actual performance on the final exam or in the course. These findings suggest that students’ performance anticipations may not be of great importance to instructors. If students’ anticipations have little relationship to actual exam performances, they would appear not to be issues of great concern.

A possible alternative explanation, however, is that students who do not “anticipate performing as well as expected” on the final exam may actually possess the ability to perform better than those who “anticipate performing as well as expected” on the final exam, but are constrained from doing so. Evidence that suggests this possibility includes the higher anxiety experienced by students who do not “anticipate performing as well as expected” on the final exam experience – a factor which has unequivocally been shown to negatively affect exam performance. Furthermore, the higher levels of self-handicapping they experience may also negatively affect exam performance. Moreover, students who do not “anticipate performing as well as expected” may consequently be less motivated to prepare for the exam. (Although the results suggest no difference in time spent studying, past research shows that the time students spend studying is not related to exam performance but instead, the quality of the studying activity is the important issue. Students who are less motivated to study will likely engage in lower quality studying activity). Although additional research appears warranted, this possibility suggests that instructors may want to place additional attention on reducing the anxiety experienced by students at the times of exams and may also want to pursue avenues to repress the manifestation of students’ self-handicapping tendencies.

A second alternative explanation is that not all students strive to obtain top grades, but that some will merely strive to receive a grade of “C” or whatever is the minimum required to pass the course and/or to obtain a degree. Hence, such a student can “anticipate performing to their expectations” even if that includes anticipate performing at a “C” level. As discussed earlier, however, students’ predictions of their grades tend to be consistently significantly overly optimistic. Indeed, surprisingly few students express that they expect a “C” grade. Moreover, at least some of the relatively few students who may choose to suffice with a lower grade may do so due to learned helplessness – where students withhold effort since the prospect of success from investing significant effort into academic undertakings is perceived to be minimal. Although learned helplessness has ties to a pessimistic attribution style

(attributing failure to ability) (Burhans and Dweck 1995), the desire to project a positive image to one's self and to others (impression management) can be expected to affect students' anticipations of whether their exam performances will accurately reflect the standards at which they believe they should be performing.

A number of limitations exist which may limit the generalizability of the results. First, to increase the likelihood that students would respond truthfully to the items on the questionnaires, no attempts were made to capture demographic information from the sample. Past research on test anxiety, however, suggests that a gender difference may exist. Second, to control for extraneous variables, only students attending sections of a single course employing an identical lecture/testing/grading style at a single university were included in the sample. The generalizability of the findings to courses in other disciplines, courses employing alternative teaching or testing styles, or to other university settings, therefore, has not been examined. Finally, the general anxiety scale has not yet undergone significant validity testing.

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Long-term learning, achievement tests, and learner centered instruction

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Abstract: The purpose of this study was to examine the effectiveness of achievement tests to measure long-term learning at the higher education level in traditional versus learner-centered classrooms. Volunteer instructors who use comprehensive achievement tests as an important component of their grading system were asked to complete an instrument that measures the level of the learner-centered approach of the instructor. Their students were asked to volunteer to retake the course's final test one semester later. As expected, although a decline in performance was observed for both groups, the decline for the low learner-centered group was much sharper.

Keywords: learner centered instruction, achievement, tests, long-term learning, higher education.

I. Introduction.

How can we determine if students are learning in college? Learning is commonly defined as a relatively permanent change in behavior or mental associations due to experience (e.g., Ormrod, 1999). However, how long does this relatively permanent change last? Are examinations a good tool to measure this learning over time? Few researchers have studied the relationship between achievement tests and long-term learning. For example, Arzi, Ben Zvi and Ganiel (1985), in a study related to the effectiveness of seriated courses, indirectly studied the permanence of learning as measured by final examinations, and found that if there was no follow-up course, the level of learning that remained after one semester was minimal. If college students are learning material for a multiple-choice examination (one of the most popular forms of assessment), how long will they retain this information? Will they be able to produce the correct answers to the examination months after it was first taken?

Kohn (2000) described multiple choice examinations as being the “most damaging” testing instrument, one which limits assessment to raw data and neglects the most important features of learning, such as initiative, creativity, conceptual thinking effort, curiosity, imagination, and so on.

A. The Learner-Centered Paradigm.

The relatively short duration of learning, however, is not only related to the type of assessment used, but also to the teaching-centered learning paradigm that today dominates higher education (Huba & Freed, 2000). Would this outcome be different if a learner-centered approach was in effect in higher education classrooms around the country?

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According to Schrenko (1994):

In a learner-centered classroom, developmentally appropriate activities are designed to help students use the thinking and learning strategies they will need to succeed in both school and in life. In a learner-centered system, standards are established, and each child is expected to achieve those standards. The time required to master skills may vary, but the standards do not. (p.28).

When college professors lecture in traditional methods, students may not have an opportunity to be enriched by the material because they are unable to make connections to their own life experiences (McCombs & Whisler, 1997). In recent years, Learner-Centered teaching has become increasingly popular among elementary middle school teachers. Several studies suggest that learning-centered schools are more effective than traditional education in promoting traditional indicators of school performance such as achievement (Fasko & Grubb, 1997; Ovando & Alford, 1997; Perry, 1999; Matthews & McLaughlin, 1994) and graduation rates (Anness, 1995), as well as other, less traditional indicators, like motivation (Daniels, Kalkman & McCombs, 2001), student self regulation (Salisbury-Glennon, Gorrell, Sanders, Boyd, & Kamen, 1999), self efficacy and self esteem (Fasko and Grubb, 1997; Anness, 1995; Perry, 1999; Houle, 1992), creativity (Rallis, 1996; Schuh, 2001; Hamilton, 1999), and finally tolerance, diversity and multiculturalism (Rallis, 1996; Thornton & McEntee, 1995; Donohue, 2001; Sewell, DuCette & Shapiro, 1998; Udvari-Solner, Alice; Thousand, 1996; Houle, 1992). However, there seems to be a gap between these models at the elementary levels and what happens in higher education. Compared to teaching children and adolescents, when teaching adults, teachers spend less time on discipline and giving directions, provide less emotional support to students, structure instructional activities less tightly, and vary their teaching techniques more (Beder & Darkenwald, 1982; Gorham 1984, 1985). According to Beder and Darkenwald (1982), "the real issue is not whether learner-centered methods are universally applied by teachers of adults, but rather for what purposes and under what conditions such methods, and others are most appropriate and effective and in fact used by teachers" (p.153).

It appears that students would have a greater sense of knowledge at the college level when a learner-centered approach to teaching is used in the classroom. In one study, for example, Migletti and Strange (1998) observed a relationship between learner-centered teaching methods and student success in two-year colleges. However, there is not a sufficient amount of research at the higher education level to fully support this notion.

B. The Present Study.

The purpose of the study was to determine the relationship between teaching using learner-centered principles and long-term learning as measured by final examinations. It was expected that there would be a significant decline in test performance after two months of taking the original examinations. However, examination scores were expected to be higher if a learner-centered approach to teaching had been implemented in the classroom.

II. Method.

A. Participants.

Forty-two full time students from Central Connecticut State University (CCSU) volunteered to participate. All participants accumulated enough credits to establish themselves as at least second semester freshman. Volunteers received a five-dollar gift certificate for their participation.

B. Materials.

Multiple-choice final examinations used in the previous semester in 3 different courses by different instructors in entry-level psychology courses, were re-used to assess long-term achievement of students. Although the reliability and validity of multiple-choice class exams remains suspect, this types of instruments have the best ecological validity since they are the real instruments faculty routinely use to assess performance. Therefore, and consistently with action research models, we believe these type of tests to be the better indicator of real classroom learning as opposed to a controlled experimental situation.

In addition, instructors were given the Teacher Beliefs Survey (TBS) and the Teacher Classroom Practices Questionnaire (TCPQ) to assess the level of learner-centered practices in theory courses. Both the TBS and the TCPQ are standard instruments widely used in research done in the area of Learner-Centered instruction (McCombs and Whisler, 1997). The TBS is an instrument that has 35 Likert-type items and measures the level of learner-centered beliefs a particular instructor has. It has three factors: Factor 1: learner-centered beliefs about learners, learning and teaching; Factor 2: non-learner-centered beliefs about learners; and Factor 3: non-learner-centered beliefs about learning and teaching.

The TCPQ has 25 Likert-type items and has a single scale that measures the level of learner-centered practices in the classroom for a particular class.

C. Design and Procedure.

Before beginning data collection, seven CCSU professors volunteered to aid in this study. Their permission was required to re-use their former final examination from one of their courses. The Teacher Beliefs Survey (TBS) and Teacher Classroom Practices Questionnaire (TCPQ) were given to the faculty who volunteered their classes for the study. The descriptive statistics of the TBS and the TCPQ, as well as a comparison with the norming sample, are presented in Table 1.

Table 1. Descriptive Statistics for TBS and TCPQ.

Test	Study Sample				Norming Sample			
	n	X	Min	Max	n	X	Min	Max
TBS	7				660			
Factor 1	3.2	2.2	3.8	0.55	3.2	1.0	4.0	0.40
Factor 2	2.0	1.2	2.8	0.70	2.28	1.0	4.0	0.56
Factor 3	2.2	1.3	2.7	0.65	2.31	1.0	4.0	0.49
TCPQ	7	3.1	2.0	3.7	n/a	n/a	n/a	n/a

It was determined that groups whose instructor scored bellow 1/2 a standard deviation from the mean on the TCPQ ($X < 2.85$) will be classified as non-learner-centered (NLC), whereas groups whose instructors scored 1/2 standard deviation above the mean ($X > 3.35$) would be

classified as learner-centered (LC). Two instructors met the criterion for LC, while one instructor met the criterion for NLC. Students in all three classes were invited to participate in the second phase of the study.

The researchers attended the Fall 2001 final exam session of the three selected classes to recruit a sample of students. Each student was asked if they would be interested in participating in this study the following February. They were told their participation would entail them re-taking the multiple-choice final examination they were about to present. They would not have to prepare in any way for the examination, nor would the results have any impact on their academic standing.

Forty-two students voluntarily showed up for the second phase of the study. Data were collected in the Spring 2002 semester; approximately 1 month and three weeks after the original test was given. Testing occurred in separate sessions of 5 to 10 participants each. Students were given the same amount of time they were originally given to complete the examination. In addition, all students completed a short exam motivation questionnaire that consisted of six Likert type items. At the end of the session, the exams were collected and graded. Participants were debriefed, and were told to check our website for the results at a later date. Original scores from the examinations were used as a baseline pretest.

III. Results.

Because all three tests had different numbers of items, all test scores were standardized on a 0-100 point scale. The descriptive statistics for the Pre and Posttest results are presented in Table 2.

Table 2. Descriptive Statistics for pre and post test.

	LC group			NLC group		
	n	X	SD	n	X	SD
Pretest	22	75.0	14.97	20	83.3	12.52
Posttest		66.5	11.43		55.5	14.88
Decline		8.5	14.97		27.8	16.26

First, a single sample pre-post t-test was used to determine if there was a significant decline between the original test scores and the late test scores. For the NLC group, a significant mean decline of 27.8 points, or 33.5%, was observed, ($t=7.65$, $p<0.0001$). The LC group also presented a significant, albeit much smaller decline of 8.5 points, or 11.3% ($t=2.66$, $p=0.014$). In addition, an unpaired t-test was performed on the post scores of the LC and NLC groups, which yielded a significant difference of $t=2.71$, $p=0.01$).

Since differences were observed on the pre-test scores, we performed an Analysis of Covariance to control for these pre-existing differences in performance, using the results of the original test as a covariate, the learner-centered class grouping as the independent variable, and the post-test score as the dependent variable. The results showed a significant Pre test effect of $F(1,38)=4.18$, $p=0.03$. A Bonferroni post-hoc analysis confirmed the significant difference between the LC and the NLC performance on the post-hoc test ($p=0.008$).

To confirm these results and account for the significant pre-test difference, a decline score was calculated by subtracting the post score from the pre score. The LC group had a decline score of $X=8.49$, while the NLC group presented a decline score of $X=27.83$. A t-test

was used to compare the decline score between the LC and NLC participants. The T-test showed a highly significant difference, ($T=-4.02$, $P=0.0003$), indicating the decline for the NLC group was significantly sharper than the decline for the LC group. The extent of the decline is better illustrated in Figure 1.

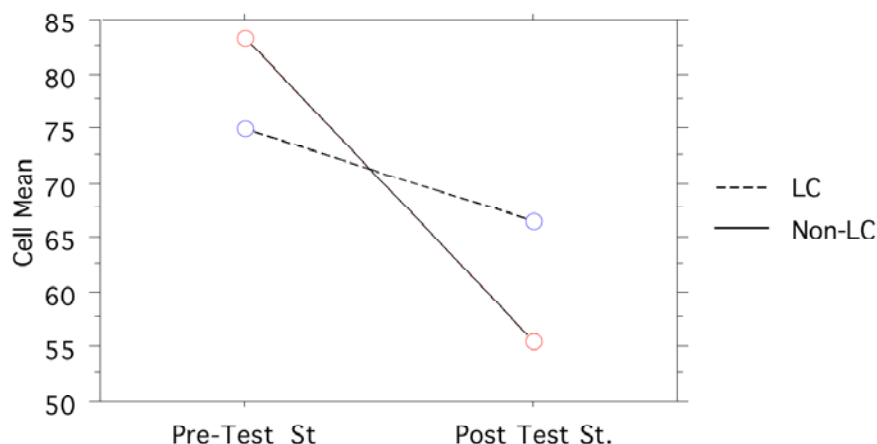


Figure 1. Pre and Post mean test results of LC and Non-LC participants.

Regarding the motivation score, although the LC group presented a higher motivation score ($X=9.09$) than the NLC group ($X=7.95$) a simple t-Test showed the difference to be non-significant ($t=1.61$, $p=0.11$).

These results provide support for our main hypotheses, showing a significant decline in test performance, in spite that the post-tests were identical to the pre-tests, but at the same time the decline was less pronounced if a learner-centered approach to teaching had been implemented in the classroom. At the minimum, this sharp decline in the control classrooms raises the question of the effectiveness of tests to measure learning. At the maximum, the fact that the decline was milder in the Learner Center classes, questions if significant learning is really occurring in the traditional higher education classroom.

IV. Discussion.

McNeil (1986) wrote that “Measurable outcomes may be the least significant result of learning” (p. XVIII). Indeed, the results of this study support the notion that measurable outcomes are not only of slight significance, but also of questionable value, because they tend to not be reliable indicators of long-term achievement. These results support previous evidence not only of the limitations of traditional tests as assessment tools in the higher education classroom (Kohn, 1999; Huba and Freed, 2000), but also of the importance of shifting college teaching towards a more learner-centered paradigm. The present study, however, does not answer the question, to what extent is the decline in performance the result of invalid and unreliable measurement of knowledge by the multiple choice instruments, or a true decline in knowledge because the current pedagogical techniques do not promote deep, relevant learning? Although we suspect that both factors account for the observed declines, future studies should try to answer this question.

In addition, although the present study provides some important information regarding

the interaction between teaching paradigms and the use of tests in higher education, it is a study that is limited by the small sample size, and could certainly benefit from a more longitudinal approach to monitor the decline of knowledge, and to find if there is a floor effect.

In practice, a shift to a more Learner Centered paradigm in higher education could be boiled down to 6 principles that can be applied in any classroom (Adapted from McCombs and Whisler, 1997):

- Choice - Students have different skills, interests and concerns. They should have choice, with support and scaffolding from a facilitator, regarding their own projects and graded assignments, and be able to select areas that are personally relevant.

- Time flexibility: Students learn at different rhythms and are at varied developmental stages. Learning should occur at an individual pace with flexibility of time.

- Uniqueness – Students have different learning styles and personality traits. Therefore, they might be able to show their learning in unique ways, (e.g., written, oral, art, etc.). The focus should be on mastery instead of graded performance, teachers should provide feedback instead of grades, and risk taking and creativity should be encouraged.

- Active: Students learn better when knowledge has to be applied, synthesized and discussed. Therefore they should be actively engaged, participating in individual and group learning activities, instead of passive recipients of information in a lecture.

- Responsibility: When students are responsible for their own learning, they develop self-regulation skills, intrinsic motivation, and learn to value learning on its own and not because of external rewards. They should have increasing responsibility for the learning process, like responsibility for attendance and setting and keeping their own objectives and timetables for projects.

- Critical thinking: The goal of higher education should be the development of critical thinking skills and not the transfer of information. The focus should be on learning how to solve complex, poorly defined and flexible problems that resemble real life problems, instead of the right-wrong, well-defined problems that we only see in school.

Unfortunately, as educational practice often tends to do, instead of trying to move towards research-supported models that promote more significant learning goals, such as motivation, self regulation, self efficacy, creativity, initiative, tolerance, diversity and multiculturalism, we go to the “commonsense” approach of outcomes based assessment that emphasizes the role of raw knowledge and measurable outcomes under the banner of accountability. Only through the continuing study of learning and its assessment, and the education of parents and students regarding research in this area, can we hope to turn education’s focus away from practices that research has shown are more limiting (no matter how politically popular they might be) and towards accomplishing what McNeil would surely consider its most significant results.

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Impact of attendance policies on course attendance among college students

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Abstract: The purpose of this study was twofold: (a) to investigate whether having a graded attendance policy would have an effect on course attendance among college students, and (b) to examine beliefs about education and attendance policies among college students. Results support the utility of graded attendance policies for increasing class attendance despite mixed findings with regard to educational values and beliefs about the implementation of such policies.

Keywords: attendance, policies, college, students, learning

I. Introduction.

Previous studies have documented the relation between class attendance and grades. In a study conducted by Clump, Bauer, and Whiteleather (2003), results revealed a significant relation between attendance and both immediate test scores and overall class test scores using a sample of 423 undergraduate students enrolled in two sections of a general psychology course. In this study, students present on days pop quizzes were administered were compared to students who were not present. In the majority of cases, being present on quiz day resulted in a significant increase in subsequent unit test scores as well as overall class test scores. Similarly, Launius (1997), using a sample of 378 students in four sections of an introductory psychology course, found a significant positive correlation between attendance and exam performance, outside activities and, in at least one section, the final exam score. Van Blerkom (1992) also reported a correlation between attendance and course grades among 17 sections of undergraduate psychology courses. Jones (1984) reported a negative correlation between absences and grades, providing support for a causal model of the cyclical relationship between grades and attendance whereby absences correlated with low grades, and low grades correlated with absences. These findings are not specific to the field of psychology, however. Other fields also have documented the association between class attendance and grade performance as well. For example, Brocato (1989) used a sample of undergraduate Principles of Macroeconomics and Intermediate Macroeconomic students to provide support for the strength of the relation between class attendance and grades.

Despite the documented importance of attending class, students do miss class often and for a variety of reasons. In one study, the reasons cited most frequently by students for missing class were boredom, illness, and interference with other course work or social life (Van Blerkom, 1992). Unavoidable circumstances such as family emergencies or transportation problems also account for student absences, although students cite boredom or general lack of interest in attending class as reasons much more frequently (Launius, 1997). Nevertheless, researchers have found that instructors can increase student attendance by providing appropriate incentives. While

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incentives may be irrelevant for decreasing absences related to emergency situations, providing students with a tangible motivation to attend class may increase attendance for students who otherwise miss class due to boredom or general lack of interest.

Interested in the use of incentives and the relationship between attendance and grades, one researcher compared the results of five regular semester tests across six sections of an undergraduate statistics course (Hancock, 1994). In this study, the instructor encouraged regular attendance across all sections, but required attendance for only three of the sections, meaning that attendance accounted for a portion of the students' grades. The latter three sections served as the experimental group. Results revealed that attendance and grades were significantly higher for the experimental group compared to the control group, where the instructor did not require attendance or take class roll. In a similar study, Hansen (1990) investigated the impact of a positive reinforcement program for controlling absenteeism among business administration college students over a four-year period. Results revealed that class attendance was higher when instructors offered a grade point bonus reward policy compared to those who did not offer such a policy.

Despite the documented relation between class attendance and grades, not all instructors include a graded attendance policy in their syllabus. Some instructors argue that college students are adults and, therefore, should be responsible for coming to class on their own accord. Others argue that grading attendance is antithetical to instilling responsibility and intrinsic motivation in college students and, worse, robs young adults of their free will to choose whether to attend classes in which they are enrolling and for which they are paying voluntarily. These arguments notwithstanding, Launius (1997) surveyed 257 undergraduate psychology students, finding that 70% thought instructors should provide credit for class attendance. Furthermore, of the students surveyed, 84% claimed their attendance would increase if they earned attendance points.

Surveying students about absenteeism can provide educators with information that can be extremely useful for educational planning. Sleight, Ritzer, and Casey (2002) examined student and faculty perceptions about missing class, highlighting the importance of understanding the instructor-student interactions surrounding student absences. Although these researchers did not assess the utility of graded attendance policies, they gathered important information about the differences between faculty and students with regard to what they perceived as important and what factors motivate students to attend class. According to results, faculty found fewer reasons for missing class acceptable than did students. Students cited the amount of material to be covered on the exam as the most important factor in determining class attendance whereas faculty predicted interest in the material would be.

A review of the literature demonstrates that much of the research in the area of attendance to date has focused primarily on the relation between attendance and grades, with much less of a focus on what educators need to do to increase attendance. Little research exists that provides empirical support for the utility of graded attendance policies, independent of grade performance, especially in the field of psychology. In addition, research that examines beliefs about education and attendance policies among college students, factors that may underlie attendance habits, is lacking. The purpose of this research was twofold: (a) to investigate whether having a stated attendance policy would increase course attendance among college students and (b) to examine educational values and beliefs about attendance policies among college students. Research addressing both of these domains is limited. This research is intended to build upon the existing literature.

II. Method.

A. Participants.

Participants were 155 undergraduates from eight college psychology courses at a public university located in the Southeast (139 women, 39 men; 34 freshmen, 24 sophomores, 36 juniors, 57 seniors, 1 graduate student, 3 missing data). The mean age of participants was 23. The courses included Behavior Modification, Tests & Measurement, and two sections each of Introduction to Psychology, Personality, and Child Psychology. Four courses took place in the fall semester, and four courses took place in the spring semester. Researchers randomly assigned courses to either the experimental or control conditions with one exception; courses with two sections were counterbalanced so that one section received the experimental condition and one received the control condition. This procedure reduced the effects of the confounding variables surrounding the content of the course. The composition for each course, including information about which classes took place during each semester (fall and spring), which classes included a graded attendance policy, the total number of participants from each course, and the class standing of participants appears in Table 1. All classes met once a week with the exception of the Behavior Modification course, which met twice a week. To control for this difference in the analysis, researchers prorated absences during data entry for the Behavior Modification course so that each class missed counted as $\frac{1}{2}$ an absence. Thus, two absences in a course that met twice a week equaled one absence in a course that met once a week given that the amount of material covered during the course for the week was the same.

Table 1. Composition of Courses.

Course	Policy	Number of Participants					
		Total	Freshman	Sophomore	Junior	Senior	Other/Missing
Intro to Psych (F)	No	33	17	10	1	2	3
Behavior Modification (F)	Yes	15	0	0	2	13	0
Personality (F)	No	7	0	0	4	3	0
Personality (F)	Yes	33	0	1	14	17	1
Child Psychology (S)	No	13	5	2	3	3	0
Child Psychology (S)	Yes	7	1	1	3	2	0
Tests & Measurements (S)	No	16	0	0	2	14	0
Intro to Psych (S)	Yes	31	11	10	7	3	0
TOTAL		155	34	24	36	57	4

F=Fall

S=Spring

B. Procedure.

Researchers divided classes into two groups for the purpose of this study. The experimental group included courses with a graded attendance policy, and the control group

included courses without a graded attendance policy. During each semester (fall and spring), researchers divided courses so that half of the courses fell in the experimental group and half in the control group. For the experimental group, researchers outlined the attendance policy, referred to as a “participation grade”, in the syllabus and explained this policy on the first day of class. The policy outlined the expectation that students would attend and participate in class and that they would earn credit toward the participation grade for each full class attended. Attendance (i.e., “participation”) accounted for 10% of the total course grade for this group. Researchers did not discuss attendance or participation with the control group. Researchers recorded individual attendance during each class period for both groups by passing around an attendance sheet at random times (e.g., beginning of class, after break, end of class). The control group received no explanation about why researchers were collecting attendance. At the end of each semester, researchers surveyed participants in both groups on their values regarding the importance of a college education and beliefs about attendance. Items included statements such as “Students who attend class regularly receive higher grades.” Researchers asked participants to respond to statements using a Likert-scale, from 1 (*Strongly Agree*) to 5 (*Strongly Disagree*).

III. Results.

A *t* test comparing the groups for variations in attendance revealed a significant difference, $t(130.399) = -3.56, p = 0.001$. The mean number of class sessions missed for students enrolled in the experimental group was 1.16 compared to 2.04 for the control group. Measures of effect size using Cohen’s *d* revealed a moderate association ($d = 0.56$) between graded attendance policies and attendance. Further analyses using *t* tests revealed no differences in attendance between men and women overall or within groups, nor did attendance differ between upper and lower classmen ($p > 0.01$).

Results from the survey revealed that 98% of participants agreed that having a college education is important, and 72% agreed they need a college education to be successful. Additionally, 77% agreed that students who attend class regularly will receive higher grades and that regular class attendance is necessary in order to be successful in college. The majority of respondents (53%) agreed that students who miss class will receive lower grades. However, a notable 22% of respondents disagreed with this statement, whereas 25% were undecided. In addition, 55% agreed it is important to attend every class in a given semester. Researchers also examined the number of absences believed to adversely affect student grades. The majority of respondents (81%) believed that missing one class would not have an adverse effect on their grades. Thirty-one percent agreed that missing two or three classes would not have an adverse effect on their grade, and an additional 21% were undecided. Only 9% believed that missing four or more classes would not adversely affect their grade.

When questioned about whether students believed missing a class is disrespectful to the instructor, responses varied (41% agreed, 24% were undecided, 35% disagreed). With regard to students’ preference for classes with or without attendance policies, only 35% of participants agreed they prefer classes with attendance policies, whereas 44% disagreed and 21% were undecided. When questioned about whether instructors should implement attendance policies in their courses, only 20% said they should. However, 71% said they were less likely to miss class in courses for which there is an attendance policy. In comparison, for courses without an attendance policy, 42% agreed they were more likely to miss class, 49% disagreed, and 9% were undecided.

IV. Discussion.

The primary purpose of this study was to examine the utility of graded attendance policies in undergraduate college courses. Specifically, does having a graded attendance policy increase attendance among college students? Results from this study indicated that graded attendance policies increased class attendance, which supports findings reported by Hancock (1994) and Hansen (1990). Given that Hancock (1994) studied students enrolled in statistic courses and Hansen (1990) studied business administration students, this study's focus on students enrolled in psychology courses lends support for the idea that the relationship between attendance and incentives generalizes across courses and majors.

In this study, on average, students enrolled in courses for which there was an attendance policy missed one class per semester compared to students enrolled in courses without a stated attendance policy who missed two classes per semester. These results are particularly interesting in light of findings from the survey designed to assess the educational values and beliefs of college students, the secondary purpose of this study. Results from the survey provide valuable data not gleaned in previous studies assessing the relationship between attendance and incentives (Clump, Bauer, and Whiteleather, 2003; Hancock, 1994; Hansen, 1990). Results suggest that whereas students recognized the relationship between attendance and higher grades, they did not believe instructors should have graded attendance policies. This finding reflects student knowledge of the importance of attendance while simultaneously illustrating their desire for choice and autonomy in educational decision-making. Despite students' responses to these results, this study suggests that having a graded attendance policy may serve as a motivator for increasing class attendance. Without an incentive, students may lack the intrinsic motivation to attend class on a regular basis. This possibility may be especially true of undergraduate populations who are typically younger and may view education as a means to an end as opposed to appreciating the inherent value of an education. It may be that older students attend classes more regularly and possess a higher degree of motivation although current findings did not support this hypothesis. Rather, results revealed no difference in attendance between upper and lower classmen. However, there may be a difference between undergraduate and graduate populations. For example, for purposes of comparison, students enrolled in a graduate psychology course during the same time period as this study had perfect attendance. Also, whereas although the majority of students acknowledge that they are less likely to miss class in courses for which there is an attendance policy, fewer students acknowledge they are more likely to miss class in courses where there is no attendance policy. In the absence of the graded attendance policy, there seems to be a difference between what students say they will do (i.e., attend class) and what they actually do (i.e., miss class). These findings suggest that students may discount the impact of graded attendance policies on their behavior despite evidence to the contrary.

The majority of respondents believe that missing one class will not adversely affect their grades, and many students do not believe or are unsure about whether missing two or even three classes will have an adverse effect on their grade. These findings suggest students may be unaware of the negative impact that missing class has on academic performance in college. It may be that undergraduate students lack the experience to understand fully the impact that missing class has on one's grades.

The majority of students agreed that "regular class attendance" is necessary for success in college, but definitions of regular class attendance vary greatly between and among individual

students and instructors. The large discrepancy in beliefs about what defines regular class attendance and at what point failure to attend class will adversely affect one's grade provides further support for the need for uniform graded attendance policies. In addition, results showed one third of participants reported they did not think it is disrespectful towards instructors to miss a class, as some instructors may perceive failure to attend class as disrespectful. Graded attendance policies, whether received positively or negatively by students, may provide the incentive needed to improve undergraduate college attendance. As instructors, it is necessary to provide structure and set proper expectations for achieving high grades. Regular class attendance may be a part of the necessary expectations set by instructors.

This study had several limitations. First, in order to track attendance in all courses for the purpose of this study, students in both the experimental and control groups signed a roll sheet. This procedure may have attenuated results given that students in the control group may have believed that, by being required to sign a roll sheet each class period, attendance was part of their grade, despite the absence of an actual attendance policy. As a result, students in the control group may have been absent less than would have been the case had their attendance been tracked in some other way. Shimoff and Catania (2001) studied this phenomenon. Their study examined the effects of recording attendance, which resulted in increased attendance and academic performance even without incentives. Support for the strength of these findings is provided by the fact that there was a significant difference between groups even in light of this phenomenon.

Another limitation has to do with environmental factors. During the fall semester of this study, several hurricanes hit the state in which the university is located. As a result, the university closed the campus for several days, and many students lost electricity and faced hurricane damage. The implications of the hurricanes may have been twofold. Initially, the hurricanes may have resulted in a higher rate of absenteeism due to mandatory evacuations, hurricane preparations, and the aftermath of the hurricanes. Subsequently, attendance may have inflated due to the fact that instructors had to condense the class semester and cover more material during each class session.

Several factors exist that may limit the generalizability of this study. First, this study was conducted at a university historically considered a commuter campus, which may have affected attendance rates. However, this likely did not have an effect on the findings in terms of the differences in attendance between the experimental and control groups. Second, men were underrepresented in this study and, although results revealed no gender differences with regard to attendance habits, the generalizability of findings may be suspect. Finally, like much of the research reviewed in this area, students enrolled in undergraduate psychology courses comprised the sample. Therefore, it is difficult to assess whether similar effects would be seen in courses outside the field of psychology or even outside the College of Arts and Sciences.

Future research should examine the factors underlying the discrepancy between students' intentions with regard to attendance and their behavior. In addition, researchers could study what incentives work best for increasing college attendance (e.g., percentage of grade, quiz points, ability to drop final, extra credit). Future studies also might examine the differences between "attendance" and "participation" as these terms, while related, represent distinct constructs. Finally, the psychological community would benefit from further examination of the differences in intrinsic motivation between undergraduate and graduate students in an effort to understand the factors that attribute to valuing one's education.

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How alumni narratives of intercultural competence can inform the scholarship of teaching and learning of intercultural communication

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Abstract: Through email correspondence and interviews with former students the author explores how the Scholarship of Teaching and Learning can serve as a way to reflect upon philosophy and pedagogy in an intercultural communication course. Key lessons of intercultural competence from former students and how these lessons have impacted their professional and or personal lives are shared. The essay includes an assessment of how issues of diversity and intercultural competence from former students can be implemented in the classroom. Questions that draw from the Scholarship of Teaching and Learning that challenge and sustain teaching and learning are posed.

Keywords: Intercultural Communication, Intercultural Competence, Diversity, Narrative, Alumni

I. Introduction.

All faculty, throughout their careers should themselves remain students. As scholars they must continue to learn and be seriously and continuously engaged in the expanding intellectual world.(Boyer, 1990, p.36)

After years of teaching a particular course it is not uncommon for an instructor to become complacent. Other tasks and challenges scholarly, pedagogically, or administratively crowd out needed reflection on why the course has been a success or how it could be retooled. Too often, it is easier to stick with the status quo and not make inquiries or adjustments until immediate attention and decisions are required.

I teach an intercultural communication course, and have been doing so almost every semester since I arrived at my current institution 14 years ago. I enjoy teaching the course. Students are attracted to the course, with what I believe, goes beyond availability or whether or not I teach it. With globalization and the increased need for more awareness of other cultures, the intercultural communication course is an easy “sell” as a requirement for many of our majors or as an elective for other students across the university. Despite being well into my second decade of teaching intercultural communication I remain vigilant in not becoming complacent. I do not want to be accused by my students of referring to the same yellowed lecture notes. I welcome new and relevant content such as integrating current events representative of concepts and themes that need to get presented to students in an introductory undergraduate course. My students and I have together consulted internet news sources and in class debated the current cultural controversies. I have divided students into small groups where they consult on cultural

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case studies. They then post their case study responses via Blackboard online format where a blended classroom approach between traditional and online discussions can take place.

One consistency that guides learning in my intercultural communication courses is the use of the pedagogical lens of intercultural competence. Intercultural competence involves a combination of knowledge, skills, and attitude. Knowledge is the cognitive ability to be both aware of one's own communication as well as others' communication, and learning the ways to build better intercultural relations. The skills component depends on how the individual can apply or carry out what he or she knows. Attitude consists of one's motivation to gain more knowledge about intercultural communication, and taking opportunities of applying skills one has learned (Lustig & Koester, 2005).

A couple of years ago I began to take a more scholarly interest about teaching and learning in the intercultural communication course beyond adding new information or the "bells and whistles" of course delivery. I began by asking, what is a more systematic and scholarly way of assessing the course? In addition, how can I become more competent myself in order to make the course a satisfying learning experience? This paper focuses on my ongoing experiences with teaching the intercultural communication course and how the Scholarship of Teaching and Learning has allowed me to reflect on my own teaching as well as challenge and sustain teaching and learning for the future.

The Scholarship of Teaching and Learning consists of a "systematic reflection on teaching and learning made public" (<http://www.sotl.ilstu.edu>). Shulman (2004) writes, "Scholars don't engage in traditional research because they failed when doing it before; they do it because they have done it well and now want to learn more" (p. 21). Researching teaching and learning within the intercultural communication course did not mean that I was doing things wrong. Similarly, despite several years of successfully teaching the intercultural communication course, I had to rid myself of what Rosenzweig (1999) notes is a tendency for experienced teachers to believe they know the answers because they have been doing it for so long.

"In the scholarship of teaching, the teacher cares deeply about the discipline but, equally, about the learners and their connection to both the material, the discipline, and learning" (Theall & Centra, 2001, p. 42). As a way to learn more about teaching and learning within my own courses, I often turn to former students as collaborators. I do not expect these former students to have the answers. I believe that encouraging students to relate their journeys with intercultural competence can extend beyond the classroom, and can offer perspectives and potential for teaching and learning for future intercultural communication classes. Likewise, Darling (2003) states that the goal of the scholarship of teaching and learning "is not to abstract theoretic claims, but to offer contextualized accounts of our efforts to understand teaching better and to enhance student learning" (p. 48). Honoring former students' experiences assists in the process of understanding teaching and learning in the intercultural communication classroom.

A. Listening to Student Narratives.

Personal narratives consist of "stories lived and told" (Clandinin & Connelly, 2000, p. 9), and bring together one's experience and identity (Hantzis, 1995). Sharing one's own story is important for self understanding, and according to Bateson (1997) "includes a dimension of justification, not only 'what I did' and 'what happened' but how and why I chose to understand it, and a readying of the self for the task that lies ahead" (p. viii). Goffman (1981) refers to narrative as "strips of personal experience" from the past that is "replayed" (p. 174). Narrative

functions not only provide a report of an experience, but also provides something to reexperience (Goffman, 1975, p. 506). “[This] reexperiencing is not only for the teller but also for the audience so that they can empathetically insert themselves into replaying, vicariously experiencing what took place” (Cortazzi, 1993, p. 39).

Elbaz (1990) writes that “story is the very stuff of teaching, the landscape which we live as teachers and researchers” (p. 32). The study of teachers narratives—teachers’ stories of their own experiences—is increasingly being seen as central to the study of teachers’ thinking, culture and behaviour” (Cortazzi, 1993, p. 5). Likewise, narratives from students about their experiences of learning are “an important and powerful dimension in our pedagogical thinking” (Knowles & Holt-Reynolds, 1991, p. 187).

My journey into listening to student narratives began when a former student named Mindy emailed me reporting that she was in an intensive Spanish language program in Guanajuato, Mexico. Mindy added that the issues talked about in the intercultural communication course that she had taken with me in her senior year at college had helped inspire her to live and study in another country. I suspected that hearing narratives like Mindy’s would inform future teaching and learning in my intercultural communication courses. More specifically, I sought to hear from former students about their experiences with or understanding of diversity prior to taking my class; perhaps what sparked their interest in the course initially? I wanted to know from students their recollections of intercultural competence, specifically points of knowledge, skills, dilemmas or challenges as well as their attitudes about and motivations to learn about intercultural communication that each had experienced while taking my class. Moreover, I was especially interested in if and how former students encountered diversity issues after taking the course, and whether issues covered in the classroom became realities in their personal and/or professional lives. With such questions in mind, I set out to design my project.

II. Method.

A. Preliminary E-mail Contact.

The criteria I used for contacting former students as participants in this project included that each must have graduated, and that each had been a student in an undergraduate intercultural communication course that I had taught during the time period of Fall 1994 and Summer 2004, which constituted my first ten years of teaching the course. I wanted former students who had had a variety of personal and professional experiences with intercultural communication and diversity. Personal correspondence with several of my former students was also considered as a way to contact participants. I also used a snowball sampling technique where students and other colleagues recommended participants for the project. In order to obtain a participant’s correct contact information I utilized my Department’s alumni database.

I first contacted participants via email or phone and explained the project. I requested that if interested to send me back a “letter” e-mail their preliminary comments. First I asked each former student to provide a background on oneself that explains one’s experiences with or understanding of diversity prior to taking my class in intercultural communication. With this request I was specifically interested in the individual student’s story concerning first experiences with cultural difference. I then asked that each former student share points of knowledge, skills, dilemmas or challenges as well as any motivations to learn more about intercultural communication experienced within the intercultural communication course. Finally, I wanted

each participant to comment on how he or she encountered diversity issues after taking the course, and whether any issues covered in the intercultural communication classroom became realities in one's personal and/or professional lives. With a small but significant research grant from my University, my goal was to carry out correspondence with eight former students followed up by a personal interview.

B. Personal Interview.

Once I had received e-mail responses I arranged for a follow up interview with each former student participant to further explore the role intercultural competence plays in their experiences with diversity and intercultural communication. Although I did not use the term "intercultural competence" in the interviews, I specifically looked for elements of intercultural competence –knowledge, skills, and motivation – as a means to access what they related to me in their responses. The interviews were semi-structured in that some questions were asked of all former student interviewees with freedom allowed for interview participants to talk about other important issues. Extensive notes were taken by the researcher during the interviews and checked for accuracy by repeating back to the interviewee at the end of the interview questioning.

Data from the interviews were analyzed using Glaser and Strauss's (1967) constant comparative method for themes and categories. Themes for the interviews were compared against themes acquired from the emails written by the students in order to insure qualitative research that is rigorous (Taylor & Trujillo, 2001).

III. Results.

Interviews with eight former students of my intercultural communication course were obtained. These eight students -- five females and three males -- were in my intercultural classes at different times over a ten year period (Fall 1994 semester through the Summer 2004 term). No two students shared the intercultural communication class together. I selected these particular former students, not only for reasons of accessibility, but also for the variety of life experiences they represented since graduation. At the time of interviewing five of the participants resided in the Midwest United States and interviews with these individuals were conducted in person. The remaining three participants lived on the East, West, and Gulf Coasts of the United States and were interviewed over the phone.

Participants were first asked to recall experiences growing up and their understanding of diversity prior to taking the intercultural communication course. All eight participants recalled vivid early experiences with intercultural communication and diversity or the lack of it. Most experiences occurred through school friendships. Mary recounted a "comical" early memory of one her elementary school friends:

I remember being at my black girl friend's house and seeing her mom putting oil in her hair, and I thought what was that all about?
My mom doesn't put oil in her hair. I don't put oil in my hair.
We're always trying to get the oil out of our hair and here they are putting on oil.

For Hans, as a U.S. American growing up in Germany during his first seven years his earliest memories were about being the "outsider." "I was the foreigner and the one who was speaking different." In another example, Hans recalled sharing the church building with time

designations for services. “At 9am the Italians met, and at 10 the Germans had the building for their services, and then at 11am we Americans had the building for our church services.” Stacy recounted, “There was a black guy we all knew that I went to school with and was my friend. But Joey was often personalized. He was separate from being black. He was just Joey.”

For Nora her earliest memory of interacting with someone from a different race was one where others immediately pointed out differences, but due to her youth and innocence she did not comprehend.

I lived in Flint, Michigan during my kindergarten year and my best friend was black. My aunts would say things such as, “Do you notice anything different between your friend and you?” They had to prompt me to acknowledge the skin color difference, but I was only five at the time.

Mindy noted that her first experience with someone from a different race was when she was best friends with an African American girl from the third through sixth grade. However, the friendship ended when each went to separate schools. Meeting and interacting with people from different cultures occurred throughout childhood and her teen years. “I was always intrigued with people who were different from me.” In fact, Mindy embraced being around others who speak different languages and dialects and are from other cultures. For example, shortly after my interview with Mindy she took a job with a different company and has transferred to Australia.

Kurtis was unique among the eight participants because of his previous military experience in Japan. Although Kurtis said that language proved a barrier to interacting much with the Japanese he was able to travel the country and recounted experiences with communicating with the locals. One time in particular, he and a friend were hiking near Mt. Fuji and were invited by a Japanese couple to a karaoke bar. “We got up there and sang songs from *Top Gun*² [film soundtrack]. The place went crazy. We had a really good time.”

For the remaining student participants sustainable diversity interactions did not occur until each had entered college. Christopher said that he traveled extensively with his family around the U.S. and Canada and even went on a class tour of Europe while in community college. “I knew on an intellectual level that there were people in the world much different than me. Even that knowledge, my daily contact was with people, who for the most part, had the same background and beliefs that I did.” For Marlo, similar to what she suspects was the case for many of her other contemporaries at her university, her first memorable accounts with diversity occurred after she had left the place she was raised. She shared that “my hometown [in Northwest Arkansas] was too small and rural for there to be a lot of diversity. It wasn’t until I went to college that I made my first black friend. Not to mention, my first Indian friend, and Asian friend.”

Another area of discussion asked the participants to share important points of knowledge, skills, dilemmas or challenges as well as any motivations to learn more about diversity and communication experienced within the intercultural communication course itself. Specific knowledge and skills were recalled from the course such as how language and culture are intertwined, different ways that nonverbal communication can be interpreted, cultural identity issues, identifying culture shock, masculine and feminine communication styles, and how cultures differ on a variety of distinctions including whether the needs of individual or the needs of the group are emphasized.

² Student reference *Top Gun* motion picture soundtrack; *Top Gun* was directed by Tony Scott and released 16 May 1986 (USA).

All eight students reported arriving to class with certain, but not similar expectations. They realize that culture is complex. For Nora, one of the main things she recalled from the course was how her views about diversity in the U.S. changed.

I do believe that the course was life-changing for me. Especially it made me question my assumptions about how/what I knew about the U.S. I had superficial ideas about intercultural communication before taking the course. I didn't have much understanding of U. S. American culture. It was too pervasive and I was a part of it, but the course challenged my notions of U.S. Americans. I hadn't comprehended the differences of cultures in the U.S. until I took the course.

Participants commented that the course served as a mirror reflecting back on one's own culture. For Kurtis, it required him to take a closer look at his own identity. "The military, I later learned in class, has a culture of its own and that I was a part of that culture." For Hans the course help prompt him to question his choices about not only his professional goals, but also the decisions he was about to make his personal life and relationships. Studying intercultural communication during her last year in college further confirmed for Mindy her goals of registering for a language immersion program and living in a foreign country.

The participants remembered specific lessons and points from the course. Marlo recounted a lesson from one of the first days in class for a lecture on the different metaphors for diversity.

The image that stuck with me all these years was that of a tapestry. Each person was a thread in the fabric, interconnected and creating the bigger picture, while still being affected complimented, overshadowed, or interweaving with threads of different color, texture, and feel. I remember this discussion vividly because the imagery was so easy to picture in my head. The world was a big tapestry of people, all individuals, but all connected and associated by the other people who surround us. I knew I would like the class after that first day.

Other participants also talked about what they specifically learned in the intercultural communication course, and how this continues to play a role in their current workplaces and professional lives. Mary acknowledged:

One thing that I recently recalled from intercultural class is that we are citizens of the United States; U.S. Americans and I thought about this the last couple of days working with the group from Canada (Barrage) who came through St. Joseph on tour and their performance last night. I just was more aware on how I interacted with them. It made me ponder, and I knew that they were happy to be back from their performance in Hong Kong, they were not quite home. The U.S. is not Canada. It just made me aware of differences and the way we interpret the world.

Christopher confirmed the importance of intercultural communication and the competency that goes with being a better communicator.

During that semester and long after the class was over, I slowly began to recognize people around me who were not only raised in

a different environment, but also recognized that they held viewpoints that were quite separate from mine. They held onto their beliefs—sometimes quite passionately—and yet I could still find common ground with them. If nothing else, the class began opening my eyes to the similarities we all share as humans.

In the final part of the interviews participants were asked to reflect on how their experiences and how their thoughts and actions specifically when it comes to intercultural communication competence played a role in their lives since graduation. As mentioned previously for Mindy the course helped contribute to her making up her mind to enroll in a Spanish language immersion program in Mexico. She also has had to monitor and adjust her communication style due to her work at an Export Company where a majority of her colleagues are from the Netherlands. Instead of communicating in an informal way, typical of many U.S. Americans, Mindy reported, “I had to learn that formality is important.” It was not just knowing this, but also being able to carry this knowledge out through a skill such as how to communicate effectively and appropriately through online and email interchanges. She has also had to effectively work through the stereotypes that Europeans have of U.S. Americans, especially females.

Nora remarked that through her position as the executive director for the county arm of a national political party that motivation to learn about the changing racial and social demographics in her community has been made significant by a growing Hispanic bloc of voters. This development has consequences not only for her own knowledge and skills of working effectively with this new voter demographic, it also has direct consequences in turning out the vote for Nora’s political party. Nora added, “I would like to think that the class and what I have learned thus far also has a positive impact on the way I treat anyone who comes from social categories different from my experience.”

After graduation, Kurtis was accepted to Officer Training School eventually making Second Lieutenant in the United States Marine Corps. The position requires not only deployment to other parts on the world, but more frequently communicating with fellow officers, superiors, and recruits from different parts of the country. For Kurtis meanings can dangerously be misconstrued, and the way one talks with people from other cultures as well as those individuals from one’s own culture is a persistent lesson of intercultural competence.

In communicating you must exercise patience and understanding.

They might misinterpret what we say. You have to keep this in mind. English is a hard language to understand, there are so many different meanings. It is important that we take the time to clarify ourselves about what was said and how we can make ourselves clearer.

While living in Los Angeles lessons of intercultural competence acquired by Hans consisted of learning about what he identified as “subcultures within subcultures.” When pressed with what he meant by this statement Hans explained, “Well in the Midwest, if they are Puerto Ricans, they are Puerto Ricans, but in LA there were groups within groups. These people talk with these people. And there were distinctions within racial, ethnic groups. It may depend on where you live—neighborhood, skin color.” Hans emphasized that categories cannot be assumed and that if he wanted to be successful as a salesperson he had to work through not only cultural affiliations, but also group membership, and a person’s own individual needs.

The knowledge, skills, and motivation required in communication and intercultural competence plays a role locally as well. Christopher remained in the area and is a recruiter for a massage training school. Multiculturalism is a part of everyone's life and learning to deal with diversity issues is a lesson of intercultural competence that one must face whether they are in another country, large U.S. American city, or a small Midwestern city that on the surface may not seem to have a lot of diversity, but does in its own way. Christopher commented:

The class did not equip me with the ability to deal with every type of human being on the planet. Rather, it was an introduction to the idea that people come from all different types of backgrounds and belief systems...When someone comes into my office and shares his or her life experience with me, those experiences may be drastically different than my own. I may or may not agree with that person or be able to understand where she is coming from. But regardless of where that person has been or what they believe, I can listen and learn something from him.

One interesting result reported by the interview participants was how social economic class became more of an issue for them especially in their lives for more than any of the former students had expected. For example, Stacy told how she was shocked when in her student teaching post in a small rural community how teachers were "idolized" because "the teachers in town were the only ones who could pay their bills." Stacy continued:

For a long time I always thought diversity was just a black/white issue, but it is more. One of the eye openers in my teaching experience is the culture of being poor." Students did not have a stable home life. They would go from home to home. Maybe mom would have a boyfriend and they would stay at his house for a while. At our school 80 percent of kids were either on free or reduced lunch. Again, teachers were idolized. The children were so needy. They would attach to you, perhaps because I seemed stable. I had great parents there, but the kids needed more.

Finally, regarding overall lessons concerning communication and the knowledge, skills, and motivation that contribute to intercultural competence, Hans added that in any culture it is probably important to "talk less than 50 percent of the time and just mainly listen."

People will tell you things. You just have to learn to shut up.

Even though we are so uncomfortable with silence in this culture, you have to allow them to talk and you listen. Also, realize that how different they may be, every other person has stories just like you. Try to learn about them, to understand where they are coming from. People have different experiences and stories, even if their lives seem to parallel yours.

When it comes to learning about communication and intercultural competence Hans could not have said it better.

IV. Discussion.

The results found in this research project confirm what Kohls (2001) maintains that one of the building blocks of diversity is to understand one's self and culture better. Participants were

quick to tell their personal stories about early experiences and understanding of diversity. Because it is essential for students to realize that they are already part of a multicultural world, there is a need to personalize one's participation in this multicultural world. Therefore, incorporating early in the intercultural communication course an assignment for students to safely talk about their early experiences and realizations of culture, communication, and difference is an effective tool for students to personalize issues. It is also a way for all to find common ground in that everyone has a culture and everyone probably has a story to tell about initial experiences with cultural difference. Likewise, hearing stories from others, especially those from different cultures and backgrounds, is an effective way to learn about diversity and intercultural communication. Sharing these stories are not only fun (childhood encounters often do result in amusing accounts), but also can be educational in discerning what lessons of intercultural competence (knowledge, skills, and motivations) can be learned from these stories.

Participants conveyed how the course provided them with a new perspective regarding intercultural communication, not only in relation to diversity found around the world, but also within the United States. What was intriguing was how each participant transformed what was talked about in the course and applied it to their own intercultural competence. Paul Ricoeur (1981) asserts, "Our deeds escape us and have effects which we did not intend" (p. 207). Not only do we interpret what we say and do, but others incur their own interpretations, and arrive at their own learning.

Marlo said she was significantly impacted early in the course with class discussions on how diversity could be visualized through different metaphors. Marlo especially liked the diversity metaphor of a tapestry where "each person was a thread in the fabric, interconnected and creating the bigger picture, while still being affected complimented, overshadowed, or interweaving with threads of different color, texture, and feel." This tapestry metaphor, according to Marlo, continues to provide a basis for her learning about diversity.

What I had thought of was a minor activity in the intercultural communication course was for Marlo the trigger for understanding what constitutes cultural diversity. In assessing my current teaching of intercultural communication, I realized I had dropped such discussions about metaphors of diversity, substituting other points and issues. Listening to Marlo has prompted me to reevaluate my teaching. Perhaps I should add back in these metaphors of diversity? Indeed, what may be trivial to the instructor may in turn serve as a powerful learning point for the student.

In the intercultural courses I have taught since undergoing this project I have required students to become more participatory and have encouraged them to complete in class projects that call upon each to share a story. Throughout the course, as well as on the final exam, I ask students to reflect upon the stories that were shared in class. Often students report that this is where learning about cultural identity and diversity is at its most vibrant. I have not done a thorough assessment yet to determine any particular learning outcomes, other than what is self reported by students. However, such activities do have potential for further questions and study regarding the scholarship of teaching and learning in the intercultural communication course.

Pedagogy on diversity and intercultural competence continues to evolve and these interviews have also led me to reconsider what new areas I should concentrate on more in my intercultural communication course. One of these areas is the topic of social class. Dealing with the issues surrounding social class became important for almost all of the participants whether it was in their personal or professional lives. In some cases it became a surprising issue of diversity

that they had never directly encountered before or even had anticipated. When asked what issue of diversity will need to be focused on in the future and likewise should be emphasized in intercultural communication courses, six of the eight participants put social class issues at the top.

Keshishian (2005) notes that “With respect to intercultural relations, it is entirely plausible that the homeless person in the U.S. will have more in common with another homeless person in Guatemala, say, than with the CEO of General Motors” (p. 215). This statement captures the sentiment, that even though two people may be from the same national culture, with the same skin color, who in other ways would be assumed to be similar, may in fact be worlds apart due to different social and economic class backgrounds.

Social class in my past intercultural communication courses has not received the same attentiveness as does other forms of diversity (e.g. race, ethnicity, national origin, sex, sexual orientation, age, disability). Likewise, current textbooks in intercultural communication often do not adequately address social class issues. (Again, see Keshishian (2005) for an expansive critique on this topic). This new awareness regarding social class issues has made me “retool” my coverage and assignments in my intercultural communication courses, and I have added a section in my graduate level Communication and Diversity in the Workplace course that focuses on social class issues. Assigned readings include Brenda Allen’s (2004) book *Difference Matters: Communicating Social Identity*, Alan Johnson’s *Privilege, Power, and Difference* (2006), as well as *Hidden Dimensions of Class in the Workplace* published in 2002 by authors Ruby Payne and Don Krabill.

Doubts about diversity and interacting with others from different cultures would not be part of one’s personal and professional life after graduation were quickly put to rest by all eight former students. Each was enthusiastic to share one’s personal story. Each had powerful lessons pertaining to intercultural competence. However, I felt guilty that I was the only one hearing them. To help with this I have shared these eight alumni experiences with diversity and intercultural competence by incorporating them into course lectures and discussions. It is clear that these former students in the spirit of the scholarship of teaching and learning had become my teachers and this education should be shared with current students in my intercultural communication courses. For example, here is a story from Mary about her current struggles with age diversity in her workplace that current students will likely soon identify with:

Age has become a real diversity issue in my job here. Everybody I work with is at least 30 years older than me. For example, later today I’m leaving for a conference in Indianapolis with two males who are 70 plus and I’m 22! I just can’t make age an open issue, but it is there. I was never treated like a kid growing up, never baby talked to, and I think this kind of helps me look at the world as an adult. The Conference in Indy—it’s my first one-- is where we choose the shows for the next season, meet with other presenters and artists, work out scheduling of tour dates, there are featured artists performing. It goes on for 3 days. Now back to the age issue – there is the issue of deciding what to wear for this conference. I mean I’m 22 and I don’t want to pack things that make me look like a teeny bopper, but then I don’t want to look too old, when I’m really not. I mean I’m not 40 and I can’t go out and get and wear a coordinating suit/pants outfit.

Mary and her fellow alums from the “real world” of intercultural competence have been invited back into my classroom to share their knowledge, their skills, and their motivations about intercultural communication competence with my current and future students. Some alumni have been able to make it back personally to talk with students during a departmentally organized “Communication Week With Alumni.” Often these interactions produce additional ideas for collaboration, internships, and instruction in courses such as the intercultural communication course. It is my hope that these interactions can become more frequent. Realistically, alumni lead busy lives and cannot personally be in the classroom on a regular basis. However, seizing opportunities such as interviewing and recording alumni on topic areas, to be later integrated in a class, is something that I anticipate doing. Once such a project is realized, further study could be conducted on how these interviews affect students’ learning outcomes.

One of this study’s strengths is that it allowed for personal in depth perspectives from former students. One on one interviews provided opportunities to probe for additional observations from the interviewee. In addition the interviews provided a format for reestablishing connections between the teacher and former students. Unlike what is traditionally requested of alumni--that is to provide financial support for their alma mater--this project asked students to give back to their alma mater through the sharing of their personal stories that can inform teaching and learning. As Diamond and Kashyap (1997) observed in their study of reasons why alumni make contributions, attachment to one’s university goes beyond supplying and meeting financial needs. Alumni want an attachment to their alma mater that also includes one’s time and expertise. Current students also benefit from learning from those who had sat at the desks and in the classes before them.

Limitations are a factor in every study, and this one is no exception. All of the interviewees were white. It would be expected that a minority students would have their own unique perspective about growing up, attending college where they are in the minority, and their experiences with intercultural competence after graduation. Another limitation is that the questions were formulated by the researcher/instructor with little consultation from former or current students. Soliciting questions from former students could provide a richer base for information on diversity and culture and how it is influencing one’s personal and professional life.

A. Implications for the Future.

Hutchings and Shulman (1999) propose, “A scholarship of teaching is not synonymous with excellent teaching. It requires a kind of ‘going meta,’ in which faculty frame and systematically investigate questions related to student learning” (p. 13). Questions for further study should be guided by a systematic inquiry or focus into student learning called for in the Scholarship of Teaching and Learning. These questions are: What is happening in the classroom? What would the student learning look like? What sort of evidence can I gather to document that student learning is occurring and providing proof it took place? Additional questions to consider include: Is remembering course content a measurement of learning. If students do not remember content does it mean learning did not occur? Do interviews and personal narratives provide enough evidence students have learned or do I have to see the evidence myself? How can we use these results of learning beyond the classroom?

Bass (1999) “The movement for a scholarship of teaching seeks first and foremost to legitimate a new set of questions as intellectual problems.” The current study has led the author

to consider what could be done in the future regarding alumni interviews, intercultural competence and the scholarship of teaching and learning that informs teaching and learning beyond the parameters of the current study. Some of these ideas have already been shared in this paper. One other suggestion is to broaden the scope of the questions asked of participants. This can be done by asking current students what they would like to know from former students who have been out of college, two, five, ten, and 15 years plus. What lessons did they learn? What advice would they give to a current student? This advice could be on issues of culture and diversity, but questions could also be about knowledge, skills, and other forms of competence important to being successful after graduation. Current students and alumni could engage in discussions about how it is like out in the “real world”. Both identify with one another due to similar interests, experiences in a major academic program, and careers. Discussion could be expanded to include how alumni juggle work schedules with pursuing further education, balancing job and family, and managing student loans and debt and how one’s personal and professional choices affects one’s daily life.

As has been noted each participant in this study was enthusiastic and willing to provide his or own story. The methodological form of narrative provides a way to interact with former students and capture their perspectives on intercultural competence. Additional interviews with other former students are needed. One suggestion for achieving this task on a broader level is to teach a methods course in narratives where current students can engage in interviews with former students who are now alumni of the university. In addition to being a valuable resource for learning more about the intercultural issues presented in this study talking with former students serves as a communication bond between alumni and the university that should be further tapped.

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A best practices service learning framework for the Public Relations Campaigns course

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Abstract: Public relations curriculum often incorporates professional experience for progressive skill development. In the traditional public relations (PR) campaigns course, students typically research, develop, and implement a strategic campaign for a community organization as the client. Service learning is an effective pedagogical approach for the PR campaigns course with value-added learning outcomes, such as critical thinking and civic engagement. Adapting a National Society of Experiential Education (NSEE) best practices approach helps integrate service and reflection components as learning components. The instructional framework presented in this article combines service and reflection principles with course and campaign planning, implementation, and evaluation. Using the best practices framework as foundational scaffolding, instructors can strategically select elements from the framework to build a customized course plan.

Keywords: service learning, civic engagement, public relations, nonprofit organizations

The essence of public relations is the strategic management of communication and relationships among organizations and stakeholders to achieve organizational goals, while serving and appealing to public interests. Service learning is a powerful pedagogical tool for experiential training in public relations courses. As a capstone course, *public relations campaigns*, helps students synthesize knowledge and gain a critical “skills set” in the key areas of research, problem analysis, strategic planning, audience segmentation, communication and messaging, and measurable evaluation (Daugherty, 2003; Texter and Smith, 1999; Turk, 2006; Wandel, 2005).

Developing a professional PR plan for a non-profit organization easily lends itself to a collaborative partnership for service learning (SL). In contrast to extracurricular volunteer hours, academic credit in the SL campaigns course is recognized for proposals addressing a problem or challenge critical to an organization’s mission, relationships, and communication among its publics.

I. Opportunities for Service Learning.

Many non-profit agencies offer valuable civic support, housing, educational, or financial assistance with programming or direct aid. Yet, with limited budgets and staffing, the majority of small non-profits seldom contract with professional PR firms or veteran PR directors for

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research, issues management, media relations, fundraising, publications, etc. Public relations courses with service components offer assistance from senior-level students and provide “real-life” scenarios, rich with learning opportunities. As future PR practitioners, students also experience the demanding, complex, and multiple functions of public relations.

Students’ PR service and follow-up reflection are enhanced not only by systematic inquiry, but insightful observation and service-oriented participation. Many PR educators would agree that most traditional campaigns courses typically require students to interact with the client organization, as a form of service. However, it is important to consider evidence of structured reflection practices that is characteristic of true service learning--documenting the critical link between theory (thinking) and practice (doing). Students need practical contexts to test their own rationale, through analysis, application, and critical reflection. Although service learning in communication courses is gaining “acceptance,” an increasingly lack of reflection was documented in a study of communication departments (Oster-Aaland, Snellnow, Nelson and Pearson, 2001). “Fewer departments appeared to be diligent about providing essential elements of service learning such as finding meaningful service and required structured reflection” (2001, p. 348). The thoroughness of this process and the integration of service into the learning objectives, distinguishes service learning in PR from other skill-based courses, common in communication curriculum. Hence, this service learning framework for PR campaigns outlines service and reflective components, guided by an application of the National Society for Experiential Education “best practices” principles (NSEE, 2007) within three instructional modules or phases. This reflective, case-based essay highlights a course approach that is easily adaptable to other communication courses and other related academic disciplines. Furthermore, the best practices framework can be modified for more succinct or expanded application, based on student, the client organization, instructor and departmental needs.

Educational research affirms that most collaborative service learning outcomes, from student and faculty perspectives, are mutually beneficial (Bringle and Hatcher, 1996; Kutula and Threnhauser, 1999). Service learning enriches students’ “appreciation and understanding of the interests of stakeholders and the importance of social responsibility”—a fundamental principle of public relations (Daugherty, 2002, p. 2). Bringle and Hatcher (1999) define service learning as a course-based, credit bearing educational experience in which students (a) participate in an organized service activity that meets identified community needs and (b) reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility. (p. 180)

While new service learning classes typically require more preparation time and energy from faculty, studies indicate that this teaching approach is more intrinsically rewarding for them (Bell and Geleta, 2005, Bringle and Hatcher, 1996, Gibson, Kosteci and Lucas, 2001). It also offers third-party documentation (i.e. agency evaluation) of course effectiveness for a performance review or tenure dossier.

A well-implemented PR campaign has positive impact among stakeholders beyond the classroom. Community and campus constituents witness (1) strengthened organizational programs, (2) meaningful civic service from college students, (3) broadened multicultural experiences, and (4) credible and ethical PR efforts in practice, in the context of service learning. The following objectives are designed for a public relations campaign course using service learning pedagogy.

II. Course Objectives.

A. Learning Objectives.

Overall: To develop a public relations campaign plan for a local non-profit organization, experiencing the dynamics of the agency-client relationship through service-learning.

- To enhance personal citizenship through service and civic participation.
- To conduct research and organizational assessments addressing a specific PR problem and related situational variables.
- To implement an effective, “real-life” PR program with measurable objectives, strategies, and tactics.
- To enhance PR managerial skills (Clark, 1996).
- To evaluate campaign outcomes, identifying short and long term implications.

B. Teaching Objectives.

- To offer an interactive experience that encourages higher order learning, synthesis, reflection, and evaluation within the PR campaign course, adapting (NSEE) best practices as a pedagogical framework (Gibson, Kostecki and Lucas, 2001).
- To frame public relations as managerial function, emphasizing the processes and coordination of Research, Action (program planning), Communication, and Evaluation (RACE) in a capstone campaigns course. Highlight strategic opportunities for creative messaging and efficient integrated marketing communications (IMC) approaches (Berger, 1992).
- To promote the reciprocal merits of service learning among students, community, and college/university partners.
- To offer opportunities for multicultural exchanges and insight through service with multicultural clientele or diversity-based programming (Davi, 2006).

C. Learning Contexts.

The context of this learning framework is tri-fold, occurring within (a) theoretical and content-based instruction, (b) the actual campaign process, and (c) communication with “self” and others. Classroom instruction may be delivered through lecture, visual media, online supplements, discussion, and case study examples. The PR and mass media theories have more meaning when students apply the paradigms to solve real PR problems.

Service learning emphasizes critical thinking and not just productivity for service. For instance, rather than just creating a requested media (press) kit, students would first question the need for the media kit as an affordable and effective PR tool for the client. Additionally, they would consider message impact upon the target audience and fulfillment of a campaign objective in reflection exercises—the same kind of contemplation a PR practitioner would exercise. Hence, the idea in service learning is not just to “research” and “do” but to contemplate, articulate, communicate, assess, do, evaluate, and reflect.

The use of self-directed student teams offers collaborative learning, while simulating the reality of “agency life.” The collective effort needed to bring the plan together requires students to function as a committed team, learning from each other’s strengths, insights, and oversights

(i.e. mistakes). Team interaction and productivity facilitates learning in a small group context. Within an organizational setting, the students work in tandem with the community partner, establishing measurable PR objectives and strategies for the campaign. In the process, students exercise time management, negotiate tasks, and engage in persuasive communication and group accountabilities--essential competencies for PR practice. Self-reflection exercises assess internal team performance, as well as any tangible PR products. As a result, students communicate and perform on multiple levels (i.e. intrapersonal, interpersonal, and organizational communication) while learning in multiple contexts.

III. Nonprofit Organizations and Agencies as Clients.

Nonprofit organizations or community agencies usually have the greatest need and flexibility to function as service clients. In exchange for a campaign plan, the organization agrees to help guide and supervise student teams and be receptive to their input. Note that the process used to select or approve clients should be just as critical as the selection of an appropriate textbook (Mikolchak, 2006). The organization itself really becomes an interactive case study for the student teams. The instructor typically selects the client organization prior to the course semester, allowing time to research a potential goodness-of-fit with the PR class. Texter and Smith (1999) affirm that early communication and planning meetings between the instructor and client representatives are essential to “determine the viability of the student-client partnership” (p. 166). The agency’s participatory role is usually co-managed, guided by the instructor’s assessment of student expertise, available resources, campaign objectives, and complexity. The client-class partnership helps facilitate the critical areas of career development and civic contribution through curriculum-based service.

IV. Service Learning Instructional Framework.

An effective PR campaigns course syllabus balances tested practices for course consistency with flexibility to meet different organizational needs. The National Society for Experiential Education (NSEE) “best practices” principles offers a detailed framework for service learning course development (Gibson, Kosteki and Lucas, 2001, NSEE, 1997). It is especially useful for faculty new to service learning or new to the profession. For veteran faculty, the framework can strengthen reflection components and learning documentation, which can be less apparent in traditional campaigns courses. Flexibility is gained by selecting applicable best practice elements that will meet desired learning objectives.

When the best practices approach is integrated into the PR campaign process and operationalized in the syllabus, it prompts students, the client organization, and instructor to assess the developing campaign and reflect upon the process. It also serves as an additional method to measure fulfillment of campaign objectives and client satisfaction with results.

The next section illustrates how the traditional PR campaign sequence can be aligned with the NSEE best practices framework. While the traditional campaign plan (Wilcox, Ault, Agee and Cameron, 2001) is sequential and chronological, the best practices framework does not have to be. You can synthesize segments of the framework into the campaign process according to your personal teaching style and course objectives. The best practices principles represent educational values that should support, but not replace other essential syllabi components (e.g. course policies). Consider applying key elements from the following instructional outline to

develop your own course plan, emphasizing a “best practices” standard for both service and reflection: adapted NSEE Principles of Best Practices: *Intention, authenticity, planning, clarity, orientation, training and mentoring, monitoring and assessment, and continuous improvement*.

A. Phase One – Service Mission, Course and Campaign Planning.

1. First, browse the web for a quick overview or refresher on service learning. This will help you envision effective, creative, and contemporary options for course design before preparing the syllabus. Campus compact (www.compact.org) for example, a national alliance of institutions promoting service learning, offers a wealth of information on service learning, full-text publications, and sample syllabi. Searching related links, you will find numerous academic reports, grant opportunities, and national associations offering teaching tips and instructional resources. Other online sources include the National Service-Learning Clearinghouse (www.servicelearning.org), Learn and Serve America (www.learnandserve.org), and the Faculty Guide to Service-Learning (<http://servicelearning.umn.edu/faculty/guidesl.html>).
2. Articulate the course mission, objectives, and scope of the campaign project in an outline or first draft of the syllabus. Consider the complexity of the campaign project and required service in assigning other course tasks, such as individual papers, exams, and reflection exercises. Note that the student teams will also need to meet on-site with the client—a significant time management issue for students working full and part-time. One study of PR students completing a campaigns course documented a class average of (10) hours at the community site and (50) hours committed to the entire campaign process (Daugherty, 2003). The course plan should proportionally balance any textbook and trade publication readings, lecture, discussion, and journaling with sufficient time for team meetings and site visits. Consider designating 2-3 class periods as “flex days” to accommodate agency representatives as guest speakers or for extended class discussions.
3. Select a textbook, course literature, or develop a mini course packet that outlines PR principles and different types of PR campaigns, supporting the course objectives (Matera and Artigue, 2000). Sample campaigns, reflection exercises, campaign planning resources, and discussion forums can be offered online through WebCT Vista or Blackboard.
4. If possible, reserve a conference room (or classroom with movable tables and chairs) early in the prior semester for team meetings, during some of the class sessions. This will also be a convenient way to meet separately with each team to discuss work-in-progress and teach in the role of a “team consultant.”
5. Consult a local community agency directory or network for potential clients a semester in advance. Ask agency directors about their interests, time, and qualified personnel to supervise and assist the class teams. Once a community organization is selected as the client, forward a copy of the syllabus and service agreement with a cover letter. The agreement should outline the responsibilities of the organization and student teams.
6. Consider both campus and organizational resources for a teaching, research, or library assistant; computer and software support, or funding. An online database workshop can help students prepare for initial campaign research. Many college libraries offer bibliographic research instruction that can be customized into a one-hour workshop.
7. Determine the service approach and integrate specific service activities into the syllabus. Establish course criteria for team service to the organization. Students can conduct a SWOT analysis, assessing the organization’s internal strengths and weakness, and external opportunities

and threats. Each team should decide, based on their collective talents, how to divide project labor. A written statement outlining the team's accountability areas and client's areas in support of the campaign process emphasizes the professional magnitude of the project. You can highlight this commitment with an early reflection exercise.

8. Assign specific reflection exercises and allot course time accordingly. Formats for reflection assignments might include (a) group discussions in class and online, (b) short written reports offering feedback on work-in-progress, (c) essay exam questions, and (d) detailed journaling in different formats. Bringle and Hatcher (1999) offer three journaling methods that are particularly suitable for PR reflection: "Double-entry, critical incident" and key concept. These methods encourage more structured, analytical writing than personal diary-type journals.

In an inexpensive spiral notebook, students vertically divide journal pages under the headings of service and personal reflections for a double-entry journal. A student, for example, may interview the organization's director about the agency's history and public image. In a journal entry heading of service, he/she would summarize the interview questions and responses. Paralleling this entry would be the student's reflective heading, describing the research interview process, effectiveness and possibly the student's perceptions of the organization's image, compared to the director's perceptions. A humorous maxim used to question newsworthiness in PR is the "so what?" question. Expand upon this maxim in the journal exercises. Start with the "what?" and then "so what?" questions to validate an event as a critical incident. Apply "now what?" questions for follow-up and follow-through analysis. The key concept approach uses key PR principles and campaign elements as topics for journal reflection. Generate a key topics list from related course readings.

9. Create a back-up project plan, just in case the client withdraws support or participation. Select a similar agency (with a comparable mission and PR scope) to serve as an alternate client. For example, the Boys and Girls Clubs of America may present similar opportunities for PR service as Big Brothers Big Sisters. If the alternate client is not needed, the organization can serve as the client for the next course semester. Additionally if the campaign's initial area of emphasis (e.g. community awareness, fundraising, sponsorship, or advocacy) turns out to be a major misfit with the learning objectives, select a related area from the SWOT analysis to modify the campaign.

10. Align course instruction with the sequential order of PR campaign components: Situation, objectives, audience/publics, strategy, tactics, timetable, budget, and evaluation. [See also item # 14.] Ask students to maintain activity and time logs, tracking total service hours accordingly. Logs, organized to support or parallel the NSEE best practices phases, will help students to complete more insightful reflection assignments.

11. Begin an instructor's course journal, noting methods that worked well, need improvement, or should be dropped from the course plan. While the syllabus or handouts may outline project exercises, a journal will help the instructor recall personal observations from the actual course experience. Even brief instructor notes (daily or weekly) help strengthen the authenticity of faculty performance statements, departmental curriculum review, student team evaluations, and teaching scholarship.

B. Phase One Best Practices Application.

- *Intention* (desired outcomes): course mission, learning objectives
- *Authenticity* (real life experience): selection of clients, campaign focus and complexity

- *Planning* (mutual problem solving and decision making): course syllabus and service plan, team and client assessment of needed campaign and related priorities
- *Clarity* (mutual understanding of goals and expectations): service agreement and team accountability
- *Reflection* (conscious examination of experiences): designing and integrating appropriate reflection exercises, formal and informal instructional feedback

C. Phase Two – Course Delivery and Campaign Implementation.

12. Review course objectives and related service plan in a course overview. Detail specific criteria for service and reflection exercises within the first two weeks of class. Offer a previous campaign plan (with tangible elements) and reflection papers as course samples. (Secure written permission to showcase student work.) Collect and present news clips or other documented publicity highlighting the success or innovation of previous campaigns.

13. Coordinate the student team member selection process. If students possess a close range of expertise, choose teams randomly in class (by alpha order or numbers out of a hat). Instead of teams electing a group leader or account manager immediately, offer a brief opportunity for emergent leadership to prevail.

14. Monitor students' contact with the agency and confirmation of an orientation or first organizational meeting. The community organization and student teams should discuss expectations and both sign a joint letter of agreement or comparable form outlining responsibilities. Begin the service and instruction of campaign components with the following sequence: Situation, objectives, audience/publics, strategy, tactics, timetable, budget, and evaluation (Wilcox, Ault, Agee and Cameron, 2001). [See also item # 10.]

15. Adapt your teaching style to facilitate active learning, using a mentoring approach, serving in a consulting role. Instructors may feel a sense of tension between controlling course direction and empowering students and client to "self-direct" the learning process. Howard (2001) suggests that instructors rely less on a transmission model of instruction and more on integrated approaches that guide, rather than dictate student learning.

16. Use reflection exercises as intermediate checkpoints to evaluate service and both completed and ongoing segments of the campaign plan. Return evaluated or graded reflection exercises as quickly as possible. Require teams to submit a final draft for review, prior to the final client submission. Offer evaluative comments, referencing PR theory and effective application.

17. Require all final written campaign plans to be submitted at the same time, even if the team presentations are scheduled for different days. This extends the same amount of time to all teams, regardless of an extended presentation schedule.

18. Refreshments at a reception or a celebratory dinner acknowledge the semester-long efforts of both students and client.

D. Phase Two Best Practices Application.

- *Clarity* (mutual understanding of goals and expectations): establishing campaign objectives that are SMART (specific, measurable, action-oriented, realistic and results-oriented, and time-targeted), committing the student team to a specific plan
- *Orientation* (becoming acquainted with service-learning environment): assessing internal and external communication, learning organizational culture, and agency programs

- *Training and Mentoring* (instruction and support): adapting a coaching and mentoring instructional approach, students' accessibility to instructor and community partner
- *Monitoring and assessment* (ongoing appraisal for desired outcomes): course standards and grading criteria, exams and evaluation methods, incorporating agency feedback
- *Continuous Improvement* (ongoing adjustment to achieve desired outcomes): revising or restructuring students service and campaign plans
- *Reflection* (conscious examination of experience): evidence of critical thinking, effective strategic planning, problem solving, and communication in reflection exercises
- *Acknowledgement* (recognition of learning, accomplishments): recognizing work in progress, acknowledging intermediate accomplishments and success
- *Evaluation* (determining if and how course outcomes were met): evidence of desired outcomes in campaign project, feedback for improvement

E. Phase Three – Service, Campaign and Course Evaluation.

19. Complete an objective evaluation for each team immediately after presentation, to remember oral points and questions that may not be addressed in the written campaign plan. Allow other students to critique the presentation with informal comment cards. Assess the team's internal evaluation of the submitted campaign plan.

20. Solicit client feedback at the campaign presentation and in a follow-up letter addressed to student teams. Evaluations on formal letterhead can be included in students' portfolios. Ask client's willingness to participate in future service learning courses. Secure periodic course evaluations from students and client.

21. Evaluate total service hours. Based on course outcomes, maintain or revise course criteria and resources accordingly. Are students and client spending sufficient time and resources to accomplish shared goals? Is the amount of required site time and service realistic for the student population or relevant community conditions (commuter students, evening class time, community adversity, or crisis)?

22. Analyze student course evaluations relevant to cognitive, civic, and professional learning outcomes. You can (re)design project and reflection exercises based on the learning objectives. Discuss with students how the learning outcomes might reflect transferable job skills and professional attributes (e.g. time management, social responsibility, and leadership).

23. Note actual and potential problems encountered and corrective actions. Is student-client communication interactive (or one-way), timely, and educational? Are problems or errors quickly addressed? How is accountability maintained? What "checks and balances" exist?

24. Prepare and disseminate a related news release highlighting the course's successes for potential media coverage in campus and community media outlets, departmental and organizational newsletters, and websites. Any generated publicity will be useful to all parties to document impact and include in professional portfolios and organizational archives.

F. Phase Three Best Practices Application.

- *Continuous improvement* (ongoing adjustments to achieve desired goals): highlight applications for life-long learning in PR industry, note impact of organizational service and projected results, discuss internal organizational follow-up

- *Reflection* (conscious examination of experience): evaluation of team's working relationship with client, learning outcomes, personal growth, and professional insight
- *Acknowledgement* (recognition of learning accomplishments and course challenges): client and instructor feedback, approved campaign plan, effectiveness of campaign implementation, and course celebration activity

V. Conclusion.

A. Assessment of Student Reflection and Learning Outcomes.

Evidence of positive learning outcomes should be assessed in a variety of ways from the instructor and client, including written reviews, verbal feedback, quantitative measurement, and observation. When plausible, students should have service opportunities and reflection exercises designed to demonstrate critical thinking, progressive thought, values clarification, and ethical decision-making. The learning outcomes from this service learning course can be categorized as cognitive, professional, and civic. Cognitive outcomes include improved communication skills, critical thinking, decision-making, strategic planning, problem solving, and evaluation. From a PR perspective, the professional and civic outcomes reflect ability to clarify and test organizational values and assumptions that later guide practitioner behavior. Students' retention of course concepts is enhanced by increased interaction with other students; discussion and implementation of PR concepts and strategies throughout the semester. Since a representative from the course's community partner writes an evaluation, it also gives the instructor a third-party critique of teaching effectiveness and student efficacy.

While the majority of student experiences are positive, it is important to communicate the limitations of the service component to help minimize conflict or error. No course plan, regardless of how strategically keen, delivers perfect outcomes. All parties should consider and adjust to unanticipated variables and negative circumstances. Consistent with PR ethics, students and client must adhere to ethical practices, avoiding for example exaggeration, deception, conflict of interests, and other actions that might result in public mistrust. *The Professional Bond*, a report from the Commission on Public Relations Education (Turk, 2006), states that

[p]ublic relations practitioners have an unquestionable moral obligation to act professionally, i.e., in a socially responsible manner, within their own societies as well as within an emerging global community. To do so, the community of public relations professionals, both practitioners and educators, must publicly define their relationship to society as earning a position of trust. (p. 23-24)

The professional values of advocacy, honesty, expertise, independence, loyalty, and fairness are highlighted in the Public Relations Society of America (PRSA) Member Code of Ethics (PRSA, 2000).

B. Service Learning Implications.

Service learning courses document team and individual student productivity and professional service to an organization. A portfolio developed from the course presents tangible evidence of the learning experience in a professional format for potential employers. A service learning approach helps fulfill the critical student career development objective within PR curriculum, while also serving community and civic needs. Additionally, an assessment study of

class reflection statements (O'Hara, 2001) reported that students "felt more socially responsible, and were more inclined to assume future leadership roles in their communities" (p. 261).

The course framework also allows students to experience a professional contract relationship and document their performance. This is particularly cogent to students planning to pursue entrepreneur or free-lance opportunities in a variety of fields. Furthermore, the course approach enhances time management skills—an essential attribute for a successful career in corporate and organizational environments. Conceptualizing these learning outcomes as transferable skills, the NSEE best practices approach can be adapted to many other academic disciplines, such as business management, political science, social work, and environmental studies. Service-based courses may include, for instance, accounting or operational audits, marketing analyses, political action networks, child safety programs, and ecology projects, respectively.

Public relations practitioners in particular are now charged with the specific mission of creating comprehensive and mutually beneficial community programs. Employers want PR professionals who can develop meaningful civic agendas that elevate the corporate image. This course design helps PR students to be more competent and confident in approaching such a mission. Hence, students not only read about PR and social responsibility in the text, they live it and reflect upon it through academically-strategic and meaningful, service learning.

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Effective use of ee-learning in a graduate education course

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Abstract: A graduate level education course utilized ee-learning (the combination of experiential and electronic learning) to break down barriers between theory and practice, and knowledge and experience. Students shared and reflected on experiences at volunteer sites, their personal lives, their individual school settings and coursework, to create a powerful, integrated learning experience. Results show ee-learning can be an effective pedagogy for classes consisting of controversial, personal and sensitive subject areas such as the exploration and discussion of beliefs concerning race, class and gender.

Keywords: online learning, electronic learning, experiential learning, service learning

Classroom teachers enrolled in graduate classes are busy professionals. They do not believe they have time to volunteer at another school site, nor do they initially perceive the benefits. One student wrote, "I would rather spend the hours helping out in my own school". However, the instructor believed students needed hands on experience in a different school to achieve the learning goals of the course. Ee-learning proved to be the solution that met the needs of both students and instructor.

Ee-learning is a pedagogy which combines experiential and electronic learning. This paper describes an ee-learning course called Issues in Education: Race, Class and Gender, completed by graduate education students at a small Midwestern regional college. The course was conducted online through the use of OnCourse, a course management software program. A wide variety of instructional technologies enhanced the course, including online surveys, quizzes and interactive exercises; video clips and audio interviews. Students were required to spend a minimum of ten hours completing volunteer activities in an educational setting as different as possible from their work setting in terms of race, income level, social class, and standardized test scores. The experiential learning combined with the electronic format to create an ee-learning course.

The goals of the course were to have students increase their awareness of educational issues involving race, class and gender; recognize, examine and challenge their own beliefs in these areas; and identify ways in which they can make a difference, or act as change agents in their own educational settings. The class was composed of practicing teachers with classroom experience ranging from three years to more than twenty years. Conversations with graduate students in previous classes revealed that most viewed the educational system through a lens based on their personal experience. To meet course goals, the instructor needed the students to fully understand the wide variety of PK12 students' educational experiences.

The researcher wanted to measure the effectiveness of an electronic class format combined with experiential learning, in terms of meeting course goals and in student satisfaction with the class. Research questions included the following: Was the ee-learning class successful?

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If so, what ee-learning factors contributed to the successful outcomes of the course? What lessons were learned from this ee-learning class experience?

I. Literature Review.

Previous research has detailed the impact of experiential learning on students learning about diversity and multicultural issues. The multicultural classes described in the literature had goals similar to the ee-learning class, and this literature was found relevant to informing the design of the ee-learning class.

Anderson and Szabo (2007) state that Teacher Education Programs typically integrate one or two courses dealing with multiculturalism into their program, and that these courses without the inclusion of experiential learning, have shown mixed results in the area of changing attitudes toward multicultural issues. Their research with one such class indicates “the successful completion of this teacher preparation course, despite the culturally responsive pedagogy, did not significantly change these pre-service teachers multicultural awareness attitudes” (Anderson & Szabo 2007, “Results”, ¶3). A leading expert in multicultural experiential learning believes that, “There is ... only so much one can teach about culture, difference, and power in a university classroom alone” (Boyle-Baise, 2002, xi).

Adding an experiential learning component to a traditional multicultural class has been shown to result in a variety of beneficial outcomes. Experiential learning is defined by Carl Rogers as significant or applied knowledge, equivalent to personal change and growth. Experiential learning includes the personal involvement of the learner, is self-initiated, evaluated by the learner, and results in pervasive effects on the learner (Kearsley, n.d., ¶1-2). Experiential learning includes active learning, service learning and volunteerism. In this paper, the term experiential learning is used to describe student volunteer activities occurring in a real world setting undertaken to meet class requirements.

Research examining the effects of including a service learning component in the multicultural training of teachers reveals that participants gain an “increased awareness of diversity, acceptance and affirmation of children of color, critique of prior assumptions and beliefs, and commitment to teaching diverse youth” (Wade, Boyle-Baise & O’Grady, 2001, p. 250). Verducci and Pope (2001) write about the benefit of service learning to help students understand the realities of diverse communities. Experiential learning can “cultivate sensitivity to issues of diversity [and raise awareness of] issues of and problems of equity, equality, power, voice, and resources in education” (p. 7). Social transformation can occur when teachers become agents of social change, and there is research showing service learning increases the participant’s sense of social responsibility, promotes tolerance and causes them to perceive social concerns as more personal (Verducci & Pope, 2001).

Research reports about combining online classes and service learning are not plentiful; however those published indicate this to be a promising pedagogy. Seifer and Vye Mihalynuk (2005) write about the benefits in blending technology and service learning in two areas; course management software curricular tools such as discussion groups can be used to enhance learning and reflection, and online surveys help with program evaluation. James-Derano (1999) writes about a successful multicultural online service learning class which made extensive use of electronic communication, including email, discussion forums and real time chats.

Creamer (1999) used an online class format to help students realize that gender and race discrimination are not issues of the past but are also impacting society now. A goal of the course

was to foster a sense of responsibility for social inequity, and one of the effective pedagogies utilized was including ongoing opportunities for discussion and reflection in the online classroom. Bennett and Green (2001) write that service learning provides students with real life experience, and online instruction allows for effective processing of the experience.

Research examining the blend of electronic and experiential learning reported favorable results with the ee-learning pedagogy, especially in terms of student discussion and interaction online. This study will add to the research in this area.

II. Methods.

The researcher wanted to measure the effectiveness of an electronic class format combined with experiential learning, in terms of meeting course goals and in student satisfaction with the class. The course design, participants, student's experiential placements, measurement instruments, and data collection methods are described. The measurement instruments answer the research questions "Was the ee-learning class successful?" and "If so, what ee-learning factors contributed to the successful outcomes of the course?"

A. Course design.

The course design was based on research in the areas of multicultural learning and ee-learning. Adding experiential learning to a multicultural course for teachers may contribute to achieving desired outcomes; however, other factors are important to make the experience a success. Warren (1998) writes, "It is crucial that activities are not simply substituted for self-reflection, critical analysis and dialogue" ("Conclusion", ¶2). The ee-learning course included a strong emphasis on discussion, and the readings were chosen to both inform students and generate discussion. An ongoing journal due at frequent intervals helped students reflect on their experiences. The journal consisted of one Word file; with newer entries added to the end of the document. This design encourages reflection as students scroll through and review previous writings as they page to the end to write new entries. Class assignments were designed to help students understand race, class and gender issues and how they relate to education. To this end, students chose and read a book and viewed a movie dealing with race, class or gender, watched video clips, explored web sites, read two short textbooks and several articles, and wrote a final essay exam. Reflection and discussion was an integral part of each of these learning activities.

The online classroom supported instruction by providing one stop access to electronic resources. From within the electronic classroom, students could access the electronic library reserve material, click on a link to view a video or recorded program, or access the audio or text version of an interview. They could email the instructor or each other, ask questions, turn in assignments, review assignment criteria, check the gradebook, and read the syllabus, all in one place. Students accessed videos online at a time of their choosing, and were able to replay, pause, and rewind as desired. Certain assignments and activities work more smoothly online than in a traditional classroom, such as signing up to reserve books and movies using a discussion forum. Students could tell what books and movies had already been chosen, easily access the list of choices, and share their reports with classmates when they completed them. Students emailed each other to find placements for their experiential learning, to find out about different schools, and to exchange names of contacts for placements. Students linked to a web site from within the online classroom (<http://www.doe.state.in.us/istep/2006/welcome.html>) that provides specific

school demographics and standardized test scores, and used it to research potential schools as sites for their volunteer hours. The online classroom added to class goals by supporting week long discussions, and easily enabled student feedback through online surveys, as recommended by the research (Seifer and Vye Mihalynuk, 2005).

B. Participants.

Thirteen graduate students completed the course, and all fulfilled the required experiential learning assignment. The students reflected the diversity of the small Midwestern campus; primarily female Caucasians (eight), with one Hispanic male, one Hispanic female and three African American females. All but one of the students were in-service teachers.

A major assignment in the course was for each student to donate a minimum of ten hours at a PK12 school site as different from their work site as possible, in terms of race, class, gender, and standardized state test scores. Students teaching at a suburban school with middle class white students could volunteer to work at a lower income urban or rural school with a predominantly minority student body. Conversely, students teaching in a mostly minority urban school needed to find a suburban or rural placement. Most of the students spent their time in a classroom at a school as different from their own as they could find. Two of the students chose to help as assistant coaches, one tutored at a Native American center, and two volunteered at YMCAs as well as spending time in public school settings. For the experiential learning assignment, students chose their own placements, supporting Carl Rogers belief that experiential learning should be self-initiated (Kearsley, n.d.).

Selected student journal entries describing their placements follow:

When I began thinking about where to complete my service, I wanted to explore a culture that I have had little or no experience with or knowledge about. As a Caucasian woman, I have had the experiences of being in schools with upper-middle class families. I have had experience working with poor families and primarily families that were African American. But what about the native American culture? I have had little contact with persons of Native American descent.

I did select this site because the majority of the students are white and at my current school Caucasians are the small minority. I am curious if I will act any different or if the way I speak with the children will be different.

I am planning on volunteering at S High School to help coach their swim team. I hope to compare and contrast what it is like to be middle class and involved in a sport and what it is like to be lower class and involved in a sport. I would like to see how easily these athletes are given new equipment, spirit wear, and materials needed to be successful in the sport. I would like to see how differently an athletic director treats a male coach as opposed to a female coach. I would like to see if in anyway girl athletes are treated differently than boy athletes. Is there privilege for one gender as opposed to the other?

I chose this placement because I have a background in cheerleading and dance. The cheerleading team is 8 females and 1 male. As the generations have changed, so have what is expected in the roles of males and females. I hope to see the changes in dynamics that will take place in an activity that has always been all female.

I teach in an urban area, with mixed ethnic and mixed class students. I have taught in other schools where the student population was 98% African-American, but the students were mostly middle class and upper middle class. I have also taught in another school that was 98% African-American, where 95% of the students lived below the poverty line, and 75% of the students lived in the projects. For my service learning, I choose a school that was 98% white, and in a rural area, something completely new for me.

This assignment required us to choose a school that was opposite of our own. My school has a 99% African American population. This school has 9% Multicultural, 1% Asian, 13% Hispanic, 32% African American, and 45% Caucasian. Our school has 95% of the students on free lunch, whereas the majority of their students pay for lunch. The next reason I found this to be the place for me to serve, was after I got a chance to research their ISTEP scores. They scored a 84.3% in Math and Language Arts. This is well above the state average of 72.6%. This to me is a great achievement. Which leaves me with the golden question, how did they do it? So many schools are not making AYP in my school district, and I found this to be the perfect opportunity to ask that question.

One student created a chart comparing her home school and her volunteer site.

Table 1. Comparison of schools

	A Junior High	B High School
Locale	Urban Fringe of Large City	Rural
Grade Span	07-08	09-12
Attendance	95%	97%
Free Lunch %	81%	5%
Paid Lunch %	11%	92%
Total Enrollment 06-07	493	531
Ethnic Breakdown	White 3 Hispanic 208 Black 275 Multi-racial 6	White 494 Hispanic 25 Asian 5 Black 4 Multi-racial 3
ISTEP (test scores)	Passed Both 39%	Passed Both 74.8%
Full Time Teachers	38	28
Single Parent	26.7%	9.7%
Median Income	\$26,538	\$45,799
Below Poverty	Families- 24.4%	9.1%

The students all found placements they felt would allow them to meet the goals of the class. Many wrote that they appreciated the chance to learn about another school or educational setting so different from their own institution.

C. Assessment measures.

The first two research questions were addressed through a combination of qualitative and quantitative techniques. Student survey data was examined and written artifacts such as reflective journal entries and final exam essays were coded, and common themes extracted.

The first research question investigated the success of the course, in terms of meeting the class goals and student satisfaction with the class overall, the online format, the instructor, and the experiential learning assignment. The second research question identified factors that contributed to the success of the course. Several surveys measured student perceptions and opinions of aspects of the course. Two surveys were delivered through Concourse. The first consisted of three short answer questions, was administered early in the course and gave students a chance to give feedback on the course (see Results, Early Feedback Survey). Another survey polled students about the value of the service learning experience after the course had been completed (See Appendix A Service Learning Evaluation). A brief in-person session during the last week of the semester allowed students to complete both the end-of the term course evaluation and an additional short survey about the online course format. The Online Course Delivery Survey asked students what they liked and did not like about the online course format. Surveys are a good instrument for measuring student attitudes, and the feedback from students was invaluable as formative and summative assessment, similar to results found in previous research (Seifer and Vye Mihalynuk, 2005). The use of several short surveys proved effective in gathering student feedback about different aspects of the course.

In addition to the surveys, the last journal entry and the final exam were analyzed using qualitative research techniques; specifically by coding using grounded theory. The last journal entry asked students to critically evaluate the time they spent engaged in service learning in a different educational setting, to discuss what they had learned, and to note any changes they noticed within themselves. Student responses were analyzed using Hahn's levels of coding; Level one Open Coding, Level Two Category Development, and Level Three Thematic Coding (Hahn, 2008).

One of the course goals was for students to identify ways in which they can make a difference, or act as change agents in their educational settings. The final exam asked students to describe if and how they will work toward social justice in their classrooms and schools. The exams were analyzed using grounded theory to determine if students felt their role as a teacher involved working toward social justice, and if they were able to give concrete examples of how they would do this in their classrooms and schools. The constant comparative method was utilized, and data was coded, categories were defined, and then reduced (Hahn, 2008; Strauss & Corbin, 1998). The categories and themes were derived from the students writing, rather than predetermined by the researcher.

The third research question (lessons learned) was answered by faculty reflection and examination of student writing, including discussion posts, journal entries, emails, student comments on surveys, and the course evaluation.

III. Results.

The researcher wanted to measure the pedagogical effectiveness of combining an electronic class format with experiential learning. The effectiveness of the course was evaluated through an Early Feedback Survey, an Online Course Delivery survey, a Service Learning Evaluation, Faculty and Course Evaluation, the Last Journal Entry, and the Final Exams.

A. Early Feedback Survey.

This survey asked three questions, which are displayed below with data representing typical answers:

1. Please let me know what you like about the class - what should we keep doing?
 - I enjoy the discussion board. It is interesting to read what others have to say about the various issues being discussed.
 - We do have a long way to go on getting equality. I am glad that everyone is getting to see that we are just not cry babies when it come to insisting that things are not as equal as everyone wants to say they are.
 - I love being able to share my opinions with others and get feedback.
2. Please let me know what you don't like about the class - what should we do less of?
 - I think the Service Placement assignment is a hard requirement to fulfill, when schools have the same hours of operation, and when people have families and other classes to give attention to.
 - It's a bit difficult to work and do the extra work at another school. I am learning, though, so it's worth the extra work!
3. Please add any other comments you wish.
 - Please keep on offering this class. It's so very important for teachers today to meet these issues head on.

Student responses revealed concern about finding time to complete the experiential learning hours and an appreciation for the online discussions. This survey was given early in the class, so students had not completed the volunteer hours at the time they completed it.

B. Online Course Delivery Survey.

This survey asked students to comment on the online format. The online format was extremely popular with students and 12 of 13 wrote they valued this instructional method. Graduate students often have many commitments, and having the class online seemed to make students more amenable to putting in hours as volunteers at another school. One student commented that being able to fit class around her family and work schedules made it possible to spend more time on the class than if she had to come to school each week in person. Most of the students (9/12) also commented on the value of the online discussions.

C. Service Learning Evaluation.

This survey (see Appendix I) was delivered at the end of the course. When students were asked to evaluate the experiential learning assignment, 12 of the 13 students rated the hours spent in experiential learning at another school site as very worthwhile or worthwhile, and several were effusive in their praise for this assignment, saying that it changed them as people and teachers. This is in contrast to the earlier survey, *Survey Midway*, when students complained they could not find time for the experiential learning assignment. Although students worried about finding the time, and it undoubtedly was not easy for some of them to fit the service hours into their schedule, in the end, nearly all agreed it was a valuable experience. One student wrote. "When I first heard about this experiential learning experience, my thoughts went completely to

the negative (as they usually do). What like I don't have enough to do already? However in the end, the experience was very worthwhile."

D. Faculty and Course Evaluation.

Students rated faculty and the course in 16 areas, using a scale of 1-5 with 5 the most positive rating. The aggregate scores for the class evaluations were 4.67 out of a possible 5.0. This indicates students felt they had an excellent learning experience and the class was a success from their point of view. Few comments were made on the evaluations, possibly because students had been extensively asked for their feedback on previous instruments. However, five students did say things like "great class"; "I feel a new perspective has been put into my mind"; and "I enjoyed the readings, assignments and discussions".

E. Last Journal Entry.

For the last journal entry, students were asked to reflect and write about what they had learned through their experiential learning. The themes which emerged from these journal entries indicate the experience exposed students to different points of view, increased students realization that racism and sexism still exist today, helped students appreciate their own situation, helped student relate class readings to the real world, and increased students awareness of inequities. To illustrate these themes, student responses, edited for brevity, appear below.

Exposed student to different points of view

- I experienced culture shock. I have really led a sheltered life and did not realize how sheltered until I saw what is out there.
- I think that as an educator I have become more aware of the gender issues that exist in education when it comes to students. We have separate expectations for male and female students and that becomes apparent when it comes to school supports and extra-curricular activities.
- I am not used to being the minority and didn't like it, but think I learned a lot from this experience. I realized the privilege of one group always comes at the expense of another. I also found I examined my upbringing and the beliefs I was taught and this was an eye-opener. I think all this will make me a better teacher.

Racism, sexism are not just issues of the past

- One thing that stands out from my experience is really seeing the harm prejudice and bigotry cause and realizing that it is just as strong today as it was in the past. People are still judged based on things like skin color. I believe seeing this helped me grow as a person.
- Something that I take away from this course is the struggle that women in this country face. After hearing the discussions and doing the readings and a little research, I find it unbelievable that women are so mistreated in our society. This really opened my eyes.
- Through service learning I have seen first hand how racial discrimination affects the lives of so many people and how racial discrimination jades them against people who are different from them. I saw how their economic status made a difference in their education, clothing, friendships and much more. Young ladies, who were so tired from babysitting for their younger siblings while their

parents worked, fell asleep in class and were allowed to sleep by the teacher so that they can get much needed sleep.

- I was able to hear firsthand the horrible inexcusable actions that were placed upon the Native American people I came into contact with. Adults, who vividly remember as children, being second class citizens. I can still see the hurt and how those actions continued to bring pain to those who shared their experiences. Many of the people I came into contact with expressed wariness towards the “white man” as they called it.

Helped students appreciate their own situation

- I think that one major thing that I learned is that I am needed where I am. I think everyday about getting a new teaching job or even a new job in general. Through this experiential learning, I have realized that my students need me. I have realized that I don’t need everyone in my classroom to get all A’s, but if I can get one student a day to experience something positive or to learn something new then that is enough for me. Before this class it wasn’t enough, but now it is.

Related readings to real world

- The experiential learning was of great value to me because it reinforced the readings. When you experience what you read about it makes it real. When you look into someone’s eyes you understand what they have experienced but it is easy to distance yourself when you just read about things.

More aware

- I pay more attention to interactions between others and my interactions with the community. I now see more instances that address gender/race/class than I did prior to the course.
- At the site I volunteered at the teacher favored some students over others. It made me wonder if I was guilty of this, so when I went back to my classroom I tried to pay attention to what I do. I always call on girls for some things – like helping out, and I realize I have gender bias in that I prefer the girls in my classroom to the boys. I think by being aware of this I will be able to change how I act.

Students written comments indicate the experiential learning assignment resulted in growth and change in student perceptions, attitudes, understandings, awareness and knowledge. In addition, students were able to identify other ways they changed and grew through the class. Below are selected comments about how students felt they had changed as a result of the class:

Student Comments about Change

- I think that I have changed a great deal throughout this class. I don’t feel as bitter. I actually feel more empowered. Empowered to offer the kids I have in front of me, a way to a better and more successful life.
- The one thing that I know is this class has left me wanting to be a fighter for justice. I don’t want to complain about the terrible things going on; I want to do something about them.
- The biggest change I and other have noticed in me has been my observations of different social settings. My co-workers have pointed out several times how the class has opened my eyes to situations that I may not have noticed before.

Something else that I will take away from this class is the view that just because we may not see or hear overt examples of racism, sexism or classism that does not mean they don't exist. I think most of us (whites) just don't want to see that things haven't really changed.

F. Final Exam.

The final exam asked students to describe how they will work toward social justice in their classrooms and schools. Student responses went beyond this narrow focus to include how they planned to work toward social justice in terms of personal growth, and in their communities and beyond. Student responses for the final exam were grouped by the following themes: a general commitment to act as a change agent, plans for personal growth in class-related areas, their role as a professional educator (including the teachers' role, classroom processes, and curriculum; especially teaching students about social justice), change needed for their school, the community, the district and at the state or national level. These categories are illuminated with quotes from student exams:

Commitment to act as change agent

- I want to teach my students how to become change agents and advocates for social justice, and the key to that is not complaining about the injustice they encounter but fighting it with knowledge
- It is my goal to see that equitable changes are made for all students.

Personal growth

- The first step in any multicultural transformative process is to examine what issues, biases, prejudices, and assumptions I carry into the classroom and how these inform my curriculum. In fact, I must constantly engage in a process of examining and critiquing my own perspective because this will also affect the way I approach transformation. I will start by examining and critiquing myself in the classroom and go from there.

Professional role as an educator

- As a teacher, I need to make sure that I am constantly seeking to understand the student, their family, and their community.
- By working with educators who have had different life and teaching experiences, I will gain more knowledge; which in turn will help me to understand how to effectively reach and teach my students.

Teacher Role

- Becoming an advocate for my students, who may not be able to advocate for themselves, is an important part of being an educator and a role model.
- As teachers, we can expose our students to these "unfamiliar territories". By doing this we eliminate the unknown, which can play a role in gender, race or class discrimination

Classroom

- I started with a name-calling lesson with my kids. I was surprised to hear some of the things they have been called at school and even at home.
- I had one of the boys point out that I always have the girls help me and never the boys. I thought you're right I do so I made myself more conscious of not doing this anymore.
- Have a guest speaker once a week who is a male or focus on positive male role models in the community to down play the constant existence of a female figure.

Curriculum

- As younger children easily comprehend visual material, one method is to provide videos which deal with someone being left out.
- With this type of ethnic make-up in a classroom, it is important to incorporate many different types of activities that focus on each ethnic group. Learning and understanding another culture outside of one's own is an important part of learning and understanding the need for equality amongst one another.

Teach students about injustice

- Therefore, the only way to begin to eliminate the idea of privilege is to teach students that no one deserves something anymore than anyone else deserves it.
- Students need to be made aware of the continued injustices in the world. Because if students are not knowledgeable about the injustices, they will continue to watch it happen to themselves and others around them. Injustices can be eliminated from the world, one classroom at a time.

School Changes

- I thought after this incident we needed to have some kind of assembly to teach the kids what is right and wrong to say to someone. What is tolerable and what will not be tolerated.
- I am going to approach my principal about a possible theme for next year to do with tolerance.
- I feel empowered to educate my co-workers on the knowledge I gained in here and try to get them excited about using it in our classrooms.

Community

- It's our job to go to these community events and speak publicly against this injustice and then teach our students what we learn.
- I was intrigued by community education about racial bias in our region. There have been a lot of hate crimes in the immediate area and what if we talked about that at school with our students. They need to know about this stuff and how wrong it is. It's our job to educate them and make them aware of what this is and how terrible racial hate crimes are in the area.

District Level Changes

- I requested a classroom management seminar for next year that specifically targets urban children. I think often times "privilege" blurs the eyes of the teacher.

State or National Level Changes

- It is important to have educational policies that help to curb, if not attempt to eliminate inequality within schools and classrooms. It is apparent with some educational policies that lawmakers don't truly understand what goes in a classroom.
- I am a special education teacher and these tests are totally unfair and biased - we are not educating our student we are teaching them how to pass a standardized test and this is setting our kids up to fail.

Each student was able to identify ways they could be more effective as educators in the areas discussed in class. All felt they could do more than they had done in the past, some said they were more aware and would no longer be able to ignore things they had not noticed or ignored in the past, and many said they were motivated to change things in their schools.

G. Feedback about Class Discussions.

One recurring theme from students in the feedback instruments involved the online discussions. This was the first online class for all but one student, and they were astonished by the richness of discussions online, as compared to in-person discussions, and many remarked about how much they learned from each other. Students wrote that they appreciated hearing the voices of people from other races, gender and social classes, concerning issues that are rarely discussed. One wrote, "So often I look at things one way, but with more than one interpretation of an issue my views start to change and I start to view things differently. This class gave me the opportunity to see things in different perspectives". Students also believe they were more open online than they would have been in a classroom setting. One stated the topics were sensitive but conflict was minimized online. Another wrote that some of the discussions were very heated, but meaningful, and resulted in participants thinking about ways they can improve themselves, their classrooms and their schools in the areas of race, class and gender equality.

Student participation in the bi-weekly discussions was outstanding. The average number of comments from thirteen students was fifty posts per discussion. Students were only required to make two posts per discussion to earn full points, so students posted almost twice as many comments on average as needed, because they were engaged in the discussions. In addition to the number of posts, the depth of the discussions was humbling. Students shared life experiences and epiphanies, such as realizing they were brought up in a racist environment, or that they held biased views of how girls and boys should behave in the classroom.

IV. Discussion.

Combining experiential and electronic learning resulted in a class experience which met both instructor and student needs. The results address the research questions concerning the success of the class, factors leading to success, and lessons learned through use of ee-learning.

A. Success of the ee-learning class.

A variety of instruments and assignments were used to determine if the course was successful. The goals of the course were to have students increase their awareness of educational issues involving race, class and gender; recognize, examine and challenge their own beliefs in these areas; and identify ways in which they can make a difference, or act as change agents in their own educational settings. Measurement of goal achievement was primarily through the final exam, wherein students wrote of how they planned to act as change agents in their schools and lives, and in the last journal entry in which students reflected on how they had changed over the course of the semester through the class activities. Based on analysis of these instruments, students met the course goals. Analysis concentrated on the last goal, acting as a change agent, as it was believed students could not address this issue unless they had met the goals of awareness and self-examination. Particularly relevant were student writings indicating, upon completion of the class, they now believe an important part of a teachers' role is to teach about and work toward social justice issues, as well as students' own reflections noting how they had changed.

The second measure of class success was student satisfaction. Students indicated on survey instruments that they found the class personally and professionally valuable. Some students indicated the class had changed them profoundly, and many indicated they saw their

role as a teacher in new ways. All survey instruments indicated high levels of student satisfaction with the course.

B. Ee-learning Factors Contributing to Success.

The course goals were achieved through experiential learning, discussions, reflections, readings, and other class activities. Additional factors leading to the success of the class include students' outstanding participation in online discussions, students choosing their experiential placements, and the online format of the class freeing hours for service learning.

Experiential learning. Previous research indicates an experiential learning component in a multicultural type class can result in outcomes related to the goals of this ee-learning course (Creamer, 1999; James-Derano, 1999; Verducci & Pope, 2001; Wade et al., 2001). These outcomes include students becoming more aware of inequities based on race, class and gender; students realizing that discrimination still exists; students recognizing and challenging their own biases; and students becoming more sensitive to issues of power, voice, resources and equality in education.

Experiential learning assumes an important place in an ee-learning class. It is a learning experience unique to each student, and helps students realize they have valuable perspectives to share with the class. The volunteer work blends with all students have learned in life and as classroom teachers to enable each to share important insights and thoughts about the class material they study, such as the websites and readings. Students who think they know about education because they have worked as teachers for many years find a new lens to examine not only their volunteer site, but their no-longer-as-familiar classroom, school and community. Students undergoing this kind of awakening need an outlet, and the online classroom allows them to post their thoughts and questions as they occur, over the course of the semester, in great depth, and as often as they choose, rather than waiting for class meetings.

Research about successful ee-learning experiences suggests discussion to be an important class component (Anderson & Szabo, 2007; Bennett & Green, 2001; Creamer, 1999; James-Derano, 1999; Seifer & Vye Mihalynuk, 2005). For the ee-learning class described here, the discussions proved to be the most important element of the online class in terms of student learning, based on student feedback.

Online discussions. One of the big advantages to ee-learning is online discussion. Students are required to participate so everyone is heard, and quiet students find a voice. Students can choose which posts to respond to, allowing them to pursue or initiate lines of discussion which interest them.

Students learned by discussing the issues of race, class and gender with each other, and the distance or anonymity of the online classroom encouraged frank and open discourse. The online class format allowed for discussion of sensitive issues to take place in relative anonymity. The anonymity was more a matter of perception than actual, as students who desired to undoubtedly could discover pertinent details about fellow students, such as race or social class. The researcher believed discussions might be more honest if preconceived ideas based on appearances could be reduced, so did not have students introduce themselves the first night when the class met in person, share personal details in their electronic introductions, or post a self-picture in the online classroom. Six of thirteen students mentioned this anonymity as a positive factor in feedback. Some said they felt more comfortable expressing their opinions online, and one said she was more honest and less afraid of rejection. Another student mentioned she was at

first put off by students commenting on her posts, but came to realize the faceless responses made it seem less personal. Carl Rogers writes that learning which is threatening to the self, such as adopting new beliefs, occurs more easily and faster when external threats are minimized (Kearsley, n.d.). The distance of online discussions helped reduce inhibiting threats, a finding which is also supported by Bell's (2001) research.

The pedagogical choice of encouraging anonymity runs counter to the idea that one must build a community of learners through extensive introductory exercises and sharing of personal information, as some experts in online learning advocate (Palloff, & Pratt, 1999). A community of learners did emerge in the class, but it was a community focused on the issues of the class. Students took advantage of the class diversity and the discussions to learn about different points of view and explore their own ideas, and to ask questions and make comments they may not have shared in person.

Student choice in placement. Part of the success of the ee-learning class was due to students' choosing volunteer placements which were personally beneficial. This met Rogers' requirement that experiential learning needs to be something which is not only chosen by the learner, but involves the learner in the experiences and results in lasting effects on the learner (Kearsley, n.d.).

The researcher noticed that several students chose their placement because of a personal concern or question. For example, one student wanted to learn about a school that has an outstanding reputation for student achievement. She came away with some ideas she plans to implement in her school. Another is a coach in her school and decided to volunteer her services as an assistant coach in another district. In addition to experiencing another school culture, she learned about a different approach to coaching, a new set of students, a different program and more. Some students tutored in classrooms, and one satisfied her late career curiosity about what really goes on in the principal's office by volunteering there. One student was surprised when she learned a great deal about gender roles after volunteering as an assistant cheerleading coach. By choosing their placements, students may have been more vested in the success of the experience.

Online format. In addition to the experiential learning component, the electronic format of this ee-learning class was integral to success. The technology became transparent quickly, and communication and sharing became the dominant theme of the class. Although students for the first time interacted with online videos and audio files, web based activities and surveys, and many web sites, the focus of the course remained on the discussions and the experiential learning, which brought to life the course content.

Results of the various types of assessments and feedback show the combination of electronic and experiential learning resulted in a powerful learning experience. The students' diverse and multiple perspectives require time and space to be expressed and clarified. Week long e-discussions allow for this more than the traditional classroom, which has limits to both the topics and time allotted for discussion. Reflection is an important part of changing attitudes in the areas of race, class and gender (Anderson & Szabo, 2007, "Results", ¶3). The online classroom seemed to make reflection easier and more meaningful for students, perhaps because of the easy access to previous work, lectures, discussions, and videos stored electronically. Students can see growth and change more easily in themselves and their fellow students in the electronic classroom. One student mentioned that through the discussions she could note real growth and change in some of her classmates, and when she reread some of her earlier posts found she too had changed.

C. Lessons learned from this ee-learning class experience.

The primary lessons learned from this research are the identification of factors that made it a success and that can be duplicated in other settings. The use of ee-learning reported in this paper has broad implications for other disciplines. Many areas of study have an “issues” or “ethics” class specific to the discipline. Any class with potentially sensitive or controversial content can benefit from student centered online discussions. An asynchronous online class format encourages graduate students to find the time for experiential learning, as a rigid weekly time and place commitment is eliminated from their schedule. If the entire class cannot be held online, it may be beneficial to forego some in-class sessions to free up time for students to volunteer. It is strongly recommended that the majority of the discussions take place online, however, as both students and the researcher believe the online discussion format greatly contributes to the depth and breadth of the discussions.

Students who have never completed an experiential assignment as part of a course are initially worried about the time commitment involved, as based on comments in an early course survey. The faculty member can help alleviate these fears by researching in advance and sharing placement sites which can be utilized before or after normal work hours or on weekends. For example, faculty can find opportunities for students to tutor at a community center on the weekend or to volunteer to help with after school activities. In addition, students are motivated to look hard for a placement if they are convinced the experience will be worth the time and effort. Sharing the results of research such as the study discussed in this paper goes a long way toward getting students excited about the opportunity to learn from experiencing a different school setting. When students understand the reason for the experiential placement, and can clearly see how it relates to class goals, they seem more amenable to finding the time in their schedules.

It is easier for the faculty member to take a back seat in the discussions when they occur online. Too often in traditional class settings, students may direct their comments to the professor and not to each other, and faculty may be unable to refrain from “teaching”, perhaps by pointing out stereotypical thinking. In the online classroom, the instructor can allow students to respectfully disagree with each other and help each other see things from another perspective. The result is a more learner-centered discussion, with shared power (no hand raising or calling on people). Reading the discussion posts was one of the best parts of the class for the researcher, and it was hard not to participate too much. Warren (1998) cautions professors to be careful that their voices of authority and experience do not silence the student’s voices when discussing sensitive issues. The professor must create a safe environment for students to express themselves, but be careful not to control the discussions (Anderson & Szabo, 2007, “Results”, ¶3). This is much easier to do in an online class. The researcher learned that for this class and this subject matter, it was best to let the students discuss the issues with minimal input from the professor. A professor - authored discussion post sometimes inhibited a line of conversation, but by refraining, a student made the same point and the conversation continued.

Wade et al. (2001) discuss benefits which come from the formation of partnerships with community members who take an active part in the experiential learning experience. They describe how some of these community people visited their class and led discussions, answered questions, and expanded on student’s observations and experiences. Online students could easily have the same experiences through synchronous or asynchronous discussions, if the professor set up the electronic interface and provided support. This interaction between the experiential

learning site personnel and the online students would add greatly to the learning experience for both groups.

V. Limitations to Research.

The results delineated in this paper may not be representative of other populations and in other subject areas. PK12 teachers may be more motivated than other graduate students to explore issues of race, class and gender because of the changing population many are witnessing in their classrooms.

The online format was not an obstacle for students, although only one had previously had an online class. Students picked up the technology very quickly and after the first two weeks students stopped sending emails asking how to navigate the electronic classroom. The graduate students who participated in the class appreciated the online format, and thus were motivated to learn and succeed, but this may not be the case in other settings with other populations.

VI. Implications for Further Research.

There are many implications for further research deriving from this study. It should be replicated in other settings, with other populations and in other subject areas. One question to be explored is how successful the class would be with undergraduate students who are pre-service rather than in-service teachers. Work should be done in exploring which subgroups (race, teacher age, school setting, or years experience as a teacher) benefit from the class more than others and why some may benefit more. The areas of “perceived anonymity” of online discussions, and assigned as compared to self-selected placement sites are both areas for research. A follow-up study with participants would be of benefit in addressing such questions as: “Were plans for change actually implemented?” and “Were lasting or long term effects derived from the class experience?”

VII. Conclusion.

Our society is becoming increasingly diverse, and it is important that Schools of Education prepare teachers who have examined their beliefs in terms of diversity, who understand inequities in our schools and society, and who are willing to work for equity, beginning with their own classrooms. Instructor goals for the course were to increase student awareness of educational inequities, and to motivate students to recognize and embrace their responsibility as educators to work for social justice. The journal entries, discussion postings, and final exams indicate these course goals were met by students. Several students indicated the course was life-changing, in both personal and professional terms.

The combination of electronic and experiential learning as a pedagogy to achieve course goals was powerful. The classroom became students’ volunteer sites, their own school settings, and wherever they chose to complete work for the class. The electronic components of the course allowed students to record and share experiences, thoughts, and reactions in journals and discussions, view videos and explore web sites to learn about inequities in schools and society, and complete interactive web exercises designed to help users recognize their biases and misconceptions. The experiential learning component brought students into schools, and community centers to observe and confront inequities first hand. These two pedagogies worked

together to provide students the knowledge and opportunity to move from passive observers to active proponents for educational equity.

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Appendix I. Service Learning Evaluation

Service Learning Site:

Your Name:

Have you done service learning through another course? ____ Yes ____ No

If yes, how many times? ____ How many different sites? ____

Gender: ____ Female ____ Male

Please evaluate the following statements using the following scale: bold your choice

1- Strongly disagree

2- Disagree

3- Neutral

4- Agree

5- Strongly Agree

I received adequate supervision while on site. 1 2 3 4 5

I developed an understanding of my organization's role and function in the community.

1 2 3 4 5

The role of SL in the course was clearly explained at the beginning of the semester and on the course website.

1 2 3 4 5

Overall, SL was a valuable component to the course. 1 2 3 4 5

Did you feel your involvement in Service Learning enhanced any class material? In what way?

Rate the journal assignments (bold all that apply or add your own comments)

Difficult to relate to topics

Enhanced my SL experience

Not explained thoroughly

Pointless

Perfect length

Too long

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Meta-reflective service learning poster fairs: purposive pedagogy for pre-service teachers

Trae Stewart¹

Abstract: Given that teachers need to present information in a concise, understandable way, to reflect on their practices to inform future actions, and to know how to create and use a teaching artifact, this article reports the findings from a study conducted to examine the impacts from a class-based poster session in teacher education. First, a review of the literature provides insight into the advantages and disadvantages to poster fair use. Then, findings from the utilization of a poster fair in an undergraduate general teaching methods course at a large public university are presented and discussed.

Keywords: Teacher education, in-class poster fair, service learning, qualitative research, pre-service teachers

Poster sessions first appeared in Europe as a logistical solution to a lack of time to present papers orally (Hess and Brooks, 1998), and have steadily gained popularity in the United States since their first national appearance at the 1974 Biochemistry/Biophysics Meeting (Davis, 1997; Maugh, 1974). The need for adding poster sessions to academic conferences transpired from the growing interest in conference participation, evidenced by substantial numbers of proposal submissions. The increasing popularity, coupled with a lack of space at most conferences, resulted in many important, worthy proposals being rejected (Briscoe, 1996; Day and Gastel, 2006). To address this issue at the 1974 Biochemistry/Biophysics Meeting, for example, authors were asked at the application stage if they would be willing to make their presentations in a poster session. Those who were not opposed, and were at risk of being cut from the program, were selected for a poster session. Ultimately, almost a quarter of the conference research was presented as poster sessions (Maugh, 1974). Unlike paper panels, which require one large room to hold attendees for only 3-4 grouped presentations per session, poster sessions could allow hundreds of presenters a space and opportunity to share their work (Borchardt, 1999; Day and Gastel, 2006).

Although the new presentation format was criticized at first as less rigorous than oral paper presentations, the poster sessions quickly became a viable option for research dissemination. In the last 30 years, the promise of poster sessions has been evidenced by their proliferation at conferences, command of their own citation format in professional publication manuals (e.g., APA, MLA), and acceptance as “an established method of reporting scientific findings” (Brown, 1997, p. 136).

The use of posters for information dissemination is not restricted to large gatherings of researchers at professional conferences. Poster sessions have also been shown to function as an innovative and effective pedagogical method for classroom teachers, as well as alternatives to traditional assignments, regardless of level of instruction. Unlike conference poster sessions which are composed mostly of work by post-graduates and doctoral-level graduate students,

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evidence of successful class-based poster sessions have been found at the graduate, undergraduate, secondary, and even elementary levels (Dubois, 1985). Given the naissance of posters sessions at a science conference, it is unsurprising that studies on the educational use of poster sessions have primarily highlighted science and health fields, with a few exceptions. Examples of discipline-specific, class-based poster fairs include: psychology (Baird, 1991), psychopharmacology (Chute and Bank, 1983), biology (Hess and Brooks, 1998), medicine (Mansfield, 1993), nursing (Moneyham, Ura, and Bruno, 1996), and English for Specific Purposes (Van Naerssen, 1984; Weinstein-McShane, 1997).

Teachers need to present information in a concise, understandable way, to reflect on their practices to inform future actions, and to know how to create and use a teaching artifact. This article reports the findings from a study conducted to examine the impacts from a class-based poster session in teacher education. First, a review of the literature provides insight into the advantages and disadvantages to poster fair use. Then, findings from the utilization of a poster fair in an undergraduate general teaching methods course at a large public university are presented and discussed. In this article, both “poster session” and “poster fair” are used synonymously to refer to a structured gathering of individuals with the explicit intention of them sharing research via a poster. As a rule, poster session is the chosen term for such gatherings at academic or research conferences; poster fair is more often used to reference classroom-based reproductions of a poster session.

I. Advantages to Poster Fairs.

Commentary on the use of poster sessions began in the 1970s, immediately following their first conference appearance in United States. These writings have provided insight into the advantages and disadvantages to poster sessions, as well as to the structure of posters and the procedures for conducting a poster fair (e.g., Briscoe, 1996; Davis, Davis, and Wolf, 1992; Day and Gastel, 2006; Liegel and Thompson, 1989, Matthews, 1990; Rupnow and King 1995). While a review of the structural and procedural elements to poster fairs is beyond the scope of this article, and only tangential to its focus, the most often cited advantages and disadvantages to the use of posters are discussed below and will serve to frame a discussion of the study’s results.

A. Presentation Skills, Interaction, and Networking.

Woolsey (1989) suggests that a poster audience can be categorized into three groups: (1) colleagues who follow your work closely, (2) those who work in the same area but not in the same specialty, and (3) those whose work has little or no relationship to yours. In essence, anyone can become a poster session audience member. The large quantity of possible visitors to a poster has greater impact when one considers the quality of the interactions. Audience-presenter interactions at traditional oral presentations are constrained by time, feelings of intimidation by other aggressive audience members or a defensive speaker, and one’s uncertainty about the appropriateness of a question (Maugh, 1974; Rupnow and King, 1995). In the end, conversations at paper panels can be uni-directional, from author to audience only (Dubois, 1985).

In contrast, poster sessions intrinsically include an interactive component (Hailman and Strier, 2006; Hartman, 1996; Woolsey, 1989). Comparing the poster to a journal article, Koning (1996) states the interaction in a poster session echoes what an author might write in the

“discussion” section of a paper. This parallel can easily be drawn as poster sessions reverse the roles of questioner and responder, and allow for true dialogue (Dubois, 1985). Attendees control the flow of information, and can ask as few questions as they like, or engage in a lengthy discussion (Rupnow and King, 1995). Introductory material can be skipped, and attendees can focus on the aspects of personal interest (Borchardt, 1999; Woolsey, 1989). The number of potential attendees, coupled with the more in-depth quality interactions, increases the amount and sources of feedback (Hess and Brooks, 1998), which might inform a poster presenter of related work, suggest further lines of experimentation, or postulate alternative conclusions (Schowen, 1997).

Lastly, the breadth of types of poster session attendees allows for extensive opportunities for social networking, which is paramount for novice researchers (Woolsey, 1989). They can instantaneously demonstrate their confidence, knowledge, and professional communication skills through quality interactions (Baird, 1991; Davis, 1997; Farber and Penhale, 1995; Moneyham, Ura, Ellwood, and Bruno, 1996). Such personal connections can create the foundations for research collaboration and successful employment searches (Koning, 1996).

B. Economy of Words.

Effective communication relies on an individual’s ability to express an idea concisely, while avoiding redundancy. Unity, clarity, and simplicity are just as essential in posters as in other communications, and are more strongly enforced by the limited space on the poster itself (Davis, Davis, and Wolf, 1992). Poster designers should engage in “visual grammar” (Woolsey, 1989), wherein they are able to articulate “the big picture,” while simultaneously presenting the details of their project (Hess and Brooks, 1998). To accomplish this task, planning becomes key. Deciding what to incorporate and what to exclude is an integral step that differentiates effective posters from ambitious and vain scholars (Briscoe, 1996; Rupnow and King, 1995; White, 1981).

Space is not the only guiding factor for practicing parsimony, or communicating effectively and economically (Brown, 1997). Poster sessions can extend beyond two hours, which can mean that poster authors may not be present for the entire period. For this reason, researchers must focus their research, condensing their information to the most meaningful and important pieces so that interested parties are not required to wade through unnecessary information. This commentary carries greater weight when we consider that poster session attendees spend on average 90 seconds reading a poster (O’Connor, 1991). For this reason, posters should flow logically, be hierarchically organized, differentiated visually, and allow attendees to skip and skim for main points easily (Larkin, 1996).

C. Longevity of Impact.

Unless published, the life of a paper presented at a conference is short. Because of its visual appeal and concise presentation of information, a poster, on the other hand, “can be appreciated long after its official use” (Schowen, 1997, p. 28). Poster presenters have reported that they display their posters at their home institutions as a means to share their work with colleagues and students, or to impress visitors and potential colleagues who can more easily discern in what types of research a faculty member engages (Davis, Davis, and Wolf, 1992; Pechenik, 2006; Schowen, 1997; Woolsey, 1989).

Furthermore, many people appreciate that some material is more effectively presented as graphics than solely through a short oral presentation (Day and Gastel, 2006). A poster session's strong combination of the written word, spoken word, and nonverbal means of communication through illustrations (Davis, Davis, and Wolf, 1992; Davis, 1997; Schowen, 1997) has been called a "composition as a whole" (Imhof, 1982), and extends its impact beyond the actual location of the poster itself. Because a poster author purposefully contextualizes the information by limiting what the eye perceives, a poster attendee has personal interest in the research, and these are connected further via verbal interaction, poster messages are more easily stored into memory and the recall of material is easier (Fleming and Levie, 1978, 1993; Hartley, 1985; Jonassen, 1985).

II. Disadvantages to Poster Fairs.

Although fewer than advantages, some disadvantages to use of posters as academic discourse are found in the literature. The secondary status of poster sessions in academic communities remains (Hartman, 1996). It is not entirely clear from where the lack of respect derives. However, the tension may be simply one of quality over quantity. One reason may be a perception that academicians who present posters are not engaged in rigorous research, cannot write well enough, or are more teacher than researcher. Shalom (1993) acknowledges that although papers are seen as greater contributions, poster sessions allow for a "greater number of presentations to be made at a conference, thus allowing increased information to be distributed" (p. 39).

A. Misconceptions of Posters.

The cloud of disapproval hanging over poster sessions can also be explained by a relative misunderstanding of what a poster should be. Conference administrators seldom provide detailed expectations for accepted poster proposals (e.g., size, sections). For this reason, inexperienced poster presenters might get caught up in the aesthetic draw of the poster, rather than its more important content. With this said, there does seem to be movement toward accepting posters as valid forms of academic discourse. Davis, Davis, and Wolf (1992) comment that although opinions still differ, "standards are becoming relatively consistent from one discipline to another" (p. 156).

There is also a perception that to create a poster requires an increased amount of work (Hartman, 1996). Davis (1997) recommends that "time is the antagonist" when constructing a poster, but this pressure can be easily lessened by planning ahead, gathering necessary information and visuals (e.g., pictures), and organizing data into poster-friendly categories throughout the process. As a scholar, however, time is of the essence, so this may be a deterrent to some people even trying a poster. This too may support the aforementioned negative perception of poster presenters as weak scholars, in that they have abundant, disposable free time to create aesthetically-pleasing visuals.

B. Adapting Posters.

One aspect that goes unacknowledged by critics is the difficulty of adapting a study's findings to be delivered in poster format (Davis, Davis, and Wolf, 1992; McCown, 1981). Unlike

papers, posters have a finite space in which to present information. Although parsimony is a skill required in effective presentations and academic writing, presenting little more than an outline of one's latest achievements is daunting and emotionally-laden. Constructing a poster relies on a unique set of skills, to which scholars are not readily introduced during their graduate studies (Dubois, 1985; Hess and Brooks, 1998). For this reason, some suggest a safe "psychological layout" (Corbin, 1985), in which authors model their posters after a technical journal article (Dubois, 1985). This plan uses the Introduction, Method, Results, Analysis, and Discussion (IMRAD) format (Davis, 1997; Day and Gastel, 2006; Shalom, 1993).

Envisioning a poster as a "journal article on a board," instead of "idea-grams" (Koning, 1996), or "illustrated abstract of a publication" (McCown, 1981), can lead viewers to conclusions through graphic elements. Briscoe (1996) summarizes this point, "It takes intelligence, even brilliance, to condense and focus information into a clear, simple presentation that will be read and remembered. Ignorance and arrogance are shown in a crowded, complicated, hard-to-read poster" (p. 131).

D. Time, Money, and Transportation.

Lastly, there are several pragmatically-driven disadvantages to poster sessions. Poster sessions, unlike traditional paper panels, run for at least two hours and a presenter is expected to be present for this period of time (Borchardt, 1999; Dubois, 1985). Often this length of time overlaps two or more other sessions. The expectation that poster presenters are available for the entire session sends a message that these scholars are not as busy or important as those sitting on panels. This argument is further problematized given that the extended time of poster sessions reduces the opportunity for poster presenters to attend sessions of interest.

Although posters can be produced in the traditional board-mounted style, poster presentations are continuously expected to be printed as a single-unit photographic reproduction (Day and Gastel, 2006) via a photomechanical transfer process (McCown, 1981). This poster is recognizable as a large, single-sheet of glossy paper that requires special equipment. When done well, a single-sheet paper can stand out in a crowded room of other posters. Although most large universities can support these requests, other institutions might require faculty to seek printing assistance at professional print shops (e.g., Kinkos®). Regardless of the availability of equipment, the price to print a large conference poster is expensive, often nearing one hundred dollars (Woolsey, 1989). After printing, it is impossible to make changes to the presentation without reprinting the entire sheet (Borchardt, 1999). The financial strain is exacerbated by the awkwardness in transporting a fragile poster, regardless if across the country or locally (Davis, Davis, and Wolf, 1992).

III. Methodology.

A. Research Rationale and Conceptual Framework.

To determine the impacts from a class-based poster session in teacher education, questionnaires were sent electronically to instructors of and students in five sections of a general teaching methods course at a large state university in Florida. Students and instructors were asked open-ended questions themed around what they liked/did not like about the poster fair, how they saw the poster fair as beneficial to pre-service teachers, and if they had any particular

issues with the implementation or assessment of the poster fair. Three instructors and 20 students voluntarily responded. Pseudonyms have been used to protect the respondents' identities.

The study's design was drawn from the grounded theory paradigm (Strauss and Corbin, 1994), which derives analytic categories inductively from the data. Other analyses were completed through deductively coding and categorizing data according to constructs previously identified in the relevant literature. Individual responses were coded, and then analytic categories were developed in an effort to synthesize these diverse findings. The formulation of new theory, as well as the extension and support of existing theory, relies on these cases (Glaser and Strauss, 1967; Strauss and Corbin, 1990).

B. Coding.

Questionnaire responses were first analyzed through open coding (Strauss, 1987). In this step, responses were read carefully for emerging concepts and repeated themes. The purpose of "open coding" is to help the researcher to create order in the data (Charmaz, 1983). After open coding, the most prevalent and reoccurring themes were identified. Axial (Charmaz, 1983; Strauss, 1987) or focused coding (Charmaz, 2001; Glaser, 1978) refines categories and begins to make connections between concepts. The last stage of coding was selective coding (Charmaz, 1983). It is during this stage that subcategories of each concept or theme were identified and analyzed. Analyses of comparisons and contrasts were also made within and between the student and instructor data sets at this stage.

C. Course Setting and Service learning Requirement.

EDG 4323 is the general teaching methods course required of undergraduate education majors at a large state university in Florida. In this class students are exposed to various planning approaches, instructional methods, classroom management strategies, and assessment techniques. Class demographics in EDG 4323 mirror the overall student population in the College of Education at the university. Most students are female, elementary education majors between 20-25 years of age. In addition, there are typically 5-10 students in each section that are secondary, physical, music, art, or exceptional education majors. Male students remain underrepresented.

To practice the course methods in an authentic setting, students are required to complete a 15-hour service learning project in K-12 classrooms. Service learning is a pedagogy of engagement wherein students address a genuine community need by engaging in volunteer service that is connected explicitly to course curricula through reflective activities. According to the National and Community Service Act of 1990, service learning provides students with academic, experiential opportunities:

- a. under which students learn and develop through active participation in thoughtfully organized service experiences that meet actual community needs and are coordinated in collaboration with school and community;
- b. that are integrated into the students' academic curriculum or provide structured time for a student to think, talk, or write about what the student did and saw during the actual service activity;
- c. that provide a student with opportunities to use newly-acquired skills and knowledge in real-life situations in their own communities; and,

- d. that enhance what is taught in school by extending student learning beyond the classroom and into the community and helps to foster the development of a sense of caring for others.

EDG 4323 students responded to the pressures from teacher/paraprofessional shortages in neighboring school districts, mostly in Title 1 schools at risk of losing funding due to low school averages on state standardized tests, caused by legislation that limited class sizes and budget limitations. After all, having fewer students in classes does not mean that teachers no longer need extra assistance. Assistance is arguably more necessary nowadays given that Florida's student populations have also changed with inclusion and the mainstreaming of a significant number of English Language Learners. Paralleling mandated changes in class size, Florida continues to suffer from financial constraints which have led to significant reductions in budgetary appropriations to educational institutions. While school officials have considerable flexibility in how they address these reductions, some have chosen to layoff paraprofessionals and teaching assistants, except when they are legally obligated to retain them (e.g., classrooms with high numbers of students with documented disabilities). An examination of county websites around the state reveals requests for adult volunteers to work one-on-one with students who are at-risk or need additional help, as well as be an extra set of eyes, ears, and hands for everyday class activities/lessons.

D. Poster Preparation, Assessment Training and Poster Fair Logistics.

Eyler and Giles (1999) explain that a curriculum that incorporates service learning should ideally find harmony between the material students learn in the classroom and the service they provide to the community. For this reason, the impact of service learning is not centralized in the sole completion of field hours, but deepened by focused reflective activities which require students to link their experiential activities to their course topics, thereby expanding their understanding of both. The hyphen that links the terms "service" and "learning" symbolically connotes the necessary process of reflection and meaning making students experience as they simultaneously serve their community sites and learn academic topics in the classroom.

To culminate their service learning experiences and to demonstrate their learning, EDG 4323 students engaged in a meta-reflective poster fair in lieu of a final exam. The poster fair paralleled those at academic conferences, yet students presented analyses using tri-fold cardboard posters. Although reminiscent of science fairs, this decision was made with consideration for student finances, the expensive cost of printing laminated poster sheets, and the practical application of creating a visual teaching artifact.

EDG 4323 students were provided with a detailed explanation of poster fairs and model poster design (e.g., font size, use of white space, pictures, and graphics). Additionally, students were given a rubric highlighting the requirements of the poster and associated point values. A poster was assessed on its introduction to the service learning site, a description of the cooperating teacher and student demographics, an explication of the activities in which the student engaged, and the explicit connection between the pre-service teacher's service experiences and three class topics (e.g., teaching methods, classroom management, assessment). An aesthetic component was also included in the rubric; student posters should be clear, easily readable, creative, and colorful, include artifacts from the served classroom/population, and address an adult audience. Lastly, students were to prepare a 5-minute presentation to be shared

within small groups. This interactive component simulates the talk that one might provide at an academic conference to interested, wandering parties.

Procedures were taken to prepare students for the poster fair. First, the poster fairs and poster criteria were discussed. Most undergraduates are not familiar with academic poster sessions. For this reason, class time was devoted to familiarizing students with the process of creating posters. Students were provided with several examples of former students' posters, with a portion of this time used to assess the examples in small groups using the rubric against which students would score classmates' presentations and posters later in the semester. Instructors used the hands-on practice to guide students to discover peer assessment procedures, its advantages, and likely difficulties and possible solutions. This step served multiple purposes: 1) students were able to see the instructors' expectations of the assignment, 2) the instructor could model for students how to assess an assignment using preset criteria, 3) students could visualize what is "good" and "bad" poster practice, 4) students became intimately familiar with the scoring rubric, both for the sake of their own grade, but also for the sake of those posters which they would help to assess in teams, and 5) students learned how to engage in small group assessment in an authentic setting.

Second, creativity was highlighted. As part of EDG 4323, students are oriented to the Curriculum Materials Center, a division of the university library that provides representative K-12 materials for preview, analysis and circulation, primarily to Education students and faculty. They are introduced to different materials and production/multimedia equipment available to them, including poster creation tools. Students are also provided with a template to practice their poster's design. They are challenged to come up with three different ways to present the same information. Creativity is important as a teacher, and this exercise challenged students to think outside of their creativity comfort zones.

Lastly, attention was placed on the central role of course connections on the poster. Service learning experiences are discussed formatively throughout the semester when a new course topic is introduced. To highlight the major course components, students also complete 3-4 guided journal reflections, through which they are to analyze their experiential K-12 activities through course concepts. Students are advised to use these discussions and written reflections as a foundation on which to build their summative poster analyses. In other words, the poster represents a meta-reflection of their service learning experiences.

The service learning poster fair counts as the course final and is held the last week of the academic semester. Given that final exam periods are only 3 hours in duration, it is essential that the poster fair begins as soon as students have arrived. To facilitate a prompt start, instructors assign students to an even number of groups, each of which is then paired with another for presentation and assessment purposes (i.e., Groups A and F, Groups B and D, Groups C and E). Once the directions have been read and questions answered, students gather into groups to assemble their posters. Once members of both groups are together, each group member takes 5 minutes to present his/her posters.

When all paired group members have finished their presentations, groups separate and assess their paired group's posters using the rubric. Since the assessment is collaborative, dialogue must be made about an individual's score. This is a procedural attempt to ensure somewhat objective and balanced assessment of the posters. In addition, the collaborative assessment process provides students with insight into how others might assess a piece of work, and attempts to mirror grade-level assessment teams common at the elementary level.

IV. Discussion of Themes Identified.

A. Creating a Community of Vicarious Learners.

Student learning from experiential activities is limited to the host setting, host teacher, and connections that they make between their fieldwork and course concepts. Therefore, the poster fair was designed to increase the interaction between learners thereby multiplying the anecdotes, teaching examples, and ideas presented.

Across the board, students enjoyed sharing and hearing about their classmates' experiences. Pre-service teachers realized that learning and teaching do not exist in a vacuum, but are often social and collaborative processes. They understand that seeking information from their colleagues is helpful and often necessary. Furthermore, teachers are lifelong learners who see not only themselves, but their own students as knowledgeable, experienced educators from whom lessons may be learned.

From this interaction, students "learned a lot from listening to others' service learning experiences" (Maureen). Students realized the importance of always "discovering new ideas" (Danielle) and hearing about techniques and strategies that worked or failed. Sofia, for example, extended her understanding of classroom management through her group members' presentations.

I have learned that every teacher has his/her own way to manage the classroom. I learned different strategies and classroom management that my classmates talked about. For example, one elementary school teacher only used her hand (raising her hand when everybody was talking and said 'high five') to get the kids' attention and handled a situation. On the other hand, in middle school another teacher had to spend 2-3 minutes (sometimes more than that) to handle the classroom disruption. Middle school and high school students need different strategies than the elementary students.

Michelle, on the other hand, discussed how listening to a classmate's presentation allowed her to learn about schools that she could not visit, including the demographics and "what it would be like to teach there." This finding was echoed by another student who had recently moved to Florida and is not yet familiar with the schools close to her home, and where she would most likely want to teach.

Hearing multiple experiences also served to inspire pre-service teachers. From these presentations, they learned about successful and effective teachers that had graduated from the same program in which they were enrolled (Chrissy). Seeing these teachers' passion "jazzed up" the pre-service teachers and even created "a new respect for teachers" for some (Rhonda).

The outcomes from the student-to-student interactions parallel previous research on social learning (Bandura, 1997; Zimmerman, 1989). Through reciprocal teaching (Lubliner and Palincsar, 2001; Oczkus, 2003; Palincsar and Brown, 1989; Rosenshine and Meister, 1994), class-based poster sessions might offer more inclusive opportunities for dialogues in which information is shared and internalized. Reciprocal teaching provides opportunities to explore the content to be learned via classroom dialogue and group discussions. These discussions differ from typical classroom discussions which leave little opportunity for students to construct their own meaning and content interpretation due to time limits, aggressive students, and teacher-control of topics.

In situations which allow for more social dialogue, prosocial and professional behaviors are promoted and students experience how they can be responsible for each others' learning since the feedback, reinforcement, and support come student peers in the groups, as opposed to the teacher. Slavin (2001) has found that these interactions can increase the collaborative skills, self-esteem, and achievement of individual learners. Lastly, pre-service teachers learn through experience that didactic, teacher-led methods are not the only means by which to increase student learning and, in some cases, might actually be restricting learning and other positive outcomes. They discover that constructivist methods emphasize the learner's direct experience and the dialogue of the classroom as instructional tools while de-emphasizing lecturing and telling (Fosnot, 2005; Phillips, 2000).

B. Issues with Collaborative Assessment and Instructor Rubrics.

Reactions to the assessment of the poster fair were mixed. Students liked the peer assessment approach. However, many found it difficult to assess posters using an instrument that they had not created themselves. Students felt unclear as to what they needed to include on their posters as well as to what they were to be looking for on their classmates' posters. One student commented that "everyone still seemed confused on exactly what was supposed to be on it [the poster]," providing the example that if a poster included a picture of the host teacher and K-12 students engaged in activities, but the university student was not in the picture, some assessors thought that s/he had been an observer rather than participant and thus did not award points for engagement activities on the rubric. Students posited that one way to address this limitation would be to include more details on the rubric. This was further evidenced by students' requests to see poster examples that had previously received a 100% grade rather than deconstructing problem posters for missing pieces.

In the end, some students commented that some students were just trying to be nice rather than looking at the content itself, "while others approached the grading with a more critical eye" (Tracy). In fact, and as can be common in cooperative work, some students took a passive role. In one group, an individual did not care what score other group members gave the poster, and said that it was his opinion that everyone should receive full points. Students liked that the instructors circulated for this reason to guide student groups and provide input when needed (Cassandra); others felt that this negated the peer assessment aspect. One student recommended that "the rubric should be different for the peer evaluation and the professor evaluations," but understood that time limitations might preclude this practice.

Lastly, students also found it difficult to use a universal assessment tool for projects that had significant creative components. Some thought that their classmates should be awarded full points based simply on their creativity. The rubric critique was not shared by all students, however. Vita explained that she not only liked the feedback from peers, but also thought that "the rubric was great" because she knew what was expected of her project up front.

Regardless of their views, students found the poster fair assessment helpful in learning how to evaluate student work. One student, in particular, noted that because collaborative evaluation processes are used at times in elementary schools across grade level teams, she found the activity beneficial and learned how team discussions can "alleviate some of the ambiguity in assessment" (Sonya). The following quote summarizes this perspective.

I liked being able to be involved in assessing other students and having them assess me. It gave me great feedback; I was part of a great team. We really looked for the criteria on

the rubric and compared it to the poster. I think the team that assessed our group also took the assignment seriously. They took their time and looked over each project. I appreciated that because I felt like they cared enough to really assess my work and when I received my grade it felt good to see my peers appreciated the work I had done on my poster. I also agreed with the points they had taken off, I had completely missed that piece. (Ronda)

EDG 4323 student responses do hint at the potential difficulty that pre-service teachers might have in transitioning into assessors of student work. However, the tensions mentioned here center on the amount of information provided so that they might best complete the assignment, assess peers, and work from an assessment rubric that they did not create. Although it is frustrating at times for teachers to assess students using a tool developed external to the learning environment, and could arguably be bad assessment practice, teachers often find themselves in these situations. Novice teachers especially have a tendency to rely heavily on workbook assignments or textbook assessments to measure student learning. With this said, pre-service teachers need to learn how to translate these tools appropriately so that they and their students can use and understand them. This explanation carries additional weight when we acknowledge that issues of assessment are generally listed as one of the top areas in which novice teachers wished they had had more training in college.

On the other hand, students' comments also denote preoccupation with grades over learning; they would rather be told exactly what they must create in order to receive the best grade (i.e., cookie cutter assignments). Students attribute missed points to the instructor failing to provide sufficient information or examples. Although a connection could logically be made between this behavior and the much criticized consumer-driven/enabled-learner culture of education nowadays, there are other concerns and possible explanations. Most concerning and applicable to the pre-service teachers in the study is how these expectations will translate into their own classrooms later on. A fine line exists between providing enough guidance and enabling students to where they are not having to think critically or creatively.

Pre-service teachers might also reflect on their feelings about grading work and being liked by the student. In this case, pre-service teachers were grading their peers and future colleagues. As discussed previously, teachers constantly work together and need a strong network to assist them in their jobs. Concerns over "burning bridges" at this stage might have played a role in students grading more leniently than they should have according to the rubric. In addition, and related to these professional relationship issues, students in the class can still be classified in the adolescent and young adult stages of development, although these developmental periods are not bound by age. Individuals at these stages, and who are still developing an identity as a teacher, might retain some egocentric qualities that guide their behaviors toward their peer group. In other words, individuals would not want to grade poorly a peer group member who might then react negatively.

C. Time Limitations and Desire to Share.

As mentioned previously, students enjoyed talking about and listening to their colleagues' service learning experiences. In fact, student respondents overwhelmingly reported that the 5-minute time allowance per student was not sufficient and they would have liked to have had more time to present information displayed on their poster. For some students, pride

seemed to be the force driving their desire to talk about their experiences and share what they learned. For others, more time for each presentation could have increased peer assessors' understanding of poster concepts, and therefore resulted in more points being awarded. Laura, for example, enjoyed the poster fair, but felt that the presentation should be weighted more heavily in the overall grade because "there was so much information to condense into such a small space that it was hard to give the right explanations for some thoughts or theories." Bethany echoed this sentiment. She felt that students had spent a great deal of time preparing their posters, but were not given sufficient time to truly present their work: "I felt like we were expected to put forth all this effort and then only got to speak about it for 5 minutes. We should have just turned it [the poster] in if we weren't going to get to fully present" (Bethany).

Complaints about the presentation time were not only due to student pride or grade outcomes. Students also would have liked to have had an opportunity to hear everyone's presentations, not just those in their small group (Vinny). From these presentations, students seemed to gather ideas about how to creatively present information, as well as learn strategies about classroom management, teaching, and assessment. They further noticed the time that their classmates had spent creating their posters and wanted to acknowledge their efforts. However, students realized that logistics and time constraints, under the current configuration, would make that difficult.

Instructors also would have liked for all students to share more and for them to hear all presentations. However, as one instructor noted, "time constraints do not permit these opportunities" (Francine). Another instructor of a large section was more troubled by these limitations, however. He felt that by giving students a timeline to follow, he "may be restricting their expression" (Jack). In the quantity versus quality comments, no instructor mentioned how the five-minute limited presentation time might play a purposive role in helping pre-service teachers to understand teacher task orientation (Borich, 2007). This concept refers to a teacher's need to conscientiously devote fixed amounts of time to the task of teaching an academic subject, or presenting information, which might increase student engaged learning time.

Regardless, according to the responses, the limited time and number of posters might reduce opportunities for learning and proper assessment. Students and instructors cannot be in two places at once and can be inundated with information that is delivered in sound bytes and graphics. Exacerbating this issue is that, unlike paper panels, audience members cannot take copies of the research with them for later reference. This limitation is further problematized for researchers who need to contact presenters at a later time. There then becomes a pull between taking notes, noting presenters' contact info, and digesting the information in a short period of time. To address this shortcoming, some advise that a take-home handout should accompany the poster (Davis, Davis, and Wolf, 1992; Davis, 1997; Griffith, 1981; Mann and Everly, 1985; McCown, 1981; van Baren, 1983). Attendees no longer need to take notes, to remember everyone, or to wonder how to contact individuals' for information. Paralleling these points, Instructor Jack felt that he would ask his students to include a "talking paper" in future poster sessions. These handouts would highlight the poster information for audience members, provide a page of notes for students to refer to as they presented their poster, and assist him in evaluating student posters if needed and the posters have been taken home. The talking paper can also serve as a means of data collection for instructors interested in the Scholarship of Teaching and Learning (SoTL).

D. Presentation and Creativity Skills.

Research has identified that expert teachers have four different kinds of knowledge. General pedagogical knowledge is one of these knowledges and refers to an understanding of general principles of instruction and classroom management that transcends individual topics or subject matter areas (Borko and Putnam, 1996). Included in these general principles of instruction is the knowledge of how to present information, promote learning, check for understanding, identify which mode of presentation is most appropriate, and pace the presentation of information for maximum retention.

As an assignment in a general teaching methods course, it was important to find that the poster fair allowed students to practice general pedagogical skills that an effective teacher needs to master. Of these skills, one's ability to present information concisely, clearly, and in a set period of time was the most often cited by students. They acknowledged that a teacher "should be able to present information in a professional manner via PowerPoint, charts or other handmade articles and is a great reflection of who you are and how you can relay information" (Cassandra). These comments support previous research concluding that the most effective teachers use instructional variety, or variability and flexibility of delivery methods (Brophy, 2002). Teachers that possess this skill have been linked to increased student attention (Borich, 2004), student engagement in the learning process (Walqui, 2000), and decreased disruptive behavior (Emmer, Evertson, and Worsham, 2006).

Davis and Rimm (1998) have found that effective teachers are also creative and divergent thinkers. Most notably, effective teachers have fluency in their ability to produce many ideas of how to approach a single lesson/topic, flexibility in their ability to break from established perspectives in order to embrace new ones, and originality in how they generate new and different ideas. This theme was identified in several students' discussions of a teacher's role as marketer of information to consumers of learning. Vinny explained that teachers are "marketing the information that we have and hoping the students 'take our card.'" A female classmate felt that the poster project gave students the opportunity "to pitch" their message/lesson to peers and practice the terminology that they will need in the field. This theme was supported by instructors as well. Jack commented, for example, that some students experience anxiety when asked to present, a potentially hazardous reaction in the education profession, and the poster fair allows extra practice to perfect this skill.

Although the theme of improved general pedagogical skills was present in the data, students did not mention that the poster session increased their pedagogical content knowledge, or how to make specific subject information comprehensible to others (Shulman, 1986). Because the poster session took place in a general teaching methods course, this finding is not surprising but seems to limit the advantages of class-based poster sessions to the presentation skills needed as a classroom practitioner. Future inquiries might seek to determine if poster sessions can also increase pedagogical content knowledge when assigned in a content pedagogy course (e.g., social studies methods, science methods).

Lastly, no students, and only one instructor, noted how the poster session might prepare students for future engagement in professional meetings, even though she had explained explicitly to students how poster sessions are an excellent entrée into professional organizations. Instructor June hoped that by having already taken part in a poster session, students ideally would "feel capable of submitting proposals for poster sessions at professional meetings."

E. Learning Styles.

Parallel to a teacher's pedagogical knowledge is his/her knowledge of learner and learning (Borko and Putnam, 1996; Peterson, 1988; Shulman, 1987). It seems impossible for a pre-service teacher to graduate from an accredited teacher education program without having been introduced to issues of cultural diversity and differing learning styles. To effectively meet the needs of diverse learners, identifying these needs are only part of the task. Teachers must also know how to address students' individual learning needs and be able to create and use appropriate techniques/practices. Modeling different types of assessment and assignments for students is one way in which they can gain additional insight and boost their creativity skills.

The use of poster fairs for this end was mentioned by both instructors and students. Jack, for example, saw the poster fair as a way to ask students to take "a creative outlook they may have not otherwise explored." By asking them to do this, pre-service teachers must "delve into other modes/styles of teaching/learning, thus being more receptive to the diversity of learners they will interact with and their respective needs" (Jack). Students indirectly echoed this objective by acknowledging how the poster fair provided an alternative type of assessment by allowing the students to express "knowledge and creativity in a different way than usual" (Laura).

From creating their posters, students also recognized the importance of a teacher being creative, how teaching artifacts and styles reflect the personality of each presenter, and the amount of time and imagination needed to create effective artifacts and displays. In fact, Cammie commented that even though she is "pretty creative," she realized that she needs additional practice and the poster fair developed her creative skills.

F. Connecting Theory to Practice.

Service learning is a pedagogy that asks students to address a genuine need in the community through purposive service while simultaneously making explicit connections to academic course content. These connections are made via reflective activities. In EDG 4323, the end-of-the-semester poster fair served as a meta-reflective tool, guided by Crews' (2002) advice that reflection should happen "immediately" after the experience. As expected, students thought that the service learning poster fair was helpful in linking the text to real-world experiences.

This project was beneficial because it allowed me to reflect on what things I did learn inside the classroom. The most important skill I was able to witness was classroom management for an SED classroom. This may seem trivial, but it is quite different in the way a "normal" classroom is operated. For instance, the constant reinforcement of positive behavior with a chart that is used to record students "on-task" or "off-task" behavior every 10 minutes, as well as treats(usually small candy) given periodically during the day to keep the students in a positive momentum. (Tracy)

Another student had previously found it difficult to remember terms and concepts after the class has ended. The poster fair, however, would enable her to retain course information in her long-term memory because she had a visual connection to the class concepts. What is additionally striking about this student's comment is that she simultaneously connected her poster fair experience to memory and learning concepts learned in the Educational Psychology course, in which she was concurrently enrolled.

It appears that students' connections of course topics to their service learning experiences was due to the direction provided by instructors; students were required to focus on teaching strategies, classroom management, and assessment. Regardless students found this guidance to be beneficial because they knew what to focus on. By allowing students to focus on three topics, they saw clearer connections with the "lectures in class, the observations, and then reflecting about it all to put it on the poster" (Vita). Renae found that being provided with focused topics saved her from getting confused on where to start to make meaning from her service learning experiences. Another student echoed this perspective and comments on the impact of focused topics:

In my opinion it helped me focus better while I was observing I had things to watch for and it gave me great ideas of different ways to reach my students. In the past when I did my service hours I always thought they were kind of useless because I wasn't looking for anything specific. By needing to prepare my poster I had a topic and I became more involved in the learning experience. (Ronda)

Several students found the poster fairs such an effective pedagogical tool that they are considering for their future K-12 classrooms. Natalie commented that in order to complete the poster "you really have to think about the connections to the class." For this reason, she hopes to have her students engage in similar presentations that ask them to connect course concepts to more pragmatic, experiential activities. Laura found that the peer assessment of the poster fair would allow her to differentiate evaluation in her classroom, and increase student accountability not only for their own work, but also for the learning of others.

Instructors also saw the use of poster fairs as a way for students to understand how course concepts inform pragmatic applications. Instructor June said that although some students "see the connections between theory and practice during the semester, all see the connections during their participation in the fair." Another instructor attributed the increased learning with students being provided with a sense of direction and allowed them to reflect more fully on the meaningfulness of their experiences and connect what they are learning to possible applications in an actual K-12 classroom.

Through the class-based poster session, pre-service teachers appear to engage in elements of self-directed learning. In this approach, students are active participants in the learning process through the construction of their own understanding and meaning, helping them to reason, problem-solve, and think critically about the content (Costa and Kallick, 2003; Kerns, 1998). Metacognitive strategies used in self-directed learning are replaced with the reflection components of the service learning poster. This process assists learners to reflect on their thinking by internalizing, understanding, and recalling the content to be learned. An added benefit to students' engaging in reflective activities is that they experience firsthand how what they are currently learning, but also how it will affect their future thoughts and actions (Berger-Kaye, 2004). Previous studies have found that educators that undertake this contemplative process (i.e., reflective practitioners (Schön, 1987)) became more confident and self-assured about their teaching duties, which trickle down to student achievement (Lee and Wu, 2006). Although other reflective strategies might allow for the same outcomes, class-based poster sessions seem to offer additional advantages as identified in this study.

G. A Wasteful, yet Enjoyable Novelty.

Undergraduates are often asked, and expected, to create presentations or write reports that use available technologies. After all, the current undergraduate population, known as the Millennials, grew up with computers, remains current on the latest gadgets and gizmos, and is adept at using various technologies beyond their proposed purposes. However, they enjoyed the novelty of creating a poster and certainly welcomed the break from traditional end-of-semester assignments.

One adjective that was used to describe the poster fair in more than half of the student responses was “fun.” Part of the students’ enjoyment came from their being more relaxed during the final exam period of the semester. Students noted that they found preparing the poster to be much less stressful than taking a final exam. In fact, some comments even described the poster creation process as “therapeutic” (Cammie). Lastly, the novelty of the poster fair also played a role in students finding the experience fun: “I liked having to make it because I never had to do something like that before” (Vinny).

More important though is that students not only expressed that they enjoyed the poster fair, but that they had “fun while learning” and that “it was a great learning experience” (Vita). Students were so excited and interested in the posters that they consistently exceeded their 5 minute presentation limit in order to answer their classmates’ questions. They also wanted to extend the time allotments in order to look at each of their peer’s work. The following two quotes from students encapsulate the responses overall:

The service learning poster fair was a great experience for me. I had a chance to show what I did during my volunteer job and what I want to do after I graduate. I also had a chance to see and listen to other classmates and got some great ideas about teaching and managing the classrooms. Everybody in my group was very active, excited and enthusiastic. I cannot think anything that I did not like. It was exciting. (Sofia)

From a student's perspective, I thought the poster fair was fantastic. I don't think there's anything that I didn't like about it. It was all positive. The presentation was phenomenal. I think everyone did a great job, especially on creativity. (Michelle)

These responses have important implications for higher education and teacher education, in particular. Students seem to appreciate, enjoy, and be able to learn effectively through creative, out-of-the-box approaches to learning. Furthermore, findings parallel previous research on the relationship between student interest in learning when they see a connection to their own life experiences (past, current, or future). For pre-service teachers, seeing the immediate application of esoteric book concepts can send a message of the importance of their education to their future professional lives, helps them to gain self-confidence in teaching when they understand the application of these concepts to teaching, and empowers them to gain similar outcomes later by teaching their future students through similar approaches.

Although students commented positively about the poster fair, they were conscientious of the one-time use of materials and the personal expense required to buy adequate resources. As one student stated, “stuff adds up!” (Cassandra). There was a connection between money and resources used, and the amount of time displayed. Some students felt that it was an expensive project for the brief presentation and relative point value in the course. In fact, the only student that had a negative reaction to the poster fair cited these reasons. He felt that although he

understood the purpose of the poster fair, it still seemed to be a “waste of time, effort and money” and that “after spending many hours and money in preparation for this poster fair, it only receives a five minute recognition and a few points in the course” (Alvin). This student seemed unaware, and a point that instructors might share with students directly in the future, that the more time a learner is engaged with, thinking about, and working with the content being taught, adds to his/her rate of success (Good and Brophy, 2003; Marzano, Pickering, and Pollock, 2001). It should be also noted, however, that students who expressed disdain over the waste of money and resources, also did not report planning to use their posters again and were more likely to leave their posters behind.

Although only three students out of the 20 respondents voiced this concern, a greater sense of waste was evidenced by students disposing of their posters after the completion of the fair. One instructor explained that students did not feel a strong connection to the posters, unlike other types of creative projects that she had previously used (e.g., scrapbooking). She attributed this disconnect to the lack of mobility and difficulty in storing the posters – a theme identified in the review of literature on academic conference poster sessions.

In contrast, there were an equal number of students who were proud of and did not mind the amount of time needed to create the poster. Ray, in particular, noted that his poster will be displayed in the alternative education classrooms in which he completed his service learning hours. His poster will prove to the alternative education students that individuals are, in fact, interested in them and that the work that their teachers do with them is important and valued. Furthermore, Ray’s host teacher planned to use the poster “as a tool to raise additional grant funds from the state for after school programs.” Instructors that use posters and other “fun,” yet effective assignments might attempt to show pre-service teachers how pedagogical materials may be used more than once, an environmental and financial lesson that might trickle down to the novice teachers’ K-12 students later on.

H. Advantages Specific to Instructors.

Poster fairs appeared to be simultaneously advantageous for the course instructors. Most noted among all participating instructors’ responses was how the poster provided them with a retreat from the laborious, time-laden task of reading and responding to student reflection papers (Hess and Brooks, 1998). The use of an assessment tool that does not require extensive amounts of reading and feedback is a luxury for instructors who are bombarded at the end of the semester by preparing and marking exams and calculating grades of several classes. Furthermore, of the mediums most seen in service learning reflection, journals and other short written assignments are most common (Morton, 1996; Ramsay, 1990). Written reflections do play an important role if used correctly, and EDG 4323 instructors ask students to complete 3-4 short reflections throughout the semester. Rice and Pollack (2000) support journals as an effective reflective tool because they allow for private, individual student-teacher dialogue. The overuse of these traditional assignments has resulted in criticism, however (O’Connell and Dymont, 2006). For this reason, Waterman (1997) suggests that oral reflection can also be successful because it requires the learner to link theory to practice. Oral complexity of this type in service learning has been linked to higher class quality, learning, and intellectual stimulation (Eyler and Giles, 1997).

The second advantage for instructors parallels the break from written reflections. Posters allow the instructor to empower students. Like moving from guided to independent practice in a single lesson, the poster fair requires students to cumulatively look across the course topics and

their pragmatic experiences. They are only provided with the expectation of making connections to three course topics and explaining them. However, students are not limited in their choices, unlike more structured reflection paper questions.

Lastly, instructors know from their own years as a student in higher education, as well as education scholars, that one assessment tool is not a panacea for measuring student learning. Therefore, they model for their students how effective teachers use multiple, creative assignments in order to address myriad learning styles and to keep students interested in learning.

V. Conclusion.

This article has examined the impacts from a class-based poster fair in a general methods teacher education course. From this study, class-based poster fairs appear to concurrently allow pre-service teachers to gain and practice knowledge and skills required of effective teachers, including presenting the most important information to a broad audience in a fixed period of time, embracing students as co-teachers, and engaging in collaborative assessment strategies. Non-traditional assignments like poster fairs also provide opportunities for undergraduates to explore the culture of academic conferences in a comfortable, safe environment. With more requirements being added to teacher preparation courses every year, it behooves teacher educators to identify, use, and thereby model teaching methodologies that can meet several objectives simultaneously. Sharing these thought processes demonstrate that reflection before, during, and after the planning and implementation of a lesson is necessary to optimize student learning. Lastly, class-based poster fairs as described in this article might offer a unique and fun, yet still pedagogically effective alternative to more traditional, and often humdrum, reflection strategies. Peer-assessed service learning posters fairs particularly allow for the inclusion of the individual and group, the written and oral, and the practical and theoretical thereby reaffirming the multimodal, social, and collaborative nature of learning.

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Transformative learning in teacher education: building competencies and changing dispositions

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Acquiring a repertoire of competencies for creating and maintaining successful parent partnerships is an exceedingly important yet difficult task for pre-service educators. This mixed-methods study compared non-traditional and traditional approaches to transforming undergraduate student dispositions and competencies toward parent/professional partnerships. Results suggest that embedding parents of children with disabilities in the classroom, together with the use of activities that promote regular discourse, reflection, relationship building with professionally-relevant partners, transformed student dispositions toward parent/professional partnerships and increased student competence. Implications for teacher education programs are discussed.

Keywords: transformative education, teacher education, alternative teaching/learning strategies

I. Introduction.

Many professionals in the field of education recognize the need for parent/professional partnerships to facilitate student success in the classroom, yet establishing a repertoire of competencies that allow an educator to create effective parent partnerships is an exceedingly difficult task (Epstein, 2005; Forlin and Hopewell, 2006; Murray, Curran and Zellers, 2008; Hoover-Dempsey, Walker, Jones and Reed, 2002). Murray, Curran and Zellers (2008) found that pre-service special educators near graduation perceived themselves to be generally unprepared to collaborate successfully with parents; moreover, they perceived parents of children with disabilities to be relatively uneducated, uninvolved in the educational process, and obstacles to achieving student success. According to the policies, practices, and guidelines set for educators by organizations such as the National Council for Accreditation of Teacher Education, National Association for the Education of Young Children, Council of Exceptional Children, however, for preK-12 education to be most successful, educators must view parents as equals in the decision-making process, develop empathy for the challenges faced by parents in the current educational arena, and welcome the contributions of parents to the collaborative process. Due to the complexities involved in the development of the requisite dispositions (e.g., empathy and perceptions of parity) and competencies (e.g., conflict resolution and negotiation) for successful parent/professional collaboration, more than just informational learning is required; learning that is transformative in nature must often be achieved.

However, few teacher education programs provide students with opportunities, such as extensive and intensive interaction with parents, to truly develop or transform their perceptions

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about parent/professional collaboration (Epstein, 2005; Epstein and Sanders, 2006; Hedges and Gibbs, 2005; Hoover-Dempsey, Walker, Jones and Reed, 2002). Educators who are not provided with transformative learning opportunities may engage in more hierarchical relationships with parents and, consequently, limit successful outcomes for students. Thus, preparation that includes both informational and transformational learning opportunities at the pre-service level is needed to equip teachers with the dispositions and skills to effectively partner with parents.

This manuscript explores the impact of an innovative approach to pre-service teacher education that engaged students in potentially transformative learning experiences in the context of a college classroom. The unique 400-level course in which students participated was designed to engage students in a transformational learning process through extensive and intensive interactions with parents of children with disabilities. Using both quantitative and qualitative measures in a pre/post-test design, changes in student dispositions towards parents and parent partnerships, as well as student perceptions of their own partnership competencies, are examined.

II. Review of Literature.

Typically, pre-service education programs incorporate the use of highly qualified faculty members, research- and case-based textbooks, and field experiences to facilitate student learning about the field and process of education (Epstein and Sanders, 2006; Hedges and Gibbs, 2005; Witmer, 2005). These approaches are perceived to be effective approaches to facilitating informational learning by students. It is not well understood, however, how to best facilitate transformative learning, a type of learning that may empower students to change their existing and often negative and inaccurate dispositions toward parent/professional collaboration.

A. Transformational Learning Theory.

Andragogy is distinctly different from pedagogy in that the study of adult learning takes into account that adults have amassed a body of experiences and have developed specific frames of reference through which they perceive and define their worlds. This understanding has lead researchers and theorists of adult learning to assert that in order for adults to internalize and appropriately apply professionally relevant concepts, skills, and strategies, learning must be a transformational, rather than simply informational, experience (Baumgartner, 2001; Merriam and Clark, 1993; King 2004; Mezirow, 1997). Perhaps most notable in describing this process is Mezirow (1997, 1998) who asserts that through the transformational learning process, individuals may free themselves from unexamined or distorted ways of thinking and engage in more rational assessment and action. Transformational learning is especially relevant to andragogy in that adults, by virtue of having both depth and breadth of life experience, have already formed particular frames of reference through which they interpret the world around them. Perceptions that are inconsistent with the original frames of reference, whether valid or invalid, are typically rejected (Mezirow, 1997).

Learning that is transformative in nature takes place, however, when adults encounter situations (often referred to as disorienting dilemmas) that cause them to question currently held frames of reference and, as a result, alter them to reflect their acquisition of understanding and knowledge (Mezirow, 1994). It is not just additional information that is acquired; it is a new perspective, or frame of reference, through which experiences are filtered, evaluation is conducted, and action occurs.

For adults to effectively engage in a learning experience that is transformational in nature after encountering a disorienting dilemma, critical reflection and rational discourse are essential. Critical reflection is the process through which adults evaluate their frames of reference by assessing their credibility validity in light of new experiences or information (Cranton, 2002). Mezirow (1997) defined rational discourse as a dialogue in which individuals defend reasons supporting their beliefs and examine evidence supporting and refuting competing interpretations. Participants in this type of dialogue intend to set aside their biases, share and evaluate their experiences, and reach common understanding (Mezirow, 1991). Both processes require a learning environment that is challenging, safe, and empowering while fostering collaboration, feedback and respect among adult learners (Cranton, 2002; Mezirow, 1997).

In facilitating the transformational learning experience, educators must expose adult learners to other perspectives within the context of a trusting environment, and encourage them to move beyond the relative safety of their own world views (Cranton, 2002; Taylor, 2000). This process entails acknowledging the values, beliefs and feelings related to course content held by students (Taylor, 2000). However, Mezirow (1998) cautions educators not to prescribe to learners what they should think, learn or feel; through discourse and activity they should assist adults in learning to think for themselves. Educators must keep in mind that their goal is to assist learners to function as more independent, rational, socially responsible thinkers (Mezirow, 1997).

B. Transformative Learning in Higher Education.

Transformative learning is of particular importance to programs for preservice education programs. The education of education professionals extends beyond knowledge and skill acquisition; pre-service education professionals' biases and assumptions must be recognized and, if necessary, shifted during their preparation programs (Mountford, 2005). This view is shared by Posner, Strike, Hewson and Gertzog (in Boling, 2007) who write that it is the role of the teacher educator to introduce new concepts and ideas in ways that create cognitive dissonance and transform the images and beliefs that their students already hold. Specific activities and environments that facilitate transformational learning within educational contexts, however, continue to be under investigation.

Several researchers have identified activities and contexts that facilitate transformative education, Boling (2007) conducted a qualitative study that followed 25 pre-service elementary teachers through a literacy methods course which employed hypermedia video-cases and reflective journaling. Brown (2006) also investigated specific techniques to foster transformative learning in preparation programs for educators. This researcher found that cultural autobiographies, life histories, diversity workshops, cross-cultural interviews, educational plunges, diversity panels and presentations, activist assignments and reflective analysis journals were effective in impacting students' dispositions toward underprivileged students, students of diverse backgrounds and students with disabilities Eisen (2001) examined peer learning partnerships as a specific vehicle for transformative learning in a professional development program for community college teachers and recommended peer learning partnerships, joint and self-reflection, peer feedback, modeling, role reversal and peer-supported experimentation as strategies for encouraging transformative learning.

C. Transformative Learning for Professional Educators.

Like Eisen (2001), King (2002) examined transformational learning in the context of professional development for practicing educators and preservice education students. Specifically, this mixed-methods study explored how educators enhancing their skills in technology could also experience changes in their perspectives teaching practices. Participants were 175 teachers and pre-service educators enrolled in educational technology courses. The results of this study indicate that a vast majority of the participants, which included both preservice education students and educators seeking professional development, experienced perspective transformation as a result of their experiences in the transformative classroom.

These results are supported and extended by a recent study (King, 2004) that sought to provide educational institutions and their personnel with an understanding of the kinds of professional development activities that could transform educators. Analyses revealed that a majority of the participants experienced perspective transformation during the study; moreover, participants cited changes in attitudes towards themselves and others, in their reflective orientations, and in their understanding of others. These changes, as indicated by participants, were most influenced by professor support, professor challenges, discussions, journals, class activities and personal reflections.

This study explores the transformation of student dispositions and perceived competencies as a result of their participation in an innovative pre-service teacher education class where they were provided intensive and extensive collaborative opportunities with parents of children with disabilities; moreover, it compares the experiences of these students to a control group who participated in a more traditional version of the same course with the same professor. Specifically, the researchers investigated whether the dispositions and perceived competencies related to parent/professional partnerships of students in each classroom changed as a result of their experiences, whether one group was more likely than the other to indicate learning that was transformational in nature, and what was the impact of non-traditional class structure on the learning process for students?

III. Method.

A. Context of Study.

This study was implemented across two sections of the same 400-level undergraduate course required for students seeking licensure in K-12 special education at a medium-sized, midwestern university. Both sections of this discussion-based course, entitled *Consultation and Collaboration with Colleagues and Families*, were to be taught by the same faculty member in the Fall of 2006. Both sections were roughly the same size, had similar student compositions, were structured around the same measurable, performance-based standards, and utilized identical syllabi, readings and assignments.

In recognizing the complexity of helping students build dispositions and competencies for effective practice as K-12 educators, however, licensure program faculty acknowledge the need to reach beyond traditional instructional strategies in and provide students with learning opportunities that are both experiential and potentially transformative in nature. Thus, program faculty collaborated with the director of a large urban social service agency on how to best meet the challenge of preparing educators who possess the knowledge, skills and dispositions required

for effective parent/professional partnership; together, they decided to recruit a group of parents of children with disabilities to participate in the course (the “embedded parents”), as well as a parent of a child with a disability to co-teach the same section of the course.

The co-teacher’s primary role was to model, with the faculty member, egalitarian parent/professional partnership throughout each 3-hour class. The six embedded parents, who were not required to pay for the course, were asked to attend each class, keep up with assigned readings, participate in both small- and large group class discussions, and play an active role in small-group projects with students. The community agency agreed to pay a small stipend to the parents for each class attended and a modest salary to the parent co-facilitator.

In effect, the primary difference between the two course sections was that one section, the “traditional” section, adhered to conventional instructional strategies (including case studies, small- and large-group discussions, assigned readings and individual and small-group assignments); the other, the “non-traditional” section, included all of the traditional instructional strategies, but was also co-taught by a parent of a child with a disability and included the insights and lived-experiences of six parents of children with disabilities in each and every class.

B. Participants.

Students. The students participating in this study formed a relatively homogeneous group, as is typical for students in the identified major fields of study at the university where the study took place. A majority of the 29 students who participated in the traditional class and 28 students in the non-traditional class were female, between 18 – 25 years of age, Caucasian, Juniors or Seniors in college, and majoring in either Intervention Services (mild/moderate) or Early Childhood Education (see Table 1).

Descriptively speaking, a greater percentage of students in the traditional classroom reported prior *professional* experience with children with disabilities or their families, while the proportion of students reporting prior *personal* experience with children with disabilities or their families was roughly equal across the two sections of the course.

Parents. Six parents of children with disabilities and a co-facilitator were recruited to participate in the study using typical case sampling (Creswell, 2005). These parents were specifically chosen to represent the spectrum of parents of school-aged children with moderate to intensive disabilities served by the social service agency involved in the study. These individuals were primarily female, Caucasian, and between the ages of 31 and 46; their children possessed a broad range of disabilities including Down syndrome, Autism, Cerebral Palsy and Fetal Alcohol Syndrome.

C. Course Context.

Both sections of the course followed a discussion format where students were required to prepare for class by completing assigned readings; they then discussed, in both small- and large-group settings, the content as it applied to case studies and their own experiences. In the non-traditional learning section, students also discussed course content with the embedded parents, as it related to their real-life experiences. Each discussion was facilitated by the professor and, in the case of the non-traditional section, the parent co-instructor.

Aside from several minor individual assignments in the course, there were two major collaborative projects assigned to students. The first major assignment was a called the *Virtual Family*. In this longitudinal case-study assignment, teams made up of five students

Table 1. Demographic Characteristics of Students: Traditional and Nontraditional Classrooms .

Characteristic	Traditional		Non-traditional	
	Number	Percent	Number	Percent
Gender				
Female	26	89.7	23	82.1
Male	3	10.3	5	17.9
Age				
18-20	12	41.4	10	35.7
21-25	17	58.6	16	57.1
26+	0	0.0	2	7.2
Race				
Caucasian	29	100.0	24	85.7
African American	0	0.0	2	7.1
Hispanic	0	0.0	2	7.1
Class Status				
Junior	21	72.4	17	60.7
Senior	8	27.6	11	39.9
College Major				
Intervention Services: Mild/Moderate	19	65.5	17	60.7
Early Childhood Education	6	20.7	3	10.7
Deaf Education	1	3.4	4	14.3
Other	3	10.2	4	14.3
Prior <i>professional</i> experience with children with disabilities or their families?				
Yes	18	62.1	14	50.0
No	11	37.9	14	50.0
Prior <i>personal</i> experience with children with disabilities or their families?				
Yes	10	34.5	11	39.3
No	19	65.5	17	60.7

hypothetically (e.g., virtually) birthed or adopted a child with a given disability. Each team's child 'grew' throughout the semester and the teams were required to address, and frequently resolve, the medical, educational, family and service oriented issues that the Virtual Family encountered.

In the non-traditional section, however, one parent was also assigned to each student group. The assigned parent actually used their own child, and their own lived experiences, as the model for their group's Virtual Family. In essence, the parents transcribed the highly personal, intricate stories of their children and their families, and identified the specific issues that the students would research and respond to throughout the semester. The fact that the "virtual"

family was, in reality, the family of the participating parent was not revealed to students until after students read and responded to the initial case study.

The second major assignment was a Community Presentation Project, addressed to meet a need in the community for parents and professionals working with families of children with disabilities. For students in the non-traditional section, one parent was also assigned to each student group. The small groups collaborated closely, sharing ideas, resources, and strategies to develop the presentations both in and outside of class.

D. Instruments and Data Collection.

Family/Professional Partnerships Survey. On the first and last day of classes during the semester, students were asked to complete the Family/Professional Partnership Survey (FPPS). The purpose of the FPPS was to identify changes in student perceptions of their own knowledge, skills, and dispositions toward family/professional partnerships. This survey contained 50 items: Part I contained 12 items related to the student's own knowledge base regarding family/professional partnerships that allowed for measure of information acquisition; Part II contained 19 items related to what students think families of children with disabilities expect from professionals; and Part III contained 19 items related to what students think professionals should provide to families of children with disabilities. Each of the 'expectation' sections allowed for a measure of dispositional or transformational change. Every item on the FPPS required students to respond using a 5-point likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Learning Objectives and Activities Survey. To further assess the extent to which students experienced a transformational change within the context of the class, students were asked to complete the *Learning Objectives and Activities Survey* (LOAS) at the conclusion of the semester. The LOAS contained three parts; the portion of the LOAS that is relevant to the examination of transformational change, Part II, was adapted from the Learning Activities Survey (King, 1998). In Part II of the LOAS, students were asked to think back over their experiences in the course and select any of the 12 change statements that described their experience; selecting a change statement suggests that the student has encountered a disorienting dilemma, which is a pre-requisite to learning that is transformative in nature, within the context of the class. Examples of change statements include the following: "*I had an experience that caused me to question the way I normally act,*" and "*As I questioned my ideas, I realized I no longer agreed with my previous beliefs or role expectations.*" (See King (1998) for a full discussion of this instrument.)

Student Focus Groups. Focus groups were conducted with nine of 27 undergraduate students enrolled in the non-traditional section of the course during the first and last weeks of classes to examine how course activities and environments impacted student competencies and dispositions regarding parent/professional partnerships. The nine focus group student volunteers consisted of 6 females (66.7%) and 3 males (33.3%). Each of the nine Non-Latino, white participants were 18 to 25 years of age and indicated that they had limited experience with individuals with disabilities and their families. In nearly all respects, these students were demographically similar to students across both sections of the course.

Each focus group lasted between 1.5 – 2.0 hours and was led by an outside researcher trained in qualitative data collection techniques; the course co-facilitators were not present at either focus group discussion. While the pre-intervention focus group data is not relevant to the

research questions posed in this paper, post-intervention focus group questions, adapted from the Learning Activities Survey (King, 1998), included: *Thinking back over your experience in this class, was there a time when you realized that your values, beliefs or expectations about family/professional partnerships had changed? Can you describe the event, activity or interaction that lead to the change in your values, beliefs or expectations about family/professional partnerships?*

IV. Data Analysis and Results.

A. Family/Professional Partnership Survey.

To determine whether the dispositions and perceived competencies related to parent/professional partnerships of students in each classroom changed as a result of their experiences, the Wilcoxon Signed Ranks Test was applied to the ordinally-scaled pre- and post-intervention data collected using the Family/Professional Partnerships Survey. The data from each class were analyzed separately and a statistically significant result indicates stronger agreement with the statement at the conclusion of the semester than at the beginning.

The second portion of the FPPS contained 19 items that asked students to identify their own ideas about what families expect in their partnerships with professionals. (Part I of the FPPS examined content/informational gains; all results were statistically significant indicating increased knowledge as a result of class experiences.) Students in the traditional classroom expressed stronger agreement with just two of these items at the conclusion of the semester, including *“Families expect knowledge and understanding of the family’s culture”* and *“Families expect facilitation of family-to-family support and networking.”* Students in the non-traditional classroom expressed stronger agreement at the end of the semester with five of these items (Table 2, statistically significant results in bold). The items that solicited a significant change in perception (students were more likely to agree with the statement) from the beginning to the end of the semester for students in the non-traditional classroom included *“Families expect acknowledgement of parental expertise,” “Families expect personal questions about the child and family,” “Families expect complete and unbiased information,” “Families expect knowledge and understanding of the family’s culture,”* and *“Families expect emotional support from professionals.”* These results suggest that the format of the non-traditional classroom may have had a more wide-ranging impact on students’ understanding of family expectations than the format of the traditional classroom.

Finally, the Wilcoxon signed ranks test was used to identify changes in students’ expectations of professionals in family/professional partnerships, as measured by the FPPS, as a result of their participation in the class. At the conclusion of the course, students in both classrooms were significantly more likely to agree that *“Professionals should provide families with acknowledgement of parental expertise.”* However, students in the non-traditional classroom were also significantly more likely to agree that professionals should provide families with *“detailed information about their child,”* and *“personal questions about the child and family”* (Table 3).

Table 2. Wilcoxon Matched-Pairs Signed-Ranks Results: Family Expectation Items, Pre-FPPS to Post-FPPS.

<i>I think families expect...</i>	Traditional Class		Non-traditional Class	
	<i>Z</i>	<i>p</i> ≤	<i>Z</i>	<i>p</i> ≤
1. Answers to their questions.	-0.905	0.366	-0.250	0.803
2. Specific strategies for working with their child.	0.000	1.000	-0.243	0.808
3. Detailed information about their child.	-0.258	0.796	-0.890	0.374
4. Identified strengths, weaknesses of the child.	-0.277	0.728	-2.413	0.016
5. Acknowledgement of parental expertise.	-0.784	0.433	-1.616	0.106
6. Personal questions about the child, family.	-1.647	0.100	-2.082	0.037
7. Complete confidentiality.	-1.155	0.248	-1.645	0.100
8. Explanations of the purpose of testing.	-0.074	0.941	-0.333	0.739
9. Fully explained test results.	-1.121	0.262	-0.302	0.763
10. A 'true' picture of the child.	-0.346	0.729	-1.364	0.172
11. Complete and unbiased information.	-0.915	0.360	-1.964	0.050
12. Support for the whole family.	-1.348	0.178	-1.468	0.142
13. Mutual collaboration about appropriate intervention and services.	-0.546	0.585	-1.033	0.302
14. Knowledge, understanding of family's culture.	-3.164	0.002	-2.147	0.032
15. Facilitation of family-to-family support and networking.	-2.687	0.007	-1.616	0.106
16. Emotional support from professionals.	-1.830	0.067	-2.035	0.035
17. Programs and services that provide financial support.	-1.217	0.200	-1.408	0.159
18. Care that revolves around needs identified by the family.	-1.217	0.224	-0.164	0.870
19. <i>Decision making authority over child's care.</i>	-0.021	0.983	-0.801	0.423

B. Learning Objectives and Activities Survey.

To identify indications of a transformational learning experience, the one-way Chi Square was used to compare frequencies of response between the two class sections on the 12 change statements, or indicators of a disorienting dilemma, provided on the Learning Objectives and Activities Survey. A statistically significant difference between the traditional and nontraditional classes was observed on the first change statement: "I had an experience that caused me to question the way I normally act." ($\chi^2[df = 1] = 4.49, p = 0.034$). On this change statement, the non-traditional class was more than twice as likely to agree (14, 56.0%) than the traditional class (8, 27.6%). On all of the other change statements, however, patterns of response between the two classes were similar (e.g., statistically non-significant). This would generally indicate that one class was no more likely to have engaged in a learning experience that could be classified as transformational than the other. However, an independent samples t-test reveals that on average, students in the non-traditional class selected a greater number of change statements ($M = 5.44, sd = 2.72$) than students in the traditional class ($M = 4.06, sd = 2.01$) ($t(52) = 2.12, p = 0.039$). This result suggests that students in the nontraditional classroom were more likely to have

Table 3. Wilcoxon Matched-Pairs Signed-Ranks Results: Professional Expectation Items, Pre-FPPS to Post-FPPS.

<i>I think professionals should provide families with...</i>	Traditional Class		Non-traditional Class	
	Z	<i>p</i> ≤	Z	<i>p</i> ≤
20. Answers to their questions.	-0.632	0.527	-1.897	0.058
21. Specific strategies for working with child.	0.000	1.000	-1.155	0.248
22. Detailed information about the child.	-0.378	0.705	-1.999	0.046
23. Identified strengths, weaknesses of the child.	-0.632	0.527	-1.732	0.083
24. Acknowledgement of parental expertise.	-1.987	0.047	-1.977	0.047
25. Personal questions about the child, family.	-0.790	0.430	-2.153	0.031
26. Complete confidentiality.	-0.447	0.655	-0.879	0.380
27. Explanations of the purpose of testing.	-1.633	0.102	-0.535	0.593
28. Fully explained test results.	-0.707	0.480	-0.333	0.739
29. A 'true' picture of the child.	-0.728	0.467	-0.943	0.346
30. Complete and unbiased information.	-0.447	0.655	-1.428	0.153
31. Support for the whole family.	0.000	1.000	-1.822	0.068
32. Mutual collaboration about appropriate intervention and services.	-1.134	0.257	-1.604	0.109
33. Knowledge, understanding of family's culture.	-1.072	0.284	-0.688	0.491
34. Facilitation of family-to-family support, networking.	-0.329	0.742	-0.022	0.983
35. Emotional support from professionals.	-1.151	0.250	-0.025	0.980
36. Programs and services that provide financial support.	0.000	1.000	-0.878	0.380
37. Care that revolves around needs identified by family.	-1.538	0.124	-0.206	0.837
38. <i>Decision making authority over child's care.</i>	-0.326	0.745	-0.727	0.467

experienced a disorienting dilemma, and thus may have been more likely to have had a learning experience that could be classified as transformational.

C. Post-Intervention Focus Group.

In order to examine the impact of the embedded parents and classroom structure and environment on the learning process for students in the non-traditional class, post-intervention focus group data were analyzed using thematic data analysis procedure. To facilitate data analysis, focus group discussions were recorded on audio tape and transcribed verbatim. The results of the data analysis identified two themes indicating the components of the class that facilitated a transformational learning environment and the students' reaction to it.

Theme 1: Parent Presence Serves as Disorienting Dilemma. The students signed up for the course thinking it would be taught in a traditional manner, using the lecturer, text, and case studies as primary resources. At the first class meeting the students were told that they would be co-taught by a father of a child with a disability and that six mothers of children with disabilities would be participating in every class together with them. They were also told that the course would be a discussion-based course and that lecture would be minimal. Students who participated in the focus groups shared that they felt intimidated and scared with the very presence of the parents in the class. One student stated, "With the parent in my group I was really, really intimidated. I don't know as much as she did." Another student shared "I was

mostly scared...I did not want to say something that would piss them off....” Having parents in the class was a shock; another student shared, “It was intimidating, you expect professors, not parents!”

In every class period, students in the non-traditional class were afforded opportunities to listen to the embedded parents share their insights about what it means to be a parent of a child with a disability. The parents answered the students’ questions and regularly discoursed with students around course topics. There was time in each class period devoted to reflective practice; parents and students, facilitated by the co-teachers, took the final 20-minutes of nearly every class to discuss and reflect upon content and issues encountered through their learning experiences. These discussions and reflective opportunities helped bring theory into practice for students in the non-traditional class as they began questioning their old beliefs and practices. One student stated:

It was very helpful to have those parents in there, though. I don’t think it would be the same if those parents weren’t in there. To see, like, especially when they just said, told their stories; that was like the biggest thing I think I’ll always remember. Hearing those stories and working directly with the parents that we were reading about are true, like, they dealt with that. They made me see that it was not just a dumb case study again.

Another student described her experience listening to the parent stories as the turning point in her learning experience:

One time that I felt really like, that made me really realize that, you know, things were changing is when we heard the parent stories... When they sat up there at the parent panel and talked about their kids, their spouse, or the single life and just went into their whole life that really opened my eyes it was like, wow, you know. Things are different.

Students’ interactions with parents throughout the class developed into the kinds of parent/professional partnerships that they will experience once they are practitioners. One student described it as “I learned through all the discussions of the parents that how important it is for the parents and the professionals to be working towards the same goal. We actually worked together like we will when I am a teacher.” Another student described the interaction with parents as her first awareness of a change in her orientation toward parent/professional partnerships:

To me when it first changed was knowing that the parent was willing to work with us, like, she did a lot for us over the period of the semester like, gathering us all together and sharing her information with us and us sharing information with her and how we were going to do it. So it was that like, the whole transition between the parent and us was a great experience for me to actually participate in this.

Theme 2: Cooperative Projects Facilitate Transformational Change. The Virtual Family and Community Presentation assignments provided intensive and extensive opportunities for parents and students to work closely together. These projects provided the mechanism through which the parents, by virtue of developing trusting and respectful partnerships with the students, were able to bring about change in students’ beliefs and dispositions toward parent/professional partnerships.

The first cooperative assignment was five Virtual Family scenarios which presented the real-life situations of the parents embedded in the class. The assignment was not another case study, but the real-life situations of the embedded parents who disclosed the intimate details of their lives as parents of a child(ren) with a disability. The parents presented their own stories to the students and helped them through the reflection process during each class meeting. One

student described it as an experience that changed his perception of the role of parents in the partnership process:

When we got them [Virtual Family descriptions] I thought it was a case study and they said, 'Well, actually, you know, the student you're writing about right now is my son' ... I think that just flip-flopped my whole mind, cause I was just like, these parents are totally here to help us, not to scare us... They're putting their whole personal life out there for us to analyze and give our opinions - like we had any sort of sense of knowledge of what they've been through.

This statement was echoed by the other students in the focus group who stated that the experience of having families of children with disabilities in the class, sharing their family stories, facilitated a long-lasting change in their disposition toward parents of children with disabilities. One student shared:

When I first got the Virtual Family I thought... 'What is this? Stupid.' Maybe I should just say 'Who cares and that's all.'... I tried to take it seriously and I was like, 'This is ridiculous. No one's ever gone through this - ever!'... And then after my parent said, 'Yeah, this is what happened to me.' I'm just like...like I cannot believe what I just wrote and I can't believe I said I would put the baby up for adoption. So I mean, I learned a lot within that fifteen minutes. A lot more than I probably learned in three years here.

This student followed up the previous statement with possibly one of the strongest indicators of the type of transformative education that students in the non-traditional classroom were exposed to: "The Virtual Family just did it for me. I can't think of families the same any more."

Developing relationships is a key component to forging effective partnerships; it is also the mechanism through which transformative learning often takes place. Through a small-group, semester-long project students worked with the embedded parents to develop a presentation that was given to families of children with disabilities and professionals who serve those families in an urban community. Through the longitudinal nature of this project, as well as the multitude of occasions for rational discourse and reflection provided, students were allowed opportunities to change their perceptions and beliefs about the partnering relationship. One student described the importance of getting to know the parents as "we're gonna have to understand where the parents are coming from so we can work with them." Another student described the experience of working with parents on the Community Presentation Project as meaningful on a personal level:

I think this whole experience of just working with the parents in the classroom and outside the classroom for group meetings was personal. Like, as personal as I've ever had it. You know, I hope I can get to know all of my parents like this.

The Community Presentation Project paved the way for these students to have informal, rather than simply academic, interactions with the embedded parents. Parents invited the students into their homes; occasionally the students met with the parents in the community (e.g., restaurants, student union, and parent's place of employment). These informal meetings helped students know the parents more holistically and intimately; moreover, students, in a constructivistic manner, were able to learn alternative strategies for developing partnerships and connecting with parents. One student described her personal interaction with parents as one she would like to emulate when she is a teacher:

We all one night actually got to hang out with several of the parents and the professors and we got to know them personally... I think that would be a great way for like, if we are future educators to you know, if you don't want to sit down and talk about your son's IEP let's go grab lunch or talk about other issues and get to know each other ...

V. Discussion.

Recent empirical evidence suggests that pre-service special educators often view parents of children with disabilities as obstacles in their child(ren)'s education, relatively uneducated, and frequently uninvolved (Murray, Curran, and Zellers, 2008). Developing appropriate and empathic dispositions toward parents, then, requires a shift in students' frames of reference toward parents and their role in the partnership process. If pre-service education programs are able to effect this transformative change, students will be better equipped to engage in family-centered practice successfully as education professionals. Consequently, investigation into potential andragogical techniques for facilitating a transformational learning environment in pre-service education programs is warranted.

The quantitative results from analysis of the Family/Professional Partnerships Survey, Part I, indicate that students in both sections felt they successfully engaged in learning that was informational in nature; in other words, their knowledge about disabilities, families, services and resources for families of children with disabilities increased as a result of their participation in the course, regardless of course structure (traditional vs. non-traditional). This result indicates that embedding the parents in the class was not measurably more effective than the traditional classroom environment in assisting students to gain content-related knowledge.

The analysis of quantitative results from Parts II and III of the FPPS, however, indicate that students in the class of the embedded parents experienced a significant shift in understanding of family expectations, as well as professional obligations, in more than twice as many areas as students in the traditional class. Through the relationships that these students developed with the embedded parents, and the resulting trust, respect and understanding that was generated, students came to understand that families want (and can handle) complete and unbiased information about their child(ren); families expect professionals to develop cultural competency; most importantly, families desire to develop relationships with professionals who provide care for their child(ren) on a personal level. Additionally, students in the nontraditional classroom were more likely at the conclusion than the beginning of the course to feel it was a professional's obligation to acknowledge parental expertise in matters related to the child and give parents detailed information about their child(ren) while developing relationships that reach beyond service provision with those children and their families.

The structure of the non-traditional class, including the embedded parents, the co-teaching relationship that modeled effective parent/professional partnership, and the authentic, longitudinal learning activities that required collaboration and reflection appear to have helped students think, evaluate, learn, and act with insight into the experiences of parents of children with disabilities. As is consistent with Mezirow's theory, all of these entities worked together to take students out of their comfort zone of the traditional classroom and into an environment where students could begin question previously held beliefs and values.

While there was statistically significant change on three FPPS items for students in the traditional classroom, change was not indicated on any of the items related to knowing and understanding the families on a personal, rather than purely professional, level. Students in the traditional classroom were no more likely at the conclusion of the course to indicate that they value parents as equal partners in professional practice. This result may have occurred because students in the traditional classroom did not have the benefit of learning partnerships, rational discourse, critical reflection and the opportunity to build relationships with parents of children with disabilities. This result suggests that it may be more difficult for students in the traditional

classroom to demonstrate the competencies and dispositions cited by national and international educational organizations for effective family-centered practice as practitioners; these students, while knowledgeable, may be less likely or able to engage parents and families as true collaborators or primary resources in a child's education.

The quantitative and qualitative results of this study are consistent with those of Boling (2007), Brown (2006), Eisen (2001) and King (2002, 2004) who found that a combination of alternative teaching/learning techniques presented in a way that creates cognitive dissonance for students, discussion, and critical reflection were effective in creating a learning environment in which perspectives were transformed. Students in the non-traditional classroom (which integrated many alternative teaching/learning techniques) appear to be impacted in a more broad, transformative sense by their experiences than students in the traditional classroom; examination of analyses related to the Learning Objectives and Activities Survey and post-intervention focus group help illuminate why. On the LOAS, students in the non-traditional classroom were significantly more likely to indicate that they had an experience that caused them to question the way they would normally act and selected, on average, significantly more change statements than students in the traditional class. The focus group data indicate that it was a combination of the presence of the embedded parents, which served as a disorienting dilemma for many students, the personalization of the Virtual Family assignment, and the longitudinal and cooperative nature of the Community Presentation Project that helped students understand and internalize the importance of parent partnership in service provision.

Teacher education programs can offer students an education that extends beyond knowledge and skill acquisition (Mountford, 2005); as Mezirow (1997, 1991), Cranton (2002), and Taylor (2000) have implicated, dispositions can be transformed through carefully constructed challenges offered in the context of a supportive, collaborative, and reflective learning environment. Through the use of longitudinal collaborative engagements (such as the Virtual Family, community presentations and collaboration with the embedded parents) students who are given opportunities to develop relationships with peers and professionally-relevant partners (in this case, parents of children with disabilities) will better understand their own world views; in the safety of these respectful and supportive, yet constructive, relationships and environments students will be enabled to develop the dispositions and competencies that are necessary for successful practice in education.

This study implemented an innovative approach to teacher education that, through the generation of cognitive dissonance via the introduction of parents of children with disabilities to the classroom and activities designed to promote regular discourse and reflection, facilitated transformational change in student dispositions and competencies regarding parent/professional partnerships. Although this study did not utilize strict experimental controls in the comparison of the two classrooms and the study was implemented throughout just one semester with two classes, preliminary results are promising. The inventive approach to education used in this study helped raise the consciousness of pre-service education students toward the complexity of effective family-centered practice. It appears that the non-traditional classroom structure described in this study had a broad and significant effect on student dispositions and competencies regarding parent/professional partnerships. For future inquiry, longitudinal follow-up with studies that implement transformative educational techniques will illuminate the long-term potential of these strategies in effecting change.

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Concept mapping: evaluating the Language Arts Methods course

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Abstract: In this inquiry, I examine the evidence of student learning in an elementary education language arts methods course. Students completed concepts maps that represented their understanding of effective writing instruction at the beginning end of the course. Eighty-one pairs of concepts maps were scored according to established methods. Students included 122% more concepts on their post-course concepts maps; links between concepts increased by 134%. I also analyze a typical student's beginning- and end-of-course maps, which shows that the student's knowledge base increased both in terms of number and specificity of concepts.

Keywords: teacher education, language arts methods, writing pedagogy, elementary methods courses.

Recent criticism of teacher education (Kirby, McCombs, Barney, and Naftel, 2006) has prompted teacher educators to take a closer look at the effectiveness of their programs (Jones and Vesilind, 1996), and researchers have begun to focus on how to measure preservice and inservice teacher knowledge (Moats and Foorman, 2003; Reutzel, Dole, Sudweeks, Fawson, Read, Smith, Donaldson, Jones, Herman, 2007; Phelps and Schilling, 2004).

In the area of knowledge of language and literacy concepts and methods, we know that teachers have gaps in their understanding (Moats and Foorman, 2003). Specifically, in the area of writing instruction pedagogy, teachers themselves acknowledge that they are uncomfortable with teaching writing largely because they lack confidence as writers themselves, which they often attribute to the writing instruction (or lack of) they received during their own K-12 education (Graves, 2002; Murphy, 2003; Napoli, 2001).

Since my goal as a teacher educator is to send teachers out into the public school with the pedagogical content knowledge to teach language arts, I need a way to evaluate the effectiveness of my language arts methods course for pre-service teachers. I need to know, at the end of my course, what, and how well, my students have learned. To determine this, I need to match assessment to course goals.

For about three years, I've been adjusting my course content, but I always felt the pull to add goals. After reading about the "inverted pyramid" decision process (Bass, 1999), I have been able to narrow the focus of the course. Briefly, Bass describes this inverted pyramid decision process as a series of questions he asked himself:

- What were the four or five learning goals that I had for students in a particular course?
- What did I really believe (and what did I know) about what percentage of students were achieving all of the goals, some of the goals, one or two of them?
- If I had to pick one of these learning goals or outcomes as the one thing that students would retain from this course after leaving it, what would it be?

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- Thinking about that one goal, then could I honestly say that I spent the most amount of time in the course teaching to the goal I valued most? (pp. 4-5)

For my course, I decided that I would spent the most amount of time teaching about and demonstrating effective methods of spelling and writing instruction. The next logical step was to determine a method for measuring whether or not my students reached those goals. Traditional forms of assessment do not capture well the growth in their knowledge of pedagogical content that I hoped to measure.

Some teacher educators use multiple choice tests because they are considered “objective.” Some use performance assessments, such as asking students to apply their learning by producing, teaching, and reflecting upon lessons taught during practicum experiences. Because instructional methods courses in teacher education aim to teach content pedagogy, methods teachers need ways to measure students’ pedagogical content knowledge. Multiple choice tests are a way to measure content knowledge, whereas assessing students’ lesson plans are a way to evaluate their pedagogical content knowledge. Through a short answer, multiple choice test I can efficiently measure some content knowledge, but knowledge of content pedagogy (Shulman, 1987) is embedded in cognitive structures that are difficult to see or describe. Moreover, some students may come with more or less well-developed ideas about effective writing instruction based on their own experiences with writing instruction (good, bad, and indifferent) that have occurred throughout their educational careers. These experiences powerfully influence their ideas about writing and teaching writing. I needed a way to assess their understanding before the class began and at the end of the course. Concept maps provide another way to measure both content knowledge and pedagogical content knowledge in one integrated artifact. For a multiple choice examination, students may perform well if they have memorized facts, but in order to construct a concept map, they need to have an integrated sense of how concepts relate to each other, which requires deeper understanding than mere memorization.

I. Review of the Literature.

In terms of writing instruction, the kind of information that students need is both content knowledge and pedagogical content knowledge, which is largely procedural in nature (Shulman, 1987). Concept mapping allows a student to represent both their semantic long-term memory (Jacobs-Lawson and Hershey, 2002) and their procedural knowledge (Sims-Knight, Upchurch, Pendergrass, Meressi, Fortier, Tchimev, VonderHeide, and Page, 2004).

Concept maps are graphic representations of concepts linked and arranged according to the students' understanding of the relationship of the concepts and thus are a window into students' cognitive structures or schema (Novak, 1998). Based on research on the structure of knowledge, terms like “network” and “web” are metaphors we use to talk about how concepts are connected to other concepts in simple linear chains or in vertical hierarchical relationships. Concept maps are visual representations of those networks of ideas. Concepts are written in nodes (bubbles) and relationships between them are shown with lines that can be explained further using linking words written on the lines. Concept maps can be useful for identifying students' misconceptions, for developing their understanding, and for assessing their understanding summatively (Bolte, 1999). They are also useful as tools for deep learning because they help students connect new ideas to prior knowledge (Williams, 2004). Concepts maps are a valid and reliable measure of what students understand (Shavelson and Ruiz-Primo,

2000) and have been used in many subject areas, including biology (Mintzes, Wandersee, and Novak, 2001), science education (Markham and Mintzes, and Jones, 1994), math (Bolte, 1999), political science (Parkes, Zimmaro, Zappe, and Suen, 2000), nursing education (Williams, 2004), psychology (Jacobs-Lawson and Hershey, 2002), statistics (Lavigne, 2005), and medical education (West, Park, Pomeroy, and Sandoval, 2002). Most significantly, for my purposes, concept mapping has been used in teacher education (Artiles and McClafferty, 1998; Beyerbach, 1988), but not to assess preservice students' understanding of subject area teaching methods.

II. Theoretical Framework.

Kegan's constructive-developmental theory of adult development (2000) is the larger theory that informs this research. In Kegan's terms, we want preservice teachers to be making progressive development toward more complex constructions of their knowledge about effective teaching. In order to be able to do that, we must know what preconceived notions our students bring with them into the classroom. What are their current constructions of knowledge about teaching, about effective teaching, about the effective teaching of writing? Then, the form of that knowledge must undergo a change in form, a transformation, if we are to say that transformational learning has occurred. If students only add to their set of knowledge, then the learning is informational, which is worthwhile, but it is not transformational. The learning that we expect preservice teachers to experience in methods courses is a meaning-constructing task; they cannot merely be the recipients of knowledge by transmission.

The theoretical framework for this research assumes the validity of Shulman's notion of pedagogical content knowledge (1987). Content knowledge is subject matter knowledge that teachers possess. Pedagogical content knowledge is the unique blend of content knowledge and pedagogy that results when teachers organize, represent, and adapt topics, problems and issues for diverse students and when they present those topics, problems, and issues during instruction.

The current study is an example of practitioner research (Borko, Liston, Whitcomb, 2007), which attempts to examine practice from the inside by the teacher educator, who embodies a dual role of both teacher and researcher. Practitioner research is intentional because it is planned and deliberate, rather than spontaneous. It is also systematic because the researcher gathers information in an organized manner, keeps records, and analyzes the data collected in multiple ways. Practitioner research falls within the tradition of scholarship of teaching, an area of research that opens the classroom door so that teaching becomes "community property" (Shulman, 2004). Practitioner research should be available for public critique and review, which in turn makes it possible for other practitioners to make use of it in their contexts.

II. Purpose and Methods.

Though my main intention was to evaluate the effectiveness of the course I teach and the way that I teach it, I hope that the method that I have used to evaluate my teaching will prove useful to others who want to know if their students are truly learning—if their teaching is truly effective. Although the Praxis and other tests of teacher knowledge can be used to measure the outcomes of teacher education, the results of these tests are not specific enough to be used to evaluate students' learning in any particular course. By using concept mapping as a pre- and post-measure of student learning, I sought to determine the degree of growth in the depth and complexity of students' knowledge in terms of the specific curriculum of the course.

I taught the students how to make a concept map by explaining, showing examples, and modeling. I then directed the students to create a map of their initial understanding of what constitutes effective writing instruction. Use of concept maps to assess students' understanding should be embedded in the instructional process, not just added on at the end (Mintzes, Wandersee, Novak, 2001). Accordingly, throughout the course, I used concept maps as part of instruction to explore subtopics of effective writing instruction (e.g., effective spelling instruction).

Since the purpose of this study was to evaluate the effectiveness of this course, the students created a concept map at end of the course. Although I scored the maps, the scores were not part of their course grade. I compared the scores on this final concept map with the students' scores for their initial maps in order to measure the growth of their understanding over the course of the semester.

Scoring procedures vary, but I used a simplified form of the method recommended by Novak and Gowin (1984) in which nodes and lines are counted. Walker and King's study (2003) of concept mapping as a form of student assessment also employed this scoring method. Two scorers scored a subset of the maps and had an interrater reliability of .98. See Figure 1, which shows the scoring guide.

Nodes (Concepts) 1 pt. each _____

- Don't count redundancies
- Don't count irrelevant issues

Labeled Lines/Links _____

Validity Link Score _____

- invalid or misconceived link label = 0 pts.
- partially valid, general or imprecise link = 1 pt.
- valid, precise, clearly stated link = 2 pts.

Line/Node ratio _____ Validity ratio _____

Figure 1: Concept map scoring guide.

III. Results and Discussion.

Eighty-one pre-course concept maps and 81 post-course concept maps were scored. A paired-samples *t* test was conducted to evaluate whether the post-course concept map scores were statistically significantly higher than the pre-course concept map scores. The number of concepts that students included in their concept maps increased significantly ($t(80) = 15.04, p < 0.01$). The number of labeled connections that students made among concepts increased significantly ($t(80) = 8.42, p < 0.01$). The validity of the connections was assessed as well. Connections that were not labeled received one point, but connections that were labeled received two points. This validity of connections score also increased significantly ($t(80) = 12.34, p < 0.01$).

From these gain scores, I could conclude that students' knowledge of effective writing instruction increased, but this would be misleading and insufficient. A closer examination of the nature of students' pre-course concept maps shows that their initial understandings of effective writing instruction were vague. Some of the concepts they listed in their pre-course concept

maps were related to general ideas about effective instruction and learning, but not specific to effective writing instruction (e.g. instruction should be varied, allow for growth, build upon past instruction). However, their post-course concept maps included specific concepts that they encountered during the course.

Specific concepts addressed in the course were:

- word study that incorporates word sorting and differentiated instruction based upon spelling assessments
- genre-based writing instruction
- elements of writing workshop: daily lessons, independent writing time, and sharing
- writing process
- gradual release of responsibility model (called IMSCI, explained below)
- writing assessment and instruction based upon analytical scoring (6 traits)

As I examined the students' post-course maps, I looked for evidence that these major concepts were included.

Let's look at an example of a pre-course concept map (see figure 2). I chose this particular map because it typified a middle range of performance on the concept mapping task. This student's map indicates that she conceives of effective writing instruction as something that requires thought and interest, should emphasize creativity, and address conventions of grammar, spelling and proper format. These are concepts that she probably has acquired largely through personal experience. Her map approximates an understanding of effective writing instruction that matches her development as a preservice teacher. No part of her map is "incorrect," but other than her inclusion of specifics about conventions, the rest is nonspecific. Typically, students who possess general knowledge about a topic produce concepts maps that are wide, but not deep. One would expect that after students have developed a more complex, sophisticated knowledge base, their maps would reflect both the breadth and depth of that knowledge.

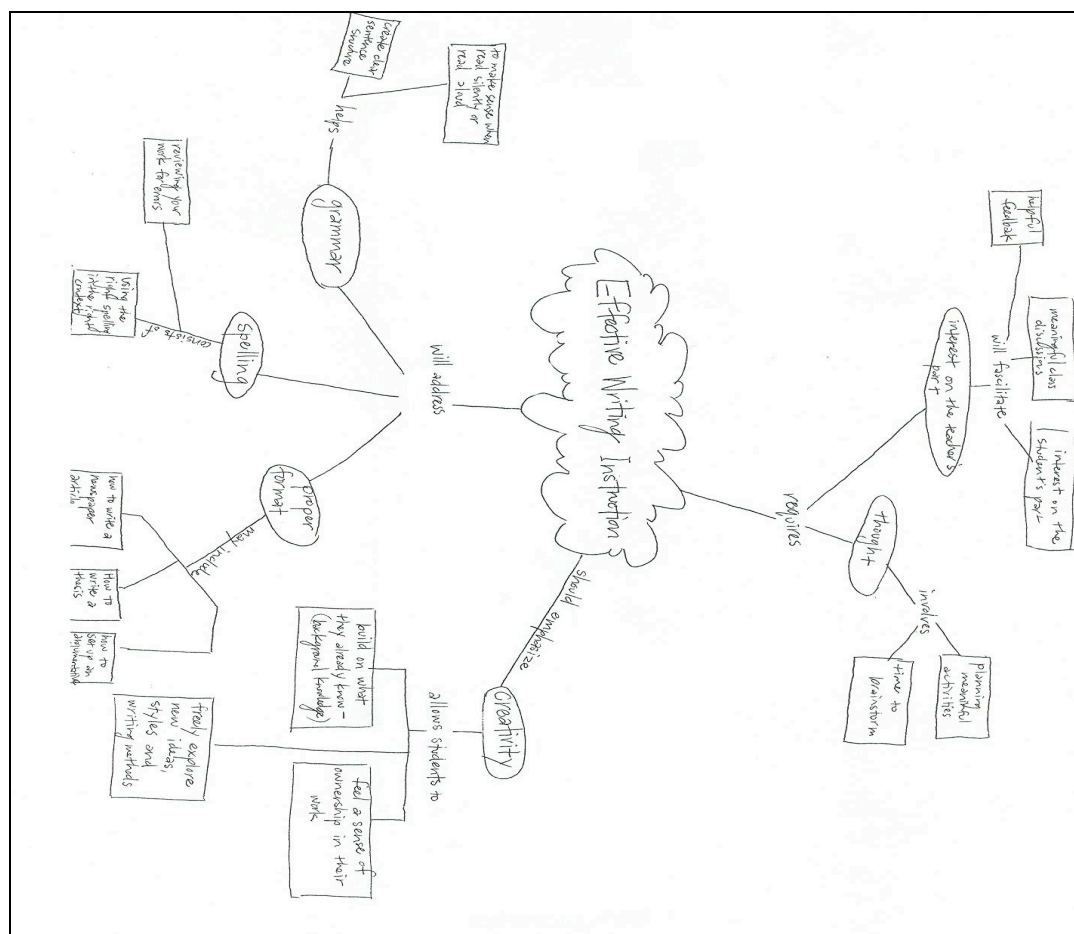


Figure 2: Student's pre-course concept map.

When we examine her end-of-course concept map (see figure 3), the level of specificity is much greater, reflecting an increase in the breadth and depth of her knowledge base. Her map now indicates that she understands effective writing instruction as an enterprise that should match instruction to assessment. She connects this to how feedback can be correlated with a specific standard, such as her new knowledge of the stages of spelling development. Her map also indicates that she understands how to differentiate instruction through the application of a scaffolding model (IMSCI). Each element of the scaffolding model has examples with detail, enumerating specific instructional practices. For example, she explains that modeling should focus students' attention on the goal of the activity and that modeling should help eliminate students' fear of failure because they've seen it done at least once. Her map doesn't provide detail about how to teach the traits of writing, but she does enumerate them correctly. Finally, her map indicates an understanding of the affective dimensions of writing instruction, which we had discussed in class. Specifically her map indicates that effective writing instruction should provide students with the tools to write on their own successfully, the confidence that they can write, and opportunities to learn from their mistakes without feeling dumb.

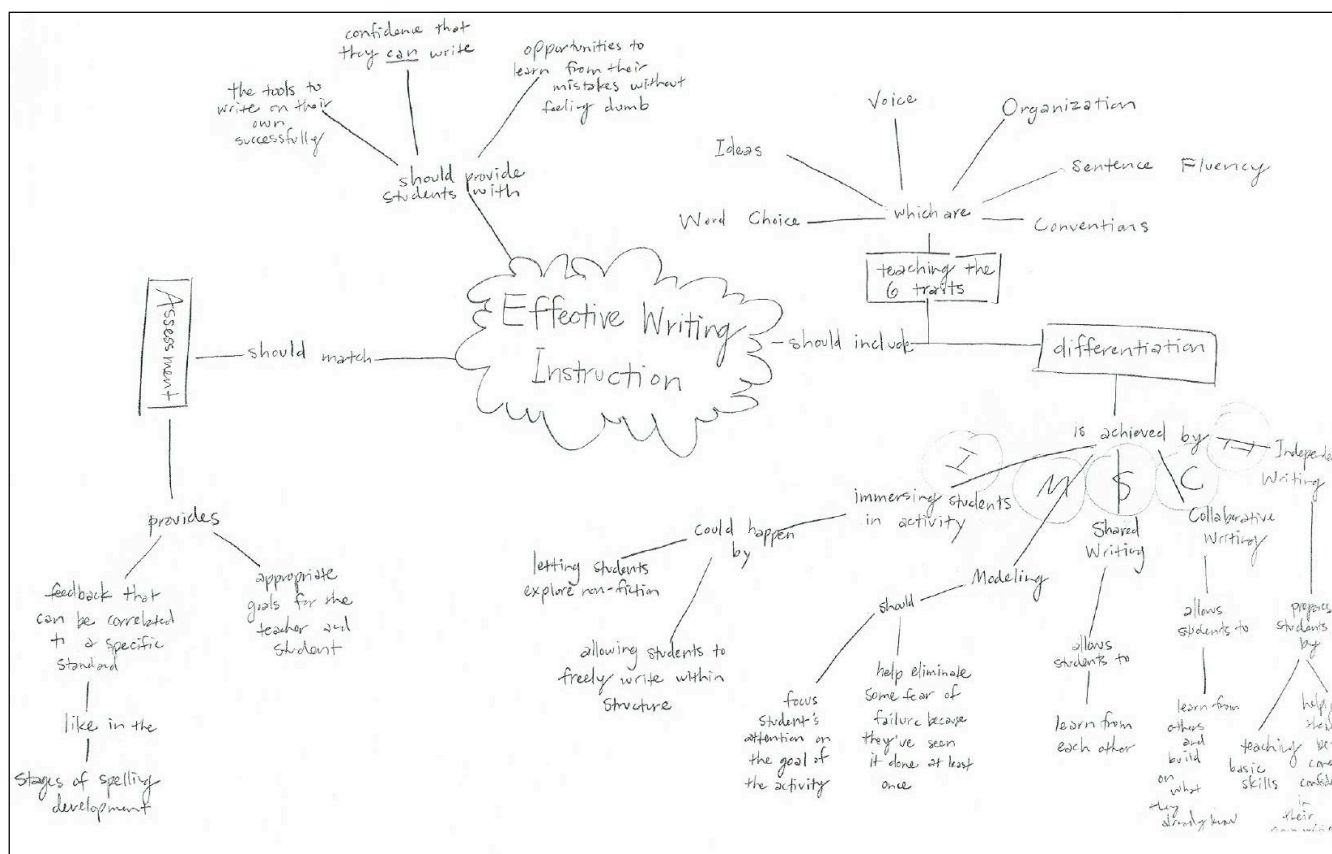


Figure 3: Student's end-of-course concept map.

What happened in this course to bring about changes in students' thinking about effective writing instruction? What learning experiences did the students have? In order to discuss what students experienced in this course, it's necessary to explain the two main foci of my instruction.

The first focus is the theory of the gradual release of responsibility, which I explain to the students using an acronym—IMSCI. “I” stands for immersion; by immersing students in text types or genres and analyzing the features of those genres, students gain the familiarity they need to imagine the goal of a writing task. “M” stands for modeling; the teacher actively models writing the text type or genre and models skills and strategies that are relevant to writing the genre. “S” stands for shared writing; teacher and students co-construct an example of the text type or genre, while incorporating relevant skills and strategies. “C” stands for collaborative; before asking students to try out the text type on their own, an intermediate step is to allow students to try writing the genre with a partner (this step is optional for some genres, such as autobiography). The final “I” stands for independent; once students have had the genre modeled and have participated in shared and/or collaborative writing of the genre, they are more likely to be ready to write in the genre independently. I emphasize, when teaching this model, that even when students are writing collaboratively or independently, they are never left entirely to their own devices. The teacher should be conferencing, offering guidance, answering questions, asking questions, and doing one-on-one or small group reteaching of relevant skills and

strategies. The IMSCI model is a way of conceptualizing gradual release of responsibility (Pearson and Gallagher, 1983) that is specific to writing instruction.

The second focus of my instruction is experiential learning. The students live the experience of writing instruction based on the IMSCI model as I demonstrate how each element of the IMSCI can be used to teach a particular genre of writing and my students actively participate. When I model how to teach a particular prewriting strategy, they try out the strategy for themselves. In this way, my students experience the IMSCI model and reflect on that experience before they teach writing lessons in their practicum at local elementary schools where they teach lessons based on the IMSCI model.

Most of the students' final concept maps included the IMSCI model, though at varying levels of specificity (see Table 1).

Table 1. Inclusion of IMSCI model in final concept maps.

Included IMSCI and elements of IMSCI	Included one or more elements of IMSCI	Mentioned IMSCI, but provided no detail	No mention of IMSCI, no mention of any elements of IMSCI	Total
48	15	5	13	81
59%	19%	6%	16%	

Although I taught the IMSCI model as declarative knowledge, by creating the lived experience for my students, my hope was that they would internalize the IMSCI model. I can see that 84% of the students did internalize the model to some degree, and that 59% of them internalized all elements of the IMSCI model.

Another goal of my class was to ensure that students understood that writing is a non-linear, or recursive, process that involves pre-writing, drafting, revising, editing/proofreading, and publishing. Table 2 shows that 79% of my students included some aspect of the writing process in their final concept map.

Table 2. Inclusion of writing process in final concept maps.

Included all elements of the writing process	Mentions one or more elements of writing process	Mentions writing as a process or "steps"	No mention of writing process or elements of writing process	Total
53	7	4	17	81
65%	9%	5%	21%	

The goal is not, of course, to have students create detailed concepts maps, but rather for students to gain the pedagogical content knowledge they need to be successful teachers of writing. In the future, I plan to use concepts as a learning tool rather than as an assessment of their learning. I plan to have them create maps as a whole-class collaboration, in pairs, and individually. By comparing their maps with those of peers and with mine, students can evaluate their understanding in a low-risk context.

IV. Implications and Recommendations.

Maps are a flexible tool for both learning and assessment. They can be completed in class or as a homework assignment. One can broaden or narrow the scope of the map as needed. For example, I could ask students, while studying the best practices for teaching grammar to improve

writing, to map their knowledge of grammar instruction at the beginning of the unit so that I can assess where students are in their understanding. I could ask them to create another map after they have experienced research-based practices like sentence combining and after reading a position statement on grammar instruction from the National Council of Teachers of English.

Concept mapping can be used in any course or discipline as a way for students to graphically represent their understanding of content. Because concepts are linked with lines and words or short phrases, the cognitive labor is different from writing an essay on the same topic where students must concentrate on organization, sentence structure, and grammatical conventions of writing, as well as on the concepts. A concept map liberates students from the concerns that accompany formal essay writing, allowing them to focus their whole attention on concepts and the relationships between and among those concepts.

While concept maps are used in a variety of disciplines as an assessment device, the configuration of the task varies. In some studies (e.g. Ruiz-Primo, et al., 2001), the researcher provides students with some or all of the concepts, and the students' task is to connect them logically. To examine students' understanding of effective writing instruction, it might be useful to compare a free recall concept map with solicited recall for which certain elements of concept are provided to the students.

It could also be useful to compare the results of concept maps with written essays, both done in response to the same prompt. Research has shown that concept maps aid students' essay writing (Parkes, et al., 2000), but how students use those maps to support their essay writing is unclear. Also, if a student's concept map is complex, will that complexity be reflected in his or her essay? Conversely, can a student write an essay that captures the complexity of the concepts if his or her concept map is not complex?

V. Conclusions.

The potential of concept mapping as a way to measure student learning has been demonstrated in many disciplines. I was able to validate, using concept maps, that students developed more complex constructions of their knowledge (Kegan, 2000) about effective writing instruction. Students' post-course concept maps showed that pedagogical content knowledge (Shulman, 1987) had become integrated into their understanding of effective writing instruction. Practitioner research of this kind allows us to treat teaching as "community property" (Shulman, 2004), opening the doors of our classrooms so that our teaching methods and forms of assessment can be shared with and critiqued by others.

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