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Articles

Using an institutional audit to enhance the scholarship of learning and teaching: A UK case study

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Abstract

Encouraging and valuing the scholarship of teaching and learning provides a challenge for many institutions. This paper describes how an initial attempt by a team of educational developers to enhance teaching and learning through an institutional audit led to subsequent wider changes within one UK university. The audit involved interviews with 60 academics from across the university, and provided information about teaching and learning projects and also about the constraints currently inhibiting such work. These included negative evaluations of such projects by other faculty members, competing pressure to undertake discipline-based research, and a lack of appropriate skills for pedagogic research.

Introduction

For some time there has been a debate focusing on the importance of developing a scholarship of learning and teaching as an antidote to the over-riding focus on disciplinary research encouraged in the UK, amongst other

things, by the Research Assessment Exercise (RAE). Building on work by Boyer and colleagues at the Carnegie Foundation for the Advancement of Teaching (Boyer, 1990; Glassick *et. al*. 1997; Schulman, 1993), advocates argue that academic work should be seen in a broader context which incorporates four distinct types of scholarship: the scholarship of discovery research; the scholarship of integration, including the writing of textbooks; the scholarship of service, including the practical application of knowledge; and the scholarship of teaching. It is the scholarship of teaching, and a possible model of support for such scholarship in the form of pedagogic research, which form the focus of this paper.

Healey (2000) argues that if scholarship of teaching is to match that of research, there must be a comparability of rigour, standards and esteem (Healey 2000). Lecturers in higher education must therefore learn to adopt a scholarly approach to teaching, and collect and present rigorous evidence of their effectiveness as teachers. Martin *et al.* (1999) develop Boyer's conception of scholarship of teaching to include three key elements: engagement with the scholarly contributions of others on teaching and learning; reflection on one's own teaching practice and students' learning; and communication and dissemination of aspects of practice and theoretical ideas about teaching and learning.

Increasingly, the scholarship of teaching is explicitly or implicitly being linked with undertaking pedagogic research:

> We believe the aim of scholarly teaching is also simple: it is to make transparent how we have made learning possible. For this to happen, university teachers must be informed of the theoretical perspectives and literature of teaching and learning in their discipline, and be able to collect and present rigorous evidence of their effectiveness, from these perspectives, as teachers. (Trigwell *et al.* 2000, p. 156)

Andreson and Webb (2000) interpret scholarship of teaching as requiring someone to be well informed about the pedagogy of their discipline, and to be critically reflective. Schön (1995) goes further to argue that scholarly activity must take the form of action research: “If teaching is to be seen as a form of scholarship, then the practice of teaching must be seen as giving rise to new knowledge” (Schön, 1995, p.31). Developing pedagogic research capacity may therefore offer a way for teachers to acquire these skills and use them to evaluate their own teaching and curriculum developments in which they are involved. However, Yorke (2000) illustrates the potential difficulties which may be encountered in an attempt to enhance the status of pedagogic research – including the inhibiting effects of the RAE, a lack of staff expertise in pedagogic research, and a lack of co-ordination of such research. Taking account of these issues, this paper discusses a possible model by which pedagogic research may be encouraged.

The case study

This paper describes a case study of the University of Plymouth, which moved through various stages of development in order to encourage the scholarship

of teaching and learning via pedagogic research and development projects. The university has a strong record in educational development, having a long-established team of educational developers and one of the earliest accredited professional development programmes in teaching and learning in higher education (the LTHE course, attended by all new lecturers and some established staff). However, in terms of pedagogic research, the situation at this university was probably similar to many others, in that there was a considerable amount of research and development work taking place, but little in the way of co-ordination or co-operation. It was noted that across the university, there were a large number of individuals who were engaged in projects focused on teaching and learning in higher education. Some of these people were working in large, well-known research groups or organisations with considerable support available, but many more were scattered across diverse departments and had little or no contact with others working in a similar area (Fowler-Braund and Cotton, 2002).

As a first step towards bringing researchers together and increasing the level of support and cross-departmental contact available, an institutional audit of research activity was conceived. This audit, undertaken in 2002, aimed to bring together as much as possible of the research into teaching and learning in HE underway at the university and make it available to a wider audience across the University. The first stage of the project involved contacting individuals across the university who were known to be engaged in teaching and learning research in higher education. These individuals were invited to provide information about their work and also encouraged to give feedback on

the type of information which would be useful to them in such a survey. It was at this point that the development of a database was suggested, as a means of making the information from the survey available to as wide an audience as possible. The advantages of an on-line database in terms of the flexibility of searching and indexing, and the ease with which it could be kept updated were felt to outweigh any possible accessibility issues. An IT consultant was therefore employed to develop a fully searchable, easy-to-use, on-line database.

At a later date, a more widespread call for researchers to be included in the survey appeared, and interviews were carried out with approximately 60 members of staff. The survey aimed to be as inclusive as possible, with relevant research activities defined as including both large-scale funded projects and small-scale action research projects undertaken by lecturers on their own teaching activities. (In practice, a number of small scale development projects were also included in the final database). Most of the interviewees were lecturers, although the survey also included a few technicians and research assistants, and a significant number of support staff. Particularly strong areas of research were found in the areas of Health Studies, Psychology, Biology and Geography, though a number of other departments also had significant research activity. The kinds of projects undertaken were largely small scale, many having been funded by small-scale internal grants, in particular via the Student-centred Learning Initiative (SCL), and the Teaching and Learning Development Fund (TLDF), though departmental funding was also available in some disciplines. Small scale

funding was also obtained externally via bodies such as the LTSN subject centres (now part of the UK Higher Education Academy), RATIO (the Rural Areas Training Initiative). Larger-scale funding bodies including the Higher Education Funding Council for England (HEFCE), Fund for the Development of Teaching and Learning (FDTL) and the Economic and Social Research Council (ESRC) generally provided support for projects by well-established individuals or groups doing large-scale research.

An immediate outcome from the audit was the development of a searchable database available to practitioners wishing to develop their own teaching or to undertake further research. The aim of the database was to forge links between members of staff from diverse disciplines, but with similar interests in teaching and learning. It also enables researchers to find out about previous projects in their field of interest. The database can be accessed via http://www.pedres.net and it is updated at regular intervals, currently including more than 120 projects. Research covers a wide variety of areas, as reflected in the range of keywords on the database (over 100). This is perhaps indicative of the lack of co-ordination of teaching and learning projects across the university as a whole. Despite attempts by the university's teaching and learning development fund (TLDF) to encourage bids focused on discrete areas of concern, there were few areas in which more than two or three studies existed, and in which any level of coherence in research output had been achieved.

Where it was possible to distinguish recurring themes within the projects, these were themes considered key in the teaching and learning strategy, and which had been encouraged by internal funding calls. These included issues related to transition, retention and progression of students; student-centred learning; and expansion of computer-assisted learning in terms of learning resources for near and distance learning, on-line formative assessment, and software development to aid marking of student work. These reflect key themes in the University's Learning and Teaching Strategy, and the subsequent Learning and Teaching Action Plan. Projects relating to institutional priorities had been explicitly encouraged in bids for internal funding, and there was therefore more coherence than in other areas, although some degree of overlap between different projects existed even here.

Constraints on Pedagogic Research

An unexpected by-product of the survey was the discovery of a wealth of subjective and objective constraints acting upon lecturers who attempted to undertake teaching and learning research and development projects. This was partly due not only to negative evaluations of such projects by staff in the disciplines and the lack of clarity as to where pedagogic research might fit in the research assessment exercise, but also due to a lack of appropriate educational research skills.

The key issues appeared to be twofold:

1. There was a lack of knowledge about educational theory and methodologies amongst many of the teaching and learning researchers across the university.
2. Research was not being published because staff were not familiar with appropriate journals, and did not have access to adequate support or advice.

These two issues appear to be linked in that many people were not able to publish in education journals because they simply did not have sufficient background in education to enable them to do so. Advice and support from within their departments was difficult to obtain and cross-department collaboration difficult (The situation may have been exacerbated at this institution by the placement of the Education Faculty on a different campus, some 60 miles away). Other issues which arose related to lack of knowledge about funding opportunities – although more often research was funded but never written up.

In an attempt to counter these problems, a number of structural changes were made within Educational Development (ED) and the wider university. Two new roles were developed, namely those of a research co-ordinator and research advisor in ED. These appointments were made to enable a more co-ordinated approach to pedagogic research and development projects to evolve, and to provide lecturers in the disciplines with a line of support and advice for undertaking such projects. A series of staff development workshops was initiated, advising lecturers on research methods, sources of funding, and

publication possibilities. Individual advice is also offered to lecturers about issues such as planning research, developing questionnaires and interview schedules, and writing for publication - in one instance resulting in a co-authored publication. Members of staff are encouraged to gain greater knowledge and understanding of the literature, and to develop research skills with which to investigate their practice and that of others. Research on teaching and learning has also been explicitly approved at the highest level, forming a prominent part of the redrafted institutional teaching and learning strategy - although the extent to which this is translated into practice varies.

Other changes within the institution include altering the funding of teaching and learning projects with a move away from the TLDF towards a new Teaching Fellowship Award Scheme (TFAS). This scheme aims to provide funds so that members of staff have the opportunity to undertake innovative developmental work in teaching and learning. The scheme is closely linked to the University Learning and Teaching Strategy and applicants are encouraged to focus on learning and teaching priorities, thereby leading to more focused bids linking with key themes. The scheme also explicitly encourages members of the staff to use part of the fund to support their own personal and professional development. Award holders join an informal network of teaching fellows which meets several times a year, and they are encouraged to develop the pedagogic research potential of their projects. Reports are increasingly focused on providing evidence of the publication potential of the project (copies of draft publications or conference papers may be submitted)

in order to encourage teaching and learning work to be written up during the life-span of the project, rather than waiting to find the time after it has finished.

More recently, the influence of the nationally-funded Centres of Excellence in Teaching and Learning (CETLs) has made a substantial difference both to the status and extent of pedagogic research at the university. The award of four CETLs, plus a share in a fifth CETL (worth a total of £18 million over 5 years) has increased the number of researchers working in this area considerably, and some large scale pedagogic research strands have been initiated. The work of the research co-ordinator and research advisor has become even more crucial, as has the need for some level of institutional co-ordination. Future plans to provide support for teaching and learning projects at the university therefore include the proposal to establish an Institute for Higher Education Practice. Such an institute would give a high-profile focus for teaching and learning projects, as well as providing support and information about teaching and learning issues. It would have an advisory and consultancy role, developing a body of expertise on issues in HE so that individual academics, course teams, departments, faculties or senior managers of the university could consult the institute for advice on decisions about practice and policy.

Conclusion

The survey of teaching and learning activity at the University of Plymouth revealed a number of issues which needed to be addressed to enable staff to engage effectively in the scholarship of learning and teaching. Even amongst

staff who were currently active in this field, aspects of teaching scholarship considered to be central in the literature were frequently lacking. For example, both engagement with the scholarly contributions of others on teaching and learning (awareness of previous work), and communication and dissemination of aspects of practice and theoretical ideas about teaching and learning (Martin *et al.*, 1999) were frequently rather limited. Jenkins (2002) raises the question of whether staff who carry out pedagogic research have the 'competence' to do so, and this does appear to be an issue for some of the staff interviewed. However, rather than discourage staff from undertaking such research or even, as Jenkins suggests "... encourage staff to (initially) use the disciplinary research traditions with which they feel comfortable", individuals can be encouraged to fulfil their potential by the provision of training opportunities and resources focused on plugging these gaps.

Dissemination of teaching and learning projects was greatly increased by the development of the database, in line with the view of Andreson and Webb (2000), in which more formal scholarship activities involve presenting work to an ever-expanding audience. Staff are encouraged to publish a short summary of their project on the database, they have opportunities to present their work at an internal seminar or the annual teaching and learning conference, and they are advised on how they might submit papers to peer-reviewed journals. However, the external constraints acting upon university staff which prevent them from undertaking pedagogic research are harder to remove. Many authors have noted the negative effect of the RAE:

> Pedagogic research has long held Cinderella status in the UK ... Though often patronised with words of encouragement, it has not really been recognised or valued by the 'ugly sisters' of the QAA and in particular the Research Assessment Exercise. (Jenkins 2002)

Although pedagogic research can now notionally be included in the RAE, the extent to which this will occur is difficult to gauge at this stage.

In contrast to the disciplinary-based approach to developing the scholarship of teaching and learning advocated by Healey (2000) and others, this case study illustrates the potential benefits that can accrue from increasing centralised support for teaching and learning projects. Advantages include cross disciplinary co-ordination reducing the overlap of projects undertaken in differing faculties and increasing cross-fertilisation of ideas from different disciplines; increased visibility of teaching and learning projects aided by the university-wide database; and strength in numbers, especially if supported by a central institution such as that described above. The overall effect is to increase the status of teaching and learning scholarship in higher education by making it rigorous, visible and accountable.

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Undergraduate Research Experience in Psychology as a Predictor of Graduation and Retention

David Nalbone

Abstract

Students who had and who had not taken an undergraduate research course in psychology were compared to see if there were differences in graduation and retention rates between them. Students with such experiences were much more likely to be still enrolled or to have graduated than students without such experiences. The need for greater student involvement in such experiences, as well as possible limitations of the results, are discussed.

Introduction

Much has been written about the benefits of directly involving students, including undergraduates, in the conduct of research. Such active or discovery-based learning has been theorized to lead to greater interest in and retention of the material covered, greater success in applying the material later, and better learning overall. This greater success may stem, at least in part, from the fact that active learning employs many of the "best practices in undergraduate education" delineated by Chickering and Gamson (1991). For example, such experiences certainly encourage student-faculty contact, emphasize time on task, and communicate high expectations. In addition, undergraduate research experiences may foster the sort of outcomes and skills that businesses want to see in future employees and that students want to acquire for themselves (Hansen, 2000), and many colleges and universities are feeling greater pressure from their stakeholders to include undergraduate research experiences as part of the curriculum (Dotterer, 2002; Hutchinson, 1992; Kinkead, 2003). Early results are encouraging, although there is some question as to whether such approaches are effective for younger (e.g., elementary school) students. By extension, such active learning may also predict greater persistence among students, as the increased motivation to learn may lead to greater involvement in and enjoyment of coursework more generally.

Much of the emphasis in the research literature on retention has focused on demographic factors predicting retention (e.g., Murtaugh, Burns, & Schuster, 1999; Peltier, Laden, & Matranga, 1999) and specifically on improving retention among minority students, perhaps due to the changing demographics of the college population, which is expected to affect future students' retention (Reason, 2003). For example, in a longitudinal study of minority student retention and academic performance, Jonides (1992, 1995) reported that a heavily involved undergraduate research program focusing on faculty-student partnerships, workshops, research peer groups, and peer counseling led program participants to have higher retention rates (especially among African-Americans), slightly higher GPAs, and better adjustment (e.g., higher self-esteem and better coping strategies). Similarly, a study (Walters, 1997) of minority students in graduate and professional science degree programs among current, prospective, or recent graduate students revealed that participation in a summer undergraduate research program increased students' rated importance of advanced research experiences, program information about graduate and professional programs, preparation for graduate work, and mentoring by faculty and administrators. These results were consistent with the student retention model tested (Tinto, 1975, 1987), which views retention as a complex function of the interactions between academic integration and social integration. Specifically, Tinto's theory posits that greater academic integration (such as through more in-depth faculty-student interactions) leads to greater commitment to an institution, which in turn leads to greater retention (see also Braxton, 2000; Braxton & Lien, 2000).

The Present Study

All psychology majors at Purdue University Calumet are required to take certain courses as part of the major, including required foundational courses in math, statistics, and research methods, as well as a number of advanced (300- and 400-level) electives. Neither PSY 491 nor PSY 590 is a required course, and thus students who take either or both may differ from those who do not in systematic ways. The 491 course is an independent study course designed for students to have a one-on-one relationship with a faculty member; students taking such a course generally fall into one of three categories: (a) teaching assistant, in which the student works with a faculty member to assist in grading and course administration; (b) guided research, in which the student works with the faculty member on research in the faculty member's area of expertise; or (c) independent research, in which the student works on a research project of his or her choosing under the supervision of the faculty member. The majority of students at Purdue University Calumet fall into the last category. The 590 course is an advanced research-based course ("Personality Testing") in which students work in groups with a faculty member to develop and carry out an empirical research project, which is later presented at an undergraduate psychology research conference and at an on-campus research colloquium. The author has supervised only a few PSY 491 and PSY 590 students in the last few years, working with a small number of students primarily on guided research.

Hypotheses

Based upon the premise that a specific instance of active learning—namely, participation in one or more research-based courses in psychology—leads to increases in student persistence (both retention and graduation), I formulated two hypotheses:

- Students taking at least one research-based course are more likely to remain enrolled in school.
- Students taking at least one research-based course are more likely to graduate from the university.

Method

Data from all psychology majors from fall 1994 to fall 2003 were extracted from the student database of Purdue University Calumet, a regional comprehensive Midwestern university with some master's programs. Three-fourths of the university's students are first-generation college students, most work either part-time or full-time in addition to their studies, and all lived off campus during the time period of the study (on-campus student dorms have since been added). All students who took PSY 491 or PSY 590 (the psychology program's elective research-based courses) from fall 1994 to fall 2003 were coded as having taken a research-based course ("Yes"); all other students were coded as not having done so ("No").

Due to unequal sample sizes (233 Yes versus 1271 No students), a systematic subsample of the No students was taken for these analyses, by selecting every sixth

student from an alphabetical list of the No students after a random start. Thus, only one-sixth of such students (211) were sampled; this resulted in roughly equal sample sizes, which reduced the likelihood of violating statistical assumptions (namely, homogeneity of variance among groups) inherent in the analyses presented below.

Table 1 presents the demographic characteristics of the sample used. The racial and ethnic breakdown of the sample is similar to that of the larger population, but there was a larger than expected percentage of women in the sample than men (which, however, is somewhat typical of psychology majors). Individuals from a wide range of ages were sampled, reflecting the non-traditional nature of the campus, which was a commuter-only campus at the time of the study.

Table 1. *Demographic Characteristics of Sample*

Demographic Variable	Value	%
Gender	Female Male	79 21
Race/Ethnicity	White/Caucasian Black/African-American Hispanic Other	78 11 10 1
Age	Range = 18-72	Mean = 29.3, SD = 8.5

Results

I performed two chi-square tests to assess whether or not differences in retention and graduation rates differed for the students who had and who had not taken one or more research-based courses.

The data in Table 2 indicate that psychology majors who participated in research courses as undergraduates (namely, by taking PSY 491 or PSY 590) were much more likely to have been retained (defined as either still enrolled or already graduated) than students who did not participate in such courses. Nearly nine of every ten students who took such a course were retained, whereas only about half of the students who did not take such a course were retained. Thus, taking one or more research-based courses nearly doubled the odds of a given student being retained.

Table 2. *Cross-tabulation of participation in research courses and retention status*

			Was student retained?		
			No	Yes	Total
Did student participate in PSY 491 or 590?	No	#	109	102	211
		Row %	52%	48%	100%
	Yes	#	30	203	233
		Row %	13%	87%	100%

Total	# Row %	139 31%	305 69%	444 100%

Note. X^2 (1, N = 444) = 112.6, p < .001.

The data in Table 3 indicate that psychology majors who participated in research courses as undergraduates (again, PSY 491 or PSY 590) were much more likely to graduate from the university than students who did not participate in such courses. Approximately three-quarters of students who took such a course had graduated by fall 2003, whereas only about one quarter of the students who had not taken such a course had graduated. Thus, taking one or more research-based courses nearly tripled the odds of a given student graduating.

Table 3. *Cross-tabulation of participation in research courses and graduation status*

			Did student graduate?		
			No	Yes	Total
Did student participate in PSY 491 or 590?	No	# Row %	157 74%	54 26%	211 100%
	Yes	# Row %	56 24%	177 76%	233 100%
Total		# Row %	213 48%	231 52%	444 100%

Note. X^2 (1, N = 444) = 77.4, p < .001.

In order to address a possible confound—namely, that students who self-select into these courses are systematically different from those who do not, a series of *t*-tests were conducted comparing those who did and did not take these research courses, using the full sample (i.e., including all 233 Yes and 1271 No respondents). Students who took such courses did not differ from those who did not in terms of being White vs. non-White [79% vs. 71%, t (1475) = 0.66, p = .51], gender [both groups were 79% female, t (1499) = 0.08, p = .94], or average SAT scores [914 vs. 937, t (1120) = 1.72, p = .09]. However, students taking such courses tended to be older [mean ages = 30.6 vs. 29.1, t (1501) = 2.40, p = .02] and to have a higher average GPA [mean GPAs = 3.16 vs. 2.77, t (1467) = 6.85, p < .001].

Discussion

As predicted, participation in research-based courses with psychology faculty (PSY 491 or PSY 590) was related to higher retention and graduation rates. Since retention and graduation of more students is one element of strategic planning of most colleges and universities, more resources devoted to faculty who teach such courses (e.g., professional development funds, release times, travel funds for undergraduate conferences) might increase the ability of institutions to increase both retention and

graduation. Assuming such findings hold up across programs and departments, these results indicate a general need for greater funding of such courses, and greater efforts to encourage students to enroll in such courses, to increase the rate of student success.

Given the recent shift in higher education toward greater accountability, an emphasis upon undergraduate research may lessen some of the criticism of the educational system, especially since such experiences may help students to acquire needed and valued skills (Hutchinson, 1992). This increasing emphasis upon undergraduate research may in turn lead to better teaching among the faculty involved (Cross, 1996, 1998), as well as to better learning outcomes for students. Further, undergraduate research experiences may help faculty to better bridge the obsolescent divide between teaching and scholarship, as codified in the new classification of educational activities put forth by the Carnegie Foundation (e.g., Shulman, 2000).

Limitations. Several limitations might lead to questions about the generalizability of the results. First, it is unclear whether or not students taking any upper-level course (e.g., 400-level or higher) are more likely to persist in school and to graduate, or if only students taking research-based courses at that level are. Given the high attrition rate early in many students' educational trajectories (Murtaugh et al., 1999; Tinto, 1996), it is possible that these results reflect greater persistence among those who continue into their second and later years generally, as opposed to those who took specific upper-level research-based courses. Second, the variety of courses listed as PSY 491 in this sample might be associated with very different experiences. One student might be conducting an empirical project, a second a detailed literature review, and a third may only serve as a research assistant who shepherds participants through a research protocol. Whether such different experiences all lead to similar increases in retention and graduation is an empirical question not addressed in this study. Third, it is unclear whether or not the present results apply to disciplines other than psychology as well, or to a smaller group of related disciplines, or are unique to psychology. In order to address these issues, future studies of this sort ought to examine multiple disciplines (or groups of related disciplines; e.g., sciences vs. arts and humanities), and control for number and type of other courses taken as well as the specific experiences in the research-based course. Such an analysis would help to clarify whether aspects of the PSY 491 or PSY 590 research experience itself, or other factors, are responsible for the difference in outcomes observed. In addition, an identification of which factors (e.g., close working with faculty, independent writing) do and which do not lead to better outcomes ought to be addressed. Fourth, it is possible that the graduation and retention rates varied over time in this study; no tests of this possibility were possible, as data were provided without dates. If graduation or retention did increase over time, the role of research-based courses, such as those identified in this study, would need to be taken into consideration as one possible explanation for the increase, as there may have been a concomitant rise in the number of offerings of (or students enrolled in) such courses.

Future research might also address the impact of earlier experiences, as available evidence indicates that over half of all non-retained students drop out after their first year (Murtaugh et al., 1999; Tinto, 1996), and thus early interventions are the most efficient way to increase retention and graduation rates (Levitz, Noel, & Richter, 1999).

Additionally, the role of self-selection of both faculty and students into such courses must be considered. Although it would be difficult (if not impossible) to randomly assign some faculty to work with students in such courses, and others not to do so, only such a test can provide the strong causal inferences necessary to determine whether or not self-selection affects student outcomes from such courses. Perhaps of more importance, it is likely that students self-select to engage in (or avoid engaging in) such research-based courses, which often represent a more rigorous challenge than a standard classroom course. The results do indicate that there are some differences between students who did and who did not partake in such courses: Students who did tended to be a bit older and to have higher GPAs. However, it is difficult to pinpoint the cause(s) of such differences, and thus further analyses of such causes is in order. Other factors which might also relate to this self-selection, and which future researchers might examine in further detail, but which were not included in this study, include self-reported motivation for, and subjective experiences after, taking such courses. This question of causality—are greater graduation and retention rates due to participation in research-based courses, or is the relationship due to some third variables(s)—can only be addressed with a true experiment, in which students are randomly assigned either to such courses or to a control condition. Without such a rigorous design, one can only tentatively infer that participation in such courses leads to greater graduation and retention rates, while seeking to rule out other plausible alternative explanations.

On a more positive note, the lack of differences in terms of race, gender, and SAT scores indicates that pre-existing differences among students do not seem to influence the decisions of faculty members to encourage students for such courses, or of students to self-select to participate into such courses.

Conclusion

In sum, the research reported here reveals that taking one or more advanced research-based courses in psychology is associated with sharp increases in both student retention and graduation relative to students who did not take such courses. The value to colleges and universities in terms of greater student persistence of encouraging such active learning experiences appears to justify the devotion of greater resources and energy to encouraging more students to have similar experiences. Thus, it would appear to be in the best interests of higher educational institutions in general to devote more resources and emphasis upon undergraduate research experiences, as such experiences are associated with both higher retention and higher graduation rates.

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The Development of Social Capital through a Leadership Training Program

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Abstract

The objective of this study was to examine how a leadership training program provides a forum for social capital creation through the establishment and maintenance of networks and through discussion and problem solving by participants. This article provides insights into the role of informal learning in management development and shows the critical role of formal training in establishing bonding, bridging and linking social capital.

The Development of Social Capital through a Leadership Training Program

Like other organizations, universities are working to hone the competencies of their administrators to become more competitive, transparent and effective. Gopee (2002) argues that mechanisms such as formal training are necessary to support lifelong learning, but asserts that "substantial informal teaching, learning and facilitation of learning occur through work-based contacts with other … professionals" (p. 608). He also notes that there is a gap in the literature regarding the process that occurs as people "learn in corridors, over tea, in the car park, as well as through unnoticed patterns of behavior and interaction in the classroom itself" (Field, 1999, p.12. Cited in Gopee, 2002, p. 610).

In referring to the role of interaction in learning, Gopee (2002) implies that social capital is the primary means by which adults learn in organizations and that this process has been neglected in the professional development literature. While financial capital describes a family's wealth or income and human capital is measured by parents' education, Bourdieu (1986) defines social capital as a resource, "made up of social obligations ('connections'), which is convertible, in certain conditions, into economic capital" (p. 243).

Later work by Putnam (2000) refined the definition of social capital to include the norms of reciprocity and trustworthiness that exist in the social networks of individuals. Del Favero (2003) specifically examines social capital in institutes of higher education and argues that the development of social capital, or social ties, between administrators and faculty members is essential to the effective governance of universities.

Most scholars argue that social capital is not a single entity that people either have or do not have but that it exists on at least three dimensions (Putnam, 2000;

Woolcock, 2001). The first dimension of social capital is bonding, which refers to homogeneous relationships with those of similar background and status (Woolcock, 2001). Bonding social capital provides a feeling of belonging and is critical to the sense of well-being of group members and fulfils immediate needs for connection, emotional support and solidarity.

Bridging, the second dimension, refers to relations outside of the immediate network. It is a horizontal dimension, referring to heterogeneous relationships with more distant friends, relations and colleagues. While Del Favero (2003) proposes that it is the *bonds* between faculty and administrators that must be fostered to enhance university governance, she is really referring to *bridging* social capital, if we accept bridging social capital to mean that which spans the immediate social network. Regardless of the label, Del Favero's (2003) insistence on the importance of social capital to organizational effectiveness is noteworthy.

Linking social capital, the third dimension, contributes a vertical characteristic, whereby individuals create connections with individuals in positions of power "… in order to leverage resources, ideas and information" (Woolcock, 2001, p. 13). Linking social capital provides opportunities in the form of access to career opportunities, mentoring, advice and resources.

Clearly, social capital provides organizational members with much needed resources and information. It would be of interest, therefore, to assess a formal training program to ascertain how participants perceive the development of their social capital. Specifically, the following research question was posed: In what ways does participation in a management training program contribute to the creation of bonding, bridging and linking social capital?

A Management Training Case Study

Based on a training needs assessment of the University of Ottawa's (UofO) directors of administrative units (such as Human Resources, Material Management, Security, Finance and so on), the Management Leadership Program (MLP) was designed (See program brochure). Thirteen modules, including Leadership, Coaching, Time Management, Project Management, Conflict Resolution, Presentation Skills, and other professional development courses are offered in one- or two-day formats.

Methodology

Research subjects were selected using a purposive sampling technique from the 36 administrative directors who had participated in some or all of the training modules. Specifically, eleven subjects were selected based on three criteria: (1) if they began the management leadership program in its first or second year of operation; (2) if they had completed at least eight modules (out of 13) at the time; and (3) if they had *not* changed jobs. The selection criteria allowed for minimal variation in exposure to training. Changes were made to some modules after receiving feedback from early participants so selecting only subjects who had begun the program in its first or second year reduced this potential variation. Limiting the sample to those who had completed at least eight modules ensured that subjects had been exposed to enough training that they would be able to reflect on the impact of the training. Limiting to those who had not changed jobs controlled for variation in learning associated with taking on major new responsibilities.

Two members of the sample declined to participate, citing time constraints. Of the nine subjects who agreed to participate, there were four women and five men, and

four Anglophones and five Francophones representing a diverse range of administrative units within the university.

Individual semi-structured interviews lasting from 60 to 80 minutes were conducted by the researcher with each of the nine subjects. During interviews, which were taped and transcribed verbatim, subjects reflected on their experience during and after the training program. As the goal was to identify references to bonding, bridging and linking social capital, a thematic assessment was used. To ensure inter-coder reliability, coding of the data was conducted using the following procedures: Three coders, the author and two undergraduate research assistants, independently reviewed all of the narratives to identify any statement that reflected the speaker's observation of the development of bonding, bridging or linking social capital. Then the three coders met to discuss and agree upon the operational definitions of the dimensions of social capital. Next, the coders independently coded all of the narratives for references to the dimensions of social capital. Finally, the coders worked together to reach agreement on coded units. Disagreements between the coders were resolved through discussion. In this manner, the coders reached 100 per cent agreement on the identification of the themes.

Results

The narratives contained numerous references to the impact of the MLP on the development of participants' social capital. One participant referred to the time to reflect and the social network created by the MLP, rather than the content of the modules that was important to her learning process:

> The thing that I really enjoyed about this is the ability to get together with some colleagues who were also doing the same types of jobs that I'm

> doing and getting feedback from them within the context of the modules and sort of feeding off each other in terms of how they're coping with different things and how they handle it. So it may not have been the topic itself that was helpful or what we were doing but the interactions that were taking place…

While this participant referred specifically to the informal learning experienced during the MLP, clearly she credited the program with facilitating this learning opportunity.Three examples illustrate this success marker. The first example is from a participant who speaks of the partnerships that resulted from people he met during the training:

> I think it brought us far closer. One person that I didn't know and I never had very much to do with is the director of co-op. I was on module 1 with her and another one and you know just having lunches and it brought us much closer and it brought our services much closer.

The second example comes from a participant who states that the MLP enabled her to develop a network and that this network enabled her to more easily gain necessary information and provide it to others:

> I found that really useful, the development of my network. When you see people outside of the office, this helps to create the links for your network. I can get information so much more effectively now, because I know who to ask. And I am much more able to help my colleagues get what they need.

The third example points to the importance of ensuring that newly appointed managers have the opportunity very early on to meet their peers and develop their network:

> Part of the value of a program like that is to have people create a network. That's for me, a really important outcome. I had just arrived and I could really connect with people and say, well that was very positive, and we still meet from time to time, once or twice a year, for coffee or lunch.

In addition to discussing the immediate impact of the training on their relational development, participants reported that interactions with the network they had established during the training continued long after the module was completed and greatly contributed to their learning process. For example, one participant stated that:

> Since then there's been a small group of us who get together regularly for lunch or we email each other if there's a particular issue and if we want to know how another person's dealing with it in terms of buying computers for professors or what is our policy on vacation or how do we do this or that and it's really been helpful so we've been able to build a level of trust.

Clearly, then, interpersonal communication during and after the training modules facilitated the learning process. In summary, participants identified the development of their social capital as one of the main outcomes of their experience in the MLP. As seen here, the formal training seems to facilitate or enable the informal learning to take place, in large part through the interaction during the training with their peers and the ongoing relationships established as a result.

Discussion

The MLP provides the forum and the opportunity for directors to discuss, exchange information and solve problems with their peers and to establish a network of colleagues that they could draw on for information and inspiration in the weeks and

months following the modules. The impact of the interaction with colleagues cannot be underestimated. As proposed by Enos, Kehrhahn, & Bell (2003), “informal learning for managers is a social process” (p. 379) that is dependent on communication with others. Enos et al. (2003) argue that “actions, in concert with interactions with others in the workplace, serve as an important vehicle in which domain-specific knowledge is generated, articulated, and dispersed throughout an organization” (p. 381). Enos et al. (2003) conclude that neither action nor interaction alone is sufficient for learning, but that their integration is necessary. The MLP enables both action and interaction and thus the necessary conditions for the development of management proficiency.

Respondents were conscious that their participation in the MLP removed them from their daily tasks and allowed them to interact with others – both colleagues and trainers – who could help them understand these challenges and identify possible solutions. As noted above, participants reported continuing the newly-formed relationships into the future.

That these relationships continued into the future – in the form of participants’ networks or social capital – ensured that participants could continue the informal learning through ongoing interaction with their peers. As reported by Billet (1994) and Enos et al. (2003), the most powerful source of managerial informal learning is interaction – or the development of social capital – with others. Terrion and Ashforth (2002), in their study of the connections forged between members of an executive development training program, labeled this sense of belonging “communitas” and concluded that it was created through the group members’ communication with each other and was critical to the development of cohesiveness in the group. Cohesiveness, defined by Adler and Elmhorst (1999) as “the degree to which members feel themselves

part of a group and want to remain with that group," (p. 253) has long been associated with "higher rates of job satisfaction and lower rates of tension, absenteeism and turnover" (p. 253).

Clearly, then, a training program like the MLP builds social capital among classmates and thus enhances this sense of belonging or cohesiveness. Thus, bonding social capital is fostered. Bonding social capital is crucial to learning. As Gopee (2002) concludes, "social support can have a marked influence on one's learning — personal and professional" (p. 615) and "peers and managers should appreciate the contribution of social and human capital to learning" (p. 615). Through enabling discussion and relationship building with others, particularly those in the participants' network, the MLP contributes to the informal learning process.

The MLP also facilitates bridging or horizontal social capital. By enabling the development of relationships between directors of diverse services and faculties, the MLP encourages the development of interdisciplinary exchanges between members of the university who might never have had the chance to work together, nor even be aware of each other, previously. The knowledge, insight and, indeed, empathy that this newly established network creates is absolutely necessary for the administration of universities, according to Del Favero (2003) and Tierney (1991). In addition, it establishes the trust and reciprocity, cited by Putnam (2000), which allows individuals to use their social capital.

Bridging social capital is particularly important to organizations facing the leadership challenges associated with a multicultural workforce. Multicultural settings, such as universities and governments, require members to work together, transcending cultural differences and building integration across traditional geographical, political,

religious and ethnic boundaries. Encouraging interaction between diverse people – or developing bridging social capital – is critical. Weisinger and Salipante (2005) propose that multicultural organizations must create bonding social capital between diverse members to increase representational diversity, and then use these relationships to facilitate the development of bridging social capital. In other words, bonding social capital must exist as a foundation upon which bridging social capital can be built.

Linking social capital, finally, is also established through the MLP and this, too, facilitates the learning process. Specifically, the MLP brings together small groups of administrators from the most junior to the most senior for 1-3 day workshops. This combination certainly enables junior administrators to build vertical social capital with more senior people but also enables senior people to access information and resources held by the more junior participants (who possess power if not through rank then perhaps through expertise, control of scarce resources, information or any other form of power (Morgan, 1997)). In other words, while linking social capital typically describes the access of vulnerable populations to needed resources possessed by sympathetic people in power, university administrators, while possessing power themselves, need access to other power holders through their relationship with them. And it is just that—the development of relationships that foster learning—that the MLP supports.

Linking social capital is especially critical in organizations concerned with the challenges of succession planning, such as universities and governments, where loss of labor and knowledge resources is expected to be costly in a variety of ways (Walsh, 2006). As Trinkle (2005) argues, tacit knowledge, or knowledge gained through experience, must be transferred from person to person in an organization in order to capture it before senior people retire. Trinkle posits that it is not through technology-

based or written forms that tacit knowledge transfer occurs best, but rather through face to face interaction and conversation. Thus, succession planning is likely enhanced through the development of interpersonal relationships by members from different levels of an organization and it is linking social capital that creates these opportunities.

Application of the findings

Given the critical importance of building relationships between participants, a number of measures can be taken to both enable relationship development and to build networks and social capital.

1) Include a critical mass of participants for each workshop to ensure that there are enough people for each participant to establish or build relationships. A minimum of 8-10 people would be recommended.

2) Encourage diverse representation among course participants to ensure linkages between levels, enabling both discussion of shared challenges and a more effective program of succession planning, and the establishment linking social capital.

3) Include, if possible, representation from diverse disciplinary, gender, cultural and linguistic communities of the organization to create opportunities for bonding social capital in the first instance and then ultimately, bridging social capital, or pluralistic diversity (Weisinger and Salipante, 2005).

4) Ensure ample opportunity to talk informally. Whether course participants engage in small talk about their families, sports, hobbies or holidays or whether they converse about shared organizational challenges, it is critical that participants have the chance to develop relationships with each other through talk. The following initiatives encourage and support communication:

A. Catered coffee breaks and lunch. If these meals are taken in the classroom then participants are obliged to sit and talk while they eat, thus providing an opportunity for networking.

B. Experiential/hands on learning opportunities enable participants to interact. Examples are small group discussions, problem solving exercises, shared presentations of information to the group, and so on.

C. Room set up to encourage talk. Classrooms must be set up so that participants feel comfortable connecting with each other and must be distant enough from distractions to enable focus on relationship building. The ideal classroom gives a feeling of being removed from the day-to-day activities, is spacious enough to allow break-out discussions during training, has seating for casual conversation during breaks – both indoors and out – and lends itself well to catered meals.

5) Follow-up discussion with other participants, perhaps through the establishment of a “virtual management community,” could serve to provide a place for ongoing discussion of shared problems and solutions, for questions to be posed and answered, and for information to be exchanged. Trainers could meet online with participants 2 weeks and 4 weeks following a workshop to respond to questions and provide feedback on efforts to apply what was learned in the training, as well as to support the ongoing process of social capital development.

Conclusion

This discussion of the MLP provides insight into how learning occurs and social capital develops for a small sample of university administrators who participated in the program in its first years. Clearly, the program enables the establishment and

maintenance of networks and the opportunity for senior managers to meet, discuss and solve mutual challenges related to higher education management and policy. These outcomes are critical for the directors' professional development as they work to achieve their core competencies and sheds light on the role of training in facilitating bonding, bridging and linking social capital. Those responsible for designing training for administrators and senior management of universities and other large organizations will be able to apply the findings presented in this article to their own training and development programs in order to enhance the learning experience of their participants by facilitating the development of social capital.

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Teacher Perceptions of Multicultural Education in the United States

Lynn Zimmerman

Abstract

This qualitative research project examines in-service teacher knowledge and perceptions of multicultural education in the United States, both from the perspective of their own experience as teachers and as learners about multicultural education. The respondents' narratives were analyzed by comparing them to different approaches to multicultural education.

Introduction

Many educators agree on the need for multicultural education in the United States. However, few agree on what multicultural education means, how to teach it, and how to implement it in the K-12 classroom. A survey of the literature (Bruch et al., 2004; Banks, 2002; Bennett, 2003; Gollnick & Chinn 2002; Grant & Gomez, 2001; Hernandez, 2001; Nieto, 2000; Sleeter & Grant, 1999; Tiedt & Tiedt, 2005) indicates the complexity, and even contradictions, of creating a definition for multicultural education, much less how to teach about it, or how to implement it. The literature reveals an array of approaches to multicultural education and teaching about diversity. Because of the complexity of the issues, the usefulness and validity of diversity and multicultural education for teachers must be examined from the perspective of those who are implementing the curriculum, the teachers.

The purpose of this project is to examine some of the ideas and approaches described in the literature, then to compare them to how in-service teachers in the United States perceive multicultural education. Bruch et al. (2004) described three

approaches to multicultural education, which they called celebratory, critical, and transformative. In examining how K-12 teachers described their own perceptions of multicultural education, these three approaches provided a useful framework.

Approaches to Multicultural Education

Multicultural education as a field of study came into being in the United States in the 1960s and 1970s (Hernandez, 2001). Since then, multiculturalism and diversity have become buzzwords that mean anything from ethnic food to conflict mediation. School districts have implemented programs and curricula covering a wide variety of concepts and practices that come from a variety of sources. Many Schools of Education require teachers to take a multicultural education or diversity class as part of their teacher training. There are a number of approaches to multicultural education, each based on a specific philosophy of education. Sleeter and Grant (1999) also point out that multicultural education has different definitions because people "do not always agree on what forms of diversity it addresses" (p. vii). Despite the multiplicity of programs being implemented, and the courses being taught, some teachers, program directors, and curriculum specialists express dissatisfaction about the efficacy of the programs themselves (Bennett, 2003; Brown, 2004; Grant & Gomez, 2001; Nieto, 2000).

Bruch et al. (2004) state that "a major challenge for multicultural education as a field is the gap between theory and practice" (p. 14). They propose that an integration of what they identify as the three dominant approaches to multicultural education, the "celebratory", the "critical", and the "transformative" approaches, would bridge this gap, improving the efficacy of multicultural programs. They suggest that this type of

education should also critique the current system, and offer means of transforming “the practices of the institutions they inhabit” (Bruch et al. 2004, p. 16). Their contention is that by integrating the three approaches, a curriculum can be created that is accessible to all students by recognizing their differences through various forms of delivery and assessment.

Each of these approaches reflects a particular philosophy of education which is connected to the delivery and implementation of multicultural education. Materials are chosen to present a particular point of view. The context in which teachers are trained provides them with a particular perspective in the conception, planning and implementation of multicultural education. The context in which they work creates a climate for particular views of diversity. These three approaches, celebratory, critical, and transformative, provide a useful framework for examining materials, context, and teacher training used in multicultural education.

The celebratory approach moves away from defining differences as deficiencies and the traditional assimilationist ideas to “highlighting the positive accomplishments and aspects of many different cultures and social groups” (Bruch et al. 2004, p. 13). However, Bruch et al. (2004) see this approach as being an essentialist perspective, which can separate groups even further. They also state that it falls short because it tends to celebrate without examining and critiquing the power relationships inherent in our society. This uncritical approach fails to bridge the gap between one’s “comfort zone,” familiar people, interactions, and ways of being, and the multiplicity and diversity that exists in a pluralistic society. This approach is often characterized by terms such

as “awareness,” “respect for others different from ourselves,” “acceptance, and “tolerance.”

In their multicultural education textbook, Tiedt & Tiedt (2005) present an approach to multicultural education very similar to the “celebratory” approach, offering strategies and activities that help teachers integrate multicultural education as part of any curriculum. The strategies focus on creating awareness of diversity and learning about other people’s communities, traditions, and cultures. Their goal is “to plan learning experiences that support individual self-esteem and promote cooperative activities that build empathy among students” (Tiedt & Tiedt 2005, p. 32) providing equity in every classroom for every student, rather than focusing on critiquing the inequities inherent in a pluralistic society.

The critical approach examines and challenges power and privilege, and their role in society. This approach questions the status quo and critiques power relationships within a society. Such an approach addresses what Antonio Gramsci referred to as “the struggle over ideological hegemony” (Apple 1995, p.14) in a society by examining the role of education in transmitting and maintaining societal “norms.” Bruch et al. (2004) caution, however, that an overemphasis on domination can be counter-productive, demoralizing students and creating resistance in them.

This approach is reflected in Sonia Nieto’s (2000) text, *Affirming Diversity*, which reminds the readers that they cannot ignore the many “important social and educational issues that affect the lives of students” (p.2). Keeping in mind that multicultural education must exist in such a broad context, Nieto (2004) asserts that multicultural

education must “confront issues of power and privilege in society…challenging racism and other biases as well as the structures, policies, and practices of schools” (p. 4)

According to Gramsci (1971), everyone “participates in a particular conception of the world” (p. 9). One can act in such a way to modify this conception, “that is, to bring into being new modes of thought” (Gramsci 1971, p.9). However, critiquing education and society without action “contributes to sustain a conception of the world” (Gramsci 1971, p. 9) According to Bruch et al. (2004) the transformative approach seeks to critique domination and to take action, to find ways to “transform domination for the good of all” (p. 13). This approach looks at the role of education as a means of transforming and improving society and, indeed, the world. The transformative approach focuses on not just trying to assimilate the “other” to the dominant view, but to transform society so that the “other” has an equal voice and existence. These views are often dismissed as being too visionary, not practical and, even, outlandish.

Christine Bennett (2003) advocates a transformative multicultural educational approach “based upon democratic values and beliefs and that affirms cultural pluralism within culturally diverse societies in an interdependent world” (p. 14) in order to develop students to their highest potential, intellectually, socially, and personally. She admits that the ideals of this approach may seem idealistic, which is one of the criticisms often leveled at the “transformative” approach, but she believes that such idealism has a place in trying to bring change to society.

In examining the philosophies of education and other influences that are brought to bear on K-12 educators’ perceptions and implementation of multicultural education practices, one must also examine the context of their teacher training. The philosophy

of education at the institution where they received their training and that institution's approach to and commitment to diversity and multicultural awareness can have a profound impact on the teacher's awareness of and commitment to multiculturalism. In a study of pre-service teachers' awareness and perceptions of multiculturalism and diversity conducted in 2002, Milner et al. (2003) replicated an earlier study from 1990 and compared their findings to the earlier results. Their conclusions were that although teacher preparation programs are addressing these issues more than they were prior to 1990, there is still room for improvement. They advocate infusing diversity and multiculturalism throughout the curriculum, not offering only one or two stand-alone courses. They also state that teacher preparation programs should increase the number of "opportunities [for pre-service teachers] to interact with diverse groups of students" (Milner 2003, p. 5). Their concern about appropriate pedagogy for pre-service teachers focuses on the celebratory, learning about other cultures, and on the critical, reflecting on and understanding themselves as beings within a given power structure.

Brown (2004) addresses the issue of instructional methodology and its role in preparing teachers for teaching in a multicultural environment. Brown (2004) suggests that students, especially white students, "enter multicultural foundations courses in various stages of resistance" (p. 327). In her study she found that there is a relationship "between the instructional methods used in stand-alone cultural diversity courses and changes in the cultural diversity awareness of students" (Brown 2004, p. 335). She concluded that giving the students opportunities for self-examination in the early weeks of the class and providing them with opportunities "to actively participate in cross-cultural field experiences and to actively engage in cross cultural research" (Brown

2004, p. 336) throughout the class, resulted in better comprehension of the issues studied in the class. This study exemplifies the blending of the celebratory and critical approaches, learning about others and about oneself in power relationships to these others.

By examining materials, and the context of teacher training, the complexity and contradictions present in multicultural and diversity education in the United States become apparent. Whether trying to bridge the gap by creating an integrated approach as proposed by Bruch et al. (2004), or whether revamping curriculum in schools of education, in the end, it is how the teachers deliver their message in their K-12 classrooms that must be considered. Multicultural education is such a complex concept that its usefulness and validity for teachers must be examined from the perspective of those who are implementing the curriculum. This study sought to determine how classroom teachers from Northwest Indiana perceive multicultural education and how they act on their perceptions.

Methodology

This project uses interpretative narrative research (McQueen & Zimmerman, 2006), a qualitative research methodology. There are various types of qualitative research, each coming from different disciplines and focusing on different aspects of research problems in different ways. A related type of qualitative methodology, narrative research methodology, is based in the literature tradition of collecting narratives and analyzing themes in the narratives as one does in literary analysis. In this form of research, the researcher usually relies on one broad question to elicit comprehensive narratives from the participant (Casey, 1995). In contrast, interpretive

narrative research, a research design based in the social sciences, is guided more deliberately by the researcher. Narratives are generated by using a pre-planned series of broad, open-ended questions on a particular topic. Additional clarifying questions are asked as needed during the interview process. However, as with narrative research methodology, interpretative narrative research analysis identifies patterns and themes within and among the interviews.

Unlike quantitative research, and some types of qualitative research, interpretative narrative research methodology is a labor intensive methodology that is not seeking to make broad generalizations. The primary purpose of interpretive narrative research methodology is to examine an issue situated in a particular context in a particular way. Therefore, this methodology is not appropriate for every research project, especially those requiring large amounts of data from large samples of people. The researcher chose interpretive narrative methodology for this project because the researcher was interested in investigating a specific research population and was seeking specific kinds of information.

In Spring 2003, nine in-service K-12 teachers participated in audio-taped interviews, responding to questions about how they perceive multicultural education and about the training that teachers receive in multicultural education. Each teacher also completed a questionnaire for collecting demographic information, such as age, race, gender, and years of teaching experience (see Appendix).

The interview questions focused on two broad areas. The first area of consideration is how the participants, as classroom teachers, perceive multicultural education. The second consideration is the multicultural education curriculum itself.

The teachers responded to questions about their training in multicultural education, and about the training that they perceive that teachers need. The specific questions asked are:

1. Tell me what you think multicultural education is.
2. How do you implement multicultural education in your classroom?
3. Tell me why you think there is or is not a need for Multicultural Education classes for teachers.
4. Describe the training you have received in multicultural education.
5. What should multicultural education training for teachers be like?

The answers to these questions were analyzed for patterns within and among the narratives. The narratives were also compared to the literature about multicultural education for teachers to determine if there are any areas that the teachers did not mention that other researchers found in their research, or if they mentioned issues that other researchers have not addressed.

Participants

The nine participants in this project were K-12 teachers from Northwest Indiana, who had all grown up in the American Midwest. The participants were recruited by the researcher's asking several colleagues who were familiar with teachers in the area to provide names of people who might be interested in participating in a project about multicultural education. The teachers interviewed were those who responded to the researcher's phone calls.

Eight of the participants taught in public elementary and middle schools; the other taught in a private high school (see Table 1). All but one of the participants were

teaching in their initial preparation level. The exception, initially licensed in elementary education, now has a middle school endorsement and is teaching 7th grade.

Table 1

ID #	Age	Gender	Race/Ethnicity	Years teaching	Grade Level	Subjects taught
1	50	F	White/European	28	1	Core
2	39	F	White/European	15	2	Core
3	24	F	Asian/Indian	1	1	Core
4	50	F	White/European	2	3-5	Hearing Impaired
5	52	M	White/European	29	9; 12	World History; Economics
6	54	F	White/Jewish	30	6-8	Music
7	35	F	White/European	3	2	Core
8	35	F	White/European	3	7	Family & Consumer Sciences
9	54	F	White/European	16	1	Core

Results

After reading and comparing the narratives, it became apparent that Bruch et al.'s (2004) three approaches to multicultural education would provide a useful framework for analysis. A careful reading of the transcripts illustrated that while all of the teachers view multicultural education from the perspective of "celebratory," none of them talked about it in a way that demonstrated an awareness of multicultural education as transformative. Most of the teachers talked about the need for multicultural education that promotes awareness and acceptance for them as teachers and among their students. There were only a few instances in which teachers alluded to a critical perspective of multicultural education. These comments focused on attitudes toward people who are different than themselves, or on the attitudes the teacher her/himself has of multicultural education.

Awareness and Acceptance

The two first grade teachers taught in urban schools with a fairly equal distribution of whites, black, and Hispanics. They both see multicultural education as making "sure to address all the cultures, to address diversity not only in our community but of the world. We would have to make sure that people are aware of…how we're like and how we're different."

They both approach diversity in their 1st grade classes through social studies and literature, relying on folk tales, holiday celebrations, and songs to teach their students about different ethnicities and races. One of the teachers said that she promotes "acceptance of everyone." The other first grade teacher stated that in her class, "we are just all one big happy family." When I asked her what she thought multicultural education training should be for teachers, she focused only wanting to know more about the "celebratory" aspects - foods, religion, traditions, music, art, and common words. Because she was focusing so intently on these "cultural" aspects, I asked her if I substituted the word "diversity" for multicultural education, would she answer the question any differently and she said "no."

One of the 2nd grade teacher's responses were similar to those of the 1st grade teachers. She told me that she does

> whatever I can throughout different holidays or different months, say October is Hispanic Awareness Month, so we talk about words that are Spanish words, we talk about the students in this class that speak Spanish at home, and they try and communicate to us, you know, show us the different words mean the same thing in English.

The two teachers who taught middle school also focused on the "celebratory" aspects of multicultural education. The one who was a music teacher said that she saw multicultural education as "trying to teach to a variety of children from various backgrounds, various ethnic backgrounds, cultural backgrounds, and as a music teacher trying to bring that out in them." She advocated using music and the arts to teach teachers about other cultures. This respondent did say that she found that taking time to get to know the children and something about their backgrounds and cultures does help create a sense of belonging in the child:

> Some of my students from Africa are very shy about their culture because it is not the dominant. I try to take a little more time to talk to them and share, because I want them to feel like they belong. Sometimes at the middle school level, kids can make them feel inferior because of their cultural background. I as a teacher want to learn more and more about the various cultures, because I believe that is what the music is about. It's mostly cultural.

The other middle school teacher talked about respecting where her students come from and treating them all the same. In talking about teaching her students respect for one another, she said

> I believe that they need to be aware of the fact that not everyone is the same, especially in our community. We have such diverse people…so you can't expect that everyone is going to have the same beliefs as you, and you can't expect everyone to have the same upbringing that maybe you had.

Her view of multicultural training for teachers is to have them focus on their community,

> finding out certain ethnicities in your area and making yourself aware of them and doing a little homework to make sure that you understand where they may be coming from… to find out who are the people who are in their community or the community they are interested in going into, and finding out about that culture in general, not necessarily just the country they came.

Another white teacher, who returned to teaching about 25 years after getting her degree, works with special needs students in an urban school which has a predominately African-American population, and which has an Afro-American-centric curriculum. She feels that students in this school are not getting a multicultural education, because the focus is "that we don't really need to look at President's Day, that our focus should be on Martin Luther King Day." Her idea is that multicultural training for teachers should be

> taught possibly by people from different cultures, from different backgrounds, because they bring a unique philosophy, a perspective from their own personal background. I would like this taught using authentic sources as opposed to reading what a historian has gleamed [sic] from information…sources such as, possibly, diaries from the time or newspaper articles, pictures, because that brings the cultures more to life, and we're able to identify and compare and contrast how we are alike and how we are different. I would love to see actual, live people involved in the presentation, whether it be teaching the teacher or the teacher in the classroom with the student, presenting different ways, and different tastes, sights and sounds of the culture.

In the spirit of celebratory multiculturalism, this teacher, too, strives for awareness for herself and her students without critiquing the root causes of some the inequities experienced by her students.

Attitudes

One of the 2nd grade teachers, a white woman, has been teaching for some years at an urban school with students who are predominately black and Hispanic, and poor. This respondent stated that she views multicultural education as "looking at things from all aspects." She said that she has reached this awareness by working with students whose lives are so different from hers: "They live entirely different lives than we do." This teacher recognizes the importance of "celebrating" her students' cultures and heritages, while infusing it into her curriculum: "I do try and make sure that we don't just do it just during black history month." Much of her talk, however, focused on the need for awareness of aspects of her students' cultures, such as food, celebrations, inventions and contributions by people of their race or ethnicity - "an awareness of all the variables." While on one hand she said that "nothing is worse than having a teacher who has a bad attitude toward a race of child and has to teach that child," she never stepped out of her view of the children as "other." At one point she was talking about an in-service in which she learned about children in poverty and she stated, "to me their values are messed up...they make decisions that don't fit with my perceptions and my ideas of what should or should not be done…I need to understand…that's where they are. That's what they do."

One aspect of her understanding about the students in her school is that they do need to learn to live in two worlds (Delpit, 1994). She tries to teach the students that

"there's different rules for different situations. They may need to fight at home, in their neighborhood, but we can't do that here." While she is striving to understand the children, she is not questioning how they got where they are or how to transform the power relationships that has created these situations.

Another 2nd grade teacher, whose parents are from India, had talked about teaching children about awareness and the other "celebratory" aspects of diversity. However, in the end, she did begin critiquing her own experience and relating it to that of her students:

> I never had Indian friends, never learned the language, never went to Temple. Didn't do any of that. And I look back at it now, I wonder if I would have had an opportunity to express that in school besides just expressing it at home. It wasn't that I was ashamed, I just never had opportunities to do that. I wonder if some of the kids who I have now, if they are able to express it if they're gonna hold onto that identity a little bit more… if you can make a child identify with part of themselves or part of their family, that's just going to be better academically for them across the board. They can relate that to everything or to a lot of things at least, and so I think it's very important…it's something that will help our world, hopefully. It's something that will help kids relate to each other. It will make them more proud of themselves and I just don't know how it could go wrong.

The responses of the final teacher in this study were a bit different, and demonstrated a disapproving attitude toward multicultural education. He is a white male high school social studies teacher who had been teaching for almost 30 years. At the time of the interview, he had been teaching at a private school for 10 years. The school

where he teaches has a diverse student population. His responses indicated that he considered multiculturalism as negative. He stated several times that he does not notice the differences in people, and is not aware of any problems at his school:

> I think it was mistake to hyphenate people…we've lost our American identity as being the multi-, what's the word I want, melting pot. So, I think I don't know what the word means, and I'm glad I don't. It just seems that it separates people. Or we're trying to make an excuse for bringing them altogether. And right here in this environment, we don't have that…I know of some schools have ethnic tension. We don't have that here…And if we had it in the lower grades or with parents or anything, I never noticed it.

This respondent feels that as a history teacher, his teaching is multicultural by the nature of its content. However, again his view of multiculturalism is reflected in how he talks about his textbooks and how they have changed:

> I'm more traditional… you see some books who have maybe a paragraph on George Washington, and two, three pages on Harriet Tubman. I'm not saying that's bad, but they went overboard the other way. Now, when this says multicultural, diversity, I think of, you know, it's negative. It seems to be negative unless you come with a plan that makes it positive.

If this teachers' approach can be characterized in any way, it seems to be along the lines of the celebratory approach, however reluctant on his part.

His negative feelings toward multicultural education were also reflected in his reaction to a half-day in-service on diversity. His responses highlight Bruch et al.'s

(2004) concern that the critical approach can be counterproductive and create resistance:

> We sat there for half the day and we rolled our eyes. It was bad. Because it seemed like it was just anti-white. The phrases that were used. And I thought it was dumb… because in our school system, there's basically two school systems. We have the southern…County where most of the white people are and where the money is… and then we have this area here which is poor and schools are poorer and smaller. So if anybody needs diversity it's those people down there, it's not us up here. So I think there's a little resentment because we are being preached to…I don't know if it's the way it was presented, when you talked about multicultural, it is anti-American, or anti-white and I kind of resent that…I don't think that's helpful and that's why I always thought that the hyphenated Americanism we've had all these years, I think that's been bad.

Discussion and Implications

The responses by these teachers about their perceptions of multicultural education support the assessment of researchers (Milner et al., 2003; Bruch et al, 2004; Brown, 2004) that there is a gap between theory and practice which reflects a disconnect between how multicultural education is viewed by in-service teachers and multicultural education specialists. Teachers' simplistic view of diversity allows them to comfortably celebrate diversity without having an awareness of, much less critiquing and transforming, the social injustices and educational inequities that exist in our society.

In analyzing the narratives and comparing them to the three approaches for multicultural education, celebratory, critical, and transformative, it was evident that the teachers perceive multicultural education from the celebratory perspective. Overall, their responses indicated that they were more interested in learning strategies to promote awareness in their students rather than learning how to become more aware of the underlying issues that create some of the inequities in our society and in their schools. Nowhere did any of the teachers mention anything that indicated even an awareness of the transformative nature of multicultural education.

From this research and the review of the literature, several approaches to teaching multicultural education to teacher present themselves. The first is that schools of education need to focus on integrating diversity and multicultural education across the curriculum. Secondly, education courses need to offer more classroom field experiences and community projects to provide interaction opportunities. Thirdly, more attention needs to be given to using diverse materials, strategies, and methodologies. Finally, reflective teaching practices should be central to all education teaching. All of these strategies will help teachers learn to make the connections between how social and cultural issues, such as race, ethnicity, language, and gender, impact and are impacted by education and society, and how they as teachers can not just "sustain a conception of the world" (Gramsci 1971, p. 9) but can actually effect change.

Integrating diversity and multicultural education across the curriculum

As Milner et al. (2003) and Brown (2004) suggested, integrating diversity and multicultural education across the curriculum in schools of education would help teachers move beyond the celebratory perspective. In her study, Brown (2004) found

that there is a relationship “between the instructional methods used in stand-alone cultural diversity courses and changes in the cultural diversity awareness of students” (p. 335). Integrating diversity and multicultural education into the curriculum would also decrease some of the resistance that is often manifested to these topics. Students would begin to see these topics not as special add-ons to the curriculum, but as a “normal,” integral part of all education.

The need for integration is supported by the respondents’ saying that they had had little or no training in multiculturalism, or at least what they recognized as diversity training. In a follow-up question, participants were asked if they had had training in some specific issues, such as working with: students in poverty; English as a Second Language students; special needs students. Several of the participants responded affirmatively, although they had not mentioned these workshops and in-services when I asked them if they had had multicultural education training. These stand-alone courses and workshops did not provide participants with the strategies to see them as parts of a larger whole.

Field experiences

Brown (2004) concluded that providing the students with opportunities “to actively participate in cross-cultural field experiences and to actively engage in cross cultural research” (p. 336) throughout the class, resulted in better comprehension of the issues studied in the class. She also states that teacher preparation programs should increase the number of “opportunities [for pre-service teachers] to interact with diverse groups of students” (Brown 2004, p. 5). When setting up classroom observations and experiences for students, particular attention should be paid to placement in diverse

settings. Pre-service teachers who have experienced little diversity in their own schooling will especially benefit by interactions with diverse groups of students. They will also have the opportunity to observe what works and does not work well in a diverse setting. However, these opportunities for interaction should not be limited to classroom observations.

Community action projects in which students interact with members of a community different from their own can be valuable learning experiences. Working at a soup kitchen can give middle-class students a different perspective of what it is like to come to school after sleeping all night with one's family in the car. Engaging with students of different religious faiths in a community service project, such as a Habitat project, can help students of all religious faiths understand one another better. Integrating community service projects into the educational experience for teachers gives them various perspectives with which to critique society and its role in education, and to become aware of how they can engage in transformational activities.

Diverse materials, strategies, and methodologies

By examining materials and the context of teacher training, the complexity and contradictions present in multicultural and diversity education become apparent. Whether trying to bridge the gap by creating an integrated approach as proposed by Bruch et al. (2004), or whether revamping curriculum in schools of education, in the end, it is how the teachers deliver their message in their K-12 classrooms that must be considered. Introducing teachers to a multiplicity of materials, strategies, and methodologies will help them see the need to go beyond the folk tales and holiday

celebrations that many of the teachers in this study mentioned as their way of integrating multicultural education into their curriculum.

Reflective teaching practices

Brown (2004) concluded that giving the students opportunities for self-examination in the early weeks of the class was an important part of developing multicultural awareness. Such self-examination is part of engaging in reflective teaching practice, or praxis, which according to Paulo Freire, is "the action and reflection of men [sic] upon their world in order to transform it" (Freire 1970, 24). Reflective journals of field experiences can be a tool for engaging in praxis, as students record their experiences, reflect on what went well and what could be improved, and make changes based on these reflections. These changes may be as basic as deciding to use a book that better addresses diversity issues, to making a change in how one addresses a seemingly hostile parent. A cycle of reflecting and making adjustments to one's teaching based on this reflection can bring about change in the classroom which supports diversity within and outside the world of the classroom.

Conclusion

Multicultural education is such a complex concept that its usefulness and validity for teachers in the United States must be examined from the perspective of those who are implementing the curriculum. Therefore, an original objective of this project was to interview teachers from a variety of races and ethnicities, not just white teachers. Responses from black and Hispanic teachers in Northwest Indiana would probably have created a different picture. However, I think this study has significance as it stands because, according to figures presented by Gollnick & Chinn (2000), by 2020, one-half

of the students in American schools will be “minority.” As a contrast to this figure, at the present time, between 80% and 90% (figures vary according to which source one views) of all teachers in American schools are white, and 75% of these teachers are female. Knowing how white, female teachers view multicultural education and diversity gives insight into the work that needs to be done in university teacher education programs and with in-service training to move these teachers from viewing multiculturalism from a just “celebratory” viewpoint.

Schools of education need to develop curricula that help internalize the three approaches to multicultural education (Bruch et al. 2004). Teacher training should teach teachers to be aware of cultural, racial, and ethnic differences, so that they can celebrate each child and help each child learn to value who they are and where they come from. They should learn the importance of critiquing society and questioning their own beliefs and values. Finally, teachers should learn to see themselves as change agents, to take their critique and implement changes in their teaching, in their schools, and in their communities. Hillel stated over 2,000 years ago: “If I am not for myself, then who will be for me? And if I am only for myself, then what am I? And if not now, when?” Teachers need to learn to view multiculturalism as a means of critiquing and transforming our society in order to ensure that every child in American schools receives the education they deserve. For every child they teach, the time is now.

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Appendix

Personal Information:

Age: _____ Gender: _____

Race: _____ Ethnicity: _____

Other pertinent information: _____

Education:

Universitie(s) attended/degree conferred/date: _____

_____

What grade level and subject area did your initial teacher training prepare you for?

_____

Teaching Experience:

How long have you been teaching? _____

How long have you been at your present position? _____

What grade level and subject area do you teach now?

_____

What other grades and subjects have you taught and for how long?

_____

_____

Write any additional information on the back.

I understand that Lynn W. Zimmerman will use this questionnaire and the accompanying taped interview as part of her research in multicultural education at Purdue University-Calumet.
I understand that my confidentiality will be respected. My name and any identifying characteristics will not appear in the final product.
I also understand that I may withdraw from the project at any time.
Signature: _____ Date: _____

Contact Information:

Name of interviewee: _____ Tape #: _____

Address: _____

Phone #: _____ Email: _____

Nothing Hard about Soft Skills in the College Classroom

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Abstract

Soft skills are defined, and reasons for teaching them in colleges are discussed in light of adult transformative and brain-based learning theories. Strategies for teaching soft skills are presented.

Results of a pilot study with a purposive sample revealed it is possible to teach and track the development of Listening, Teamwork, and Responsibility while teaching graduate Research Methods. All students demonstrated statistically significant ($p<.001$) improvement in their soft skill ratings over the course of the semester. In order to teach the whole person, employ effective strategies that facilitate learning, and prepare students fully for their clinical and professional practice, professors are encouraged to teach soft skills explicitly.

Nothing Hard about Soft Skills in the College Classroom

Soft skills have been defined a number of ways in the workforce literature. There is even some criticism of using the term *soft skills* as it may suggest the skills are “kind of fluffy, and they’re not really as important, and they’re kind of just a nice little add-on” (Schick, 2000, p. 25). Soft skills encompass a range of interpersonal skills such as courtesy, respect for others, work ethic, teamwork, self-discipline, self-confidence, conformity to norms, language proficiency, and behavior and communication skills (Career Directions, 2003; Career Opportunities News, 2002). Soft skills also include listening, teamwork, and responsibility (Dash, 2001; Gorman, 2000; Isaacs, 1998; NCATE, 2001; Schulz, 1998).

But what happens when professors perceive there are individuals in their college classroom who are deficient in their soft skills? When did it enter a professor’s job description to teach students fundamental courtesy, social graces, and collegiality while teaching the hard skills of inferential statistics? After all, aren’t professors to teach the specialized knowledge honed in their doctoral programs? Teaching soft skills with the hard skills recognizes that professors are teaching the whole person. They are teaching students statistical analysis; not teaching statistical analysis to students. The order of the words makes a fine distinction and suggests professors teach soft skills to engage the whole person in learning and for success in their future careers. Acquisition of soft skills is important to an individual’s success in a research methods class in activities such as Think-Pair-Share (Lyman, 1981), analysis of peer-reviewed journal

articles, writer's workshop, cross pollination of solutions to the various statistical analyses, and test-like events (Sperling, 2006). These activities require listening, teamwork, and responsibility and are designed to increase students' "ways of knowing" (Huitt, 1998). Application and synthesis of the new terminology is foundational to a quantitative research class; thus, active participation is important. Students need to be responsible in reading the text and making an effort to come to class prepared to contribute, ask questions, and apply the concepts presented. Beyond the classroom, a lack of soft skills is more likely to get an individual's employment terminated than a lack of cognitive or technological skills (Behm, 2003; Lawrence, 1998), and Human Resource directors, school principals and their interviewing teams, and university Search Committees consider candidates' soft skills when determining whether individuals "fit" the organization (Jaschik, 2006; Lawrence, 1998; Liu, 2005). Fit is two-way, as practicing teachers consider whether their schools and the teaching profession are the right fit for them; it is a factor in the retention of new teachers (Liu, 2005). Even if professors decide to teach soft skills concurrently with the hard skills of their course content in an attempt to teach to the whole person, is it possible to effect change in the soft skills of students in one semester?

In order to investigate whether the explicit teaching of soft skills results in behavioral change in students in the college classroom, a pilot study was conducted with a purposive sample of 10 students of varied levels of teacher education endorsement enrolled in a private university's Master of Arts in Teaching (MAT) cohort and a quantitative research class. One purpose of the

study was to investigate the effectiveness of teaching the soft skills of Listening, Teamwork, and Responsibility in addition to quantitative research methods (hard skills). Secondly, the study investigated if it was realistically possible to track soft skills while teaching and to collect preliminary data as to whether the operational definitions extracted from the literature of the three soft skills examined were adequate in terms of specificity when observing and subsequently rating student behaviors. Listening was behaviorally defined as providing cogent responses to colleagues or the instructor as evidence of hearing with intention. Teamwork was defined as production of a response or product resulting from joint responsibility of the collaborating team members. Responsibility was defined as participants turning in assignments on time, completing assigned reading prior to class, and taking responsibility for one's words and behaviors as evidenced by the lack of demonstration of thinking errors in verbalizations (Hyslop, 1988; Penn State University, 2004; Colorado Springs School District, 2004). A theoretical foundation for this study was formed by examining literature on soft skills, trends in today's college student population, and characteristics of adult learners.

Theoretical Foundation

Soft skills comprise a cluster of personality traits, social graces, facility with language, personal habits, friendliness, and optimism which individuals acquire as they grow and mature. Other soft skills are active listening, negotiating, conflict resolution, problem solving, reflection, critical thinking, ethics, and leadership skills (Dash, 2001; Gorman, 2000; Isaacs, 1998; Schulz, 1998). In teacher education, the soft skills of social justice, caring, responsibility, and

fairness are called dispositions and are part of the triad of knowledge, skills, and dispositions competent teacher education candidates should demonstrate according to the National Council for the Accreditation of Teacher Education (NCATE, 2001). College students have changed over the last several years, and these changes are suggesting a need to teach soft skills concurrently with the other curriculum. Teaching soft skills with methods consistent with adult and brain learning theories maximizes learning (Sousa, 2001).

Changes in College Students

The changes in college classrooms have occurred for a variety of reasons. There are a larger percentage of older students who could be called nontraditional students, mature students, or adult learners. Thirty years ago university classrooms were filled with students who were predominantly white and under the age of 25. Now, the age-25-and-older student accounts for about a third of the students, and approximately 28 percent of students are of color. Adults enter classrooms asking, “What is the reason I should learn this? What will I get out of this class, besides earning three semester hours and fulfilling a graduation requirement?” Adults bristle if they perceive assignments are busy work, and they want authentic assignments directly related to their career goal. Many of these older individuals have held positions of responsibility prior to returning to school, and they want to be shown respect for what they bring to the classroom; instructors are expected to know the needs of these individuals, make class pleasurable while minimizing threat, deal with possibly fragile or inflated egos, and understand these older students have a life outside of their college

classroom that could interfere with deadlines stipulated in the syllabus. This trend is only growing stronger with demands for retraining in a fluid work environment (Anderson, 2003). Political, economic, and societal changes, as well as changes in gender attitudes have coincided with an increase in women, minorities, and individuals with lower socioeconomic status attending college in greater numbers (Ogren, 2003). The U.S. Department of Education reported that almost 75 percent of undergraduates can be considered nontraditional as a result of their age, financial status, or when they enrolled in college (Evelyn, 2002). Today's students are motivated to pursue knowledge and skills useful in their life roles while maintaining a sense of self-esteem and pleasure (Boulmetis, 1999). This trend is being reflected campus wide.

The society in which these students have lived has also changed over the last twenty-five years. Adults bring emotional baggage from their childhood and adolescent years along with their textbooks. There are more college students who have experienced alcohol and/or drug abuse, domestic violence, mental health issues (i.e. anxiety, depression, suicidal ideation, personality disorder) or have family members who have experienced those problems. It is not uncommon for class members to share they are recovering from some form of substance abuse or that they come from a family where there has been generational poverty, child abuse, single-parent households, domestic violence, hospitalization of a family member for a mental health issue, or incarceration of a family member. A Kansas State University study of counseling center client problems of 13,000 students over a 13-year time period found students who had

been seen in the more recent years presented with more complex problems. The problems included the more traditional issues of college students, such as relationship difficulties and developmental struggles, as well as more serious diagnoses of personality disorders, depression, suicidal ideation, anxiety, and sexual assault. In fact, the number of students diagnosed with depression had doubled over the 13-year time period of the study, the number of students reporting suicidal ideation had tripled, and sexual assault-related issues had quadrupled (Benton, Robertson, Tseng, Newton, Benton, 2003). Some college campuses are now dedicating housing, sometimes called “Recovery Dorms,” to support individuals’ recovery (CNN, 2005). Additionally, the current upsurge in the prevalence and abuse of methamphetamines in many communities is touching the lives of students and their families and adds additional stressors to adults attending higher education that could be behaviorally demonstrated in their classes. The results of all of these societal issues have been changes in methods and curriculum from what was used previously with the traditional college student. Instructional formats require more active student participation and cooperative learning as they move away from primarily lectures. This brings to light the importance of students demonstrating soft skill competencies in the college classroom along with competencies in the core curriculum (hard skills). This research endeavored to investigate the effect of explicitly teaching soft skills in a quantitative research methods class.

Method

This research emerged from data collected in the form of field notes at several recent national conferences (The Association of Independent Liberal Arts Colleges for Teacher Education, 2004, 2005; Teaching Professor, 2005, 2006; American Association of Colleges for Teacher Education, 2005, 2006), where individuals discussed issues associated with today's adult learners in informal table talks and in conference sessions (Arwood & Waggoner; 2005, 2006; Waggoner & Eifler, 2006; Waggoner & Wollert, 2005a). Session attendees were teaching professors and administrators of public and private teacher education programs and of disciplines in the College of Arts and Sciences. The data were classified and summarized to identify themes and patterns. Themes emerged suggesting the days were gone when most every student came to class on time, without cell phones (turned on), and without beverages and/or food. Some instructors reported students brought their infants or older children to class, and it was common to hear the ring of a cell phone at least once while teaching. This sometimes was followed by the student answering the call and engaging in conversation or walking out of the class talking while the class was in session. Text mailing is also on the upsurge in college classrooms. Terms such as *demanding*, *combative*, *emotional*, *outspoken*, and *less respectful* were recorded in field notes. In one conference session (Waggoner & Wollert, 2005a), it was stated that students saw themselves as consumers buying a product in the higher education setting. They want their money's worth, and they are willing to lodge a consumer complaint if the service or "goods" do not meet their expectations or are perceived to be of poor value for their money. Those

teaching in private institutions said it was common for students to remind the professors how much money they were spending pursuing their degree. While statements made in conference sessions were not necessarily authoritative, they were consistent with the literature (Benton, Robertson, Tseng, Newton, Benton, 2003; Boulmetis, 1999; Glater, 2006) indicating a change in today's student. The changed student population suggests a need to adapt classroom environments to accommodate the savvy and more vocal consumers of education and the adults who demonstrate difficult behaviors (Anderson, 2003; Benton, Robertson, Tseng, Newton, Benton, 2003; Boulmetis, 1999; Evelyn, 2002; Ogren 2003).

Which Soft Skills?

It was necessary to determine which soft skills would be the focus of this research. These skills vary depending upon the needs and characteristics of the students attending the various universities, but there are some skills that may be common to many universities. Corporate scandals have brought to light the continued need to address ethics in all of our classrooms (Bunker & Wakefield, 2004), and the literature on the ideal employee frequently mentions the importance of the individuals who are respectful, flexible, courteous, and are good listeners and effective problem solvers (Dash, 2001; Gorman, 2000; Isaacs, 1998; Schulz, 1998).

For this study, the data were brought to the class as gifts from the students in previous quantitative research classes. With the research class format changed from primarily lectures to more active student participation, individuals with emotional baggage had a variety of opportunities to reveal their

personal issues during class. It was more evident when students appeared to have an authority problem, a chip on their shoulder, struggled with teamwork, or had difficulty managing their moods. While the aforementioned behaviors are not necessarily new to college classrooms, it is now more common to have them demonstrated by more students more frequently and more intensely. Other issues were easily identified in those awkward moments when a student said something others perceived as rude, or when the same person had interrupted class for the fourth time. The skill deficit was also apparent when students had not completed the assignment prior to class, were not listening to each other resulting in the same question being asked again that was just answered, and when cooperative learning strategies failed due to students being uncooperative.

In reviewing some of the more common and essential soft skills that might be taught in college classrooms concurrently with the course content (hard skills), some natural choices such as respect, listening, problem solving, teamwork, flexibility, responsibility, and interpersonal competence emerged from discussions with other colleagues at the professor's university and in the Assessment Committee in discussions of dispositions. As a result, Listening, Teamwork, and Responsibility were chosen to track. In an effort to obtain reliable measurements, the professor had trained on *Assessing Educator Dispositions Manual* and achieved .90 reliability on *Post-test Materials Set #1 (www.educatordispositions.org).* The professor was also a member of the School of Education's Assessment team and had worked with faculty on a dispositional rating scale. The question still remained in terms of the implementation of this

study whether soft skills could be taught in a quantitative research course concurrently with the course content.

It has been argued that soft skills or dispositions are acquired through inculcation, are developed early in life, and are difficult to excise and replace with others. Therefore, it can be seen as misguided and too late to transmit and assess them with adults (McKnight, 2004). Given the encouraging literature on adult and brain-based learning, however, there is a belief by others that adults can improve their soft skills as part of their lifelong learning journey if there is a classroom community that fosters such growth. Adult transformational learning theory is based on the concept of lifelong learning, is consistent with brain plasticity, and purports adults are capable of changing the way they see themselves and their world (Clark, 1993). The business world is so convinced that adults are capable of improving their soft skills that there is a whole consultation industry devoted to improving soft skills of engineers, informational security majors, Information Technology specialists, health care providers, and others in a variety of fields. There is even a coalition of business organizations and state leaders who are members of the Equipped for the Future Work Readiness Credential Project that is suggesting creation of a uniform certificate or credential that would be recognized in several states attesting to an individual's mastery of certain soft skills (Cavenagh, 2005). Since the literature has suggested that it is possible to teach soft skills, this premise was tested in this pilot study.

Teaching Soft Skills

The professor began the quantitative research course by discussing the relevancy of consistent demonstration of soft skills in different settings. Students generated examples of soft skills, described how a particular skill is manifested behaviorally, and gave examples of instances when a lack of soft skills created problems. Soft skills were discussed when reviewing the syllabus as were learned outcomes to be evaluated. Additionally, the instructor took care to model soft skills and give consistent, specific reinforcement for positive demonstrations of soft skills. Lifelong learning is part of the conceptual framework of this university and was referenced in discussing the importance of soft skills with the participants.

Mezirow (1991) suggests using a “disorienting dilemma” (p. 168) which leads to reflection and reevaluation of assumptions individuals possess upon entry to the course. Therefore, students were led to experience cognitive dissonance, which is a psychological phenomenon describing the discomfort felt when there is a discrepancy between what an individual knows or believes and new information (O’Keefe, 1990). This discomfort led to productive discussion of their new perspective. Students were encouraged to monitor their thinking and engage in metacognition (ability of one to control one’s own cognitive processing) by actively processing what they learned, how they learned it, and reflect and analyze interpersonal issues (Waggoner & Wollert, 2005a). The disorienting dilemma used in this study involved students examining the theory of Type I and Type II errors and instrumentation in decision making. They were presented with a scenario after which they were asked to make a decision about the civil

commitment of a sex offender. (The theory of Type I and Type II errors was addressed in more detail later in the course.)

The scenario explained the process of civil commitment of sex offenders deemed Sexually Violent Predators. Students discussed in small groups the implications of making a Type I or Type II error in the civil commitment decision. After they had come to a decision regarding civil commitment of the sex offender, the methodology for developing the Minnesota Sex Offender Screening Tool-Revised ([MnSOST-R]; Epperson, D. L., Kaul, J. D., & Hesselton, D., 1997), which is an actuarial test for the prediction of sexual recidivism of convicted sex offenders (Waggoner & Wollert, 2005b), was reviewed. Students were then asked to determine what effect, if any, the information regarding the MnSOST-R had on their decision.

Students and the professor also engaged in spontaneous role plays during the semester to add authenticity to discipline-specific issues. One role play explored varied voice tones to answer a question regarding whether to reject or not reject the null hypothesis when given output data of a paired-samples t-test. Another role play asked students to enact how they would explain a z-score to a faculty member at their schools. It is possible to have fun with these role plays, as the instructor and students become more comfortable throughout the term.

An important consideration was being consistent in teaching and reinforcing soft skills throughout the course. When the professor dropped emphasis on soft skills, students also slacked. One instance of soft skill slacking was when the students in one research section that was taught in a computer lab

began instant messaging each other while the professor was speaking. When confronted, students said “the computers distracted them,” blaming their behavior on the computer. That teachable moment led to a discussion of thinking errors—specifically blaming versus taking personal responsibility for one’s actions originally discussed in Yochelson & Samenow, Volume 1 as cited by Colorado Springs School District, 2004. Some humor was used in suggesting the computer did not “make” the students do anything and that bright Master’s candidates should be able to generate a solution to being distracted by the big, mean computer. The professor asked for solutions, modeling a strategy the teachers could use in their schools when there is undesired behavior and waited until solutions were put forth. One student suggested he could move the keyboard atop the monitor and another said he could turn off his monitor.

Involving the students in developing a culture where these soft skills were as important to practice as the other course content provides the repetition and consistency needed for skill acquisition. The professor asked students to “please rephrase” verbalizations if they were perceived as spoken in a whining tone or were less than courteous. Veiled aggressive comments or put-downs to colleagues made in a “joking” manner were also confronted and discussed as a possible indication of passive-aggressive behavior. Another valuable tool was the pre-correction, whereby the professor began class with a reminder about cell phone courtesy and respectful class interactions. The collegial culture resulted in students giving feedback to each without with intervention by the professor.

Soft skill instruction was also an excellent time to incorporate movement into the lesson and to provide an academically-based break from teaching a hard skill, which is consistent with brain-based learning. “By getting up and moving, we recirculate [that] blood. Within a minute, there is about 15 percent more blood in our brain” (Sousa, 2001, p. 32). In fact, just standing up may increase one’s heart rate by ten beats per minute, which is beneficial to the human brain and its ability to think and remember (Teele, 2002). After students were explained the theory of rejection of the null hypothesis in relation to calculating an analysis of variance, they were asked to move to form a group with others with whom they normally did not work and complete “test-like events” on the material (Sperling, 2006). Students’ concentration on hard skill material was enhanced by periodic movement and academically-based breaks that focused on soft skills of teamwork and listening. These breaks were similar to walking a bit after jogging at a fast pace for an extended time period, as the brain can assimilate a limited amount of strenuous content at any one chunk of time. Content and activities requiring movement were clumped into 20 minute intervals in order to keep the brain refreshed and active. The teamwork environment built during soft skill acquisition (Knowles, 1970, 1980) contributed to a positive classroom climate and rejuvenated learning readiness for tackling the Chi Square.

The teaching of soft skills was embedded in each lesson with think-pair-shares (Lyman, (1981), teamwork (Abernathy & Reardon, 2002; Knowles, 1970, 1980), test-like events (Sperling, 2006), and positive reinforcement of desired soft skills. These activities were a daily routine for the semester, removing any

novelty effect, and involved student movement consistent with brain-based learning (Sousa, 2001), as students formed groups for these activities and for academically-based breaks. As research proposals neared completion, writers' workshop was implemented. Students were responsible for bringing drafts of their research proposals to class and for exchanging papers for peer review and editing. A signed peer-reviewed draft was required before submission of the draft to the professor.

Sample

The sample selection was purposive in order to have some diversity in age, gender, and ethnicity and, in an attempt to reflect characteristics of the Master's cohort (62 students in cohort), achieve a sample greater than 10% of the cohort for the pilot study, and explore treatment effects on a varied (though small) sample. The sample consisted of five males and five females ranging in ages from 24 to 55 providing an equal gender split and a wide range of participants' ages. The participants were predominantly European American (purposely chosen for gender and varied ages), a Latina student, and two students of Pacific Island ethnicity. At the time of selection and initial rating of soft skills, the researcher had not previously taught any of the students. Soft skills' initial ratings were assigned after six contact hours with the researcher in which observational data were collected in field notes. The instruction in soft skills was infused in the standard research methods curriculum with such activities as role plays, test-like events, direct instruction, writers' workshop, and student

collaborations. This was consistent with the professor's usual teaching of this research course and was not specially introduced for the sake of the pilot study.

Limitations and Delimitations

There were obvious limitations to this pilot study. It was a small, purposive sample, conducted with one semester of Masters in Teaching students. Given the nature of soft skills, different operational definitions of the terms could yield different ratings. The same rater was used for both the pretest and posttest. If there was inflation or deflation of scoring, it should have operated equally upon the pretest and posttest, not affecting the mean difference between the measures on the dependent variable. Observational data were converted to an interval scale after synthesis and holistic analysis, which could introduce error. As with any rating, it is possible the ratings could be subject to researcher bias. Since students were enrolled in several classes as part of their degree program and were engaged in field experience in local schools, it is not possible to attribute all the increase in soft skill ratings to the explicit teaching of soft skills in the research methods class. The results are not generalizable to other populations and may be subject to other interpretations.

Ratings

The MAT students were rated on an interval scale of one to five with one indicating "lacking" the skill (low descriptor), and five representing "exemplary" demonstration of the skill (high descriptor) at the beginning of the semester and at its conclusion. The middle descriptor, three, corresponded with "developing." This scale was adapted from information presented at the Symposium on

Educator Dispositions (2005). These ratings were assigned after the coded field notes from the observations were synthesized and analyzed. The three soft skills rated were Listening, Teamwork, and Responsibility. Positive and negative examples of the targeted soft skills were recorded with narrative phrases and marks indicating positive and negative demonstration of soft skills. These data were synthesized and converted to interval scale soft skill ratings on the pretest and posttest after six initial contact hours and at the end of the study. The recording sheets were kept in the professor's possession throughout the ratings to assist in maintaining focused attention while rating. A new sheet was used each class so that prior ratings did not influence subsequent ratings.

All cohort students were given the explicit notice that the instructor would be monitoring and collecting data on Listening, Teamwork, and Responsibility as a regular part of the course, and data collected would not be included in the final grade for the course. Although the targeted soft skills could be components in the students' semester grades (students do not earn full or partial assignment points if the assignments are missing or late), these soft skills ratings were calculated independently of the semester grades and were analyzed anonymously three weeks after the semester grades were submitted to the university. Students were not aware which 10 students' data would be chosen for data analysis in an effort to protect against researcher effect. Separate spreadsheets were used to record daily field notes that were converted to pretest and posttest ratings. The instructor did not review the pretest rating when assigning the rating for the

posttest. For the data analysis, all names were removed, and numbers were assigned to each subject. The numbers were then randomly reordered.

Results

It was concluded it is possible to assess the soft skills of Listening, Teamwork, and Responsibility in addition to teaching the course content (hard skills). The operational definitions were adequate in terms of possessing limited intrinsic ambiguity and sufficient specificity for identification of the targeted skills when recording observational data and to convert the observational data to an interval scale. Likewise, six initial contact hours were sufficient for students to demonstrate behaviors recorded in field notes, synthesized, and converted to soft skill ratings after holistic review when students were given specific activities that would require them to demonstrate those behaviors. Examples of activities used in this pilot study were a “disorienting dilemma” (Mezirow, 1991, p. 168), role plays, teamwork on research exercises, test-like events (Sperling, 2006), periodic movement, academically-based breaks, and collegial behavioral feedback. Collecting data on 10 students required focused attention on the specific soft skills, but this was not overly time consuming when a coded sheet was kept in the professor’s possession throughout the class to assist in maintaining focused attention while recording observations. Many of the observations were made during times students were working in groups or independently. Data collection and analysis were ongoing throughout the semester. It is estimated it took less than a minute to review and record participants’ behaviors during any one observation.

The 10 participants were rated by the professor on the soft skills of Listening, Teamwork, and Responsibility at the beginning of the semester and again at the end of the semester. The coded observational field notes were converted to an interval scale after holistic review. Although this case study did not meet parametric assumptions for calculating paired-sample t-tests (Gay, Mills, & Airaisan, 2006), statistical analyses of the means were conducted to include additional information beyond descriptive statistics. The mean pretest rating for Listening and Teamwork were each 2.6 (SD = .516), and the mean rating for Responsibility was 2.7 (SD = .675). At the posttest, all students' soft skills ratings improved. The mean rating for Listening was 4.1 (SD = .738), the mean rating for Teamwork was 4.3 (SD = .675), and the mean rating for Responsibility was 4.4 (SD = .843). All two-tailed, paired sample t-tests ($df = 9$) were statistically significant at $p < .001$, indicating the results are unlikely to have occurred by chance, and the observed difference between the pretest and posttest ratings is probably a real one. The effect sizes for Listening, Teamwork, and Responsibility were 2.36, 2.67, and 2.23 respectively.

Discussion

Though this was a small pilot study with limitations in design, and the results have low external validity for generalization of findings, it was encouraging to examine and note improvement in students' Listening, Teamwork, and Responsibility over the course of a semester. It should be examined whether it is possible that if several professors explicitly teach soft skills that there could be a synergistic effect from multiple treatments. Adult

learners bring specific, defined characteristics to the university learning environment. Although the aging process can increase the vulnerability of brain connections, it also has the potential to assist the growth of neural networks, resulting in the adult brain becoming more responsive to absorbing information and new learning (Clark, 1993; Fishback, 1998-1999). The challenge is to maximize that growth of neural networks by teaching in a way that is compatible with adult learning theory. Over 30 years ago, Malcolm Knowles (1970, 1980) wrote one of the pioneering books addressing characteristics of adult learners. The andragogical model of Knowles referenced adults' needs for a suitable physical and psychological climate, cooperative learning activities, and elements of self-directed learning. The learning environment created in this investigation was compatible with adult learning theory by implementing activities that increased ways of knowing and produced a positive learning climate when students worked together. Adult transformative learning theory (Clark, 1993; Dirkx, 1998; Elias, 2000) and brain-based learning theory (Fishback, 1998-1999; Knowles, 1979, 1980; Reardon, 1998-1999; Weiss, 2000) have provided guidance for teaching adults in ways that maximize their learning potential, recognize the unique characteristics adults bring to a learning community, and minimize behaviors that can be detrimental to the student, the learning community, and to the individuals in clinical and professional practice. Learning involves the creation of neural networks and synapses (Fishback, 1998-1999), and brain plasticity, which enables the brain to be molded and reshaped, continues throughout one's lifetime (Zull, 2004). This knowledge suggests it is

possible to improve students' soft skills by embedding soft skill instruction in courses.

The Implementation of think-pair-shares (Lyman,1981), cross pollination of answers, writers' workshop, role plays, disorienting dilemmas (Mesirow, 1991) and the use of test-like events (Sperling, 2006) are more successful when students have strengths in soft skills, as these activities involve listening, teamwork, and responsibility. Incorporating movement and chunking content and activities are consistent with brain-based learning. These activities also help build a collaborative and psychologically safe learning environment where students are more comfortable to take risks and ask for assistance when interpreting the statistical significance of data calculations. This is consistent with adults' needs for a suitable physical and psychological climate and elements of self-directed learning in their quest to be lifelong learners, which is integral to the theory of adult transformative learning (Knowles, 1970, 1980).

An extension of this study would be to explore the effect of giving students self-scoring guides to monitor their personal growth process. This would be consistent with adult transformational learning theory, which purports adults are capable of changing the way they see themselves and their world (Clark, 1993) and self regulation (Paris & Paris, 2001). These assessments would be a visual reminder for students of the desired soft skill competencies and would increase the active engagement of students in their personal growth. This would also encourage a student to become a self-regulated learner "who monitors, directs, and regulates actions toward goals of information acquisition, expanding

expertise, and self-improvement" (Paris & Paris, 2001, p. 89). It would be fascinating to compare student ratings with those of the professor to determine the level of agreement. If there was a large discrepancy, the data could be reviewed for meaningful dialog regarding the difference in perceptions.

This study should be replicated with a larger sample and in varied courses to determine if the results are similar, since the sample size of 10 in this pilot study was small and purposive. Although data could be collected without undue burden on the researcher with 10 students, what would be the effect of collecting data on a class of 35 to 40 students? Would doing so interfere with teaching the course content?

Another option would be to collect pretest data on the entire group of students but only target the outliers who demonstrated fewer or particularly troubling soft skills for continued monitoring and intervention.

Given the changes in society and in the behaviors of today's college student, it is necessary to teach soft skills explicitly for students to be successful upon graduation. As Glater (2006) remarked,

> While once professors may have expected deference, their expertise seems to have become just another service that students, as consumers, are buying. So students may have no fear of giving offense, imposing on the professor's time or even of asking a question that may reflect badly on their own judgment. (¶7)

Not only will strengths in soft skills enrich the classroom strategies employed to increase students' ways of knowing (Huitt, 1998), but faculty will find that classes

are more enjoyable for everyone when there is a climate of courtesy and respect. Students will acquire or refine those skills that have been identified as key factors to an individual's future success when he or she leaves the world of academia (Behm, 2003). When challenging soft skills are identified in students early in their Master's degree program, timely intervention and scaffolding of growth experiences can be implemented to assist the student in choosing to make changes in his or her soft skills. Faculty could implement staffing of the struggling students, so that they can work as a team with the student to improve the targeted issues.

The rating scale in this pilot study should be subjected to further analysis of its construct validity as well as the process of converting field notes to the interval rating scale. While the process operated satisfactorily for this pilot study, it could have been an artifact of the researcher's training, experience, and prior knowledge. As with employing any rating scale, individuals should be trained and achieve interrater reliability.

A cautionary note is that there are some issues that students need to address through professional counseling and possibly medication. Individuals who display major depressive disorders, suicidal ideation, bipolar disorder, and other serious mental health issues need to be referred to the university's counseling center for additional services. It is important that professors make appropriate referrals for the safety and security of troubled individuals. When in doubt, it is best to err on the side of safety, and to make a referral according to the university's policies and procedures.

Rather than lamenting the changes seen in some of today's college students, professors can welcome the challenge to teach the whole student and assist in the adult student's transformative learning. It can add enjoyment and enhance learning for students to take an academically-based break from calculating a correlation coefficient individually to working in teams or with their "2 p.m. appointment" to determine which test of significance is appropriate for a set of interval data. Hard times demand soft skills, and universities can help with the acquisition of soft skills by embedding them in course curriculum and explicitly addressing them throughout each semester.

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Approaches to Teaching and Students' Perceptions of Teaching

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Abstract

These pages report an empirical study that matches teachers' approaches to teaching with students' perception of good teaching. The teachers' approaches to teaching are derived from a survey of teachers in a major faculty using the questionnaire developed by Prosser and Trigwell, while the students' perceptions of good teaching are taken from the Course Experience Questionnaire, a national instrument used in Australia to assess degree programs. On the one hand the unit of analysis is the department and on the other it is the field of study. Care was taken to relate the two. Among the findings are (1) departments do have distinctive approaches which students perceive, (2) approaches to teaching are not related to any obvious demographic characteristics of respondents like rank or experience, and (3) the major scales of Information Transfer and Teacher Focused versus Conceptual Change and Students Focused are vindicated. Overall, students' perceptions of teaching are related to the evaluation they make of degree programs.

Introduction

Do teachers' approaches to teaching relate to students' perceptions of teaching? This small study sheds light on that question by comparing the results of a survey of

approaches to teaching in the Faculty of Economics at the University of Sydney, a large, public, and comprehensive Australian university, with students' perception of Good Teaching on the Course Experience Questionnaire aligned to fields of study in the faculty. To anticipate what follows, there is an echo between approaches to teaching and perceptions of good teaching.

The Course Experience Questionnaire is an Australian national survey of all graduates. "Course" refers to degree program. Among its several indices is the Good Teaching Scale consisting of these items:

1. The teaching staff of this course motivated me to do my best work,
2. The teachers put a lot of time into commenting on my work,
3. The staff made a real effort to understand difficulties I might be having with my work,
4. The teaching staff normally gave me helpful feedback on how I was going,
5. My lecturers were extremely good at explaining things, and
6. The teaching staff worked hard to make their subjects interesting.

For more details on the Course Experience Questionnaire see Paul Ramsden (1991 and Richardson 1994 and Wilson 1997).

Michael Prosser and Keith Trigwell (1999) developed the "Approaches to teaching" instrument. While it has been used extensively (Prosser, Trigwell et al. 2003), electronic literature searches on Web of Science and Expanded Academic Index show that it has not been applied to Course Experience Questionnaire results. The "Approaches to teaching" instrument has indices concerning strategies (which are sometimes called goals, aims or intentions) and tactics (sometimes called means). As in chess, I use "strategy" and "tactics" to distinguish between the end – strategy -- and the means to that end -- tactics. Strategies are the goals that

teachers say that they have in teaching, while tactics are what they report that they do to further those goals. Tactics may extend beyond approaches to teaching in the classroom, for example, socializing with students outside the classroom, or individual interviews but class room teaching is the core. By combing the Course Experience Questionnaire results with a survey of "Approaches to teaching" we can compare what teachers say of teaching with what students say of that same teaching.

The Study

I modified the "Approaches to teaching" instrument slightly to place less stress on the final examination in order to make it more congenial to social science teaching, where the essay is a common assessment task. "Assessment" here refers to the assignments – essays, reports, examinations, field reports, and the like – students submit for grades. The questionnaire consisted of twenty-nine data items divided into six indices. Preceding these indices were six demographic questions about the respondent.

The questionnaire went to the academic staff of the Faculty under a covering letter explaining the project as one of self-evaluation. The faculty consisted of six departments with a teaching staff of one hundred and twenty-five. There were sixty-three responses. At the time, the Course Experience Questionnaire was new, and only a cursory comparison could be made. Now, in retrospect, a more thorough analysis is possible.

A. Participants. The sixty-three respondents fit the faculty profile by rank and department. In Table One below the profile for the faculty is on the left and the respondents on the right.

Table I. Responses by academic rank compared to the faculty profile in percentages

Level	Faculty N=125	Survey N=63	Difference
Associate Lecturer	25.6%	29.2%	+3.4
Lecturer	22.4	23.8	+1.4
Senior Lecturer	27.2	25.4	-1.8
Associate Professor/Reader	16.8	15.8	-1.0
Professor	8.0	13.0	+5.0
Total	100%	100%	

(A note on terminology. Australian academic ranks do not map perfectly onto American terminology. Career rank is Senior Lecturer. Promotion to associate professor depends on outstanding achievements. At the time of this study there was no promotion to professor. There were one or two professor appointed to each department, depending on the size of the department. The generic term is "lecturer.")

The only point of substance in Table I is that eight of the ten professors in the faculty responded, giving this small group over-representation.

Respondents also matched the faculty as a whole. The faculty has three large departments (One, Two and Three) and three small departments (Four, Five, and Six). The response rate by departments is in Table Two below. The overall response rate was fifty percent.

Table II. Responses rates by departments comprising the Faculty.

Department	Percent
One	61.5
Two	45.2
Three	51.7
Four	60.0
Five	42.8
Six	44.4
Overall	50.0

From Table II it seems safe to say that the participants in this study, comprising half of the faculty and about half (between 40 and 60%) of each department, are typical of the Faculty.

B. The Instrument. The demographic questions that the instrument asked included level of appointment, the number of years of teaching, personal commitment to teaching, and an indication of the degree to which they thought teaching was highly valued in their own department. These items provided independent variables for some analysis, along with department membership. Respondents were urged to add marginal comments wherever they wished, and a number did so. In addition, when returning the questionnaires two included cover letters. Between these two there stretched a continuum: One was steeped in suspicion of the "voodoo pedagogy" and the other waxed enthusiastic about the stimulating questions. Both letter writers were professors.

Respondents were also asked to concentrate on one teaching assignment while completing the questionnaire. The overwhelming majority of these assignments were undergraduate lecturing and tutoring. An Australian tutorial is akin to a discussion section, not an Oxford University individual tutorial.

The main indices on the instrument divide into strategies and tactics, as rehearsed above. One central hypotheses of this research is that certain kinds of strategies are related to certain kinds of tactics. Each of two strategy indices was matched with a tactics index.

i. Strategies. The intentions scales were "Information Transfer" and "Conceptual Change." What strategies do these scales indicate?

Contrast a teacher's goal of transferring information against promoting conceptual change: If a teacher's goal is to transfer information to students then the teacher will reply positively to questions that place responsibility on the teacher to collect, prepare, and present information as end in itself without any further reference to use by or meaning to students.

In contrast, a teacher who intends to promote conceptual change in students will agree more often with questions that take the content to be open-ended, that assume students have useful knowledge, and, more generally, that place responsibility on the teacher to structure experiences for students rather than to present ever more information.

A teacher who answers questions on one index positively will do so on the other. Indeed if they did, it would undermine the conceptual distinction between approaches to teaching. Of course, there may be some overlap, but there should be more differences between the indices than within them, a point to bear in mind later.

ii. Tactics. The two tactical indices are “Student Focus” and “Teacher Focus.” They are matched to the two strategic scales. Answering questions on the “Teacher Focus” scale positively emphasize the teacher's responsibilities, and makes the teacher the centre of the class room. The chief discharge of that responsibility will be information transfer.

To respond positively to the “Student Focus” scale is to affirm that students need to generate their own notes, learn to be self-directed, be treated as individuals, engage with the material, and the like. The goal served by these tactics is to promote conceptual change in students.

Table III. Summary of Strategy and Tactics

Strategy	Tactics
• Information transfer	• Teacher focus
• Conceptual change	• Student focus

As with the strategic scales, it is unlikely that those who respond positively to the items on one scale will respond positively to the other. Accordingly, we expect the differences between the indices to be greater than the differences within them. With this groundwork the argument proceeds.

Hypotheses

The hypothesis is that these two indices in each scale will be closely related because a teacher strategically set on information transfer will adopt teacher focused tactics to achieve that goal, while a teacher whose strategic goal is conceptual growth will find a student focus more effective.

Within the unexamined conventional wisdom, one article of faith is that the lecture is for the teacher (to present information, termed by one respondent to this survey as `a Shakespearian monologue') and the tutorial is for the student. This position is as well fortified as the Maginot Line. According to this line, a teacher with lecturing duties and no tutorials must be Teacher Focus of necessity. A handful of respondents took to this determinist redoubt in marginal comments. The words of Pierre Bourdieu come readily to mind when in another context he noted that professors “rejection of effective teaching practice [is] … armed with all the certitudes and all the blindness of cultural ethnocentrism” (Bourdieu, Passeron et al. 1994).

However evidence abounds that the lecture room can be a place to focus on conceptual growth and on students (see Jackson and Prosser 1985; Jackson and Prosser 1989). Suffice it to say that many lecturers’ strategy in the lecture hall is conceptual change and they adopt student-focused tactics to promote that end (Andresen. 1988). It is equally apparent that a great many tutors do all the talking with small groups of students around a table. As a student told other researchers: “in most classes you sit quietly around a table and get lectured at” (Walker and Warhurst 2000). It was ever thus, the teacher does the talking even in tutorials (Powell 1973). But the underlying contention here, made plain, is that the number of students in the room is less important than what they are doing (in response to the teacher’s tactics) and why they are doing it (to achieve the teacher’s strategy).

The Analysis

The analysis begins with the reliability of the scales. To signal what follows, the tools were loose in the handles, but they still gave purchase. That is, the reliability was not high, but high enough in Table IV.

Table IV. Reliability Scores for the Indices

	Alpha	Standardized
Conceptual change	.49	.50
Information transfer	.49	.60
Student focus	.63	.63
Teacher focus	.52	.56

More reliability appears when the related strategy and tactics indices are combined to create two major scales in Table V. These two scales are “Information Transfer and Teacher Focus” (ITTF) and the second is “Conceptual Change and Student Focus” (CCSF). The hypothesis is supported by these findings.

Table V. Reliability Score for the Major Scales

Scales	Alpha	Standardized
Information Transfer and teacher focus	.69	.69
Conceptual change and student focus	.67	.73

Moreover, a correlation study using Pearson's ‘r' showed that the major scales are as highly associated as predicted. “Conceptual Change” correlates positively (.50) with “Student Focus,” and negatively with “Information Transfer” (-.24) and “Teacher Focus” (-.20). “Information Transfer” correlates positively (.57) with “Teacher Focus,” and negatively with “Conceptual Change” (- .24) and “Student Focus” (-.28).

A factor analysis confirmed these affinities. “Conceptual Change” constituted one factor with “Student Focus,” accounting for 51.4% of variance while “Information Transfer” with “Teacher Focus” was another, accounting for 25.5%.

The demographic variables were also examined through a correlation study, using Spearman's ‘rho'. First, among these independent variables, a higher level of appointment correlated strongly (.70) with an increased number of years of teaching. That much would seem obvious, but it does confirm the honesty of responses. Agreeing that teaching was valued in the department was negatively correlated with the number of years of teaching (-.26) and a senior appointment (-.34). The more senior and long serving members of the academic staff were less likely to say teaching is valued than more junior colleagues.

There were no associations worth noting between the independent variables and the four indices, either taken separately or when combined into the major scales, with one exception. Those who agree that they are highly committed to their teaching and those who agree that teaching is highly valued in their department are just as likely to concentrate on “Information Transfer” as “Conceptual Change” and to have a “Teacher Focus” as “Student Focus.” It seems a teacher focused teacher may or may not value teaching highly.

Finally, a one way analysis of variance shows that the department is an explanatory variable. The difference between departments was greater than the difference within departments for each of the major scales. Where the department response number was small, I examined the range and standard deviation to evaluate the means and found it to be minimal. For “Conceptual Change” and “Student Focus” the F ratio is 4.78, while for “Information Transfer” and “Teacher Focus” it was 3.56. The scales are all positive. The larger the number up to five, the more the quality is manifest. A score of 4.5 on “Teacher Focused” means an individual is more “Teacher Focused” than someone scoring 3.5 or 2.5.

The pattern in Table VI repeats a common distinction between science and arts where the former is more focused on information transfer than the latter. Departments Three and Five are together at the arts end of a continuum in the faculty, while the others One, Two, and Four are at the science end. Members of each department would happily concur with that interpretation. The last department, Six, is at the Humanities end, but that is not borne out in these data, perhaps because of its small size.

Table VI. Means of Minor Indices

Department	N	CC	SC	IT	TF
One	16	3.44	2.99	3.10	2.58
Two	19	3.52	3.00	2.88	2.21
Three	15	3.98	3.65	2.44	1.99
Four	6	2.86	2.60	3.86	2.83
Five	3	4.11	2.93	3.17	2.80
Six	4	3.38	2.50	2.92	2.32

F Test		4.24	3.27	3.03	2.59
Sign		.002	.011	.016	.035

Where CC represents “Conceptual Change,” SF is “Student Focus,” IT is “Information Transfer,” and TF is “Teacher Focus.”

We can now examine the scale against departments set out in Table VII.

Table VII. Major scales

Dept	N	CCSF	ITTF
One	16	3.23	2.81
Two	19	3.13	2.63
Three	15	3.84	2.25
Four	6	2.73	3.09
Five	3	3.52	2.98
Six	4	2.93	2.68
F Test		4.78	3.56
sign		.001	.007

Where CCSF is “Conceptual Change” and “Student Focus” and ITTF is “Information Transfer” and “Teacher Focus.”

The department means for “Conceptual Change-Student Focus” ranged from 2.7 to 3.8. For “Information Transfer-Teacher Focus” the range is 2.2 to 3.3. Since three of the six departments are small, and participants from them comprise an even smaller number, they were deleted from a second analysis of variance. Only the three larger departments were considered in this analysis. Again the difference

between departments exceeds that within departments confirming the existence of a pattern beyond chance. This difference is indicated by the range of means from 3.2 to 3.8 for “Conceptual Change and Student Focus” and 2.2 to 2.8 for “Information Transfer and Teacher Focus.”

We now turn to the comparison with the Course Experience Questionnaire. We examined all the teaching scales: good teaching, clear goals, approaches assessment, appropriate workload, generic skills, and overall satisfaction. The most divergence is on the “Good Teaching” scale and some on the “Appropriate Assessment” scale. We continue to concentrate on the larger departments and another which had the most extreme scores on “Information Transfer and Teacher Focus” and “Conceptual Change and Student Focus.” Accordingly, we will concentrate on the “Good Teaching” scale with some remarks about the “Appropriate Assessment” scale. The two scales are presented in Table VIII.

Table VIII. Good Teaching from the Course Experience Questionnaire.

Course perceptions												
	One			Three			Two			Four		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Good teaching	130	-2.32	15.02	36	16.45	12.67	42	-4.57	15.86	13	3.03	16.57
Appropriate assessment	130	19.32	14.2	36	47.26	16.20	42	22.32	16.15	13	31.90	18.04

Some qualifications apply. The student response rate varies greatly from department to another. The larger departments have more graduates completing the Course Experience Questionnaire, but even so there are differences among them. As with any empirical study there are many details of context. (1) Department Two was divided into two sub-groups with distinct majors and the one without a direct comparison with other departments on the Course Experience questionnaire was deleted from this analysis. They divided a few years later. (2) Relating department to fields of study on the Course Experience Questionnaire is not automatic. I matched students' majors carefully with fields of study, and in one case, excluded one well subscribed major taught inter-departmentally because it did not match a field of study on the Course Experience Questionnaire, which partly explains the smaller results for Departments Three, Five, and Six which were partners in it. Here as throughout there is much noise in this data, but there is nevertheless also signal.

In Table IX, by reading the "Information Transfer and Teacher Focus" and "Conceptual Change and Student Focus" means together with the means on the Course Experience Questionnaire scales of "Good Teaching" and "Appropriate Assessment," we see the signal. Reading down the mean columns shows the pattern.

Table IX. Comparison of Approaches to teaching and perceptions of good teaching.

	One			Three			Two			Four		
Approaches to teaching												
Scales	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Information Transfer/Teacher	16	2.81	.56	15	2.25	.68	16	2.63	.62	4	3.09	.28

Focused												
Concept Change/Student Focused	16	3.23	.53	15	3.84	.45	16	3.13	.57	4	2.73	.34
Course perceptions												
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Good teaching	130	-2.32	15.02	36	16.45	12.67	42	-4.57	15.86	13	3.03	16.57
Appropriate assessment	130	19.32	14.2	36	47.26	16.20	42	22.32	16.15	13	31.90	18.04

Departments oriented to “Information Transfer and Teacher Focus” rather than to “Conceptual Change and Student Focus” score lower on the “Good Teaching” scale than the one department with the lowest score on “Information Transfer and Teacher Focus” and higher on “Conceptual Change and Student Focus.” That is shown in departments One, Three and Four in contrast to department Two. The same is true for the appropriate assessment scale. The joint Australian Vice-Chancellors’ Committee and the Graduate Careers Council of Australia’s Code of Conduct for using the Course Experience Questionnaire says differences that exceed more than half of the standard deviation are noteworthy. These differences pass that test.

Conclusions

Three signals can be heard through the noise in this empirical study: First, and most important, departments count both for staff and for students. While most teachers feel that through their skin, this information is valuable confirmation. The most significant distinction in this study is the difference among departments. Students

have noted in other research that departments often have a coherent and readily perceived approach to teaching (Bain and Thomas 1984; Entwistle and Tait 1990; Lizzio, Wilson et al. 2002; David 2004). This study offers another small brick in the wall to support that conclusion.

Some may claim that the differences on the "Good Teaching" scale are due to the features of different fields of study, and so horizontal comparisons cannot be made. Yet a review of the Course Experience Questionnaire results for the comparable fields of study at like universities revealed a range of results, and so does not *prima facie* support the assertion of a field of study effect. Specifically, the scores on the "Good Teaching" scale for fields of study matched to Department One were greater within like departments than between different departments above in Table Eight. That being the case, no further analysis was justified; however, the invitation remains for further research on field of study effects. For the moment it suffices to distinguish department cultures in context from field of study effects in the discipline in general. That means there are consistent differences in how students perceive teaching in fields of study like physics versus economics, and there are also difference in how students perceive different departments of economics.

Second, strategies and tactics in approaches to teaching are not associated with level of academic appointment or length of teaching experience. A crusty professor is as likely as a callow associate lecturer to intend "Conceptual Change" and to pursue it through a "Student Focus." Equally, a lecturer is as likely as an associate professor to intend "Information Transfer" and to embrace "Teacher Focus." This is encouraging news for those who wish to promote the approaches to teaching that stimulate conceptual change and are student focused.

Third, the major scales of “Conceptual Change-Student Focus” and “Information Transfer-Teacher Focus” are again confirmed. They are powerfully and consistently associated along their axes. Moreover, they exist on different planes so that to score high on one predicts a low score on the other, and that is shown in this study.

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