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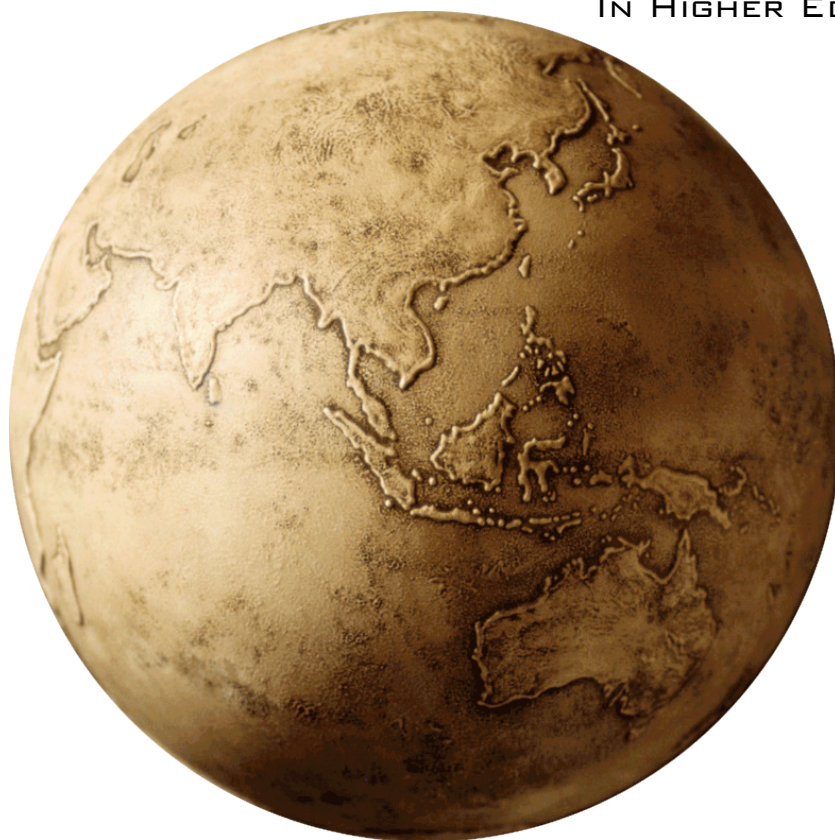
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Purpose

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Submissions

The focus of the International Journal of Teaching and Learning in Higher Education is broad and includes all aspects of higher education pedagogy, but it focuses specifically on improving higher education pedagogy across all content areas, educational institutions, and levels of instructional expertise. Manuscripts submitted should be based on a sound theoretical foundation and appeal to a wide higher education audience. Manuscripts of a theoretical, practical, or empirical nature are welcome and manuscripts that address innovative pedagogy are especially encouraged.

All submissions to IJTLHE must be made online through the Online Submission Form. In addition, all manuscripts should be submitted in English and in Microsoft Word format. The following Submission Guidelines pertain to all manuscript types, that is, Research Articles, Instructional Articles, and Review Articles. Ultimately, authors should follow the guidelines set forth in the most recent edition of the Publication Manual of the American Psychological Association (APA).

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Following a brief editorial review, each manuscript will be blind reviewed by two members of the Review Board. The review process will take approximately 4 weeks. At the end of the four-week review process authors will be notified as to the status of their manuscripts - accept, revise and resubmit, or reject - and will receive substantive feedback from the reviewers. Manuscript authors are responsible for obtaining copyright permissions for any copyrighted materials included within manuscripts.

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Research Articles

Instructional Articles

Supporting Future Faculty in Developing their Teaching Practices: An Exploration of Communication Networks among Graduate Teaching Assistants

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Past research has shown that informal communications among Graduate Teaching Assistants (GTAs) are more influential in shaping their teaching practices than formal induction programs. Yet little is known about how these informal helping relationships evolve and how universities can help support their formation as part of the preparation of future faculty. In this study, the supportive teaching communications of two GTAs at a large research university were examined as qualitative case studies. Social network analysis was used as a theoretical lens to construct teaching communication network diagrams based on interview data from the GTAs and their communication partners. Results indicated the importance of relationships that were multi-stranded, reciprocal, and enduring; they also indicated that "information sharing" may have provided a foundation for other types of helping behaviors. Participants discussed improving teaching as a personal rather than professional interest and described socio-emotional support as playing an important role. Based on these findings, suggestions are made about how universities can use "catalyst" events to support informal teaching communications among future faculty.

Introduction

A series of reports over the last two decades has questioned the quality of undergraduate education (Dill, 2005; Kuh, 1999), ushered in a new era of accountability at the post-secondary level (Leveille, 2006; Massey, 2003), and incited quests for new means to reach teaching excellence (Cabrera, Colbeck, & Terenzini, 2001; Ramsden, 2003; Sorcinelli, Austin, Eddy, & Beach, 2006). The challenges to transforming college teaching practices are great. Research demonstrates that effective pedagogy focuses on supporting students as active learners, involves a high degree of interaction, and includes frequent feedback (Chickering & Gamson, 1987; Pascarella & Terenzini, 2005). These are all activities which demand much more of faculty (and students) than the traditional lecture model (Austin, 2002); no longer is subject-matter expertise alone considered sufficient grounding for effective teaching (Kane, Sandretto, & Heath, 2002; Shulman, 2004). At the same time, institutional incentives such as tenure and promotion criteria that focus on research achievement negatively impact faculty motivation to devote the necessary time and energy into ramping up their pedagogical skills (Booth, 2004).

One avenue of inquiry into improving college teaching has focused on the period when most faculty first develop their teaching practices: serving as Graduate Teaching Assistants (GTAs) while earning their doctorates (Fagen & Suedkamp Wells, 2004; Golde & Dore, 2004). Teaching responsibilities in these positions vary (and often build) from assisting in marking to having full responsibility for a class, and these early teaching experiences have a deep and lasting influence on future faculty throughout their professorial careers (Smith, 2001; Staton & Darling, 1989). For this reason, Austin (2002) calls for considering graduate school as the first stage in an academic career and emphasizes the importance of studying this critical but largely unexamined phase of future faculty development (Wulff, Austin, Nyquist, & Sprague, 2004). From this perspective, the GTA experience can be thought of as the beginning of socialization into one facet (teaching) of the professoriate (Staton & Darling, 1989; Darling & Dewey, 1990). Thus support for graduate student teaching needs to be conceived of not simply as preparation to address immediate course issues, but also as creating the foundation for faculty to continue to consider the scholarship of teaching and learning throughout their careers (Boyer, 1990; Trask, Marotz-Baden, Settles, Gentry, & Berke, 2009).

Support for graduate student teaching generally comes in one of two forms: a structured program put in place specifically to help GTAs or unstructured interactions with professors or peers that occur around a teaching issue. Most university efforts to support GTAs have worked in the structured paradigm; however, evidence suggests that the impact of such programs is relatively small (Fagen & Suedkamp Wells, 2004; Prieto & Altmaier, 1994; Shannon, Twale, & Moore, 1998). In contrast, unstructured interactions around teaching have been shown to be important and influential in shaping GTAs' teaching practices (Austin, 2002; Myers, 1998; Wulff et al., 2004).

In light of these findings, it seems worthwhile to consider how universities could encourage unstructured interactions as an alternative approach to supporting GTA development. This is not to suggest that universities should attempt to formalize or "structure" desirable kinds of unstructured communication, but rather that they may be able to help create a fertile

environment in which these communications are more likely to occur. This is similar to the metaphor of "cultivation" used to describe design efforts that support the development of communities of practice (Wenger, McDermott, & Snyder, 2002).

While it is known that informal communications among GTAs are more influential in shaping their teaching practices than formal induction programs, the details of how these informal helping relationships occur are not well understood. Thus it is currently difficult for universities to attempt to support their formation. This study seeks to address this gap by exploring in depth the supportive teaching communications of two GTAs at a large research university.

The Lack of Impact of Structured Graduate Student Teaching Programs

Though programs designed to prepare GTAs have been around for over twenty years (Austin & Wulff, 2004), studies have shown that the level of support for graduate student teaching remains low across departments and schools with little improvement over time (Fagen & Suedkamp Wells, 2004; Golde, 1997; Monaghan, 1989). While GTAs are often formally told *what* to teach, they are given much less guidance in *how* to teach it (Jensen, Farrand, Redman, Varcoe, & Coleman, 2005), and though many GTAs have faculty members formally responsible for overseeing their teaching, in practice very little support or feedback is given (Prieto, 1999). The result is that almost half of all GTAs feel that they do not get appropriate preparation to teach or enough supervision to help them improve (Fagen & Suedkamp Wells, 2004; Golde, 1997;).

Many departments have no teaching training at all, and even when departments require preparation, these classes are often short and serve general orientation purposes as well (Salinas, Kozuh, & Seraphine, 1999). This may explain why, in one of the few direct empirical studies of the impact of GTA training on teaching effectiveness, Shannon et al. (1998) found that training was associated with higher student evaluations for only one out of nine teaching effectiveness factors (class assignments). Even more disturbingly, they found a *negative* correlation between the length of the training and student ratings on two other teaching effectiveness factors (group interaction and workload/difficulty). Prieto and Altmaier (1994) did find a positive correlation between prior training and GTAs' self-reported feelings of teaching self-efficacy; however, the magnitude of the relationship was quite small (r=.22). In sum, formal GTA preparation does not appear to play a strong role in supporting graduate student teaching.

The disappointing track record of formal GTA training can be explained in several ways. First, in graduate school teaching preparation is typically given secondary importance to the primary training for research (Austin, 2002), impacting both the quantity and quality of programs offered. Second, graduate students are often already overburdened with classes and research responsibilities and given mixed messages about how much time and energy they should devote to teaching (Austin, 2002). Finally, even if a department offers and a GTA engages in a pedagogical learning experience, formal GTA preparation is generally conducted as up-front, one-shot workshops (Rushin et al., 1997) despite strong empirical evidence that a sustained experience is necessary for teacher learning and impact on practice (Banilower, Boyd, Pasley, & Weiss, 2006; Richardson & Placier, 2001).

The Influential Role of Unstructured Teaching Communications

In the vacuum left by formal training programs, communication in unstructured "helping relationships" with peers, faculty, friends and family has been found to be a powerful force in shaping the teaching practices of new GTAs (Austin, 2002; Myers, 1998; Wulff et al., 2004). From a socialization perspective, these communications help teachers learn the knowledge, skills, and values needed to successfully become part of the profession, and reduce their anxieties and uncertainties about teaching (Staton & Hunt, 1992; Staton-Spicer & Darling, 1986).

To consider how universities might nurture unstructured communications about teaching as a way to support GTAs, it is important to first understand how these helping relationships occur naturally. But most of what is currently known is based on aggregate data. For example, in terms of who they talk to, GTAs consistently report that they rely much more on their peers than on faculty members (Darling, 1987; Anderson & Swazey 1998; Austin, 2002), and most often with those in their own discipline (Wulff et al., 2004). In terms of the kinds of support given, Myers (1998) suggests that "GTA involvement in supportive communication relationships may be inextricably linked with [their] use of information-seeking strategies" (p 67). Similarly, Staton and Darling (1989) identified "obtaining information," as well as three other dimensions of socialization supported by communication among GTAs: generating new ideas, adapting to rules and procedures, and social support. These categories resonate with the specific kinds of support Leitzman (1981) found in his detailed work looking at informal teaching communications among first-year faculty. In the extensive helping relationships he studied, Leitzman found that information sharing was the most common helping behavior, with

occasional collaboration and sharing of material resources occurring, but very little socio-emotional support given.

While these studies sketch a broad outline of the situation, they do not give us a rich and nuanced understanding of how individual GTAs make choices about what kinds of support to seek from which individuals in specific situations and why (Staton & Hunt, 1992; Staton-Spicer & Darling, 1986). More detailed information about the kinds of teaching communications GTAs engage in and the functions of the talk as it relates to their teaching is needed as a critical first step towards devising productive ways to create environments that support these kinds of communications.

The Current Study

This study was conducted to develop a detailed understanding of naturally occurring teaching communications and the ways in which they support GTAs. These teaching communications are complex social phenomena that have not been studied extensively. In such situations, a case study approach can be useful in generating a better understanding of the situation, as well as generating theory that may be a useful analytical tool in other situations (Yin, 2003). This research used a case-study methodology to examine the teaching communications of two GTAs at a large research university in the United States. Within the overarching case-study framework, Social Network Analysis was used as a further theoretical lens to structure research questions, data collection and analysis.

Social Network Analysis as Orienting Lens

The term Social Network Analysis (SNA) both implies a theoretical perspective on the structure of the social world and provides a set of methods for analyzing this structure (Knoke & Yang, 2008; Scott, 2000). Specifically, through the lens of SNA the social world is viewed as being made up of nodes (people or entities) connected by links (associations) that combine to form a network of relationships (Barnes, 1954). Associations in the network are established by and serve as conduits for the flow of information, resources, and services (Mitchell, 1969) and the collective characteristics of the network can be used to help explain the actions of the individuals within it (Nadel, 1957). A core principle of SNA is a focus on the linkages between people (rather than individuals' personal characteristics) as explanatory factors for human behavior (Wellman & Berkowitz, 1988). SNA also provides a collection of concepts useful in examining these relationships, for example

reciprocity, intensity, and durability (Mitchell, 1969).

Social networks can both be depicted graphically in a social network diagram (Moreno, 1934) and analyzed mathematically (White, 1963). While mathematical analysis becomes increasingly important as the group size grows, simple social network diagrams can still be useful as a conceptual tool to visualize patterns of interaction (Russo & Koesten, 2005), especially when the group size is relatively small. As discussed above, the goal of this exploratory case study was to conduct an in-depth investigation and characterization of two teaching communication networks; thus in this work SNA was employed in the latter sense, as a conceptual lens. Specifically, the research questions, data collection, and data analysis were focused on examining teaching communication linkages between GTAs in terms of type, reciprocity, and intensity.

Before a social network can be studied, it must be operationally defined. Following an egocentric approach as described by Bott (1957), in this study each case was centered around a GTA (the "ego") and everyone the GTA talks with about teaching (the "alters"). Within this framework, Leitzman's (1981) taxonomy of helping behaviors was used as an initial set of categories for the kinds of connections between people in the networks.

Research Questions

The driving question of this work was, "How do unstructured communications about teaching play a role in the GTA's process of learning to teach?" Within this overarching framework, two topical information questions (Stake, 1995) were used to guide and focus data collection:

1) With whom do the GTAs communicate about teaching, and what is the nature and intensity of the relationships?
2) What types of communication do the GTAs have about teaching, and in what direction(s) are they oriented?

Method

Context for the Study

This study involved two GTAs in a humanities department at a large research university in the United States and the people they communicated with about teaching. The department provided teaching support for its GTAs through a required course given by a "teaching focused" faculty member prior to their first year of graduate school. The

course was one week long, occurred before the graduate students had been in the classroom, and also included general new graduate student orientation issues. This study used extreme case sampling; the two GTAs in the study were chosen for their reputation in the department as being especially interested in teaching and thus presumably would have the richest teaching communication networks. Gender was not a factor in the selection process; however, because one central GTA was male and the other female, attention to potential gendered readings of the data is necessary.

Data Collection and Analysis

Data collection for this study occurred in three sequential rounds of interviews. The first round of interviews was conducted with the central GTAs who were asked with whom they communicated about teaching and the nature of these communications (see details below). The second round of interviews was conducted with the GTAs' alters identified in the first round and probed for the same categories of information. The third round of interviews was conducted after preliminary social network diagrams had been constructed. In this round the central GTAs were asked to review the diagrams, suggest revisions, fill in gaps, and share their interpretations.

First round of data collection. In the first round of data collection, semi-structured interviews were conducted with each of the two central GTAs. The GTAs were initially asked about their teaching experiences and overall orientation to teaching. They were then asked to list all people they communicated with about teaching and were specifically prompted to think about different categories of people (e.g. other GTAs inside and outside of the department, friends, faculty, family). Once this list was generated, the central GTAs were asked to describe their relationship with each of these people. Within the natural flow of conversation, prompts were used to probe for different dimensions of the relationships (see Table 1) based on a set of SNA categories drawn from the literature (Wellman & Berkowitz, 1988; Scott, 2000). Interesting aspects of communication that emerged during the interviews were pursued in more depth.

Second round of data collection. The second round of data collection consisted of a set of semi-structured interviews with the central GTA's alters using the same categories shown in Table 1. Ten individuals were contacted based on the information generated in the first interview; of these, eight agreed to participate in the study. An eleventh alter was identified by one of the central GTAs but could not be reached due to a lack of current contact information.

Table 1
Categories of Information Probed for in Interviews

- Closeness, strength, and power hierarchy of the relationship
- Logistical proximity of the alter to the ego
- Typical setting for communication about teaching
- Intensity of communication
- Medium of communication
- Initiation and reciprocity of communication
- Topic of communication
- Degree of trust with the alter
- Usefulness of the communication
- Durability of the communication

Creation of the social network diagrams. After the second round of data collection, researcher notes and audio recordings were used to summarize each interview into a narrative. Different interviews describing the same teaching relationship were then compared and used to create one meta-narrative about the teaching communications of each central GTA. When discrepancies between accounts occurred, both views were included in the narrative. The relationships between the GTA and each person in their network were then characterized by the presence or absence of each of Leitzman's (1981) types of communications (informational, socio-emotional, resource-sharing, or collaboration). If present, the intensity of each type of communication was labeled as infrequent / sporadic (twice a month or less), recurrent (once every week or two) or frequent (multiple times a week), and the reciprocity of the communication was labeled as unidirectional (help was given in solely one direction), bidirectional (help was given equally in both directions), or weighted directional (help was given in both directions, but in one direction more than the other). The data was examined for types of communication falling outside of the a priori categories taken from Leitzman; however, the categories were found to be sufficient for all communications described.

Labeled data was then used to construct teaching communication network diagrams according to the conventions shown in the diagram keys. Alters who the GTAs described as being part of a formal relationship related to teaching but with whom no actual communication occurred were included in the diagram without connecting lines. After the diagrams were created, visual inspection was used to create preliminary interpretations of the network structures. Durability (the degree to which each kind of communication was sustained over time) was not explicitly included in the diagrams, but was considered as a contextualizing factor for analysis.

Third round of data collection/member checks. In the third round of data collection, final interviews were conducted with each of the two

central GTAs to fill in any gaps that remained in the picture of their teaching communication network. In addition, member checks were conducted in which they reviewed and suggested revisions for their network diagrams and shared their own the interpretations of the diagrams.

Validity

In social network studies, the question of validity is primarily concerned with the degree to which the network structure that is observed corresponds to the actual one (Wasserman & Faust, 1994). To maximize the number of actual network members reported in the study, interviews were designed with an open-ended protocol in which participants were allowed to name as many teaching communication partners as they wanted, and they were specifically prompted to think about different categories of people with whom they could have communicated. With respect to characterizing the types, intensity and reciprocity of the connections with network members, participants were asked to report directly about overarching patterns (rather than describing particular examples of interactions). This was done to minimize instances of forgetting and false recall (Bernard, Killworth, & Sailer, 1981) which are much greater for reporting specific interactions than for describing long range social structure (Freeman, Romney & Freeman, 1987).

An important technique for enhancing validity in social network studies is to compare reports from more than one actor (White & Watkins, 2000). For this study information about each teaching communication relationship was gathered from two sources (the ego and the alter), in all but three cases. Discrepancies in accounts were included in the narratives and taken into account in crafting interpretations of the data. In addition, member checks were used to allow the central GTAs to review and revise the inferences made by the researchers in categorizing communications and creating and interpreting the social network diagrams. Finally, abbreviated versions of the original narratives for each alter are presented in the data section to give the reader the opportunity to evaluate the nature and context of each relationship themselves.

Results

This section begins with a brief overview of the departmental culture as described by participants. Each case narrative is then laid out, and its network diagram is presented and discussed. All references to participants use pseudonyms.

Overall Departmental Culture

The study was conducted in a humanities department at a research intensive university. One participant described the culture of research as being so strong that "even if graduate students come in with a different idea of what is important, they end up buying into [the priority of research] because it is what is expected." Similarly, as one GTA put it, "for most graduate students, there is an attitude that [teaching] is not what we are here for." Interestingly, while most interviewees described a lack of departmental importance placed on teaching, all except for one also described themselves and their peers as personally committed to it. As one interviewee put it, "[All the GTAs I know] take their teaching seriously and are concerned about being a good teacher."

Sandra's Case

Sandra is a 26-year-old GTA in her second year with a passion for teaching. She described it as an important part of her professional life; when she graduates, she plans to look for a job at a teaching college. Sandra listed six key people with whom she had communicated about teaching in her time as a GTA: Rebecca (the "teaching focused" professor in the department); Professor Sloan (the faculty member in charge of her first class as a GTA); Jessica (a more advanced graduate student who also served as a GTA for this class); Paula (a recently graduated GTA and one of Sandra's closest friends); Bart (a GTA in a different humanities department), and Fred (Bart's roommate and a GTA in Sandra's department). Sandra noted that the course she was currently teaching had a faculty overseer, but they did not communicate about teaching.

Narrative of key alters in Sandra's teaching communication network.

Rebecca. Rebecca is the "teaching focused" professor in the department and in charge of the required week-long course for all new GTAs. This position reflects her passion for teaching which she regards as her top professional priority. Sandra described her relationship with Rebecca during the initial training course as friendly, but somewhat formal. Since then Sandra reported that they have become closer, and she characterized their communications about teaching as "infrequent, but very fruitful." These conversations have taken place both in person and over e-mail and generally involve Rebecca checking in to see how things are going or asking to see the syllabus or books Sandra is using for a semester. Sandra noted that these communications rarely evolved into substantive discussions. At the same time, Sandra mentioned sporadic more in-depth teaching

communications that she and Rebecca had over the past two years. For example, one semester she had her class videotaped and asked Rebecca to watch the tape with her. Sandra also took an elective semester-long pedagogy course that Rebecca offered one summer. Recently Rebecca invited Sandra to present with her at a campus wide conference on teaching practices. When asked about why their communications have not been more frequent, Sandra referred to overall departmental pressures: "This field is very competitive, and there is no formal mechanism for caring about teaching." She noted that even in applying for a position at a teaching institution, she expected to be evaluated more on her research than her teaching and that she felt she put more time into working on her teaching than she probably should. In line with this, while she valued her communication with Rebecca, she pointed out that "in the department, time working with her is seen more as personal rather than professional development."

Rebecca's description of her relationship with Sandra differed somewhat from Sandra's account. Rebecca told the story of an ongoing and deep professional and mentoring relationship with Sandra. Back when Sandra was still "getting a handle on teaching," Rebecca recalled her showing up at her office every so often with questions about the best way to teach a topic or an ideas she had for an assignment. She described their conversations as digging down into underlying topics such as cognition and how the mind works, something Rebecca said they both enjoyed. Rebecca characterized their current relationship as one of colleagues, noting that the conversations with Sandra are very useful for her and that she is one of her first choices of someone to share her pedagogy work with.

Professor Sloan. Sandra and Professor Sloan both described their teaching communications in similar terms. The relationship was formal and hierarchical; he knew what he wanted done and would give specific instructions to that effect on a weekly basis. His communications with Sandra (and Jessica, the other GTA for the class) were primarily procedural, telling them what content topics to focus on in their discussion sections and how to administer the weekly quizzes; there was no discussion of pedagogy involved. The only time that there was collaboration between Professor Sloan and the two GTAs in a group was in grading the final exams. Sandra did not describe these communications as very influential for her teaching.

Jessica. Sandra and Jessica had a more involved teaching communication relationship. Jessica was an experienced GTA, and while they were teaching the same course she and Sandra communicated once or twice a week about teaching, usually in person. Generally these communications involved Sandra asking Jessica specific questions about how she planned to run her section or grade a class assignment and Jessica sharing the requested information. Sandra would also use Jessica as a "sounding board" for her ideas about how she was planning to lead her section and found this helpful as she was developing her confidence as a teacher. Jessica felt she learned a great deal from Sandra as well and also mentioned the socio-emotional aspects of talking through the teaching experiences they shared. Jessica described the socio-emotional communications as a lifeline of support for a challenging job: "Teaching can be very draining and frustrating – it is a baptism by fire."

Paula. Paula is another GTA in the department who recently graduated. She is one of Sandra's best friends, and their friendship actually grew out of the mutual importance they place on teaching. Sandra appreciated having someone to talk with who was as "excited and reflective about her teaching" as she is and with whom she has an implicit trust in ability and commitment. When Paula was teaching, Sandra and Paula communicated at least several times per week about teaching. The communications were generally informal and unplanned, for example, if they happened to be in the graduate lounge at the same time; occasionally they communicated and sent materials via e-mail. Sandra described sharing information with Paula on all aspects of teaching "from curriculum to pedagogy to how to handle student complaints"; however, Sandra said that actual collaboration was infrequent since they generally taught different classes.

Bart. Bart is a GTA in a different humanities department; Sandra met him in a seminar class. In contrast to the relationship with Paula in which friendship grew out of a shared interest in teaching, with Bart they became close friends, and their conversations about teaching have arisen from this friendship. These conversations are almost always informal: topics of teaching tend to emerge in their conversations as friends and range from theoretical ideas about as how people learn to how to deal with specific student situations and how to explain a certain kind of topic. At times, their conversations also involve Fred, Bart's roommate, or less frequently, Paula. Bart also described their conversations serving as a form of emotional support: "The teaching role is isolated and the teacher isn't going to chat about pedagogy with their students, so they need to do it elsewhere…friends act as an outlet."

Fred. Fred is Bart's roommate and a GTA in Sandra's department. Sandra and Bart both described Fred as someone who takes part in their conversations about teaching once in a while, but not as frequently as they themselves communicate about it. At times, the three of them engage in "venting" kinds of conversations, releasing the current frustrations they are having with teaching, while other times they simply share ideas for teaching a class.

Figure 1
Sandra's Teaching Communication Network
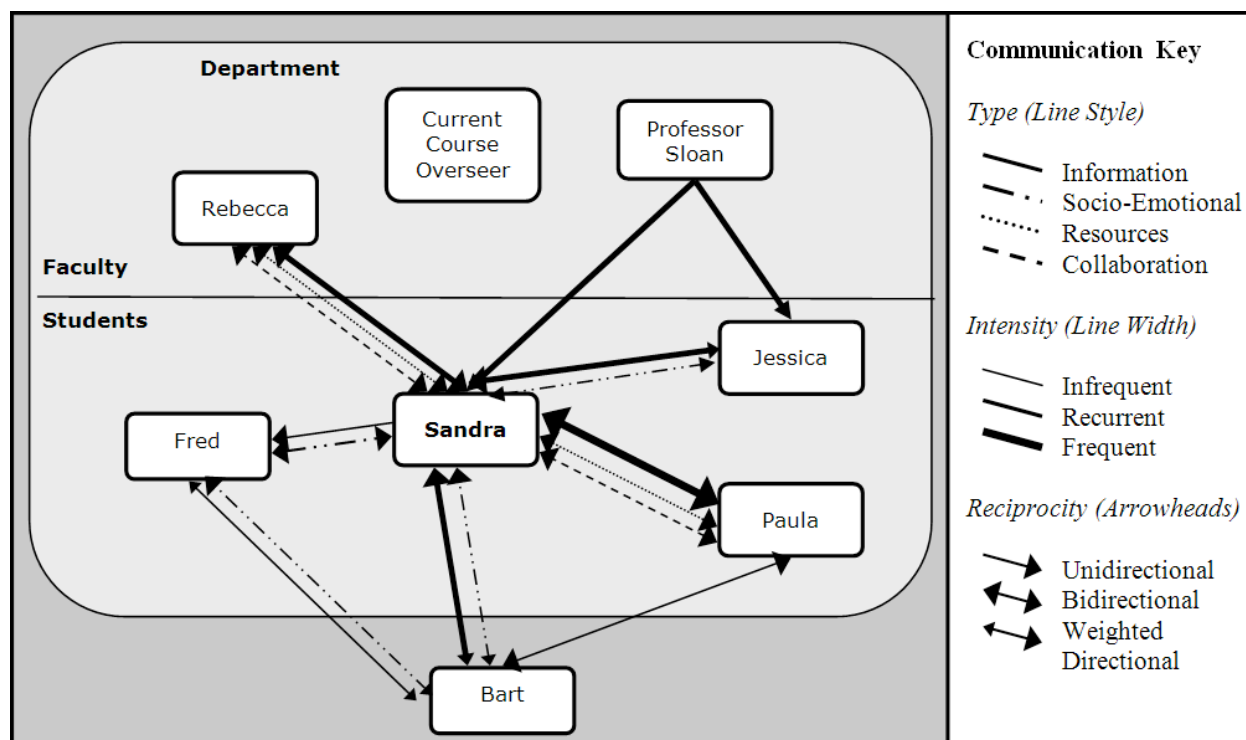
Figure 2
Alex's Teaching Communication Network
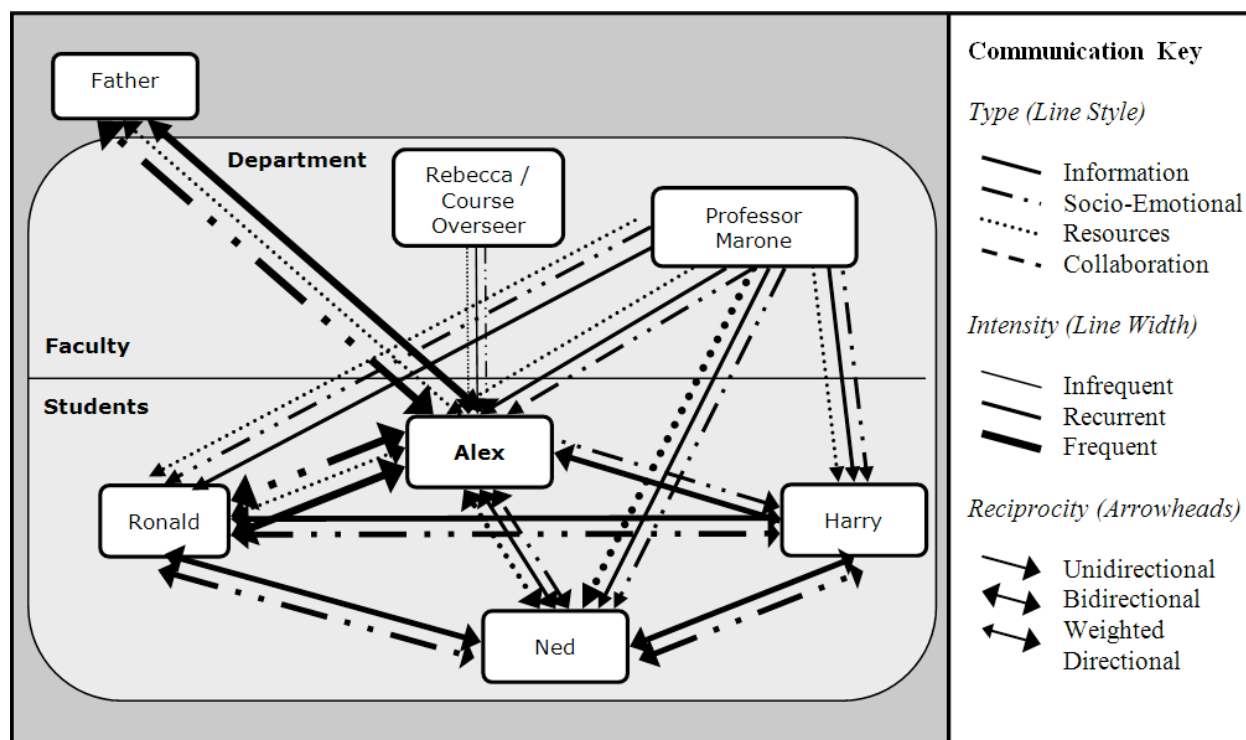
Sandra's teaching communication network. As the network diagram in Figure 1 illustrates, Sandra's overall teaching communication density is relatively sparse for someone who values teaching so highly, though some of her relationships involved intense (frequent) communication during specific periods of time. In addition, the diagram shows somewhat of a hub-and-spoke structure, reflecting how her relationships with each of the people in her network are primarily defined individually. Even in the few cases where the diagram shows relationship "triangles," the actual communication occurred mostly in a series of one-on-one encounters, indicating a type of compartmentalization of communication.

Sharing information is the dominant type of communication in Sandra's network, with material resources, collaboration and socio-emotional support all playing secondary roles. Interestingly, while sharing information is present in all relationships, the socio-emotional support present with Bart, Fred, and Jessica is isolated from the relationships with Paula and Rebecca that involve sharing material resources and occasional collaboration. This indicates a second form of compartmentalization. In viewing the network diagram, Sandra observed a third kind of compartmentalization in how many overall connections between her alters were missing, noting, "I think if you had the formal connections in place (between Rebecca, the Department Chair and the Course Overseer as well as each of these with the other Department GTAs) then you would have a lot stronger network of communication between the GTAs as well."

Alex's Case

Alex is a 31-year-old graduate student in the same department as Sandra in his third year as a GTA. Alex had three years of previous teaching experience at the college level when he came to the program; he described a love for the material and a desire to share his enthusiasm with students. Alex listed six key people with whom he had communicated about teaching in his time as a GTA: his father; Rebecca; Ronald, Harry and Ned (the three other GTAs in Alex's department in the same subject matter area); and Professor Marone (a professor in this subject matter area). Alex also discussed a collective role of the other GTAs in the department.

Narrative of key alters in Alex's teaching communication network.

Alex's Father. Over the years, the person with whom Alex has communicated the most about teaching is his father, a professor in Alex's field at another university. Alex's father is a great source of inspiration to him, and his father and he have a very close relationship. Their relationship with respect to teaching

began when Alex served as a visiting professor at his father's college. In this context, Alex's father helped him get his start, sharing his knowledge of the course content and techniques for explaining these ideas and getting students involved. As Alex described it: "He was my primary resource when I was first learning to teach, and I base a lot on his model." While Alex said he has looked over his father's course materials, he generally has not used them in his own classes. Over time their relationship has evolved, and their conversations about teaching have become less frequent. When they do occur, his father commented, "He helps me as much as I help him and [now] he shares his ideas and course notes with me!"

Rebecca. Because of his prior teaching experience, Alex did not take the one week teaching course that Rebecca runs; however, he has had some communication with her since she is in charge of overseeing the courses taught in Alex's specialty area. The main communications that Alex described occurred the summer before Alex joined the department when they met for several hours to talk about how he planned to teach his course. In this conversation she offered suggestions about what materials would be appropriate for the course and information about pace and difficulty level. Since then, Alex's communications with her have been infrequent and he commented that most of what he has learned about teaching has come from more experienced students. Rebecca described having had more frequent communication with Alex when he was just starting to teach his own course, noting that he would send her e-mails about specific questions he had, but that he was less interested in the theory behind the teaching, so mostly she "served to boost his self confidence in what he was doing."

Currently, Alex submits his syllabus to Rebecca each semester, but the communication ends there. Officially, she is supposed to observe his classes once a term so that she would be able to write a recommendation letter, but since he does not plan to ask her for one, this has not generally happened. Alex mentioned that this is often the case, explaining that "her lack of stature in the field (because she doesn't publish) doesn't affect our respect for her opinion on matters of teaching, because they are different kinds of questions. When it comes to applying for jobs, however, it is important to get letters from people whose names carry some weight."

Ronald. Ronald is a GTA in the same year as Alex and a close friend. They also share an office and have taught the same course at several times in their graduate careers. Despite their close proximity, Alex said that they talk about teaching only about once a week, though Ronald thought that the conversations happened more often than that. Most of the time, they have one-on-one communications that are informal, unplanned

and can happen anywhere, including over lunch or at the gym, though most often they occur in their shared office. Alex described their teaching communications as usually specific, directed, and related to the course content, though "pedagogy does come up occasionally." Ronald added that when they talk about general approaches to running a class, they are usually discussed in the context of a specific problem they are facing. Ronald noted that they not only share ideas but also actual materials such as lecture notes and handouts. He also noted that he sees the "post-class debrief" as an important form of communication between himself and Alex. While such a discussion can involve reflection on teaching practice, Ronald views its function as primarily socio-emotional "after a class, sometimes you just need to decompress…people don't realize how draining it is."

Harry. Harry is a few years ahead of Alex in his program, and has been teaching for many years. He described his relationship with Alex as starting off as one of a big brother: "He was a GTA [under me] for a semester in his second year and I tried to share my experiences with him." Harry felt that Alex helped him out a lot as well, "I learned from him how to say no to students when I needed to…He [also] gave me emotional support when I made a content mistake in teaching." During that first semester, their teaching conversations were mainly one-on-one and face to face as they walked from the offices to the classroom or over lunch. Since then their contact has been less frequent and less directed; it generally occurs at departmental parties where they compare what course pack readings or textbook they are using.

Ned. Ned is another graduate student in the department who is several years ahead of Alex and just finished his studies. Alex taught with him as the junior GTA in one of his early courses, and during that semester they had a great deal of contact related to teaching. Generally these conversations would occur a few times a week in a one-on-one situation in the office or department lounge while getting ready for class. For example Ned and Alex shared ideas about group activities and how they could make them useful for the students. Though they taught together and shared materials, Alex said that Ned and he did not really collaborate per se "It was more like a one-two punch. Ned would do stuff in his way and then I would do it in mine." Due to their shared content area, Ned, Harry, and Ronald also had conversations with each other about teaching; these conversations involved sharing information and socio-emotional support.

Professor Marone. Professor Marone is a professor in Alex's specific subject area, and Alex describes him as being very influential for him despite never having formally worked with him as a GTA. He, Ronald, Harry and Ned have all used Professor Marone's course

readings pack and gone out with him for drinks and "venting sessions." Alex likes to bounce ideas for teaching off of him and says that he has a view of the subject matter very much in line with his own. Alex describes his communications with Professor Marone as frequent but primarily unidirectional with him receiving advice; he also described Professor Marone playing a similar for Harry, Ronald, and Ned, which they confirmed.

Other Departmental GTAs. In addition to the specific individuals described above, Alex discussed the collective role of the other GTAs in the department. Because this discussion was general in nature and did not indicate relationships with specific individuals, the data did not inform the creation of Alex's social network diagram. His comments did speak, however, to questions of what kinds of support GTAs need and want, and thus are presented here.

Alex described the graduate student population in the department as closely connected and noted that they got together socially on a frequent basis. While at these social functions, conversations about teaching usually begin with a simple "How'd your classes go?" Alex then described that "when the answer is positive, the conversation usually ends there, but when someone has had a negative experience, they usually are looking for a chance to vent." For Alex, this "venting" function is a much more necessary support for GTAs than any formal teaching program could be: "It is essential for people to have an outlet to vent in – a social setting with people in similar situations who can commiserate….When you teach, you put such an emotional effort into being successful that sometimes you just need to let it out."

Alex's teaching communication network. As shown in Figure 2, Alex has a more integrated network of teaching communication relationships than Sandra does; however, the actual communication that occurred within these relationships was still primarily characterized as occurring individually in one-on-one settings. Similarly, while the diagram shows many relationships with frequent communication, the intensity of communication in a particular relationship was often confined to a distinct period of time. Alex's network also includes more communications of the socio-emotional support type than seen in Sandra's network; this may be a product of the importance he places in on this kind of communication in learning to teach. In addition, Alex's network includes a greater amount of sharing of material resources; this is possibly due to the fact that most of the people in Alex's network are also in his specialty area, and thus there is great overlap in the courses they teach and the materials they use. Despite this, Alex's network shows little actual collaboration.

Several additional points can be taken from Figure

2. First, Alex's communications with departmental professors (Professor Marone, Rebecca) were primarily unidirectional while his communications with his peers and father were often bidirectional. Second, Alex's network shows a great deal of integration of multiple types of communication within each relationship. Third, in examining the network, Alex noted the predominance of relationships that developed informally (peers, Professor Marone) over those that were formally assigned (Rebecca as Course Overseer). Finally, with the exception of Rebecca, all of Alex's communications were with other males.

Assertions and Discussion

Addressing Research Question 1: With Whom Do the GTAs Communicate About Teaching and What is the Nature and Intensity of the Relationships?

Assertion 1: Teaching improvement is pursued, but it is done so primarily as a personal rather than professional interest. Sandra and Alex were selected for this study because of their interest in and commitment to teaching and the data supports the claim that teaching is something they both value highly. Despite this, they both indicated that they did not perceive the act of working to improve their teaching as a valued professional pursuit in their field. This is reflected in comments such as Sandra's observation that time working with Rebecca is seen as "personal development" and Alex's remark that Rebecca's focus on pedagogy versus research means that her name does not carry much weight in the field. Despite this, Sandra and Alex each described talking about and working on their teaching as something that was important to them personally, both in terms of helping their students learn and in terms of developing their own confidence and sense of competence as teachers.

The finding that improving teaching is pursued as a personal interest contradicts the common claim that improving teaching is undervalued and not pursued by instructors in university environments (Tierney & Bensimon, 1996). Unquestionably, long term change recognizing, rewarding, and respecting teaching and teaching improvement within departmental cultures is needed (Boyer, 1990; Shulman, 1993); however, if GTAs are working to improve their teaching, even in informal and personal ways, then there is an opportunity for universities to support and enhance this activity.

Effectively supporting informal teaching communications which occur as needed on an impromptu basis in private settings requires a different set of tools and strategies than universities have used in traditional GTA preparation programs. To support and enhance these kinds of communications, universities must reframe events that they organize not as ends unto themselves—these will not be the occasions when the bulk of teaching communications happen. Instead, these events can be conceptualized as "catalysts" that provide the opportunity for some initial communication, but equally importantly lay a foundation for future informal GTA-driven conversations to occur. Recommendations for structuring events to effectively serve this purpose can be drawn from the remaining findings about the nature of GTA teaching communications.

Assertion 2: There is a predominance of "convenient" teaching communications, but enduring one-on-one multi-stranded relationships are most important and influential for the GTAs. The majority of the communications described by Sandra and Alex were individual communications. This was true regardless of whether they were with a professor or a fellow student, and even when three-way *relationships* existed, the *communications* themselves tended to occur one-on-one. For the most part the early relationships came out of formal teaching situations in which Alex and Sandra taught with a professor or other graduate student. By nature, these "convenient" relationships were often intense, with frequent communication during a specific time period, but they were not very durable, lasting only for the semester of the teaching assignment. Convenient teaching communication relationships also emerged from the proximity of sharing an office, an arrangement that usually lasted a year. Despite changing circumstances, over time in their teaching careers, both Sandra and Alex developed at least one enduring teaching communication relationship with someone who was, or became, a good friend, and they described these relationships as highly important and influential for them in their teaching. These relationships can be characterized as "multistranded" (Mitchell, 1969) as the individuals involved were connected via multiple kinds of linkages, in this case both teaching communications and friendship ties.

This finding suggests that GTA teaching communications may be most effective in the context of close relationships maintained over time. Following from this, university support for teaching communications should focus on fostering the formation of enduring multistranded one-on-one relationships. Some scholars argue that the logical way to attempt this is by formally appointing experienced GTAs to mentor new ones (Silva, Macián & Mejía-Gómez, 2006). While this is one viable approach, such assigned mentorship relationships are often not as useful as those that develop naturally (Cawyer, Simonds & Davis, 2002). Thus universities should also consider approaches such as catalyst events that support GTAs in forming their own teaching communication relationships. In doing so, this finding indicates that the

events should provide low-risk opportunities for individual GTAs to talk with multiple other GTAs about teaching. Importantly, these communications should not be designed as group conversations (a common format for teaching discussions) but rather as a series of one-on-one conversations with rotating partners. This can serve both to encourage teaching-related conversations among existing friends and to provide opportunities for GTAs to form new relationships with others in which teaching communications play a role. Again, while these conversations themselves can be valuable, the overriding goal is to sow the seeds for the development of enduring teaching communication *relationships*.

Assertion 3: There may be a gendered dimension to whom GTAs choose to communicate with about their teaching. While neither central GTA explicitly mentioned gender as a factor influencing their teaching communication, several differences in Sandra and Alex's networks suggest that a gendered reading of the data is available. First, Sandra's network is balanced between male and female communication partners while, except for a limited number of interactions with Rebecca, Alex chose to discuss his teaching exclusively with other males. In addition, while both Sandra and Alex characterized Rebecca's status in the department in a similar way, Sandra chose to engage with Rebecca more frequently and deeply than Alex. Dismissing Rebecca's value for his career, Alex claimed to respect her opinion on teaching matters, but did not actively solicit it.

While Alex's behaviors can be characterized in a gendered way that might indicate broader issues of power dynamics in the social space of his department, he is just a single individual. His choice of conversation partners may be affected by a variety of other personal, cultural, socioeconomic, or religious influences not studied here. It may also be related to particularities of the discipline or his specialty area within the discipline. Future studies of teaching communications can follow up on these observations with a larger and more diverse sample of male participants to determine if gender is an important dimension influencing the choice of teaching communication partners. If males are found to seek or value help primarily only from other males, then special attention may need to be paid in the catalyst events to supporting male-female conversations that respect and engage both participants' experiences and expertise.

Addressing Research Question 2: What Types of Communication Do the GTAs Have About Teaching and In What Direction(s) Are They Oriented?

Assertion 4: Sharing Information may provide a foundation for other types of communication. Similar to Leitzman's (1981) findings with first-year faculty, in this study sharing information was the most common type of communication, occurring in every relationship where teaching communications were described. In some cases it was found alone; however, in many it was accompanied by one or more other communication types. This pattern suggests that sharing information may be a way to begin to build a teaching communication relationship. While sharing one's personal teaching resources, providing socio-emotional support and collaborating all involve a degree of trust in the other person, sharing information can be relatively risk-free. Thus it may be the type of communication the GTAs used to "test the waters." This is a proposition that needs to be tested in a study looking at the evolution of teaching communication relationships over time. If sharing information does indeed provide a foundation for other types of helping behaviors, then this should be the initial kind of communication encouraged in catalyst events. As GTAs find others with whom sharing information is fruitful and develop a base level of trust, other forms of teaching communications with these individuals can begin to emerge.

Assertion 5: Socio-Emotional Support in the form of confidence checks and venting plays an important role in GTA communications about teaching. While Leitzman (1981) found very little communication involving socio-emotional support in his work with faculty, this study found this type of communication to be quite common and important for GTAs. Two major kinds of socio-emotional support were found; the first was doing a confidence check on one's ideas. For example Sandra described using Jessica as a "sounding board" for ideas as she was developing her confidence as a teacher and Rebecca described playing a similar role in responding to questions Alex sent her over e-mail. More commonly, the socio-emotional communications reported were venting about problems or frustrations with teaching. For example Ronald and Alex would engage in post-class debriefs "to decompress," and Sandra would talk with Bart and Fred to get out frustrations she was having with teaching. Besides Sandra and Alex, several other participants described these venting conversations as an important release for the emotional energy they put into their teaching. Venting and confidence checks are quite similar to the cathartic and affirming kinds of communications observed by Staton-Spicer and Darling (1986) among pre-service K-12 teachers during their teaching internships. They report that these affective components seemed to be an important part of the socialization process for teachers in terms of relieving the frustrations and uncertainties associated with a new role.

This finding suggests that another element of the catalyst events that can help provide a foundation for relationship building is to provide a safe forum for bringing up the socio-emotional aspects of teaching. Thus, in addition to sharing information, the one-on-one conversations discussed earlier could specifically provide opportunities for asking confidence check kinds of questions. For example, a conversation prompt could ask GTAs to share one thing they are doing in their teaching they think could be useful for their partner and ask one question about something on which they would like input. Similarly, GTAs could be given a forum to talk productively about the challenging aspects of teaching by focusing a part of the conversation specifically on teaching experiences that they have found difficult or frustrating.

Assertion 6: Enduring helping relationships were, or evolved to be, reciprocal in nature. While this study did not focus on a longitudinal examination of teaching communication relationships, it can be seen in the diagrams that with the exception of Professor Marone, all of the relationships the central GTAs described as important to them can be characterized as reciprocal. In some cases the relationship was described as an exchange between equals from the start, while in others the relationship began asymmetrically with the direction of support becoming more balanced over time. The general importance of reciprocity in interpersonal relationships is well established (for example see Buunk & Schaufeli, 1999); in the context of GTAs learning to teach, it may be a key factor for building and maintaining enduring helping relationships. For the GTA catalyst events, one way to promote reciprocity is by giving all participants equal status rather than labeling specific GTAs as "mentors" or "mentees." In addition, the one-on-one conversations should be structured such that both GTAs (regardless of experience level) are given symmetrical roles and asked to respond to each other's comments and questions. Of course GTAs will know (or quickly find out) each other's experience levels, but removing an explicit hierarchical dimension from the conversation can provide more opportunities for reciprocity to occur.

Conclusions

Past research has shown that informal teaching communications are important and influential to GTAs in their process of learning to teach (Austin, 2002; Myers, 1998; Wulff et al., 2004). The purpose of this study was to push beyond this general finding and develop a detailed understanding of the teaching communications of two GTAs in order to inform efforts by universities to create environments that foster such

communication. The results suggest that a promising approach to support teaching communication networks among future faculty is for universities to organize "catalyst" events in which GTAs have a series of one-on-one, reciprocal conversations that focus on sharing information and engaging the socio-emotional aspects of teaching.

While this study added depth to our understanding of GTA teaching communications, the findings are based on a sample of only two GTAs from the same area of the humanities at a single university. Similar results may not be found for GTAs from other disciplines or universities, or for different GTAs in the particular department studied here. Future studies are needed to build on this initial foundation by probing larger groups of GTAs in multiple subject areas about the different dimensions of their teaching communication relationships. From a process perspective, this study has also demonstrated the usefulness of Social Network Analysis in generating insight into the nature of the teaching communication relationships in which GTAs engage. Similar studies could be conducted in different departments to help evaluate various collocations of GTAs and determine potentially beneficial arrangements; this is a new and seemingly fruitful area for research. Future work is also needed to focus in more depth on the specific content of GTA teaching communications and to examine potential gendered dimensions of teaching communication choices.

Finally, it is important to situate any discussion about support for GTA teaching communications in the larger academic culture within which they occur. In this study it was found that even a graduate student aiming for a career at a teaching institution did not see improving teaching as something that would help her achieve her professional goals. This dramatically underscores the need for systemic change in hiring and tenure policies and practices if universities are serious about improving teaching. Future (and current) faculty cannot be expected to place a high value on developing their teaching as a professional pursuit when career determining decisions do not (Kerr, 1995). Institutional criteria that focus primarily on research achievement and cultures that value research over teaching in terms of prestige (Fairweather, 1997; Gray, Diamond & Adam, 1996; Sutton & Bergerson, 2001) as well as the lack of robust measures used to evaluate teaching quality (Atwood, Taylor, & Hutchings, 2000; Colbeck, 1992) are all factors that contribute to this problem. The issues involved in addressing the situation are complex, and the (lack of) progress over the last twenty years indicates that any wide-scale institutional change will be a slow and lengthy process. Supporting the informal teaching communications of future faculty during the time period in which they are first shaping their

teaching practices can help build lasting habits that contribute to good practice and may in the long run help contribute to the larger cultural changes around teaching that are needed in universities.

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Acknowledgements

Students' Roles in Exposing Growing Pains: Using the "Dean's Concerns" to Refine Hybrid Instruction

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This study was instigated when 12 teacher education students expressed four concerns about their hybrid courses (part online, part face-to-face) to the college dean. In an effort gain the perspective of the broader population of students so instructors could improve this delivery method in the college, faculty-researchers sought input related to the "Dean's Concerns" from all students enrolled in hybrid courses. A broadly distributed questionnaire revealed that attitudes towards hybrid courses were positive, but that some problems existed related to student abilities to access course content, relevance, social communications, and their instructors' ability to use technology. Faculty-researchers were not able to determine the effect of any pedagogical changes imposed by technology on student perceptions. Researchers conclude that significant innovations in education can create growing pains for students, but these kinds of pains should be anticipated and accounted for, and that students have an important role in exposing growing pains and can support efforts to improve distance learning.

After much conversation regarding distance education literature and a university-wide push to increase online learning, our college of education agreed that a 50/50 hybrid model would be adopted, whereby one face-to-face meeting per week would be replaced with online learning. To provide a mechanism for systematically examining the instructional design and pedagogy used, a two-part, two-year research study was initiated (see Amrein-Beardsley, Foulger & Toth, 2007; Toth, Amrein-Beardsley, & Foulger, 2010) to help the college advance the delivery model to the point where hybrid instruction could take hold in the college (Rogers, 2003).

But, during the second phase of the research study the college's incoming dean held a meeting with a group of 12 invited students who were recommended by their instructors as some of the college's outstanding students. During this meeting a number of concerns were raised about the teacher preparation program, including the quality of their internships in local schools, course workload, and course content.

Most poignantly, students broached concerns about the hybrid courses being offered, specifically noting their perceptions that: (1) professors unnecessarily assigned students more "busy work" and "tedious tasks" (defined as active work of little value to course objectives) just to keep students occupied online within hybrid courses; (2) the online activities in which students were required to engage were confusing, disorganized, and complicated by the use of technology and other online resources which hindered student learning; (3) students missed coming to their face-to-face classes; and (4) professors incorporated online components for reasons other than improving their teaching (e.g., to miss class for personal/professional reasons, to support the college mandate). This list of complaints from students became referred to as "The

Dean's Concerns" and became the topic of much conversation in the college.

The Dean's Concerns divided faculty into two camps. Faculty leery of the hybrid delivery model used the information to confirm and defend their position that this delivery method compromised effective delivery of curricula and promotion of student learning. Others defended the hybrid model based on anecdotal evidence of their positive experiences. The authors of this study, two faculty members who had recently adopted hybrid methods in their certification courses and the instructional designer who provided professional development to faculty in the area of technology integration in the college, questioned whether anecdotal, informal feedback from the 12 students should be used to inform the college's thinking without more thorough, empirical investigation.

The faculty-researchers knew that the hybrid movement was in its early stages and was vulnerable. But they were quick to realize that using complaints from some students would not be a sound way to make programmatic decisions. They knew any large-scale undertaking would cause actions, and some reactions, but they wanted to more thoroughly understand the reality by "combining the aggregate knowledge of individual situations with an understanding of organization and institutional factors that influence the process of change. . . . " (Fullan, 2007, p. viii).

The faculty-researchers and others in the college agreed that the student perspective and experience should be taken into consideration when designing and implementing innovative learning experiences. In wanting the hybrid courses to meet the needs of the broad spectrum of students they decided to seek the students' points of view regarding courses that blend face-to-face instruction and technology mediation. With the focus to gain broad and in-depth understanding of

hybrid students' perspectives, plans were made to administer an online questionnaire that would solicit their perceptions. The goal of the study would be used to inform instructional practices related to hybrid courses in the college.

Orienting the Study

For the first time in history, college students in this 21st century have "spent their entire lives surrounded by and using computers, videogames, digital music players, video cams, cell phones, and all the other toys and tools of the digital age" (Prensky, 2001, p. 1). Administrators in higher education call them "digital natives" (Prensky, 2001), defined by their interest in seeking "value added" programs that are "challenging, fun, exciting and worthwhile" (Langan, 1997, Conclusion para. 1 With their clients in mind, some universities have come to realize that the needs of these students can be addressed by "online education (which is) at least as valuable as site-based classes, and in some ways, even more" (Conclusion para. 1). To address a clear need, higher education has moved to create institution-wide cultures with identities that remain competitive through innovative instruction (Adams & Seagren, 2004) by offering online opportunities to students. But some instructors not interested in teaching fully online courses have combined face-to-face processes with the thoughtful use of online technology to create a unique learning experience for students (Bonk & Graham, 2006). Hybrid, also referred to as blended learning, couples face-to-face with online instruction, and it has attracted interest among instructors and students for its ability to provide a learner-centered experience (Garrison & Kanuka, 2004). But, given the variety of ways to combine face-to-face and online learning, pedagogical perspectives, and programmatic variables, best practices for hybrid instructors are still being uncovered (Amrein-Beardsley, Foulger, & Toth, 2007; Hoffman, 2006).

Literature Review

Embracing the Student Perspective in the Adoption of Distance Teaching Techniques

Traditional higher education teaching practices were established in a prior era and have proven very difficult to change (e.g., Fullan, 2007; Sarrason, 1996; Windschitl, 2002). The history of educational reform predicts that systemic changes such as the move to hybrid instruction will be difficult at best. Although advancements in web-based tools have instigated a visionary and innovative response to exploring new ways of teaching, the diffusion of such tools into teaching and learning processes must be embraced by instructors as well as the institution (Hall & Hord, 2006) in order to allow large-scale initiatives such as these to take hold. Before satisfaction with the integration of technology can occur for hybrid courses that still rely on some face-to-face processes, instructors must first explore hybrid delivery and be satisfied with (1) online interactions, (2) technical support, (3) their learning experience in developing and teaching the course, and (4) the discipline area in which they teach (Shea, Pickett, & Li, 2005).

Even though technology provides opportunities for less directed forms of instruction, when faculty members move from face-to-face instruction and incorporate distance technologies into their courses, their reliance on directed instruction techniques persists. Many instructors replicate their existing instructional methods (Bonk & Dennen, 2003; Naidu, 2003), resulting in audio capture (e.g., LaRose, Gregg, & Eastin, 1998), video capture (e.g., Berner & Adams, 2004; Campbell & Swift, 2006), or reliance on computer conferencing or online discussions as the primary method of interaction (e.g., Cheng, Lehman, & Armstrong, 1991; Hollandsworth, 2007).

Others, however, perceive online learning as an opportunity to focus attention on pedagogical approaches rather than the use of technology tools to deliver content (Bennett & Green, 2001; Buckley, 2002; Reeves, Herrington, & Oliver, 2004; Twigg, 2001). Changes of this caliber demand a close look at what Clark (1994) claims to be the most significant effect of moving toward online learning—that of instructional methods—and less emphasis on instructional media. In fact, recent discourse on distance education shows that technology itself has taken a back seat to discussions about the pedagogical interventions that are made possible because of online tools (Dillenbourg, 2008). But even well-intended developers cannot always second-guess the actual perceptions of students, especially when constructivist e-learning environments are concerned (Martens, Bastianes, & Kirschner, 2007).

A reform process that involves changes in instructional design and pedagogy may be smoother if a wide variety of perspectives are sought to inform the movement (Hall & Hord, 2006). Institutions that thoughtfully examine more than the influence of the innovation on their profit or cost savings may be able to move more smoothly through the reform process. The move to hybrid instruction can and should be leveraged as a way to provide major shifts in instructional designnd pedagogy; students can provide a valuable first-hand perspective to that initiative—one that can be very candid and insightful if they are invited to "engage in debate, decision making, new knowledge creation and action for change" (Ashton & Newman, 2006, p. 825).

Unfortunately, the learning curve is steep for instructors who endeavor to craft complex environments where multi-faceted and technology-reliant learning connect face-to-face and online worlds as if they were one (Motteram & Forrester, 2005). Due to the complexities, students are quick to notice flaws (Lin, 2008). But, with first-hand experience, it is appropriate to call upon students to become involved in the reform process, as they can offer a great deal of insight and relevant recommendations for improvements (Bonk, Olson, Wisher, & Orvis, 2002). Yet soliciting and making use of students' perspectives can be overwhelming for instructors unless done in a methodical and objective way, as there are many factors that can influence students' opinions and perceptions.

Students' Perceptions of Hybrid Learning

Studies that compare traditional, hybrid, and online learning show that from the student perspective hybrid outranks other methods. For example, Biggs (2006) found that in comparison to distance and traditional students, hybrid students felt instructors met or exceeded their expectations, including their instructor's ability to respond more promptly, give more valuable feedback, and provide an easy method of contact. Students in the Biggs (2006) study also realized how supportive their instructor was in helping them to identify problem areas in their learning.

In another study by Swan et al. (2000), students and instructors cited increased communication as a benefit of hybrid courses where the face-to-face meetings reinforced their online interactions. Other hybrid students point out that they enjoy online activities, while still holding a preference for in-class activities, suggesting a partiality for methods that effectively combine both face-to-face and online techniques (Yurchisin, 2005).

Indeed, instructor adoption of best practices for blending online and face-to-face delivery proves to be a critical factor in student satisfaction. But confounding variables have made it difficult for instructors to make improvements in this teaching model. For example, regardless of age or gender, students who are experienced with the Internet report they are more satisfied with the quality of the web-based components of instruction if factors such as collaboration, real-world problems, evaluation of viewpoints, and the use of students' inference and critical thinking skills are used in ways that advance their learning (Holmes & Gardner, 2006; Koohang & Durante, 2003). Similarly, students grant preferential status to hybrid instruction if they feel a complex learning environment is created that considers how their individual needs can be supported by online technologies (Smart & Cappel, 2006).

Researchers evaluating hybrid instruction recognize the need for informing instructional design practices as well as the need for determining teaching practices that will advance the use of online technology tools for teaching and learning in higher education (e.g., Bennett & Green, 2001; Buckley, 2002; Reeves, Herrington, & Oliver, 2004; Twigg, 2001). This study is an attempt to further this research agenda.

Methods

Faculty-researchers used the concerns expressed by the 12 students during their meeting with the dean to create a Student Hybrid Questionnaire (see Appendix A). The questionnaire was developed to gather perceptions from all students enrolled in hybrid courses. Results would help faculty-researchers find out if the aforementioned concerns brought to the dean's attention by a handful of students could be generalized to the larger population of hybrid students in the college.

Student Hybrid Questionnaire

Part I of the questionnaire was used to collect general demographic information needed for disaggregated data analyses. Part II prompted student participants to respond to 16 questions about hybrid course delivery derived from primary concerns the 12 students expressed to the dean (Cronbach's α = 0.89). Part III asked student participants to respond to two open-ended questions and to provide any additional comments.

Sample

Researchers administered the online Student Hybrid Questionnaire to all students taking the 22 courses in which hybrid instructors replaced one or more face-to-face class sessions with online activities. This sample represented the college's hybrid state during the semester of study. For example, the Dean's concerns were drawn from students of instructors who were charged with ineffective instruction when they released students from face-to-face classes using hybrid days as free days, and from students of instructors who taught courses half online and half face-to-face. In other words, as the Dean's concerns ranged across the college's hybrid formulas, so did the selection of instructors and their students requested to participate in this study. The purpose was to cast as wide a net as possible to best capture the college's hybrid state.

Students of these instructors were asked to complete separate evaluations for each course, identifying their responses by course number and

instructor name. Students enrolled in more than one course that incorporated hybrid instruction were asked to complete separate evaluations for each course. To distribute the survey, hybrid instructors posted a link to the Student Hybrid Questionnaire in their online course area (Blackboard, version 7.0) and/or directly e-mailed the link to their students. Although problematic, this sampling technique caused the least amount of error or noise of the two sampling options: (1) faculty-researchers could have e-mailed all students in the college directly and allowed the students to self select into the study based on their personal interpretations of whether each of the courses in which they were enrolled should be considered hybrid, or (2) faculty-researchers could have asked instructors to determine if each course they taught should be considered hybrid or had hybrid components and solicit participation from their students. Arguably, the second option made traditional threats to reliability (inconsistent classification of which classes were hybrid) and internal validity (student self selection) less worrisome, though still ubiquitous. With these considerations in mind and under the advisement of the dean, faculty-researchers selected the second sampling strategy as the preferable of the two imperfect techniques.

Faculty-researchers sent an e-mail to hybrid instructors that included a statement about the purpose of the study, a link to the online Student Hybrid Questionnaire, and directions on how to solicit student participation. Also included was a note informing all instructors that the study was being conducted under the dean's directive and advisement. The informed consent process embedded in the first page of the survey allowed students to opt out without any repercussions.

Methods of Data Analysis

Descriptive statistics were calculated using student participant responses to the Part I demographic questions and the Part II Likert-type items (see Appendix B, Tables 1-4) in the Student Hybrid Questionnaire. Students' aggregate responses to the items included in Part II were rank ordered to discover general themes. For the paired items included in Part II of the survey instrument (see Student Hybrid Questionnaire in Appendix A, Items 1-2, 3-4, and 13-14), paired samples t-tests were conducted to test for significant differences between the opinions of students within items. For example, two items capturing whether student participants felt that the time they spent in class would have been better spent online and vice versa were tested against each other to cross validate whether student respondents actually preferred one delivery method over the other at a statistically significant level. Significant differences ($p < 0.05$) are noted.

One-way ANOVAs were conducted to explore whether students responded differently for each course they evaluated. These analyses helped faculty-researchers determine which instructors might need additional support and professional development to more effectively integrate technology into their courses, develop online components, or strategically implement hybrid instruction. One-way ANOVAs were also run to investigate whether students responded differently by (1) type of class (e.g., students in technology courses had significantly different opinions about items forthcoming), and (2) type of instructor (e.g., tenure-track faculty, lecturer, or faculty associate).

Next, student responses from the open-ended questions in Part III of the survey were organized into a spreadsheet. Student responses per question were read, major and minor themes were noted, and responses were re-read again and coded into the major and minor themes. These themes morphed and changed as student responses helped to better define each theme. Once each major and minor theme was developed, student responses were categorized into bins (Miles & Huberman, 1994). Once final bins became focused and mutually exclusive in nature, student responses were quantified and labeled.

Results

Overall, student participants evaluated 18 of the 22 instructors who incorporated a combination of face-to-face and at least one day of online learning during the semester. In total, 364 students (of 540 solicited) taught by 18 different instructors completed the Student Hybrid Questionnaire, yielding an overall student response rate = 67.4%.

Part I: Demographics

The courses that integrated online learning spanned four departments and five degree programs. Eighty-six percent of student respondents were enrolled in an undergraduate program, 12% were in a graduate program, and 2% were pursuing post baccalaureates. A plurality of student respondents (48%) was elementary education majors, followed by students majoring in special education (23%), secondary education (18%), graduate studies (6%), and early childhood education (5%). Seventy percent of student respondents were enrolled in their first semester in the professional teaching program, 7% were enrolled in their second semester, 10% were enrolled in their third semester, and the rest (13%) were enrolled in a graduate program. These statistics reflect the interim dean's initial charge to implement hybrid courses in the first semester of the undergraduate elementary education program, after which it was hoped that the lessons learned would help

hybrid instruction progressively take hold across semesters and throughout other college programs.

In the college, face-to-face classes traditionally meet 45 hours per semester. Student participants were asked approximately how many hours of face-to-face class time were replaced with online, out-of-class learning. Because student respondents calculated this figure individually and occasionally made inaccurate estimates and mathematical errors, faculty-researchers calculated the means for each instructor to better estimate how many face-to-face hours were replaced with online activities in each course. Extreme outliers (e.g., students who stated that they spent all 45 hours online) were eliminated from the dataset to obtain a higher level of reliability.

Students responded that an average of 15 hours, or one-third of traditional face-to-face seat time, was replaced with online, out-of-class learning activities. The total amount of in-class time replaced with online instruction ranged from a low of 3 hours (7% of the course) to a high of 22.5 hours (50% of the course). These statistics aligned with the expected figures and verified the representativeness of the respondent sample.

Part II: Hybrid Evaluation Items

To investigate Concern 1: Professors unnecessarily assigned students more "busy work" and "tedious tasks" just to keep students occupied online; students responded to a set of six questions intended to capture the perceived worth of in-class and online activities, relevancy of activities delivered in class and online, integration of online and in-class activities, and accountability for online work (see Student Hybrid Questionnaire in Appendix A, Items 1-6, Cronbach's α = 0.92; see also Table 1 in Appendix B for descriptive statistics).

Students responded that their effort on both in-class and online activities was worthwhile. Students also reported that in-class activities were not significantly more relevant than activities presented online. In fact, students in courses officially labeled as hybrid in the course catalog and in which instructors strategically replaced 50% of in-class time with online activities scored both environments comparably.

A small yet statistically significant number of student participants preferred face-to-face activities over those conducted online, particularly in technology-related courses. Students in the Educational Technology in K-12 Curriculum classes most significantly ($p < 0.05$) favored face-to-face delivery over online work. After exploring the contextual data, researchers noted that basic technology skills were a prerequisite for this required undergraduate course, and instructors of the hybrid version of the course designed activities with

this expectation in mind. Activities were demanding in terms of technology skills and frequently required students to apply basic technology skills to learning new online tools. Although the prerequisite technology skills were clearly communicated to hybrid students, those who were not adequately skilled became easily frustrated, especially when instructors promoted independent learning through the use of online tutorials or when they asked students to learn new tools through exploration (discussion forthcoming).

Students agreed that overall, instructors appropriately integrated online activities with in-class activities, contradicting the concern that professors added assignments of little relevance or substance in order to keep students busy during out-of-class time. Students also agreed that instructors held them accountable for completing online work. Whether instructors assigned "busy work" was negatively and moderately related ($r = -0.29$) to whether instructors held students accountable for their online learning and ($r = -0.35$) to whether students perceived activities to be relevant. In other words, if students perceived assignments as relevant and were held accountable for the work, they were less likely to perceive the assignments as "busy work." Inversely, if instructors assigned readings and did not hold students accountable or connect the readings to course activities, students were more likely to perceive that the activities were assigned simply to keep them occupied.

In response to Concern 2: The online activities in which students were required to engage were confusing, disorganized, and complicated by the use of technology and other online resources which hindered student learning; students responded to a set of five items (Items 7-11, Cronbach's α = 0.90; see also Table B2). Students agreed that it was easy to understand the requirements of the online components of their courses if their instructors organized online materials and processes to support their learning. Students agreed most that the online resources available through the university-sponsored course management system (Blackboard, version 7.0) and/or the college-sponsored accountability and management tool (TaskStream) supported their learning. They most disagreed that their instructors helped them learn how to use the necessary technology tools and complete online tasks, as mentioned earlier. Indeed, the technology course instructors received significantly lower ratings ($p < 0.05$) on this item.

To investigate Concern 3: Students missed coming to their face-to-face classes; student participants responded to two, inversely related items that asked about their experiences during face-to-face and online time (Items 12 and 13; see also Table B3). These items were included to capture whether students felt the time they spent in class would have better been spent online or vice versa.

Contrary to what the 12 students expressed to the dean, at a statistically significant level ($p < 0.05$) students agreed that the time they spent in class would have been better spent online more than they agreed that the time they spent online would have been better spent in class. The Pearson correlation coefficient between the two items was negative, but also closer to zero than what might have been expected ($r = -0.09$). If students indicated a preference for the online mode of course delivery, then theoretically they should have marked a decreased interest in the traditional, face-to-face mode of delivery, especially if responses were polarized in reference to student reactions to face-to-face and online delivery. Such symmetrical thinking should have yielded an almost perfect negative Pearson correlation coefficient, illustrating students wanted to learn in either a face-to-face or an online environment, not a combination of the two.

But students were unsure of which delivery method they preferred, although the online method won out overall. Because most of the student respondents indicated they liked the blended components of their courses, they might not have felt that either mode of delivery was superior and did not know how to respond when asked to choose between the two. Because hybrid delivery blends both face-to-face and online learning, and because students were equally satisfied with both presentation methods, respondents might not have wanted to rank one over the other, so they ranked them equally.

To investigate Concern 4: Professors incorporated online components for reasons other than improving their teaching (e.g., to miss class for personal/professional reasons, to support the college mandate), students were asked to indicate why they thought their instructors incorporated online activities. In response to the question "My instructor incorporated online time because (s)he believed online time would . . ." students marked their level of agreement with each of eight reasons provided (Items 14a-h, Cronbach's $\alpha = 0.85$; see also Table C4). Purposefully embedded were two reasons intended to capture concern 4 (Items 14e and 14h). Results, ranked in order of highest agreement, are included in Figure 1.

Students mostly strongly believed that instructors incorporated online activities to provide students with more flexibility and better support student learning, followed by the beliefs that online time was incorporated to provide the instructor with more flexibility and to support the instructor's quality of teaching. Students perceived that instructors who integrated online learning activities into their courses put students' needs above theirs.

However, students also agreed that they felt instructors were integrating hybrid components into their courses to meet college mandates. Arguably, the college does not want students to think that class sessions are being replaced with online activities for reasons other than to enhance student learning, but because the college is responding to university requests to maximize facilities use by increasing distance learning opportunities, diminishing such perceptions is difficult.

Students agreed least with the notion that their instructors were integrating hybrid components into their courses as a means to miss class. Analyses revealed that if anything, students believed instructors who used online days did not do so to "blow off" class, but rather used the flexible time to help them meet other commitments. The college was, however, aware of some faculty (predominantly lecturers and faculty associates, and a few tenure-line faculty) doing this. These instructors did not go through the hybrid professional development opportunities in which many other instructors participated, and they likely did use the term "hybrid days" for days they were absent and required students to complete some online projects.

Accordingly additional analyses revealed that students preferred ($p < 0.05$) the online components of courses taught by tenure-line faculty members more than those taught by lecturers or faculty associates; only one participated in the hybrid professional development training sessions, so this result made sense. But overall, students were pleased with the hybrid components of the courses in which they were enrolled and expressed their belief that online components of their courses enhanced their learning (Items 15 and 16; see also Table C5).

Part III: Open-ended responses – What students liked most

On the final section of the Student Hybrid Questionnaire, student participants responded to three open-ended questions. First, they listed the things they liked most about the online components of each course they evaluated. Although many benefits were listed, the three mentioned most often were flexibility and freedom, an increased depth of learning about course content and technology, and more and higher quality communications (see Figure 2).

Over half (53%) of student respondents wrote that they appreciated the flexibility and freedom afforded by the addition of online learning. Students liked being able to work at their own pace and focus on coursework while still meeting personal and/or professional responsibilities (such as internships). Since out-of-state

Figure 1

Student Ranking of the Eight Possible Reasons Why Instructors Incorporated Online Activities into their Courses

Strongly Agree = 4...Strongly Disagree = 1
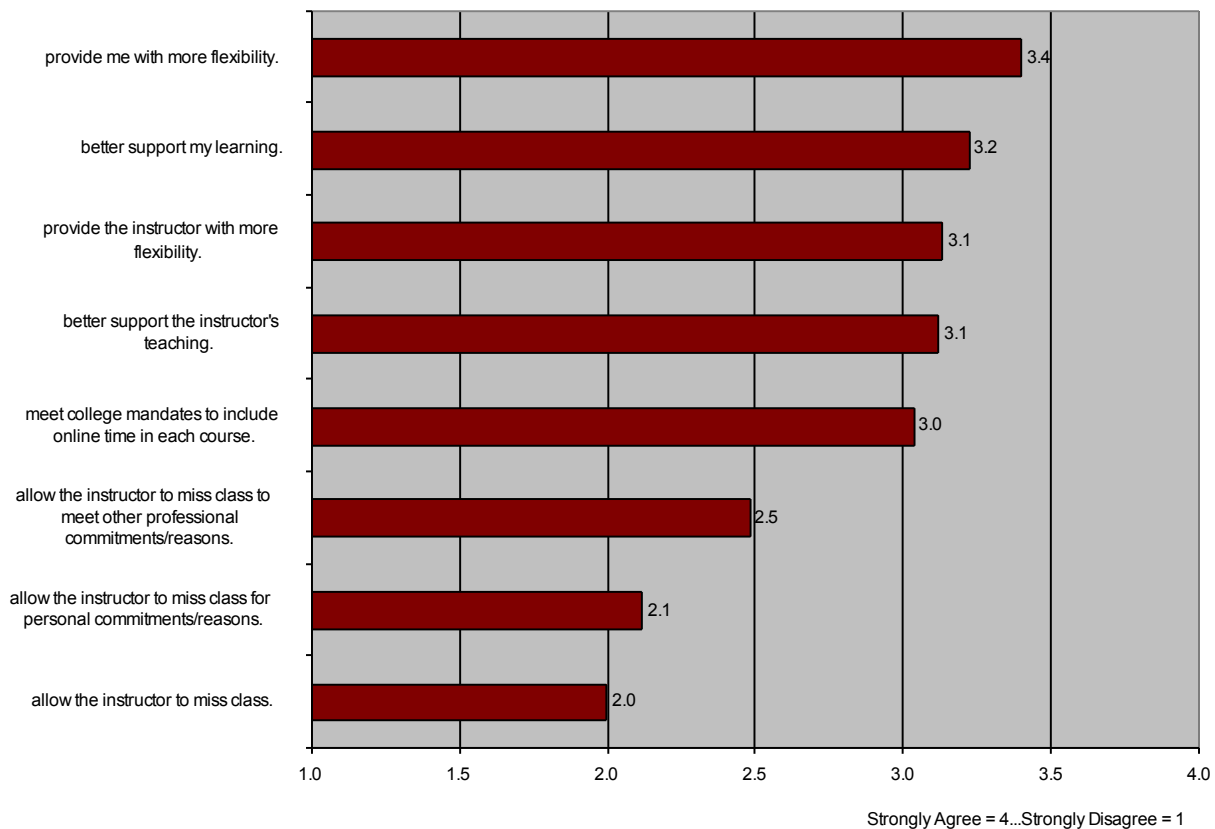
class activities that integrated online technology did not require them to come to school as often, students complete course assignments at home, on campus, or at another location. Flexibility of location was mentioned most often by students who had long commutes, as well as by students who had limited budgets and appreciated saving money on gas. Some students also perceived that this flexibility and freedom helped them become more responsible learners, learn how to manage their time more efficiently, and ultimately alleviate personal levels of stress.

Next, students (23.9%) expressed that they appreciated the increased levels of learning about course content and technology tools. They perceived that this "depth" of learning was facilitated by instructors who used online delivery methods effectively; provided students with additional, up-to-date, research-based resources; diversified course activities; provided individualized learning experiences; situated course content and activities within students' professional contexts; and held students accountable for their online learning. Students also expressed an appreciation for

technology tools and skills they thought would help them become innovative teachers in the future.

Last, students (15.5%) noted that they valued the increased levels of support, interactions, collaborations, and communications promoted by the online components of their courses. Some students noticed better connections to the instructor via e-mail; more access to the instructor for individualized assistance; and increased ability to communicate with other students about personal and professional matters, to collaborate on assignments and activities, and to peer review, edit, and revise each other's work.

Part III: Open-ended responses – What students liked least

Students also listed the things they liked least about the online components of each course they evaluated. The top four drawbacks to online learning mentioned most often were: instructor and technology issues, too much work, communication barriers, and personal concerns (see Figure 3).

Just over 41% of student respondents wrote that they had major issues with the ways in which their

Figure 2
The Top Attributes Student Participants Liked Most About Learning Online

Other, 6.7%

More Quality
Communications, 15.5%

Increased Depth of Learning
about Course Content and
Technology, 23.9%

Flexibility and Freedom,
53.9%
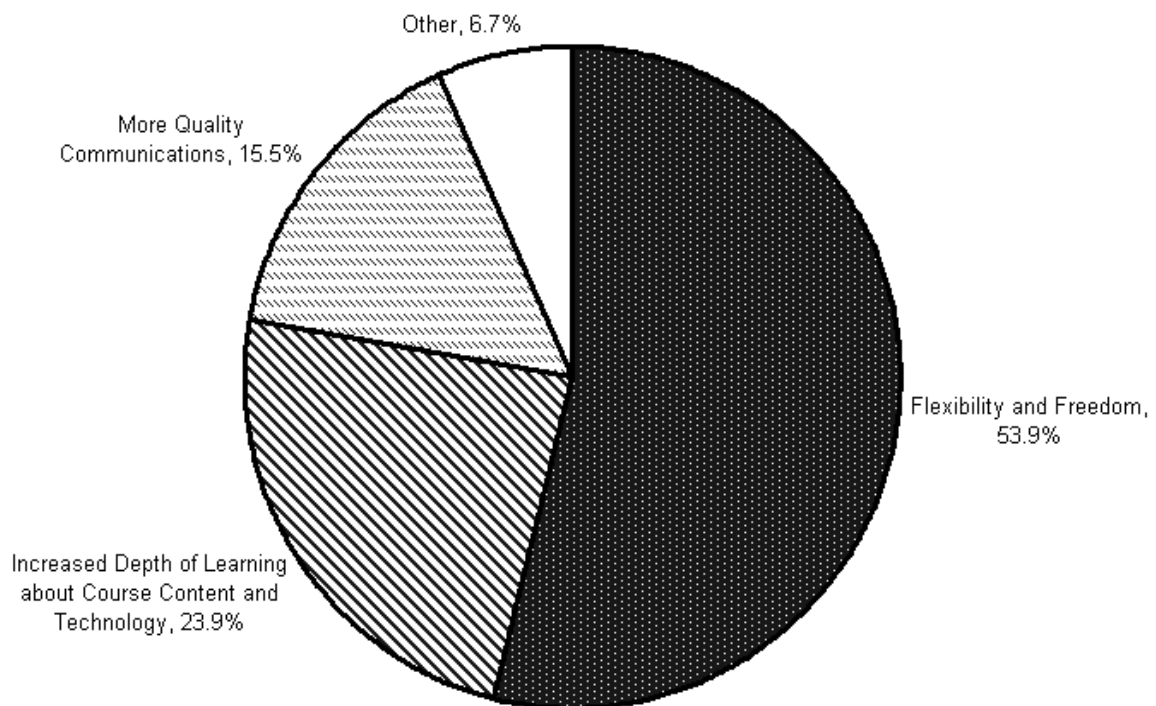
Figure 3
The Top Drawbacks Student Participants Liked least About Learning Online

Other, 14.1%

Personal Concerns, 8.6%

Communication Barriers,
12.5%

Too Much Work!, 23.4%

Instructor and Technology
Issues, 41.4%
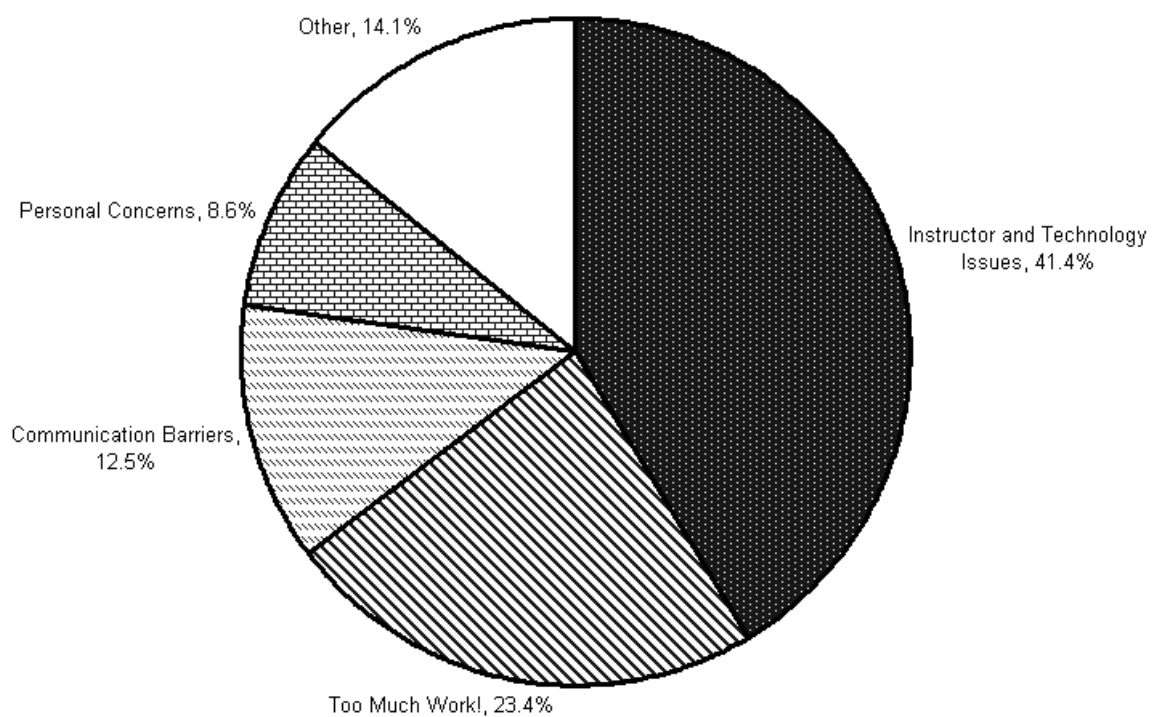
instructors delivered course content online. Of primary concern were technical issues that impeded student learning, followed by a general lack of organization. Instructors who displeased students most were unclear in their expectations for course activities and assignments; communicated unsuccessfully in class, by e-mail, and in other written documents; and employed awkward deadlines and grading procedures. Technology issues also caused confusion in terms of general logistics. Students expressed troubles finding materials in BlackBoard, TaskStream, and elsewhere online; completing assignments in Blackboard (e.g., quizzes and tests which disconnected midway through assessment completion); accessing the Internet (e.g., slow connection speeds, pop-ups); and dealing with other miscellaneous technology nuisances.

Second, student respondents (23.4%) noted that having online components in traditional, face-to-face classes, created "Too much work!" These students complained that online course components required more time, and some expressed that they would rather attend a traditional, face-to-face course that they felt required fewer expectations outside of class. Other students complained about extensive online readings, lengthy reflections, and other demanding assignments that were given to keep them busy and would have been more worthwhile had they been relevant to the course or had students been held accountable for assignment completion.

Third, student respondents (12.5%) wrote that online activities caused problems when they needed clarification or instructional support and instructors were non-responsive within "reasonable" time parameters. Some students also expressed that they missed communicating and socializing with their instructors and peers in a face-to-face environment.

Fourth, student respondents (8.6%) relayed that the most difficult challenge about participating in a non-traditional, hybrid course was making necessary personal adjustments. These students expressed that their academic success was complicated by issues of managing time, becoming self-directed learners, not procrastinating, and remembering when things were due.

The final section of the survey questionnaire solicited general comments. Almost half (49.1%) of the students expressed that overall they valued hybrid learning. These students stated that they planned to enroll in hybrid courses in the future and hoped the college would offer additional classes in this format. About one-third of these students (16.4%) also thanked their instructor(s) for enhancing their learning with online experiences and wished they could enroll in courses with the same instructors in the future. Another third (16.4%) of student respondents added that they appreciated the flexibility and time afforded by online course components.

About fifteen percent of the students had apprehensions with the online components of their hybrid courses and advised the college to proceed with caution. These students also expressed frustrations with paying full tuition for classes conducted partially online and paying steep parking fees when not required to come to campus as often. In general, they were disappointed that the hybrid components did not meet their academic expectations

Discussion

Contrary to the first rumblings from a handful of students who complained about their hybrid courses to the dean, the opinions solicited from the larger population of students enrolled in courses incorporating face-to-face and online learning revealed that in general, attitudes towards the hybrid initiative were positive. Without prompting (in the open-ended comment area on the questionnaire), almost half of the students (49.1%) communicated that the college should expand the number of hybrid courses offered. On the other hand, students also realized the addition of online technology was "causing consequences" for them (Rogers, 2003, p. 167). Faculty-researchers, faced with the difficult job of making sense of these data and determining its relevance in the college, noted three areas of particular interest.

Access to Content is Crucial

One concern of students worth discussing was students' feelings about their capabilities and limitations to access and learn about the course content. This concern was established through complaints of instructors (mostly faculty-associates and lecturers) who were ill-prepared to teach the content, or who lacked technology skills and experience with creating and managing online activities, or a combination of the two. In some cases the online experiences promoted and enhanced students' abilities to gain content knowledge; but at other times frustrations of various sorts cost students valuable learning time. On a positive note, students praised instructors who embedded technology to the point that working online enhanced their capabilities to learn.

Communications Matter

Students noticed a positive difference in individualized attention from their instructor, and more social and course-relevant communications with their peers; however, communication barriers appeared to be a problem in some cases. Instances of communication

problems that were of particular interest to faculty-researchers included: when students were ill-informed of the increased flexibility with resulting increase in responsibilities provided when working online, when students did not get proper technology training or take note of the technology skills they needed, when the relevance of activities created by instructors was not clear to students, and when unorganized online materials or directions prohibited them from completing the task to their satisfaction.

The Role of Technology

It was evident that the technology skills of instructors during online activities affected student satisfaction. What was not discerned was any pedagogical change imposed by adding a layer of technology to the teaching and learning process. The factors related to how technology changed or did not change the landscape of teaching when online activities were integrated may have influenced students' perceptions of hybrid. This finding may be explained through the recent development in the understanding of the complexities involved when integrating technology. According to Mishra and Koehler (2006), technology knowledge, content knowledge, and pedagogical knowledge (TPACK) are of equal importance when instructors learn to leverage the power of technology, and these must be equally represented in professional development endeavors (see Figure 4). In other words, when one area of the TPACK framework is transformed, it is likely that the other two areas will be affected.

Conclusion

In essence, faculty-researchers took on the position that "for distance education to play a key role in the future provision of educational opportunities, sustained attention needs to be given to those who are most involved in distance education—the learners" (White, 2005, p. 177). Our interest in listening to students ultimately helped us gain the ability to cause change and promote progress (Hall & Hord, 2006) in distance education in the college. This was made possible because the concerns of a few vocal students were not enough for us to draw conclusions and instigate action. Instead, we sought to gain a clear perspective of the hybrid movement by asking *all* students about their experience. The practice of gaining a comprehensive picture of teaching experiences, including those most directly affected, the students, was useful, and this practice may be the most relevant finding in this study.

Our experience with improving hybrid learning opportunities was systematic, yet non-linear, and it

Figure 4
Graphic Representation of Technical Pedagogical Content Knowledge (TPACK)
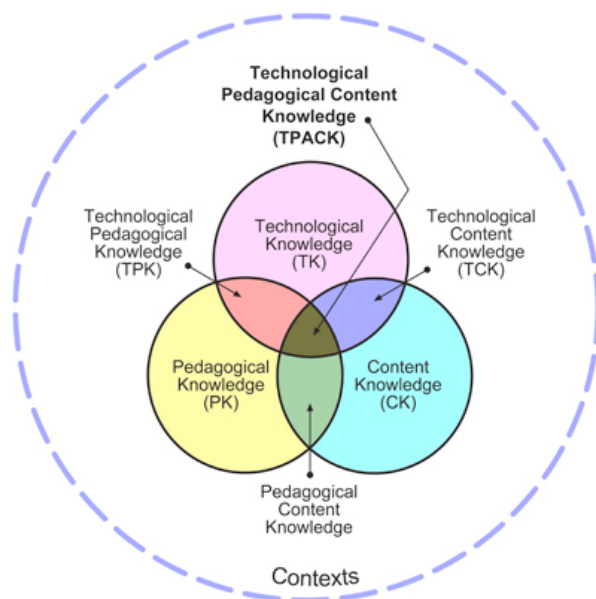
required communication exchanges and reflective responses as necessary components to expanding our capacity for hybrid delivery. We found that our efforts to change instructional practice was just as educational change experts claim (e.g., Kolb, 1984; Schön, 1983; Senge, 2006) that individuals within organizations must engage in processes that lead to collective learning. We learned that program administrators must adapt their practice to accommodate the need to learn while in action by gaining insight and then feeding that insight back into the system. This task is essential for program administrators undertaking any new teaching formula. We also learned that students *do* have an important role in exposing growing pains, and that students *can* support efforts to improve distance learning—we just need to include them in the process. In the process of change, the kind of growing pains experienced in this study should be anticipated and accounted for when possible, and embraced when they unexpectedly arise. As other institutions instigate change, they may experience a state of disequilibrium similar to this one. We must remember that disequilibrium can be harnessed and used in positive ways to contribute to the change effort (Wheatley, 1999), and that complaints can instigate organizational learning—but only if they are fully heard.

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Appendix A
Student Hybrid Questionnaire

PART I – DEMOGRAPHIC ITEMS

What is your degree?

| Undergraduate | Graduate | Post-Baccalaureate | Non-degree seeking |

What is your major?

| Early Childhood Education | Elementary Education | Graduate Studies | Secondary Education | Special Education |

In what semester are you currently enrolled?

| 1st | 2nd | 3rd | 4th | 5th or more |

For the individual course you are evaluating, what is the:

Course Prefix/Number (e.g., ED 314): _____

Course Title (e.g. History of Education): _____

LAST Name of Your Instructor (e.g., Smith): _____

For this class, approximately how many hours (there are 45 hours in a 3 credit class) were you released from face-to-face class time to participate in online, out-of-class learning?   _____

PART II – SURVEY ITEMS	Strongly Agree	Agree	Disagree	Strongly Disagree
1. In-class activities were worth my effort.				
2. Online activities were worth my effort.				
3. In-class activities were relevant to the course.				
4. Online activities were relevant to the course.				
5. Online activities were appropriately integrated with in-class activities.				
6. I feel I was appropriately held accountable for online work.				
7. My instructor helped me learn how to use the technology tools in this course.				
8. The resources available online, in BlackBoard, and/or TaskStream supported my learning.				
9. It was easy to understand the requirements of the online components of this course.				
10. My instructor's organization of online materials and processes supported my learning.				

11. My instructor's use of technology increased my ability to learn.				
12. The time I spent in class would have better been spent online.				
13. The time I spent online would have better been spent in class.				
14. My instructor incorporated online time because (s)he believed online time would . . .				
a. better support the instructor's teaching.				
b. better support my learning.				
c. provide the instructor with more flexibility.				
d. provide me with more flexibility.				
e. meet college mandates to include online time in each course.				
f. allow the instructor to miss class to meet other professional commitments/reasons.				
g. allow the instructor to miss class for personal commitments/reasons.				
h. allow the instructor to miss class.				
15. Overall, I enjoyed online components of this course.				
16. Overall, my online experiences in this course increased my ability to learn.				

PART III – OPEN-ENDED ITEMS

17. The THREE things I liked most about the online components of this course were:

18. The THREE things I liked least about the online components of this course were:

General Comments:

Appendix B
Statistical Analysis

Table 1
Descriptive statistics derived from the six items used to examine Concern 1: Professors unnecessarily assigned students more "busy work" and "tedious tasks" just to keep students occupied online

Strongly Agree = 4, Agree = 3, Disagree = 2, Strongly Disagree = 1	N	Mean	Standard Deviation
1. In-class activities were worth my effort.	364	3.29	.77
2. Online activities were worth my effort.		3.23	.80
3. In-class activities were relevant to the course.		3.47	.62
4. Online activities were relevant to the course.		3.40	.66
5. Online activities were appropriately integrated with in-class activities.		3.33	.74
6. I feel I was appropriately held accountable for online work.		3.41	.69

Table 2
Descriptive statistics derived from the five items used to examine Concern 2: The online activities in which students were required to engage were confusing, disorganized, and complicated by the use of technology and other online resources which hindered student learning

Strongly Agree = 4, Agree = 3, Disagree = 2, Strongly Disagree = 1	N	Mean	Standard Deviation
7. My instructor helped me learn how to use the technology tools in this course.	364	2.99	.89
8. The resources available online, in BlackBoard, and/or TaskStream supported my learning.		3.46	.66
9. It was easy to understand the requirements of the online components of this course.		3.26	.85
10. My instructor's organization of online materials and processes supported my learning.		3.29	.79
11. My instructor's use of technology increased my ability to learn.		3.20	.83

Table 3
Descriptive statistics derived from the two items used to examine Concern 3: Students simply missed coming to their face-to-face classes. Student participants were asked to reflect on their experiences during face-to-face and online time and respond to whether they felt the time they spent in class would have better been spent online and vice versa

Strongly Agree = 4, Agree = 3, Disagree = 2, Strongly Disagree = 1	N	Mean	Standard Deviation
12. The time I spent in class would have better been spent online.	364	2.35	.93
13. The time I spent online would have better been spent in class.		2.14	.94

* 0.21 difference significant at $p < 0.05$ level

Appendix C
Statistical Analysis

Table 4
Descriptive statistics derived from the two items used to examine Concern 4: Professors incorporated online components for reasons other than improving their teaching (e.g., to miss class for personal/professional reasons, to support the college mandate).

Strongly Agree = 4, Agree = 3, Disagree = 2, Strongly Disagree = 1	N	Mean	Standard Deviation
14a. better support the instructor's teaching.	364	3.12	.78
14b. better support my learning.		3.22	.73
14c. provide the instructor with more flexibility.		3.13	.78
14d. provide me with more flexibility.		3.40	.65
14e. meet college mandates to include online time in each course.		3.03	.79
14f. allow the instructor to miss class to meet other professional commitments/reasons.		2.48	.96
14g. allow the instructor to miss class for personal commitments/reasons.		2.12	.94
14h. allow the instructor to miss class.		1.99	.91

Table 5
Descriptive statistics derived from the two items used to examine online course components overall

Strongly Agree = 4, Agree = 3, Disagree = 2, Strongly Disagree = 1	N	Mean	Standard Deviation
15. Overall, I enjoyed online components of this course.	364	3.27	.84
16. Overall, my online experiences in this course increased my ability to learn.		3.19	.81

Facilitating Self-Regulated Learning: An Exploratory Case of Teaching a University Course on Japanese Society

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This paper explores practical strategies that can be used by university teachers to facilitate student-centered, self-regulated learning. My primary objective as a university teacher is to be directly involved in my students' efforts by connecting my teaching expertise with their self-regulated learning process. I have developed a strategic alignment model of teaching and learning, which is a practical instructional model that can be applied regardless of the academic discipline. Locating university teaching as a collaborative process of knowledge production between teachers and students, this paper presents an exploratory case wherein the teacher supports his students by providing them with a well-programmed teaching schedule. The students respond to their teacher's efforts by showing a high level of commitment. Ultimately, this paper claims that such collaboration contributes significantly to the creation of a dynamic research culture at a university.

Self-regulated learning is, in general, "a process in which an individual plans, organizes, self-instructs, self-monitors, and evaluates at various stages of the learning process" (van den Hurk, 2006, p. 156). This learning model emphasizes the notion that students are active, constructive participants in the learning process and that they learn by constructing their own meanings, goals, and strategies on the basis of the availability of internal and external information. I am a university teacher, and I have often reflected on the role of university teachers in the above context, namely, how can we play an effective part in the self-regulated learning process that our students will be undergoing? What attitudes can we expect from our students? Ultimately, how can we facilitate self-regulated learning activities? Self-regulated learning is indeed presumed to play an important role in the development of lifelong learning competencies, one of the key skills in surviving dynamic changes in contemporary society. Meanwhile, how can I develop my teaching expertise in a professional way?

My introductory course on Japanese society starts with understanding the concepts of *emic* and *etic*. *Emic* is the perspective of the local participant; in other words, it is a term that denotes a local participant's comprehension of a local situation. *Etic*, on the other hand, is the perspective of the outsider, often more analytical, abstract, and possibly, objective. In order to help my students understand contemporary society, I ask them to try and blend the *emic* and *etic* perspectives by contextualizing the "outsider" perspective within the subjective experiences of the "insider" point of view and vice versa. In addition, the goal of our research must be the acquisition of both *emic*- and *etic*-knowledge, since the reality we are trying to grasp is typically the result of the intersection of these two perspectives. This concept is the key analytical tool toward understanding society as a general concept; I would say that *emic* and *etic* represent the "threshold

concepts" (Meyer & Land, 2003, p. 1) of my course. Further, developing these perspectives is a key to avoiding ethnocentrism, the tendency to believe that some or all aspects of one's culture are superior to those of other cultural groups.

I started teaching this introductory course shortly after I assumed my current position at a university in Sweden. Over the last three years I have taught the course four times. The teaching, on all four occasions, involved talking to nearly 70 students, mostly freshmen (second-semester students of Japanese studies), packed into a large lecture room. Inevitably, and regrettably, my students became passive: their sole function was to listen to my lectures and take notes. Owing to the large class size, they did not have a chance to raise any questions, thoughts, or ideas—which in any case, I did not expect them to want to do. Either way, they had to remain seated for 90 minutes, which, for some, might have been an ordeal. What I was trying to do was to make sure that these young people were being put through the paces of an "active listenership" routine; I was expecting my students to understand my teaching and use it within their own learning mechanisms—a theory termed "self-regulated learning." I did not use the term in class as I thought it would not elicit a favorable response from my students. However, at the beginning of the course, I clearly stated the following: "I might not be the conventional teacher you imagined. I will try and facilitate your study of Japanese society in any way that I can. However, at the same time, I expect you to fulfil all your study-related responsibilities: completing the assigned reading, attending lectures, self-assessing your knowledge through multiple-choice questions available on the course website, and writing your final essays. All these should be undertaken as part of your independent intellectual exploration of Japan. Through my teaching, I hope to

contribute to your process of generating new knowledge.

This paper argues an exploratory case related to my approach to lecturing on Japanese society, which encourages self-regulated learning while carrying out the course work. It is important to change the popular perception of a university teacher as a person who just delivers lectures with the primary objective of transmitting knowledge. Instead, university teaching should lead to a collaborative process of knowledge production. The teaching process should promote active, self-regulated learning on the part of the students. In the light of this approach, not only was it important that I, as a university teacher, facilitate my students' learning but it was also vital that my students, on their part, remain committed to my challenge. This argument is in line with Ramsden's comment (1994, p. 21) that teaching means more than instructing and performing, that it extends over a wider realm by providing a context in which students engage productively with the subject matter. Even in a large class, strong efforts should be invested in creating a positive environment that is conducive to generating and supporting self-regulated learning through the medium of course lectures and assignments. Furthermore, as this paper is based upon the premise that university teaching aims to generate a collaborative knowledge production through the joint efforts of teachers and students, it also aspires to directly combine self-regulated learning with the development of teaching expertise by the introduction of a strategic alignment model of teaching and learning. Such development plays a significant part in shaping the careers of university teachers, junior faculty members in particular. In fact, the above model could serve as a practical instructional model and provide us with an applicable technique to enhance our teaching skills, regardless of the academic discipline.

In the following sections, I first present a strategic alignment model of teaching and learning with a brief but relevant literature review on the relationship between self-regulated learning and the teacher's role as a facilitator; second, I analyze an exploratory case of my teaching on Japanese society, linking the lecture contents with the required learning activities as well as student responses; third, I present my reflections on what a teacher's role in the context of self-regulated learning should be. Empirically, I rely on two qualitative sources: (1) student responses submitted during card activities conducted in my introductory course on Japanese society (384 cards were collected from students; I taught this course four times, but introduced the card activities in the last two times). These cards are the primary source for this paper. These card activities were originally introduced to enhance the self-regulated learning of students by helping me gauge

what they were learning. At the same time, I considered the cards as an important communication tool with the students; I clearly told them that the card activities were not a part of their individual assessment. I also explained to my students that the cards would possibly be used as an empirical source for this kind of paper in an effort to enhance the general quality of teaching (I did not receive any particular objections to this suggestion from my students.); and (2) three open-ended interviews with students taking the course after announcing the course grades. In the content below, no identifying information, such as personal names, has been provided so as to protect the identities of my students.

Strategic Alignment Model of Teaching and Learning

How should teachers work toward facilitating their students' self-regulated learning? The conceptual model, which I call the strategic alignment model of teaching and learning (as shown in Table (1), was geared by two classics: Ramsden (1992) and Zimmerman (1998). While teaching my introductory course on Japanese society, I tried to align two events in the classroom—the development of my teaching expertise with the three steps advocated by Ramsden and the three major phases of self-regulated learning proposed by Zimmerman.

First, the model referred by Ramsden (1992, p. 116) describes three generic steps that teachers should follow vis-à-vis higher education. They should progress from (1) transmitting knowledge (e.g., providing a clear explanation of complex subject matter), to (2) organizing student activities (e.g., introducing activities that encourage student independence, control, and active engagement), and finally to (3) making learning possible (e.g., setting clear goals and intellectual challenges). Such hierarchical or progressive development actually corresponds to the three different domains of teaching knowledge that were described in a later account by Kreber and Cranton (2000). More specifically, the first domain, instructional knowledge, comprehensively covers all the aspects of the instructional process: preparing syllabi, defining learning objectives, selecting reading materials, planning lecture schedules, preparing PowerPoint presentations, framing examination questions, and so on. The second domain, pedagogical knowledge, is concerned with ascertaining how students absorb the essence of discipline. This domain is concerned with student responses to different learning styles and approaches to studying, methods for facilitating critical

Table 1
Strategic Alignment Model of Teaching and Learning

	Teaching Expertise	Self-Regulated Learning
Stage I	Transmitting knowledge	Forethought
Stage II	Organizing student activities	Performance control
Stage III	Making learning possible	Self-reflection

thinking and self-management in learning, and approaches toward influencing students' motivation to learn. The third domain, curricular knowledge, is concerned with the reasons due to which the teaching curriculum matters. This domain comprises knowledge about the goals, purposes, and rationales of educational courses; it also justifies how a particular course fits into the larger curriculum and how teachers, through their teaching, contribute to fulfilling the university's social and cultural roles. This hierarchical approach should be, as Biggs and Moore (1993) suggest, a qualitative one wherein teachers work toward facilitating an understanding of the course material as well as an intrinsic change in the learner, instead of a quantitative approach that would merely involve the transmission of knowledge. In other words, learning should be student-centered, where it is the result of interaction between teachers and students, and the teacher's role is to "engage the student in effective learning activities" (Biggs & Moore, 1993, p. 25).

Second, these aspects of teaching could be tightly connected to the student-centered, self-regulated form of learning. Zimmerman (1998) views student learning as a process that occurs in three major phases, identifiable as (1) forethought, (2) performance and volitional control, and (3) self-reflection (see also Kreber, Castleden, Erfrani, & Wright, 2005). Zimmerman (1998) argues that the forethought phase "refers to influential processes and beliefs that precede efforts to learn and set the stage for such learning" (p.2). Learners are expected to build a hierarchy of specific learning goals and have high self-efficacy to perform at certain designated levels. The second phase "involves processes that occur during learning efforts and affect concentration and performance" (Zimmerman, 1998, p. 2). While managing to focus on their learning performance, learners are expected to use self-instructional techniques that involve guiding oneself during a learning task. This process also involves self-monitoring, a vital part of the self-regulatory process, because it keeps learners updated on their progress. The third phase "involves processes that occur after learning efforts and influence a learner's reactions to that experience" (p. 2). Self-evaluation is a key reflective process employed by self-regulated learners; such evaluation primarily attributes success or failure to the learning strategies employed rather than to the learners' own abilities.

By combining the two important theories of Ramsden (1992) and Zimmerman (1998), this strategic alignment model could prove to be a powerful tool for teachers seeking to achieve both teaching expertise and self-regulated learning, regardless of academic discipline. Meanwhile, the teaching expertise was strongly supplemented by a well-known instructional model- Gagne's Nine Events of Instruction (Gagne, 1965). It describes a dynamic interaction between instructional events and the internal mental process. The instructional events correlate with and address the conditions of learning. The linear nine-step process- gaining attention, describing the goal, stimulating recall of prior learning, presenting the material, providing learning guidance, eliciting performance, providing feedback, assigning performance, and enhancing retention and transfer- serves as the backbone of my teaching strategy. Furthermore, the model is also conceptually strengthened by the 5-step framework proposed by Duron, Limbach, and Waugh (2006, p. 161-163) to encourage students to develop critical thinking; a vital part of university education. In the strategic alignment model of teaching and learning, Stage I corresponds to Step 1: Determine learning objectives, which indicates that teachers should define the behavior they expect from their students during the course introduction phase itself. Stage II corresponds to Step 2: Teach through questioning, and also to Step 3: Practice before you assess. The latter stage facilitates self-regulated learning among students; however, it heavily depends on teaching skills: the formulation of appropriate questions, employment of questioning techniques, encouragement of interactive discussions, and selection of activities that promote active learning. The last stage, Stage III, matches Step 4: Review, refine, and improve, in addition to Step 5: Provide feedback and assessment of learning. This stage sets an environment for self-reflection, as teachers provide students with sufficient opportunities for feedback as well as self-assessment. The following section contains narrative accounts of my engagement in my students' self-regulated learning process while simultaneously attempting to develop my expertise as a university teacher.

An Exploratory Case

Course on Japanese Society

Each spring semester, I teach an introductory social studies course on Japanese society. Over the two months of its duration, the course is co-taught by three other researchers. The course targets second-semester students of Japanese studies. Every year for the past three years, nearly 70 students have chosen this course as their elective subject. With the interest that Japanese pop culture has generated in recent times, the number of students registering for this course has risen dramatically. This year (2010), for example, a total of ten sessions were held—five on society, three on politics (both domestic politics and international relations), and two on economics. Each lecture was 90 minutes long and comprised introductory information on the abovementioned aspects of Japan. The teachers were collectively responsible for deciding the course content and placing requisitions for reading material. I was in charge of teaching the five sessions on the subject of Japanese society. The goal of the course was presented as part of my syllabus; it was announced again at the beginning of my sessions. This is reproduced below.

> Course Aim: This is an introductory course on contemporary Japanese society for undergraduates who are broadly interested in Japan. We will primarily examine the social, political, and economic contexts of pertinent issues in present-day Japan. The goal of the course is to help students gain an understanding of life as it is actually lived in Japan and acquire the analytical ability to view it in a comparative context. In addition to assigned readings, information that includes articles from Japanese newspapers and magazines as well as short video clips will be presented in class.

I introduced the social and cultural contexts of five topics pertinent to contemporary Japan: (1) conceptual foundation, (2) family and gender, (3) education, (4) work and the youth, and (5) minorities. Three expected learning outcomes (ELOs) that conformed to the course aim were presented. It was my intention to gradually stretch the knowledge levels of the ELOs by using the hierarchy of verbs found in the SOLO Taxonomy (Biggs & Tang, 2007, p. 79).

Expected learning outcomes (ELOs). Students are expected to accomplish the following:

1. Identify key theorists and debates on the social science scholarship on Japan
2. Compare perspectives on Japan and Sweden
3. Theorize individual opinions on current affairs

Further, I arranged three teaching and learning activities (TLAs) that would enable the students to achieve the ELOs in an effective manner.

Teaching and learning activities (TLAs). The following were described at the teaching and learning activities:

1. Solving multiple-choice questions on the course website upon completion of the assigned reading
2. Participating in card activities aimed at organizing knowledge
3. Writing an analytical essay

Solving multiple-choice questions on the course website was the primary means available to the students for checking their knowledge levels vis-à-vis the first ELO- the identification of key theorists and debates among the scholars on Japanese studies. The second and third ELOs were tested through the card activities and the final essay. Subsequently, the assessment was made on the basis of two components: a written assignment (80%) and attendance (20%). The written assignment was comprehensive, covering the three focus areas discussed in the lectures—society, politics, and economy. However, the major emphasis was on the social aspect; I required each student to write a long essay focusing on Japanese society (1,000 words). The questions posed in both the politics and economy sections required short answers (300 words).

Facilitating Different Kinds of Knowledge Production

As mentioned earlier, my teaching strategy is based on the Strategic Alignment Model of Teaching and Learning (as shown in Table (1), which is primarily an integration of Ramsden's (1992) and Zimmerman's (1998) learning theories on higher education. The strategy is also theoretically supported by Duron et al. (2006) toward the promotion of critical thinking. Each phase of the Strategic Alignment Model of Teaching and Learning engages in a different type of teaching and learning activity and aims to produce different kinds of knowledge. In order to ascertain the progress of the students and their responses to my teaching, I would assign the students a card activity. For this purpose, I used small (A7-sized) white cards; the collected cards are primary empirical sources for this paper. The major intention of the card activity was to be directly involved in the students' efforts to enhance the ELOs by connecting

my teaching expertise with their self-regulated learning process. Given below is an account of the process I designed to facilitate the production of different kinds of knowledge.

Stage I. transmitting knowledge: forethought. In the first stage of the Strategic Alignment Model of Teaching and Learning, students are expected to map out the phases of their self-regulatory learning process, according to Zimmerman (1998, p. 2). They are also expected to set "specific hierarchical learning goals" (Kreber et al., 2005, p. 80), as this is considered to be the next logical step after the basic stage of "being intrinsically interested" (p. 80.) in Japanese society has been established. To respond to these demands, I explicitly present the following before commencing with the lectures: course aim, the ELOs, the TLAs, and the major groundwork that sets the stage for the students to begin their study of Japanese society. This exercise is a part of the primary task for a teacher: to ensure the transmission of knowledge, as Ramsden (1992, p. 16) points out. The clear specification of the learning objectives indeed helps students initiate critical learning; Duron et al. (2006, p. 161) describes this as an important part of Step 1 for enhancing critical thinking. In addition to announcing the course syllabus, I tell my students that I will never "describe" a phenomenon on Japan while teaching them; instead, I will try to "analyze" the phenomenon through the use of three analytical tools. The first of these tools is the use of the *etic/emic* perspectives, as introduced in the beginning of this paper; the second tool is the group model, which is primarily advocated by Japanese anthropologist Chie Nakane and which sees the collective orientation as a basic philosophy governing Japanese society (Nakane, 1970). The Japanese tend to accord greater importance to "frame" (a term of reference denoting a locality, institution, or particular relationship) than to "attribute" (a reference term for an individual's occupation), and that this modern tendency is a carryover from the traditional familial structure known as *ie*. The third tool is the cultural production theory, propounded by French sociologist Pierre Bourdieu, which deals with the process of passing various aspects of a culture from one person to another or from one society to another. According to Bourdieu (1973), the ability of obtaining or conferring particular kinds of cultural capital can be converted into social class, and social class confirmed by cultural capital also generates conditions through which particular kinds of cultural capital can be obtained or conferred. Touching upon the themes of gender and education- two subjects of my forthcoming lectures- I explain the Japanese process of socialization through the lens of cultural production. I expect my students to feel free to employ these tools in the course of their efforts to

understand Japanese society. In fact, in my lecture, I always tried to introduce and explain the tools I would use to understand a certain phenomenon in Japanese society; I would clarify that using these tools would be a conscious process in organizing knowledge. Furthermore, I expect them to realize that they can also apply the very same tools to gain a sharper understanding of their own societies, a process that would lead them to the next phase of the self-regulated learning process. At the end of the session, I try to ascertain their understanding through a card activity. I raise the following question in the first card activity: Write what you think was the most important point in today's lecture.

My practical objective in conducting the card activities is to monitor the development in my students' understanding of the subject matter. Below, I have included several of my students' responses:

- I think today's lecture as a whole was very important as it gives us an understanding on how to approach future research on the topic.
- *Emic* and *etic*; where they meet is where you find the true society.
- The most important thing was that you told us not to stereotype a culture, but to look at both sides—the *emic* and the *etic*—of it. I think that this is a great way to understand a culture.
- One should be careful not to let stereotypes guide your learning; the attempt, instead, should be to approach a different culture from a perspective that tries to accommodate both the *emic* and *etic* viewpoints, and to equip oneself with the proper intellectual tools for such an analysis.
- The most important thing, in order to analyze properly, is to avoid stereotypes. To understand a reality, you have to try to mix an *etic* and *emic* perspective. By doing that you can minimize ethnocentrism.
- I think that getting a picture of what this course is going to be about and what the goal should be was the most important item in today's lecture.

Most of the students showed an interest in the first tool, *emic/etic*; an admittedly simple yet significant strategy toward understanding a foreign society. In addition, in the interviews that I conducted after the course, all of the students appreciated the explanatory power of the first tool. One of the students, who later enrolled in another one of my courses, came to my office and stated

that the tool had stimulated her way of thinking. In the beginning of the second session, I identified the major points in the first lecture on the basis of what was written on the cards; I repeated several key theories of Japanese studies as well as the three analytical tools. In particular, I also encouraged the students to make active use of the three tools when reading the assigned material for the upcoming lectures.

Stage II. Organizing student activities-performance control. In the second stage of the Strategic Alignment Model of Teaching and Learning, students are expected to develop "performance and volitional control" (Zimmerman, 1998, p. 2) in their self-regulated learning activity. Meanwhile, my agenda as a teacher is to directly cater to the second ELO- developing a comparative analysis of Japan and Sweden. In an effort to connect the students' needs and my teaching goals, I programmed a well-organized card activity, hinted by Ramsden (1992, p. 16), for organizing the students' activity: I brought into my class a Japanese lunch box, an *obentō*. I proceeded to help students develop a comparative analysis by "managing to focus on their performance" (Kreber et al., 2005, p. 80), which is a key component in self-regulated learning. Toward this purpose, students were expected to spend time on reading an article titled "Japanese mothers and *obentōs*: The lunch-box as ideological state apparatus" by Anne Allison (Allison, 1991) before coming to class.

Here are the key points from my lecture notes: in Japan, the aesthetic value or visual appeal of food is deemed as important as its taste. This is true even for meals prepared for Japanese preschoolers, most of whom take an elaborate- and much-fussed-over- mom-made meal called *obentō* to school every day. The tradition has become part of the social education of both parents and children, and it acts as a connection between the home and the school for children during their first, potentially stressful experience of being away from home. A typical mother spends almost an hour crafting each lunch into a healthful, captivating blend of, say, cartoon characters; anything that will make the food appealing to her child. The teacher judges whether a lunch box is prepared according to the established *obentō* rules (e.g., the food should be, as far as possible, handmade and must be appetizing and aesthetically appealing to the child). In the course of my lecture, I mentioned a particular comment of an *obentō*-maker: "I have memories of my mother making *obentō* when I was little. I fortunately have a child that eats anything and everything. Hopefully, when she grows up, she'll make *obentō* with the same kind of love for her children too" (a mother, an informant). To help students understand the subject, I showed them a short video clip, which I had found on YouTube, on what *obentō* looks like and how it is made.

Obentō is a distinctive feature of Japanese culture and thus alien to the Swedish people. Referring to the combination of the cultural production theory and the *etic/emic* perspective, I raised two questions through the card activity. At this stage, my key position corresponds with Step 2 of Duron et al.'s argument, teaching through questioning, to stimulate students' critical thinking process (Duron et al., 2006, p. 162).

The second card activity was as follows: What does *making* the box lunches teach the mothers who *produce* them? What does *eating* the box lunches teach the preschoolers who *consume* them? Some of the students' observations were as follows:

- The *obentō* phenomenon is shocking to me. To make food look so decorative is something that people in bakeries do, not mothers. In Sweden we would even go so far as to term this as "playing with your food," which is not considered a good thing. But I think that this is way over the edge. It's cool and I'm very impressed with their fantastic creations. However, I would never do it myself.

- I guess it is a competitive thing, like whoever makes the best *obentō* is the termed the best housewife; we have no such practice in Sweden.

- From the *etic* point of view, we have a similar trend in Sweden regarding mothers of infants, where the assumption is that a mother who doesn't cook her own food but buys pre-made food from a store is a bad mother. And the food she makes is required to be as complex and traditionally Swedish as possible. I think that making an *obentō* could possibly be a way of expressing creativity and could teach a mother to have a good relationship with her child.

- It teaches the mothers to be creative. Even if it takes a long time, they may be enjoying themselves more while making this sort of *obentō* than they would have had they been making regular sandwiches. Children also enjoy seeing food shaped in nice patterns and cartoons. They may learn to eat this sort of food faster. In addition, they feel their mothers' love in the food. The mothers who make these lunch boxes have probably grown up eating from lunch boxes such as these. Their children will probably do the same.

This exercise was geared toward encouraging comparative analysis. It was a direct manifestation of the second ELO (i.e., presenting comparative perspectives on Japan and Sweden with respect to the

Japanese *obentō* as a medium), an objectified allegory of cultural capital (to use Bourdieu's terminology). As most of the students have yet to visit Japan and gain a deeper understanding of Japanese culture, one observes that their comments are based on their own value judgments, which stem from their daily experiences as Swedes. However, I was satisfied, since some comments, like the last comment mentioned above, were clearly successfully locating the analysis in the cultural production theory. Meanwhile, I also expected students to apply the same exercise during the performance control phases of their self-regulated learning and hoped that they would deepen their understanding of the subject by doing so. I continued with setting similar activities in the third session (on education) as well as the fourth (on work), combining card activities with required readings and visual presentations. Further, this kind of comparative analysis between Japan and Sweden was tested in the final essay.

Stage III. Making learning possible: self-reflection. The third stage of the Strategic Alignment Model of Teaching and Learning proceeds to "self-reflection" (Zimmerman, 1998, p. 2), a stage that is representative of an attempt on the teacher's part to facilitate the further learning of her or his students. One of the significant aspects of self-reflection is "seeking self-evaluation" (Kreber et al., 2005, p. 80). As mentioned previously, my role as a teacher is to create a setting wherein my students can continue their learning of the various facets of Japanese society that interest them; such practice has been encouraged by Ramsden (1992, p. 16). In order to support their learning, I need to ascertain the issues that have stirred the intellectual curiosity of my students. Here is my final card activity: What area(s) would you want to study more, if this course was expanded?

Given below are some of the students' responses:

- I would like to study more about how foreigners and minorities are integrated in the society.
- I would like to study more about the job market and business life in Japan, especially for foreigners.
- I want to learn more about the youth and the subcultures; in particular, about their lives, what they have to live with, the expectations of their families, etc. Can they become what they want, say rock stars or models, for example? I'd like to know more about their family lives, social structure, social codes, everyday life, and so on.

A student also expressed an interest in pop culture by saying, "It would be interesting to know more about the youth subculture, the so-called "kawaii" phenomenon, and what the general views

on this are among the adult population." Meanwhile, another student, stepping outside the majority mind-set of his classmates, was evidently trying to develop his own interests as a political science major:

I want to know more about (1) the steps that the Japanese government will take in response to the demographic changes, (2) the identity of the Japanese people as members of the state- their national identity, their identity as owners of land, cultural identity, and so on.

I observed that my introductory lectures were able to trigger the intellectual curiosity and learning motivation of the students as far as their study on Japanese society was concerned. Some of them, in fact, mentioned several topics that were not covered (in sufficient detail) in the course curriculum, but which they apparently felt were relevant to their study subject.

To further advance my students' attempts at self-regulated learning on Japanese society, I compiled a list of books on Japanese society and put it up on my website. The list covered more than 100 books pertaining to many subfields. Further, some of the students chose to take my other course, Japan in Asia. The course was designed to offer an understanding of contemporary Japan from a broader, namely Asian and global, perspective. The series of lectures that this course comprises focus on a variety of topics, including Japanese pop culture, transnational peace movements, development, security, trade, and so on. Meanwhile, the ideas of the students that touched upon additional topics in the final card activity were significant because they formed the basis of the changes to be implemented in the following year's course content.

Concluding Reflection

My experiment, testing the relevance of the Strategic Alignment Model of Teaching and Learning, can, at this juncture, be deemed successful. The card activity at each stage, which aimed to generate different kinds of knowledge within the well-programmed teaching schedule, proved to be a very effective tool for enhancing self-regulated learning. Some students pointed out in the course evaluation held by the department that the card activity made them reflect on the lectures, a key purpose in the self-regulated learning. These activities also enabled me to ascertain my students' progress and comprehension of the course material before I proceeded to the next stage of the curriculum. Meanwhile, in addition to monitoring the students' progress through the curriculum, this experiment provided me with a concrete opportunity to develop my expertise as a teacher. The experience

can be summed up as a collaborative problem-based learning activity jointly undertaken by me and my students. Locating university teaching as a collaborative process of knowledge production, I developed this exploratory case wherein the teacher supported his students by providing them with a well-programmed teaching schedule. On their part, the students matched their teacher's efforts by exhibiting a high level of commitment. The teacher responded by showing a higher level of commitment to the students. It should be noted that all the students participated in the activities and there were no blank cards. They all wrote, at the very least, a few sentences. Furthermore, this case experiment confirmed the presence of a generation characterized by independent constructive learning, which include "the way that students acquire data and relate it to existing knowledge, the ways in which students process the knowledge to gain understanding, and finally how the students demonstrate the quality of what they have learned" (Cuthbert, 2005, p. 235-236); this is a crucial purpose of self-regulated learning. Two of the three students with whom I conducted open-ended interviews claimed that they considered the attainment of such constructive learning as a major outcome of participating in my classes, and they mentioned that they could not expect to achieve this objective through the conventional lecture-based format.

Fully mobilizing the *emic*/*etic* perspective, I strongly encouraged my Swedish students to understand a foreign culture, namely, Japanese society. During the course of my lecture series, I made it a point to reiterate the phrase "*emic*/*etic*" as often as I could. It allowed the students to formulate a comparative understanding of Japanese studies and theorize their own unique perspectives on the basis of their personal experiences of society and thoughts. I based the above on the fact that the development of a comparative perspective was advocated as one of the learning outcomes of my course. Meanwhile, for me, a native Japanese individual, this teaching experience was a precious source of gaining knowledge on Japan from the *etic* perspective, and it significantly contributed to my own understanding of Japanese society. As an anthropologist, furthermore, I had an underlying interest in observing the manner in which the students (mostly Swedes) dealt with foreign cultures by mobilizing the *emic/etic* perspective. My students' perspectives indeed gave me a fresh insight into my own society, forcing me to see familiar aspects in a new light. I experienced this several times over the course of my lecture series, and I tried to share these experiences with my students at the beginning of each class, when I gave feedback on the card activities. This outcome should

definitely be located as a significant part of the collaborative knowledge produced by me and my students in the classroom. I myself actually learned a lot from my students.

Nowadays, higher education is undergoing a dramatic shift, as undergraduate education increasingly takes on the form of a mass system and focuses more on the development of lifelong learning competencies, including generic employment-related skills, rather than on preparing research elites. By developing problem-based, self-regulated learning, university teachers can help their students cultivate lifelong learning skills, which in turn will increase their employability. In fact, as Yorke and Knight (2006, p. 2) point out, employability and good learning can be viewed as closely aligned, as against oppositional, constructs. Furthermore, given the increasing effectiveness of the knowledge produced in collaboration between academic staff and students in facilitating self-regulated learning, this could be a key to changing the role of university education in contemporary life. Such collaboration indeed generates a dynamic research culture at a university. It enhances the conventional role of the university as a place of knowledge transfer by encouraging dialogue between students and teachers.

Knowledge production in the course of higher education ought to be student-centric. Ramsden (2001, p. 4) argues this point by saying that "the main hope for realizing a genuinely student-centred (*sic*) undergraduate education lies in re-engineering the teaching-research nexus." In fact, Chang (2005) reports that several (more advanced) trials are being carried out in an effort to create a "directed community" model of teaching-research integration. In this model, undergraduate university students are expected to play a more active role in the education process. Currently, although they admittedly take ownership of their research projects, they are nevertheless strongly directed by the teacher. While the students undertake individual projects and work independently, they are formed into a research community.

The integration of information technology into the course activities would be a key to achieving such a dynamic research community. One possible way is to utilize the course website to a greater extent in order to achieve enhanced communication and facilitate self-regulated learning on a regular basis. Whereas this year in my course, the co-generative knowledge production was organized such that it took place between me (as a teacher) and each individual student, it is possible to extend this activity by setting up an interactive forum on the course website, where a group of students could discuss the course material and learn from each other. Students could facilitate their own self-regulated learning, thereby enhancing the value of student-centered learning in higher education. An active involvement of the students in the

education process could contribute crucially to constructing a positive learning climate in higher education.

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Faculty Attitudes and Knowledge Toward Promoting Self-Determination and Self-Directed Learning for College Students With and Without Disabilities

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Successful college students are those who know who they are, what they want, and how to achieve their goals. In short, they are self-determined. Even though promoting self-determination has traditionally focused on K-12 students with disabilities, little is known about how higher education faculty members regard these skills. The purpose of this study was to survey faculty attitudes, knowledge, and teaching skills of self-directed learning for college students, both with and without disabilities. Results revealed significant mean differences ($N = 218$) across gender, departments, and academic ranks. Findings could serve as the foundation for future research on how institutional resources could be utilized to facilitate faculty in enhancing pedagogical best practices in promoting self-determination for all students before they graduate. Suggestions and implications for practice are also addressed.

Successful college students are those who know who they are, what they want, what are their strengths and limitations, and how to achieve their goals (Butler, Elaschuk, & Poole, 2000; Gerber, 2002; Reis, McGuire, & Neu, 2000; Ruban, McCoach, McGuire, & Reis, 2003). They are self-determined. Students who are self-determined are more likely to be gainfully employed than those who are not as self-determined (Hitchings & Retish, 2000; Skinner, 2004; Wehman, 2006; Wehman & Yasuda, 2005). These students are more likely to earn a higher income, live more independently, and enjoy a better quality of life (Briel & Getzel, 2005; Madaus, Ruban, Foley, & McGuire, 2003; Stodden, Conway, & Chang, 2003; Wilson, Getzel, & Brown, 2000; Wehmeyer & Schwartz, 1997).

Promoting the self-determination of students with disabilities in K-12 settings has received national attention for more than two decades (Field, Hoffman, & Spezia, 1998; Field, Martin, Miller, Ward, & Wehmeyer, 1998; Wehmeyer, Agran, & Huges, 1998; Wehmeyer, Palmer, Agran, Mithaug, & Martin, 2000). However, this movement has not yet translated into higher education. Little is known about faculty knowledge, attitudes, or skills in promoting self-determination in a college setting. The purpose of this study was to add to this knowledge and to investigate the practices of faculty members toward students, both with and without disabilities, with regard to self-determination.

Various conceptualizations of the term self-determination have been coined over the past years and in different contexts. From the educational perspective, Wehmeyer, Kelchner, and Richards (1996) characterize a self-determined person as one who acts autonomously, who regulates his/her own behaviors, who responds to event(s) in a psychologically empowered manner, and who acts in a self-realizing way. From the adult learning perspective, components of self-determination have been embedded in the concepts of self-regulation such as self-directed learning and a student-centered approach of instruction (Dewey, 1916; Tough, 1978). Regardless of how the concept has been posited, the core principle behind these theories is to prepare students to take charge of their own learning, to take responsibility for their own behavior, and to take control of their own lives regardless of their disabilities.

Students with disabilities who have been accepted into higher education often lack the skills to cope with the demands of higher education (Hong, Ivy, Humberto, & Ehrensberger, 2007). At the same time, these students also struggle to meet the challenges of managing their own education, planning their independent living, and advocating for themselves, often for the first time (Brinkerhoff, McGuire, & Shaw, 2002). Unlike the K-12 setting, higher education is not mandated by the Individuals with Disabilities Education Act (IDEA, 1997) to be responsible for the education and transition of students with disabilities as prescribed in the Individualized Education Program (IEP). The transition into higher education means students with disabilities now have to be more aware of their own disability, be willing to disclose their disability to service providers, be able to regulate their own behaviors, and be their own advocate (Aune, 1991; Bursuck & Rose, 1992; Durlak, 1992; Kakela & Witte, 2000; Ruban et al., 2003; Skinner, 2004; Vogel & Adelman, 2000).

Adjusting to the college environment from secondary schools can be demanding for many youths, and even more so for students with disabilities (Brinkerhoff, McGuire, & Shaw, 2002). Paradoxically, many of these students may choose not to disclose their disabilities because they are "anxious for a new beginning" and do not wish to be associated with a label or be seen as needing accommodations (Getzel & Thoma, 2008, p. 77). Many also do not have sufficient knowledge about their disabilities to properly

communicate their needs (Getzel & McManus, 2005). In addition, many students who are not acquainted with the disability services on college campuses are less likely to access auxiliary aids to increase their chances of success (Wagner, Newman, Cameto, Garza, & Levine, 2005). West, Kregel, Getzel, Zhu, Ispen, and Martin (1993) observed that students feel if they were to disclose their disabilities, faculty members and peers might have a lower expectation of them or deem them as less capable of attending higher education. Alternatively, some students believe that if they have been accepted into college, then their learning disabilities must have been "cured" so they no longer need accommodations (Wagner et al., 2005). Students who feel that they have somehow figured out how to compensate for their difficulties in learning also assume they could now tackle college without assistance. Consequently, instead of utilizing the disability services available to them, students with disabilities struggle through classes and perhaps even risk dropping out of college.

Recent trends suggest there are increasing numbers of students with disabilities being accepted into colleges and universities, but the number of these students who graduate has not been paralleled (Eckes & Ochoa, 2005). According to the National Center for the Study of Postsecondary Educational Supports (2000), only 28% of students with disabilities completed their degrees compared to 54% of non-disabled peers. Many facets of college life may have contributed to this outcome, including financial, social, psychological, and physical reasons (Seidman, 2005, 2007; Tinto, 1994). The one major barrier that has repeatedly drawn attention in the disability literature is that students commonly lack self-determination (Horn, Berktold, & Bobbit, 1999; Hughes & Smith, 1990; Jameson, 2007; Ruban et al., 2003).

The National Association for Higher Education and Disability has stated that the best approach in helping students with disabilities persist in college is to ensure that they develop adequate skills of self-determination (Palmer & Roessler, 2000). Ironically, to date, little is known about the extent to which self-determination is being promoted in higher education (Getzel & Thoma, 2008; Jameson, 2007). Given the large number of students with disabilities being admitted into higher education and the current interest in student retention, this study is timely in understanding how and to what extent faculty members seek to promote self-determination and self-directed learning in higher education for students, with and without disabilities. Self-directed learning is a term used to describe the self-regulatory behaviors of one taking responsibility for his or her own learning (Bolhuis, 1996; Garrison, 1997). The term includes behaviors such as self-instruction, self-management, self-monitoring, self-evaluation, and self-reinforcement (Mithaug, 1993).

The Role of the Faculty

The notion of students directing their own learning lends credence to a major goal of higher education: that is preparing young adults for employment. In particular, the principle behind self-directed learning satisfies those faculty members who rail against the notion of treating students as consumers. Most faculty members expect students who come to college to be independent, responsible, and self-reliant young adults or at least be able to demonstrate the abilities toward refining these skills (National Survey of Student Engagement, 2009; Greene, 2009; Longley, 2007; Shelley, 2007). Unfortunately, many students, with and without disabilities, often have not acquired adequate skills, attitudes, and abilities of self-determination by the time they leave public schools to be functional in society or to meet the demands of the job market. Compared to secondary schools, higher education institutions are generally more demanding because instruction is often given at a faster pace, assignments require more independent effort, and study habits involve more self-monitoring and self-management (Rosenbaum, 2004). In addition, one-on-one interaction with faculty is significantly less frequent than in K-12 schools (Frieden, 2003). Arguably, students with or without disabilities, who lack the core skills in problem solving, goal setting, and self-regulatory behaviors will increasingly find college to be a more frustrating experience rather than a rewarding pursuit.

The 2006 National Longitudinal Transition Study (NLTS) revealed that between 1987 and 2003, students with disabilities being enrolled in postsecondary education rose from 17% to 32% (Wagner, Newman, Cameto, Levine, & Garza, 2006). This growth means faculty members will face a greater need to enhance their knowledge and skills in working with non-traditional learners (Murray, Wren, & Keys, 2008). Walker (1980) observed the central role faculty members play in helping students with disabilities become more self-determined almost three decades ago when he argued, "Support services can make it possible for the handicapped student to enter the postsecondary setting physically, but only faculty members can provide access to knowledge and ways of knowing" (p. 54).

Faculty members are the primary conduits through which students access knowledge (Scott & Gregg, 2000). Successful implementation of any retention program depends on understanding the baseline perceptions of faculty members and identifying potential biases which may become barriers to student retention. It is therefore worthwhile to pursue this line of questioning in order to capture the essence of faculty beliefs about self-determination and its benefits for students, both with and without disabilities. Findings

will add to the existing literature on self-determination for students with disabilities transitioning into higher education. We hope the insights from this study could be used to curtail at-risk students from dropping out and facilitate administration in implementing programs to improve institutional retention and outcomes after graduation.

Method

This study was a replication of the national survey conducted by Wehmeyer, Agran, and Hughes in 2000. Permission was granted to the first author to adapt the instrument for faculty members at one higher education institution. The campus is a public, primarily four-year undergraduate institution that is also part of a larger university system. The college consists of four academic divisions, namely Arts and Humanities; Business and Engineering; Education, Human Development, and Social Sciences; Mathematics and Natural Sciences. The campus enrolled about 4,000 students at the time of the study and offered more than 20 baccalaureate and 9 associate degrees. The targeted participants were full- and part-time faculty members teaching during the fall semester in which the study was conducted. The surveys were mailed to 303 faculty members at the mid-point of the semester.

Instrumentation

The survey of Promoting Self-Determination in Higher Education (PSDHE) was developed using Wehmeyer, Agran, & Hughes' (2000) national survey for teachers involved in the transitional services for students with disabilities between the ages of 14 and 21. With permission, this instrument was expanded and modified to meet the object of this study for the higher education setting. The adapted survey was sent to eight reviewers who are experts in the field of disabilities and higher education in various institutions, including higher education administrators, faculty members from various disciplines, and disability service providers, to examine and critique the constructs of the instrument. Comments were carefully incorporated into the final instrument to enhance validity.

There were two sections in the survey. The first section gathered demographic and academic background information on the faculty member. The instrument also asked for numbers of students considered "at-risk" of failing the faculty member's courses, not making it through their major, and/or dropping out of college (if known). This latter question explored the extent to which faculty members were cognizant of the academic progress of their students toward the mid-point in the semester. The follow-up questions asked faculty members how many of these "at-risk" students had a verified disability.

The second section consisted of questions with menu options and Likert-type responses. The first question asked faculty members if they were familiar with the term "self-determination" and if so, how would they define it and where did they learn about it (e.g., Learning Resource Center; Internet; Education text; Colleagues; Graduate training; Conferences and workshops; Professional journals; or Others).

The next questions asked faculty members to rate on a scale of 1 to 5 (1 = low importance; 5 = high importance) the importance of teaching each of the seven components of self-determination- self-awareness; goal setting and attainment; self-management and self-regulation; choice-making; decision-making; problem-solving; self-advocacy and leadership skills- to college students both with or without disabilities. A general definition of each component was also provided in order to establish a consensus on the generalized meaning. For example, under "Goal Setting & Attainment" the definition was, "teaching students to set goals and develop steps to reach them."

The next question asked faculty members how many of their current students (none; a few; majority; or all) were considered self-determined or have related components of self-determination. Faculty members were asked to rate the extent to which they think promoting self-determination in higher education would benefit students in college and post-college life using a 5-point scale with 1 being "not beneficial" and 5 being "very beneficial." Faculty were then asked to rank (1st = most important; 5th = least important) various groups of students whom they felt needed instruction on self-determination the most. Using a "yes/no" option, faculty members were asked if they were currently teaching or had taught each of the seven components of self-determination. Once again, each component had a brief definition to establish a common framework.

In the last section, faculty were asked to identify reasons that might have led them to decide *not* to provide instruction in any or all of the components of self-determination. The final question used a "yes/no" option and asked if they had implemented any other strategies, activities, or experiential learning pedagogies to promote self-determination.

Analyses

All statistical analysis was conducted using SPSS 17.0 statistical software. Responses were analyzed using descriptive statistics, nonparametric Chi-square analyses, and linear regression. Univariate analysis was used to describe the self-reported attitudes, knowledge, and skills about promoting self-determination. Bivariate analyses

were performed using Pearson's chi-square. Written comments from faculty members were included where appropriate.

Results

We received 221 completed surveys from the initial 303 that were mailed out, giving us a return rate of 73%. Three surveys were discarded due to insufficient information, so the final sample size was 218 surveys. There were equal numbers of male and female respondents, and more than 90% identified themselves as Caucasians. Table 1 shows the respondent demographic information.

Most of the faculty members (32%) were from the department of Arts and Humanities. Almost half were part-time faculty members (46%) with class sizes between 50 and 100 students. When asked if faculty members had any students with a verified disability in their classes, more than 50% of faculty members said they have at least one each semester. When asked how many of these students were considered at-risk, the mean score was 7.8 (SD= 9.6). Among these at-risk students, 41% of faculty stated the students also had a verified disability. Table 2 represents the respondent academic standing and class information.

More than one-third of the respondents (38.5%, n =84) indicated they were familiar with the term "self-determination." Table 3 lists a variety of definitions of self-determination which were provided by faculty.

The most frequently cited source on where faculty learned about self-determination was educational texts (19%, n = 42), followed by other sources (17%, n = 37), graduate training (13%, n=28), and colleagues (12.4%, n = 27). Table 4 breaks down the sources where respondents learned the term in order from highest to lowest.

On a scale of 1 (low) to 5 (high), the composite mean on the importance of teaching each component of self-determination to students with or without disabilities was 30.44 or 4.34 out of 5 (see Table 5). Problem-solving received the highest ranking, followed by self-management or self-regulation, goal setting and attainment, and decision-making. The mean score on the number of students whom faculty members identified as possessing some degrees of self-determination was 2.30 (SD = .57). More than 88% (n =192) of faculty members acknowledged that it would be beneficial for students to become self-determined in college and post-college life with a mean score of 4.54 out of 5, where higher scores represented greater importance.

Faculty members ranked groups of students who needed instructions on self-determination (1st =

most important, 5th = least important). Almost two-thirds (59.6%) chose "freshmen year" as the most critical group needing instruction on self-determination followed by "all college students" (52.7%), "students at-risk" (38.1%), "students with disabilities" (25%), "certain majors only" (14.7%), and finally, students in their "senior year" (10.6%).

For the "yes/no" (1 = yes, 2 = no), statements on whether or not faculty members had taught any components of self-directed learning, Chi-square analysis revealed a value of 37.86 (df = 2, p < .001) with a composite mean of 11.9 (SD = 2.13) or 1.7 out of 2. This showed that there were differences in faculty utilization of self-determination strategies. The most frequently cited component taught was problem-solving (75.1%, SD = .43), followed by self-advocacy (65.9%, SD = .48), self-awareness (65.4%, SD = .48), self-instruction (62.7%, SD= .48), self-evaluation (52.1%, SD = .50), goal-setting (44.7%, SD = .49), and self-monitoring and self-reinforcement (22.1%, SD = .42).

The most frequently cited reasons for not teaching components of self-determination was the lack of time (49.5%, n = 108) and insufficient latitude to provide instruction in this area primarily due to course requirements (44%, n = 96). More than one-third said the reasons for not teaching were due to the lack of training about self-determination (38%, n = 83) and lack of knowledge on available materials and instructional strategies (38.5%, n = 84). The least cited reason was that students would *not* benefit from instruction due to their level of ability or capacity to engage in such behaviors (1.4%, n = 3). delineates these reasons.

Univariate analyses of variance with post hoc tests and effect sizes on the importance of teaching components of self-determination skills yielded significant differences for gender [F(1, 216) = 12.15, *p < .01*] where female faculty accounted for 53% of the mean difference, meaning female faculty were more likely to teach self-determination than their male counterparts. No significant difference was found across academic departments, number of students taught, years in higher education, age, or ethnicity. In terms of academic standing, no significant difference was found between faculty familiarity with the term "self-determination" and rating of the importance of teaching components of self-determination.

Current faculty practices on teaching components of self-determination were significant across departments [F(3, 213) = 5.205, *p = .0020*], by gender [F(1, 215) = 13.205, *p < .001*], and by rank of assistant professor [F(1, 215) = 3.916, *p=.049*]. Specifically, variations within the department of Education, Human Development, and Social (EHDSS) accounted for 63% of the differences, female faculty accounted for 58% of

Table 1
Respondent Demographic Profile Results

Demographic	%	(*n* = 218)	Mean	(*SD*)
Gender			1.5	(*.50*)
Male	50.0	(*109*)		
Female	50.0	(*109*)		
Age			2.5	(*.85*)
20-29	6.9	(*15*)		
30-49	52.8	(*115*)		
50-59	23.9	(*52*)		
> 60	16.5	(*36*)		
Ethnicity			1.2	(*.79*)
Caucasian	92.2	(*201*)		
Black/ African American	1.8	(4)		
Hispanic/Puerto Rican	1.4	(*3*)		
Asian/Pacific Islander	3.2	(*7*)		
American India/Alaskan	0.5	(*1*)		
Other	0.9	(*2*)		

Table 2
Respondent Academic Information

Demographic	%	(*n* = 218)	Mean	(*SD*)
Academic Department			2.4	(*1.17*)
Arts & Humanities	32.1	(*70*)		
Business & Engineering	14.7	(*32*)		
Education, Human Devt. & Social Sc.	29.4	(*64*)		
Math & Natural Sciences	23.9	(*52*)		
Years Teaching in Higher Education			2.6	(*.96*)
0-3 years	13.3	(*29*)		
4-10 years	33.5	(*73*)		
At least 10 years	32.6	(*71*)		
> 20 years	20.6	(*45*)		
Academic Standing				
Assistant Professor	14.7	(*32*)		
Associate Professor	11.5	(*25*)		
Full Professor	2.8	(*6*)		
Full Time	21.1	(*46*)		
Part Time	46.3	(*101*)		
Tenure Track	11.9	(*26*)		
Tenured	6.0	(*13*)		
Visiting	.9	(*2*)		
Fixed Term	22.5	(*49*)		
Other	3.7	(*8*)		
Class Size			1.89	(*.83*)
No more than 50	36.9	(*80*)		
At most 100	40.1	(*87*)		
Between 100 and 200	19.8	(*43*)		
> 200	3.2	(*7*)		

the differences, and rank of assistant professor accounted for 18% of the differences.

Gender differences were again found to be significant for faculty responses about the benefits of acquiring skills of self-determination in college and after college life [$F(1, 215) = 11.012$, $p < .001$]. Considering the three significant variables of departments, gender, and rank of assistant professor, regression analysis revealed that gender was the most significant predictor for teaching self-determination [$F(3, 213) = 5.454$, $p = .001$].

In terms of faculty skills in integrating

Table 3
Variety of Respondent Definitions of "Self-Determination"

- The capability of deciding and acting on ones future plans
- Choices made based on free will without interference
- Proactively solve problems
- Taking responsibility for oneself
- The ability to direct one's own life
- The ability to know one's strengths and weaknesses
- Ability to make decisions, be disciplined, and solve problems
- Self confidence to act with responsibility
- Accurate self-assessment of strengths
- Engaging in self-reflection, goal-setting, and problem-solving
- The ability to set your own goals and then accomplish them
- Someone who has vision, short and long term goals, and a plan and the motivation to achieve these
- Figuring out yourself, who and what you are, and make decisions on your own
- The belief that achievements are under their control and they are willing to exert efforts to attain it

Table 4
Source where Respondents Learned about Self-Determination

Source	% "yes"	(*n* = 218)
Educational Texts	19.3	(*42*)
Other Sources	17.0	(*37*)
Graduate Training	12.8	(*28*)
Colleagues	12.4	(*27*)
Journals	11.0	(*24*)
Conference	7.8	(*17*)
Internet	6.9	(*15*)
Learning Resource Center	5.0	(*11*)

Table 5
Respondent Rating on the Importance of Teaching Self-Determination

Component of Self-Determination	Mean	(*SD*)
Already have adequate skills	4.2	(*1.01*)
Students Admitted should already possess skills	4.4	(*.90*)
Someone else is responsible	4.1	(*.98*)
Insufficient time	4.4	(*.87*)
Insufficient latitude due to course requirements	4.4	(*.87*)
Other areas of instruction are more urgent	4.7	(*.58*)
Students lack capacity to engage in such behavior	4.2	(*.98*)
Already entered college with these skills	30.44	(*4.74*)

components of self-determination and self-directed learning, almost two-thirds (64%, $n = 140$) said they structured assignments, and about half utilized instructional activities and teaching approaches (53%, $n = 116$) and involved students in course input (46%, $n = 100$). Approximately one quarter (22%, $n = 47$) said they employed mentoring programs. Mean scores were significant for different areas across departments in terms of "student involvement in course input" [$F(3, 214) = 3.350$, $p = .02$] and faculty ranked as an assistant professor [$F(1, 216) = 4.219$, $p = .04$].

Both variables accounted for 44% of the mean difference. Faculty "mentoring programs" were also significant across ethnicity [$F(5, 212) = 2.376$, $p = .04$]. No other significant differences were found. Table 7 outlines these frequencies and means.

Discussion

Despite the vast literatures in K-12 settings on helping students with disabilities become self-determined,

Table 6
Respondent Reason for Not Teaching Self-Determination

Reason for *not* teaching self-determination	% "yes"	(*n* = 218)	Mean	(*SD*)
Already have adequate skills	20.2	(*44*)	.20	(*.40*)
Students admitted should already possess skills	20.2	(*44*)	.20	(*.40*)
Someone else is responsible	8.7	(*19*)	.09	(*.28*)
Insufficient time	49.5	(*108*)	.49	(*.50*)
Insufficient latitude due to course requirements	44.0	(*96*)	.44	(*.49*)
Other areas of instruction are more urgent	28.9	(*63*)	.29	(*.45*)
Students lack capacity to engage in such behavior	1.4	(*3*)	.01	(*.12*)
Already entered college with these skills	5.0	(*11*)	.05	(*.22*)
Insufficient training & information	38.1	(*83*)	.38	(*.49*)
Unaware of materials or unfamiliar on instructions	38.5	(*84*)	.39	(*.49*)
None of the above reasons	9.2	(*20*)	.09	(*.29*)

Table 7
Approach for Promoting Self-Determination

Approach	% "yes"	(*n* = 218)	Mean	(*SD*)
Student involvement in course input	45.9	(*100*)	.46	(*.49*)
Structuring assignments	64.2	(*140*)	.64	(*.48*)
Instructional activities and teaching approaches	53.2	(*116*)	.53	(*.50*)
Mentoring programs	21.6	(*47*)	.22	(*.41*)
Others	7.8	(*17*)	.08	(*.27*)

there is a serious lack of research that examines how higher education is continuing with this effort. The rise in number of students with disabilities pursuing 2- or 4- year college degrees presents the need to examine the knowledge and training of higher education faculty for fostering self-directed learning. Findings from this study revealed that most faculty reported having at least one student with a verified disability who was also at-risk in their classes each semester. More than two-thirds of the faculty said they were unfamiliar with the term self-determination. The one-third who reported they were familiar with self-determination were able to adequately define the behaviors, attitudes, and abilities associated with the term. However, sources where the latter group of faculty acquired their knowledge largely stemmed from previous or external encounters (e.g., educational texts, graduate training, colleagues), rather than from resources within the institution (e.g., disabilities services, learning resource centers). This key finding provides grounds for higher education administration to examine how current institutional resources could be used to support both faculty and high needs students. Administrators need to seriously commit resources to both exploring promising practices that may already exist and nurturing faculty development in this direction.

Given the demands of students attending college today, the need to foster self-determination is more urgent now than ever. More than two-thirds of faculty in this study agreed that *all* students, especially those in their freshmen year, would benefit from developing skills of self-determination both during and after college. Findings identified that faculty gender as the most significant predictor correlated to faculty beliefs on the benefits of self-determination and their current practices in teaching self-directed learning. Specifically, female faculty accounted for more than 50% of the mean differences. More than half of the faculty members maintained that they have taught skills in problem-solving (75%), self-advocacy (65.9%), self-awareness (65.4%), and self-instruction (62.7%). Nearly half said they have taught self-evaluation (52.1%) and goal-setting (44.7%) and about one quarter (22%) have taught self-monitoring and self-reinforcement (22.1%). Because female faculty reported they were more likely to teach components of self-determination, this raises an interesting question about whether the ethic of caring might influence the motives of why some faculty choose to empower students through self-directed learning (Noddings, 1984). Noddings maintains that caring is a feminine approach to instinctive teaching and can drive and direct instructional arrangements based on the moral argument that self-determination is good for every student (Noddings, 1987, 1988).

Another interesting finding of this study was the significant variation within the Division of Education, Human Development and Social Sciences. This is

noteworthy because this Division did not have the largest or the smallest number of respondents. Yet, the findings provoked the question of whether faculty in this division and discipline were more prepared to teach a variety of students because of their background in pedagogical training, human development, and learning theory. While this study did not collect each participant's specific program affiliation and cannot address this issue at this time, it certainly raises questions that are worth further investigation and could suggest timely implications for ways in which higher education provides support for the teaching and learning of all students.

The third major finding of this study is in relation to the rank of assistant professor. This group of faculty significantly reported that it was important to teach self-determination skills. Further examination within this academic rank could provide pivotal findings on why this group of faculty, compared to senior or tenured faculty, was more predictive of teaching self-determination. Because this study was based on self-report, it is unknown whether the faculty actually taught any of the components of self-determination their classes. Regardless, from an administrative standpoint, these findings could suggest that assistant professors were more receptive to support and training in improving their teaching of self-directed learning.

It is worthwhile to mention that only a small number of faculty (<9%) reported they felt it was someone else's responsibility to teach self-determination. At the same time, nearly half of them felt they did not have the time or the resources to teach self-determination. These deductions warrant additional inquiry into whether providing faculty with the necessary support, training, and materials would evidently facilitate them in integrating components of self-determination in their teaching and mentoring of students.

When faculty members move beyond grades and challenge students to develop skills in self-instruction, self-monitoring, self-regulation, and problem solving, they are in reality promoting meaningful engagement, proactive learning, and functional life skills. This study found significant mean differences by gender, within departments, and across academic rank for whether or not faculty were teaching self-deterministic behaviors. A vast majority of the faculty members (64%) claimed they structured assignments and utilized instructional strategies (53%) to improve self-directed learning. Furthermore, the faculty approach of involving students in course input alone accounted for more than 40% of the mean difference across departments and the rank of assistant professor.

Analyses among faculty ethnicities also revealed significant differences for faculty who employed mentoring programs as part of their teaching strategy. It is noteworthy to probe the extent to which tenured faculty across different departments approach the concept of self-determination and the specific strategies they use to empower or mentor students. All of these scrutinies seek to understand why some faculty are willing and able to employ these strategies while others struggle or resist.

Limitations

Caution must be taken not to over-generalize findings from this study or interpret the use of cross-sectional analyses as a suggestion of causality. Almost one-third of faculty members did not respond to the survey. Hence, this limited our conclusions about how faculty at this institution understood self-determination. This study also did not identify a specific disability or degrees of severity, so faculty might have multifarious perceptions of disabilities or students at risk based on their own experiences. As with all self-reporting studies, faculty might not be able to accurately provide judgment about their own attitudes because issues such as disabilities are sensitive. Faculty might also not be accurate in their own pedagogical assessment and possibly inflated their own "halo effect" because it was more "socially acceptable" to support students with disabilities than not to support them (Aaker, Kumar, & Day, 1998; Pike, 1999; Wentland & Smith, 1993).

With these considerations, this study was still valid. The reasons are the following: (1) this study asked faculty to report information that was known to them; (2) the questions were validated by expert reviewers; (3) the questions diminished memory deficits by asking faculty to recollect experiences within the semester; (4) faculty members who responded thought the subject merited some thoughtful response; and (5) the questions did not threaten the privacy of faculty. For these reasons, the findings are worth reflecting on for the intended purpose of this study.

Conclusions

Overall, this study revealed some important findings. If each faculty member has at least one student with a disability in his or her class every semester, that means at this institution there could be at least 218 students who may be at-risk of dropping out if they do not develop skills of self-determination in a timely fashion.

It is important to observe that self-determination is not just for students with disabilities. In the rush to increase learning of all students, higher education cannot forget that the goal of postsecondary education is to adequately prepare students to function in the "real" world. However, for many students with or

without disabilities, transitioning into higher education is a major challenge for the reasons we previously discussed. Making it in the "real" world would be even harder if they do not develop skills of self-determination early in their college careers. Hence, facilitating students to become self-determined means faculty need to proactively promote and support self-directed learning beyond one or two classroom exercises.

Programs on promoting self-directed learning should not be viewed as only an "add-on." Instead, faculty need to recognize that becoming self-determined is an integral constituent of educating the whole student and preparing him or her for a productive life. This study found that many faculty members in this institution appeared to understand the importance and benefits of teaching components of self-directed learning to *all* students. Hence, it is only logical that follow up research analyze how institutional resources such as the disabilities services and the faculty development resource centers should be utilized to reinforce faculty pedagogical strategies in self-directed learning.

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Hard Yards and High Hopes: The Educational Challenges of African Refugee University Students in Australia

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This paper considers the experience of a small group of young adults who were born in Africa, entered Australia under the humanitarian entry program, and are enrolled in tertiary education. It investigates the expectations and experiences of these students and the associated teaching staff at a South Australian university. This body of students comprises a diverse group of individuals, and their educational success is equally varied. In focus groups many of the students revealed a range of pressures such as challenges adapting to new educational contexts, high community expectations, and difficult home environments for study. Students recounted a mixed educational experience with staff as they interfaced with practical issues of seeking academic support, accessing study materials, and studying in another language. Perhaps reflecting the determination and self-reliance that has brought them to this point, they primarily speak of academic success as their own responsibility, as well as their best support being other students from the same background. An awareness of, and a response to, these issues may help to ease refugee students' transition to tertiary study.

Introduction

The experiences of refugees entering tertiary education are largely absent from the academic literature. More attention has been given to refugee children and young adults in primary and secondary education (see for example Kirk & Cassidy, 2007; McBrien, 2005; Russell, 2005) and to international students in tertiary settings more generally (Adams, 2007; Kennedy, 1995; Moore & Constantine, 2005; Quintrell & Westwood, 1994). While there are several studies that inquire into international migration arising from humanitarian situations and the experiences of higher education in a new host country (DasGupta, 1999; Tobenkin, 2006; Stevenson & Willott, 2007), there is still a relative dearth of information pertaining to this distinct student body. This research was designed as a scoping study to better understand the educational experience of this specific group of students, as well as to indicate whether further research or special support is warranted. The project concerns the encounter between academic staff and students from African refugee backgrounds who are enrolled as students at a university in South Australia. These students (and their communities) have high hopes for their lives in a new country, but they must put in 'hard yards' (the distance and numerous obstacles that must be traversed) to achieve those hopes.

Previous studies on international students in Australia highlight the numerous academic, cultural, social, and linguistic differences that such students encounter (Burns 1991; Irizarry & Marlowe, 2010; Samuelowicz, 1987; Taylor, Craft, Murray, & Rowley, 2000). More broadly, the difficulties that students from culturally and linguistically diverse backgrounds encounter when English is not their first language are well documented (Harris, 1997; Quintrell & Westwood, 1994; Samuelowicz, 1987; Taylor et al., 2000). However, Sidhu and Taylor (2007) acknowledge that refugee and international students represent different student cohorts, and thus greater understandings of the former are needed.

Acknowledging that refugees may have had a different educational experience from what most Australians and many international students would consider a "normal" education, this paper addresses an urgent need to better understand the educational aspirations, concerns, and contexts represented in this distinct student body. One quarter of Australia's university enrollments are international students (Sawir, Marginson, Deumert, Nyland, & Ramia, 2008), thus students who have come to Australian universities through humanitarian immigration pathways find themselves within a diverse student body. In the increasingly complex tertiary education environment, diverse student bodies are raising questions and challenges for academic staff who are committed to positive learning processes and outcomes for their students (see Adams, 2007). Many teaching staff at this South Australian university informally express concerns about the quality of learning experiences and outcomes for students from refugee backgrounds, acknowledging that these students often come from educational, linguistic, and cultural backgrounds that differ starkly from the experiences of others within the broader student body. In common with other students, they also face a broad range of challenges working to equip themselves for an increasingly competitive employment market.

The research arises from the authors' experiences as academic staff members, which has led us to reflect on how to ensure quality learning experiences and how to develop effective support structures for staff and for

students from a humanitarian entry background (HEB). According to both groups, many HEB students are experiencing difficulties with academic work. Teaching staff within this university report concern about the lack of specific services available for this group of students, and they note that they most often respond to these students' situations on an *ad hoc* basis. This paper discusses a project that aims to develop a greater understanding of the experiences of both staff and HEB students in order to contribute to better tertiary educational practice.

Refugee Status and Study in Australia

The refugee label is essentially a legal designation (Malkki, 1995; Zetter, 2007) although it has adopted a number of different contextual understandings and meanings. This study applies the term as defined under the 1951 United Nations Convention and made universal under the 1967 Protocol (UNHCR, 2008) which states that a refugee is:

> A person who is outside his or her country of nationality or habitual residence; has a well-founded fear of persecution because of his or her race, religion, nationality, membership of a particular social group or political option; and is unable to avail himself or herself of the protection of that country, or to return there, for fear of persecution.

Annually, Australia grants 12,000 to 13,000 permanent visas to refugees as part of its humanitarian program (Department of Immigration and Citizenship (DIAC), 2007). According to the most recent statistics from the United Nations High Commissioner for Refugees (UNHCR, 2006, 2007), Australia had the second highest rate of refugee resettlement behind the United States during 2005 and 2006 and the third highest in 2007 (UNHCR, 2008). These statistics report on quota refugees who are people already recognized by UN standards for refugee classification, and host states recognize this status before their arrival. These refugees are sometimes referred to as "UN refugees" and are distinct from asylum seekers, who are not represented in this data. In the last six months of 2008, more than 114,000 people became permanent residents of the Australian population (17% more than for the same period in 2007). Of this total, 6,587 were humanitarian entrants, of whom 1,437 were from Africa in addition to 9,448 people who came from Africa on non-humanitarian visas (DIAC, 2009b).

A number of these humanitarian entrants have chosen to undertake further educational opportunities to give themselves a greater chance of employment and self-determination in Australian contexts. At the commencement of this study in late 2007, of the 16,000 students enrolled at this university, 56 students identified themselves in university records as being on a humanitarian visa and having been born in an African country (over half of these were born in Sudan). It is anticipated that this is an under-estimation since students are not required to provide this information, and numbers are likely to be higher in other states, such as Victoria and New South Wales, which have higher numbers of African-born citizens. While this grouping represents a small fraction of university enrollments, their growing number and the relative dearth of research into these students' educational experience highlights the need to further understand their academic trajectories, concerns, and aspirations.

Hardin (2008) describes the tertiary experience for mature age students (of any background) as "like building a house of cards. In order to be successful, each part of their lives must be in place and carefully balanced" (1p. 56). This delicate balancing act has parallels with the experience of refugees and other migrants from African countries attempting to succeed at the university. Living in an environment that is different from their country of origin, HEB students often find themselves needing to adjust to new academic expectations and protocols (see for example Conley, 2008). Luzio-Lockett (1998) referred to this process as the squeezing effect because students from foreign educational backgrounds must try to "squeeze" their own identity in order to fit in with the values and norms of another context. Burns (1991) also supports this notion of squeezing and states, "The additional role of being an alien exacerbates and magnifies the stress through linguistic and socio-cultural-emotional difficulties involved in cultural adjustment" (p. 73). Australian universities can thus constitute a foreign academic environment with challenges and obstacles that may not be evident to local students and staff, highlighting the reality that it may be far from a level playing field with respect to knowing the "rules of the game." Principles of academic integrity, plagiarism and what constitutes an original idea may vary greatly between countries' educational contexts, and expectations such as these may be implicit rather than explicit in Australian educational settings. While some domestic students lack adequate tertiary skills (e.g., referencing, constructing a coherent essay, or locating academic material via the internet/library), most of these students arguably have experienced some teaching of these skills and been exposed to these expectations. Knowledge and tools such as these are often tacitly assumed, adding another layer to the task facing students with different academic experiences, with the result that they may fail to identify these expectations, much less negotiate them.

While past educational experiences (and how these compare to the present) are of paramount importance, academic squeezing is not the only salient consideration. Recent statistics point to specific financial, social and employment challenges facing migrants from the African countries represented in this study. The median income of a Sudanese person in Australia is 46% of that of the Australian-born population (see Table 1), revealing that challenges in the tertiary environment are not just about exposure to appropriate referencing and how to construct a convincing paper argument – they also extend to financial pressures that can directly impact on one's educational experience. These statistics are supported through Australia's 2006 Census, which reveals that the unemployment rate for "Sudan-born" Australians is almost six times the national average (Australian Bureau of Statistics, 2009), implying powerful exclusion from the labor-force. Other Australian studies have emerged which document how social disadvantage characterises the daily experience of resettling refugee communities (such that the presence of a segmented labor market allocates African migrants low-status jobs, if any at all) (Colic-Peisker & Tilbury, 2006, 2007; Fozdar & Torezani, 2008). If, as Colic-Peisker (2003) argues, a stripping away of identity is part of the process of becoming (or living as) a refugee, then this process is exacerbated by the difficulties many refugees confront in entering the Australian labor market (Dunlop, 2005).

The need to earn money extends beyond living a decent life in Australia, because many refugees also have a firm commitment to sending remittances to families in their country of origin (see Riak Akuei, 2005). African refugees have been referred to as "global breadwinners" (Stoll & Johnson, 2007), highlighting their transnational responsibilities to support family relations on two or more continents, and with those responsibilities come high expectations. These challenges may be significant contributors to a decision to undertake tertiary study in Australia, sometimes in spite of minimal previous educational experience and/or an emerging competence in the English language. Obtaining an Australian tertiary degree represents a potential pathway for resolving structural obstacles to employment, income and recognition. The pressures to succeed are therefore great, and they originate not only from the students themselves but also from their communities (see e.g., Riak Akuei, 2005; McSpadden, 1987). For refugees who remain in transit or have resettled, a university degree holds a special place, symbolizing an opportunity to redress marginalization and disadvantage that are

characteristic of forced migration and resettlement (Interagency Network for Education in Emergencies (INEE), 2004; Russell, 2005).

There is now a significant international body of literature highlighting the diversity of student backgrounds generally and the need for informed and inclusive educational approaches (see Nieto, 2000; Gurin, Nagda, & Lopez, 2004; Barceló, 2010; Gurin, Dey, Hurtado, & Gurin, 2002; Tran, 2010; Kennedy, 1995). The diversity of refugee populations means that some HEB students entering a university in their new host country may have been educated professionals prior to fleeing their home country while others may have had incomplete or inadequate basic education. Limited educational opportunities exist in refugee camps and for displaced peoples (Ager, 1999; Jeppsson & Hjern, 2005; Wessells, 2008), thus some may find the educational environment somewhat familiar, while others will find it quite alien. This study attempts to give voice to these students' local experiences and concerns in the hope that it provides a broader global context where both students and educators can find better pathways to tertiary success.

Study Design

This paper draws on interviews with African HEB students and academic staff at one Australian university and constitutes a small-scale scoping study designed to ascertain whether research on a larger scale is warranted. Twenty students were interviewed in focus groups of up to four participants, and 10 teaching staff were interviewed individually. As such, the research is qualitative, drawing on a deeper engagement with a small number of individual experiences. The importance of capturing the richness of people's experiences both within small groups and individually is well established (Creswell, 2003; Mishler, 1986) and provides justification for the qualitative approach.

A qualitative approach based on open-ended questions in informal interviews and focus groups was adopted, recognizing, not only the power inequities that may exist (or be perceived to exist) in this inquiry (particularly those of students talking to staff about their challenges) but also the reality that the researcher does not always know "the right question to ask" (Hammersley & Atkinson, 1993, p. 33). This was one reason for the engagement of a research assistant who is an African-born HEB student at the university, the benefits of which were seen to outweigh the danger of possibly leading to the exclusion of some individuals due to regional or personal conflicts (see Gardner 1999, p. 6). Open-ended questions were used as a starting point for a

Table 1
Median Income by Country of Birth

Birthplace	Median individual weekly income (AUD)
Somalia	214
Sudan	231
Liberia	324
Ethiopia	342
Sierra Leone	413
Australia	488
Total Australian population	466

Note. Adapted from data from DIAC (2009b)

broader discussion that allowed the interview to be somewhat participant-led, "to empower the participants, because they . . . have a voice and guide the study" (Holloway, 1997, p. 8; Creswell, 2003). Furthermore, focus groups were held in a non-teaching space and food was provided, in order to minimize the perceived formality of the interview.

The fifty-six students who had identified themselves in the university record system as having been born in an African country and as having humanitarian status were mailed a letter describing the research and inviting them to participate. Since such identification is voluntary, this process did not identify all relevant students, and informal student networks were also used to invite participation on an individual basis through word of mouth and via posters around the campus. This process was significantly assisted by the engagement of the African-born HEB research assistant who was well connected with other African students on campus. Academic teaching staff were approached through an email sent to staff mailing lists in several different academic units ("schools") outlining the project and inviting staff to make contact if they would like to participate in an informal individual interview.

Five key questions were addressed in the focus groups with students: students' experience at the university so far; challenges encountered in their studies; supports or people that have made their experience easier; identification of potential ways of assisting students; and the experience of racism by individuals or people whom they know. Staff interviews focused on: staff perceptions of this group of students and their potential obstacles at university; how staff respond to these challenges; obstacles they encounter in meeting the needs of this group of students; and people or resources that have assisted in meeting these needs.

Results

Locating the Student and Staff Learning Environment

The results are arranged under the two key themes of life at the university and student realities beyond the academic campus. Student and staff views of the impacts, challenges and strategies related to tertiary education are addressed together, and they reveal both consensus and difference on several key issues. The issues presented below are not unique to African HEB students, but they reflect the reality of members of other minority student groups, for example, Indigenous Australian students; however, a thorough comparison is beyond the scope of this paper.

Life at the University

The phrase "we're setting them up to fail" was frequently repeated throughout the staff interviews, meaning that the university is accepting students who lack sufficient academic or English language skills to succeed, and it is not providing the extra supports necessary to bridge this gap. Staff often expressed concerns that they do not have the specific capacity or time to address issues relating to English language writing and comprehension, which is viewed as a necessary foundation for presenting critical analysis and argument. One staff member said, "I can bring them from here to here [indicating with hand gestures] but if they don't even meet that basic standard [I can't get them there]" (staff interview 4). This issue generated passion among a number of staff, who described going to extraordinary lengths to assist struggling students, yet felt that they rarely succeeded.

Students shared this concern and noted that the challenges may be more than just language comprehension:

English. That's the big challenge. And perhaps our methods and learning [are] somehow different from country to country. Within [my country] we have schools that do this continual assessment which is what we do here, but there are some that have one-off exams. So someone from such an academic background would find it very difficult here. (male student, focus group 8)

A significant impact of these challenges was seen in assessment processes and outcomes. Students felt that staff fail to recognize important factors contributing to their performance:

> When they mark assignments it's one thing to have mainstream students who have been born here, raised here, and their education system has been structured: they have gone through the system. Then having people who are coming half way [round the world]. . . . I guess lecturers could be, could take time to understand the needs of these particular students coming from these particular backgrounds. We all studied hard to get here, [but] it was in different circumstances we gained those marks. (female student, focus group 4)

Focus group members elaborated this concern by suggesting that staff should take such factors into account in ways that would provide more equitable assessment processes. For example, a common theme in focus groups was that issues such as poor grammar or expression should not have a strong impact upon the assessment of written work, with one student saying, "We're not saying give us a pass because 'poor us' – I mean when I [show I can] apply the law, why mark me down for punctuation?" (female student, focus group 4). While for some students it literally is just a question of appropriate punctuation, poor language comprehension and written expression can translate into significant additional time and energy for staff trying to discern meaning, content, and originality in students' work. This is intensified for casual staff who may be allocated only 10 to 15 minutes to mark each paper.

These students may have excellent cognitive and academic skills, but if they have a limited English language proficiency in receiving and expressing information and concepts, they will face significant hurdles as they (attempt to) progress through the university system. This concern fed into a broader issue for many staff: the question of how important factors like levels of English expression are in overall academic achievement. As one staff member reflected, "We have no guidelines on how to adjust for English levels in marking" (staff interview 3). If staff are unable to understand a student's writing (or feel they must *interpret* or ascribe meaning within what is written), they cannot accurately assess whether the student has learned the key concepts being assessed in that work.

Students also voiced a number of more diffuse concerns about the university experience. While there were many positive comments about lecturers and tutors, focus group participants also felt that some teaching staff are unhelpful in ways such as consistently speaking too fast and refusing requests for clarification. Several of these participants also felt that some staff

(and other domestic students) appear to expect African students to have nothing to contribute in academic discussions:

> When they have black people in [this academic department] it's really shocking. I can see in some lecturers' faces, they see [a black student for] the first time – [you're] the only black there and whenever you enter the class they all look at you. And when you talk it's like they look at you almost as if they don't expect anything to come out of your mouth. And I feel so insulted by such an assumption that I should be stupid. . . . I didn't get here because I'm stupid. (female student, focus group 4)

While this student felt silenced, several staff were concerned with low levels of HEB student tutorial participation. They acknowledged that HEB students may not necessarily understand expectations or be willing to ask for information and may have limited access to resources, including minimal experience with technology. With technology-based tasks or information delivery becoming increasingly central to course delivery, this can translate into a failure to complete set tasks. Connected with this, staff expressed a broad concern about HEB students' reticence to follow up on encouragement or direction to seek further help from the tutor or the Student Learning Center (a free service to students, offering both group training and short individual sessions), expressing frustration that there appears to be little take-up of the available opportunities, or limited effectiveness when it is taken up. They recognized (but did not really understand) the reluctance to use these facilities, with comments such as, "African students tend not to ask for help, based on a pride thing. In contrast, Chinese students tend to be very active in seeking help" (staff interview 2). In contrast, students were quite clear that they did always not find these services useful, as one student described: "I've been there once but all they do is they just check my essay and were like 'oh the grammar's really good' and there's no need for me to go there and something" (male student, focus group 3).

Staff described going to great personal lengths to help HEB students who were struggling to succeed in their tertiary studies, giving a significant portion of their own time at the expense of a multitude of other tasks such as research and writing, and often without payment in the case of casual or part-time staff, who "are paid for half an hour of student contact per week but may spend 45 minutes with one student from this cohort [without extra remuneration]" (staff interview 4). This *ad hoc* personal response to students was accompanied by a strong desire for appropriate dedicated support programs specifically designed,

appropriately staffed, and adequately resourced to address the basic skills of learning and completing assessment.

Students acknowledged that some staff invest a lot of time associated with these *ad hoc* responses, and they mentioned in particular a topic in which an extra weekly tutorial (in addition to the one tutorial that students must attend) is held for students from non-English speaking backgrounds. As one student said, "That was fantastic . . . [the lecturer] was saying 'I recognize that you have needs and I'm here at this time for whatever you might need' – and that could be done for other subjects" (female student, focus group 4). More commonly, however, students referred to the small ways that they support each other, including helping with topic choices, emotional support, and practical matters such as finding suitable materials in the library. They felt that the main impact of providing additional classes such as orientation sessions would be to impose another demand on their time rather than assisting them to succeed. In contrast, they were very enthusiastic about the idea of forming an African students' association on campus. They felt that this would give them the opportunity to formalize their support for one another and to feel that this was recognized and valued by the university. The importance of such a support association was reflected in the following exchange:

Male 1: Yes it is good if there is some community group, like sharing I guess because if I am here for 3 years I know better than someone who is just coming, just starting next year or something. So if there was a group that when new people came you just show them the way and stuff . . . that's one thing [that would help].

Male 2: I think that would be really important because when you think about it we're such a diverse group. We have people [who] study science topics, we have people studying law topics, we have people who do international studies and stuff. If we all have a committee where we could come together I think helping each other would be much more easy. (Focus group 1)

As a direct result of this research an association has now been established (the Flinders African Students' Association, FAStA), and early meetings have had attendance of around 20 students and very dynamic discussions about purpose and process. At the time of writing, FAStA was in its second year, with active leadership and a growing membership.

Life Outside the University

Many HEB students are very active in their communities, and their status as university students also

means that the community has particular (high) expectations of them. Ironically, one of these expectations is succeeding at the university, yet pressures and obligations from families and communities can limit the time they can dedicate to study. Students stated that they are often expected to attend community events every weekend, making it extremely difficult to find any weekend time for study. For example, "in the Sudanese community [there are] always lots of activities on the weekend and meetings that you have to go to" (male student, focus group 2).

In addition, and highlighting the transnational reality of this student body, a key external pressure that students mentioned was that of "family pressures from back home" (male student, focus group 8). Most (if not all) have family members still living in Africa or elsewhere, adding the stress of missing their families, worrying for their safety, and even feeling guilty for living in the safety and comfort of Adelaide. In addition, there is the pressure to support their families financially, thus students are often working to support themselves and family members, as well as trying to participate fully as members of their communities here, and also trying to succeed in their studies.

Half of the staff specifically recognized these issues, pointing to significant pressures including young families, financially supporting family in Australia and their country of origin, community expectations of academic achievement and community participation, home environments that are not always conducive to study, and long commuting regimes. While staff recognized the presence of these factors in a somewhat abstract or theoretical sense, the stark reality was summarized by one female student as follows:

When we go home first of all we're different– I have to clean up the house. I have to cook. I have a very noisy household, I will tell you this. So you use the [dial-up] internet as work, well everybody wants to talk on the phone to someone else. We have these obligations that cannot be taken away whatsoever. You can't stop it . . . some people just give up because you can't balance . . . I'm constantly stressed out. I don't want to go home; I want to stay here [at uni] because as soon as I go home I can't do anything. I will plan how I'm going to go, but when I step in, plans have been made for what I'm supposed to do. (Female, focus group 4)

This comment sparked a conversation amongst focus group members regarding Adelaide's limited public transport system, which combined with the reality that affordable accommodation is generally distant from the university, means that it is nearly impossible to return to the university library when the home situation

becomes unbearable, because it can take 1½–2 hours in commuting time in each direction. Of the 56 HEB students enrolled at this University at the time of the research, more than half lived in areas that require commuting on at least two buses. As one student explained, "I catch two buses . . . if I miss the first one I have to wait more than thirty minutes . . . I can spend four hours just travelling [each day]. This is not conducive to study" (male student 1, focus group 2). Another student in this focus group responded that with five people in her household, the noise could impede study but "if you say I'm trying to study they say you should go back to the library – but if you've just left [university for the two hour trip] to go home, you can't just come back" (male student 2, focus group 2).

One staff member noted yet another pressure: that these students stand out in their "astonishing visibility" (staff interview 2) where other groups might blend more easily into the student body. This was also identified by some of the students:

> One issue I'm facing is . . . the sense that we feel as though there's a lot for us to prove. We have to prove a lot of stereotypes wrong. We have to prove to our parents who brought us here for a better life but also to better and prosper our community as well. You know the whole integration thing as well. Lately there's been so much drama about how we're not integrating properly . . . [I feel like] I have to prove people wrong and I'm *going* to prove them wrong. But for some people unfortunately it feels like someone's pulling the rug from under our feet. (male student, focus group 4)

Discussion

Returning to Luzio-Lockett's (1998) notion of squeezing, it is apparent that both staff and students have to "squeeze" prior teaching approaches, learning practices and beliefs into a changing academic context. The challenges of delivering a curriculum within an increasingly global education market and the adaptations necessitated by having to study in a different educational environment are multiple and complex, highlighting the need to think critically about tertiary education. Our recommendations arising from this study follow three main themes:

- Cultural competence and moving beyond the orientation model;
- Overcoming forbearance; and
- Locating support and managing staff and student workloads.

We recognize that there are many challenges to achieving these three outcomes, and this highlights the reality of HEB students needing to squeeze into a new academic context as an increasingly global landscape of the tertiary education system continues to evolve. This context also demands a squeezing response from teaching staff and university support systems.

Cultural Competence and Moving Beyond the Orientation Model

The difficulty of being culturally inclusive while having to deliver a rigorous curriculum and meet diverse student needs signals one of the most pressing challenges in contemporary tertiary education. This challenge, however, also creates a learning environment that can be made dynamic and stimulating whereby it is possible to locate individual learning within much broader points of reference. We maintain that staff do not need to become cultural experts but rather engaged in principles of cultural competence while delivering a quality program of education. Part of this process involves recognizing the importance of university-level policies and expectations. It also necessitates an acknowledgement that now, more than ever, not all students come from the same background, and some flexibility should be incorporated into tertiary structures, thus enabling more effective responses to situations such as these. This does not mean that principles of academic integrity or rigorous curricula should be abandoned. Rather, it highlights the necessity to critically engage these concepts in contemporary and comparative contexts.

This study emphasizes a need to move beyond a model focused on intensive orientations towards fostering a stronger and ongoing relational dynamic between students, staff, and academic support centres. It is reasonable for staff to assume 12 years of schooling as a standard for the majority of students entering Australian universities; however, in the case of *some* HEB students, it is dramatically less than this and potentially is a very disjointed experience. Staff in this study recognized that this creates a danger that they may assume a level of educational experience (and thus learning skills) that is absent. Tacit assumptions about prior educational learning and technological familiarity with computers, writing skills, and understandings of academic integrity lead to situations in which lecturers can encounter pedagogical difficulties around both delivery and student expectations.

Orientations can help to inform students about how to locate scholarly literature, write academic papers, and know about the various student support services available. In contrast, the tertiary sector needs to become an environment where students are able (and enabled) to engage in the learning process *throughout*

their academic program. A recent study found that international students showed a preference for active, ongoing assistance throughout their educational experience as opposed to one intense block of orientation which is most often arranged near the beginning of the students' academic experience (Irizarry & Marlowe, 2010). This translates to staff maintaining an open door to students to discuss a range of academic issues. It is clear that this will take more staff time, especially since African HEB students are not the only group needing (or in many cases demanding) more one-to-one time from academic staff. Universities need to be alert to this change and respond on a structural level rather than simply expecting staff to absorb the impact of increasing expectations in this and other areas.

Overcoming Forbearance

Forbearance – the tendency of students to minimize or conceal problems so as not to trouble or burden teaching staff – is a common practice for many international students, due to many important cultural constructions surrounding help-seeking behaviors (Moore & Constantine, 2005). Further, other authors argue that students from diverse backgrounds may engage forbearance due to cultural expectations that students respect and not question their educators (Markus & Kitayama, 1991; Samuelowicz, 1987). This tendency to avoid raising problems was reflected in both student focus groups and staff interviews. While forbearance may be a socially constructed concept that varies across a diverse student body, those who feel connected with the faculty or an academic support unit may be more inclined to ask for help.

Several studies highlight how students from different social and cultural backgrounds may have a stronger tendency towards practices of collectivism and interdependence (Chapdelaine & Alexitch, 2004; Markus & Kitayama, 1991; Moore & Constantine, 2005). For example, Moore and Constantine (2005) argue that "cultural values emphasizing collectivism and communalism appear to affect both social support seeking and forbearance coping styles among African, Asian, and Latin American international students" (p. 343). While caution must be exercised with such generalizations, this highlights both the commitments that some students have within their communities and reluctance to access academic support. When possible, offering regular extra (non-compulsory) tutorials for students from culturally and linguistically diverse backgrounds may help overcome issues of forbearance and reduce the *ad hoc* nature of staff striving to greater ensure a student's academic success.

Locating Support and Managing Staff and Student Workloads

As the university opens its doors to an increasingly global and diverse body of students, it must also respond to the competing and difficult demands this situation places on academic staff, who genuinely want to ensure that students succeed. There needs to be a greater recognition within university environments of staff commitments to meeting student needs, so that it does not become an "invisible" burden added to already hectic workloads. There is a broad recognition amongst the staff interviewed that there are many students from non-English speaking backgrounds in the university whose level of English means that they face significant additional challenges in their study (as indeed is also the case for some students whose first language is English). As noted, these students may have excellent cognitive and academic skills, but without the language to receive and express complex information and concepts, they and their teachers face significant hurdles as they (attempt to) progress through the university system.

Staff identify a need for ongoing and substantial support for students who are struggling, especially around writing and language comprehension skills. They express empathy for African refugee students in this situation and a desire for them to succeed, but they often feel that they are not adequately resourced or skilled to assist in this task themselves, and wish that "someone" was doing this. Yet the services that *are* available are not taken up, as for example with the Student Learning Center. Similarly, a peer mentoring and academic support program for first-year students run by one school at this university in 2008 – specifically designed to ease transition to university and support students identified as being at risk of failing – had a generally low uptake by both African and non-African students. It therefore needs to be recognized that the simple provision of services will not guarantee improvements in student outcomes or experiences. Services must recognize both needs and competing demands on staff and students in order to be relevant and useful.

In related work with the Sudanese community in Adelaide (Marlowe, 2009), students have noted that the tertiary degree they are pursuing does not just belong to the individual but also to the community: in a number of respects, a degree reflects a community achievement rather than an exclusively individual endeavor. While not all HEB students share this exact sentiment, it does highlight that they are not solely academic beings. They can have commitments to the community that, at times, take precedence over university study. While the university system may play a limited role in broader community-based and social settings, an awareness

(and an appreciation) of the associated issues both for administrators and teaching staff could create an environment of greater understanding.

Conclusion

This study highlights the need for better understandings about HEB students and greater attention from the international higher education research community. The growing challenges associated with displacement through conflict and natural disasters means that higher education institutions must critically and reflectively assess how quality educational outcomes are delivered. The humanitarian needs resulting from disasters such as the earthquake in Haiti, ongoing political violence in numerous countries in Africa and the Middle East, ethnic strife in former Soviet republics, and rising sea levels in for a number of island nations are just a few examples of how our contemporary world is characterized by transnational movement and social transformation. These events mean that tertiary sectors will likely experience increasingly diverse student body profiles which represent a rich mosaic of different learning experiences and approaches.

The small scale of this project clearly limits an ability to generalize the findings. Nonetheless, this study provides strong indications of some of the actual problems that staff and students experience in tertiary settings and has broader international relevance by encouraging universities to direct more attention to addressing international migration arising from humanitarian based issues and the associated challenges of delivering relevant, effective and quality learning outcomes. Many students reported challenges with developing language comprehension, adapting to new academic expectations, finding culturally appropriate means of seeking help, and experiencing external pressures related to their commitments in domains outside university life. The rich descriptions obtained from students and staff reinforce many of the findings detailed in the academic literature regarding success in higher education settings. There remains significant scope for learning about the experiences of HEB students in particular, as they have sometimes taken a very different educational pathway from most other students. Understanding these issues helps to identify the supports and obstacles encountered by humanitarian refugee students attempting to succeed at the university and thereby prevent or break a cycle of marginalization and economic exclusion – and for some, facilitate the long-term aim of improving development in their birth country.

Many of these students have shown a remarkable resilience and adaptability to function and succeed within foreign educational and social contexts.

Supporting students from very different educational, cultural, historical, and social realities presents numerous challenges to universities, staff, and student bodies. These challenges have only grown more salient in contemporary contexts as students from diverse backgrounds seek to pursue an education in other countries. It highlights the need for the higher education sector to ensure a greater ongoing commitment towards developing more sophisticated understandings of this small, but important, student body while developing responses grounded in broad cultural competence, and sensitive to the already extensive demands on both staff and students.

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Acknowledgments

Students' Experience of University Space:
An Exploratory Study

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The last decade has seen a wave of new building across British universities, so that it would appear that despite the virtualization discourses around higher education, space still matters in learning. Yet studies of student experience of the physical space of the university are rather lacking. This paper explores the response of one group of students to learning spaces, including virtual ones, preferences for the location of independent study, and feelings about departmental buildings. It explores how factors such as the scale of higher education and management efficiency tend to produce rather depersonalized and regimented environments that in turn are likely to produce surface engagement. Responses of hospitality, criticality, and solidarity are briefly explored.

Introduction

At Easter 2007 the University of Sheffield opened the Information Commons (IC) building, providing 24/7 access to study space for 1350 students, 500 PCs and 100,000 textbooks (Lewis, 2010). It has been heavily used from the day it opened. Sheffield is seeing a number of other major building projects, and this mirrors university campus building across the country in the last decades. The wave of building on campuses is likely to make teachers think harder about university space and how it shapes learning. As yet we lack any in-depth studies of how students use and respond to places like the IC and how new ideas about spatial organization shape their engagement in learning. Furthermore, direct evaluations of new spaces may neglect the wider picture, such as indirect effects on satisfaction with existing space.

The aim of the study reported in this paper, therefore, was to explore student engagement in learning through investigating aspects of their experience of space. The paper reviews relevant literature, especially around the notion of the learning commons, but also previous thinking about the hidden curriculum and symbolic aspects of the campus layout. The choice of the method for researching the topic, using in-depth interviews with photos of learning spaces as prompts, is described. The findings explore student and staff experience of learning spaces, where, when and how students conduct independent study and how they respond to the buildings of an academic department itself. The analysis shows how institutional structures shape space and are also made visible when we begin to look closely at our everyday environment.

Literature Review

During the last two decades there has been a revival of theoretical interest in physical space and built environment in universities (Temple, 2007; Temple &

Barnett , 2007). This interest has been tied to a wave of new building, especially of new learning centers and libraries, but itself driven by competition for students and a growing ideology of student-centered learning. This has occurred despite the powerful discourses around the virtual university.

At the same time, at an intellectual level, authors have been calling for a spatial turn in the social sciences. Usher suggests that in modernist thinking time and history are privileged over space (Usher, 2002, p. 41; Paechter, 2004), and this seems to be reflected in educational theory. For although metaphors of space are very powerful in educational discourse, until recently the nature of the relationship between space and learning has not been greatly studied or theorized. Echoing a call for a spatial turn in the social sciences generally, a number of authors have called for space to be more fully theorized in the study of education (McGregor, 2003; Edwards and Usher, 2003). Gulson and Symes (2007) reflect on the nature and risks of the movement of ideas between disciplines in the context of the nature of education as a discipline. But, without there being a well defined field examining spatial questions in education, they conclude by pointing to clusters of literature exploring spatiality about school architecture, policy on equality, curriculum, literacy and, critical pedagogy.

The work of Lefebevre (1991), Soja (1989), and Massey (2005), in particular, are becoming increasingly influential in such work. Here space in education ceases to be seen as pre-given, as a bounded, discrete entity, or a backdrop for action, but rather is recognized as itself the outcome of an ongoing, contested, productive process, in which social and material factors, and local and global forces operate. A constructed space recursively molds social practice. The forces shaping the local in such processes include much wider social relations and networks than have previously been acknowledged. "Knowledge, power, space/place closely intertwine to frame our social practices,"

Wilson and Cervero (2003, p. 124) suggest. The relatively enduring patterns in spatiality, rather than reflecting necessary conditions or being essential or innocent, are to be seen as reflecting a pattern created by power relations (McGregor, 2004) yet they are constantly remade and potentially capable, therefore, of being reframed. The approach also recognizes that there are multiple experiences and narratives of any space (Thomson, 2007).

The 1990s and 2000s saw an increasing investment in campus infrastructure and much exciting experimentation with new learning space design. A report for Scottish Funding Council (Marmot Associates, 2006) proposes a context for changing thinking about learning space. The 1990s saw a significant shift in thinking towards student-centered notions, it argues. This may have been driven by shifts in the demand from the economy, from a focus on factual knowledge and certain skills, to "critical thought, clarity of expression and complex decision making" (Marmot Associates, 2006, p. 20). We might also think that it reflected competition for students and diversification of the student population. Lecture based teaching methods have become unfashionable, while the report suggests significant evidence for the importance of learning through reflection, doing, and conversation (Marmot Associates, 2006). This implies more complex learning space provision, a move away from reliance on lecture theatres and towards use of a range of learning spaces to accommodate different learning styles or activities.

In thinking about the requirements of active learning, Chism (2006) proposes that learning space needs flexibility, comfort, sensory stimulation, technology support, and decenteredness. She sees a key driver to be changing student expectations and study patterns. From this perspective existing infrastructure is likely to seem outdated. In their recent study of one university campus, Jessop and Smith (2007, 2008) point to the way that classroom layouts affirm a teacher centric, transmissive micro-design, lacking a true student focus or the flexibility to support a flow of activities from "listening to collaborating to writing or working independently" (2008, p. 5). On sheer practical grounds the itinerant lecturer in his or her short teaching sessions simply does not have time to change the micro-design of rooms for a single session.

Much discussion about how learning space design should be changed has been developed around the notions of the Information Commons and the Learning Commons. Historically, the aim of the book-centered library, the paradigm increasingly dominant in the twentieth century (Bennett, 2009), was to amass and organize a huge collection of printed books and journals. The *virtual library* concept implied having a purely electronic collection, leaving little role for library buildings. Even the later *hybrid library* concept (Rusbridge, 1999) was likely to be realized as a building filled with serried ranks of computers. Some commentators continued to argue that digitization had its limits and the library had a role as a place (Crawford, 1999) and now, partly because of technical change, such as computer network wireless access, the ranks of computers can be allowed to fade more into the background. New thinking about library space re-imagines it as a place for collaborative learning, a social and meeting space, a type of "third place" (Harris, 2003), the center of a community.

It was during the late 1990s that a concept of the information commons emerged in the USA (Spencer, 2006; MacWhinnie, 2003). This was a period of substantial investment in new building. Although actual building patterns from 1995 to 2002 in the USA were often driven by quite traditional thinking (the need to house growing print collections was a key driver) (Bennett 2003), a radical reconceptualization of the library space emerged. The new information commons are often centrally-located campus showpieces, especially for the implementation of the most advanced technology. In the UK the prototype is the Saltire Centre at Glasgow Caledonian University, opened in 2006 (Watson, 2007). Its key features are: "[a] spectrum of spaces" (Watson, 2007, p. 257) for group work as well as quiet areas for reading; multiple services within the library, with books but also computers and merging of support services; plus student services, close or within the library, as well as social spaces and coffee shops. Flexibility of design for future reuse is also prominent in thinking. The Saltire Centre is a large dramatic building and a hub of activity.

These types of space are "wildly popular" with students (Spencer, 2006, p. 242). Yet they have not been without their critics. Jamieson (2009), while welcoming the changes, notes the ultimate risks of concentrating too many functions for too many people in one place, as well as the potential impact on other parts of campus. He also notes the irony of extending organization to informal learning in a context of also talking about students needing to take control over their own learning. Although they report considerable satisfaction, even excitement with new learning spaces, Spicer and Hancock (2008) also have a residual skepticism about the new library building, a view shared by some of the social actors they studied. They see these redesigns as a deliberate remolding of the visual aesthetics of the library to reference the imagery and use of space in business, and as having continuity with adjustments of the public sector to free market ideology. The specific motifs of this rebuilding/rebranding are blurring of spatial use and boundary crossing and fantasy. These combine to

undermine the old library space and make it into a space of consumption.

Such questions are developed furthest by Bennett (2005, 2006, 2009). He argues for a step beyond the Information Commons to the Learning Commons. One issue with the IC is librarians continued thinking in terms of a service to support information seeking and consumption, rather than learning; a focus on providing services instead of "one that encourages students to devote more time to study" (2005, Increasing Time on Task section, para. 12). Fuller understanding the needs of learning implies going beyond library concepts of information literacy. Bennett asserts the following needs:

- Supporting a distinction between studying and socializing that does not deny the social dimension of study
- Favoring learning functions in the space's mix of academic and social functions
- Providing choices of place, ranging from personal seclusion to group study, that variously reinforce the discipline needed for study
- Permitting territorial claims for study that enable students to govern the social dimension of their study space
- Fostering a sense of community among students. (2005, Increasing Time on Task section, para. 11)

Thus, Bennett recognizes the problem students have of distraction and the social character of learning becoming merely a diversion into socializing. He suggests that there is a need to let students own space, to use it in different ways at different times, to work in a context where they know others and feel safe such that social aspects of learning can take place. He refers to this as the "domestication" of public spaces of libraries. In fact, he is rather close to defining "transitional spaces," Winnicott's term for a safe place where the learner feels secure enough to take the psychological risks necessary for learning and where the emotions around learning can be contained (Sagan, 2008). Sagan found learners wanted "a local, safe place in which they felt ownership over the course . . . and they wanted consistency; of teacher, time, place and pedagogical approach." For Sagan, "space and emotion are inextricably linked in learning" (2008, p. 175); creating such safe places is a key to providing the conditions for learning.

Of course, there may be some theoretical and practical obstacles to achieving this vision. First, Bennett's account of learning does seem to privilege one approach, active learning, seeming to deny that learning can ever effectively occur through a transmissive process. The claim that knowledge is a social construction seems to be construed to mean that learning requires direct social interaction. Certainly the resource implications of pursuing the "domestication" of space would appear to be challenging.

If, as this suggests, the IC cannot fully answer the spatial needs to support learning at Sheffield, we need to ask about the other places where students study. As a topic in the literature this seems to have been relatively neglected (Temple, 2007), even though, as Sagan (2008) observes, talk about learning in Higher Education is pervaded with spatial metaphor (e.g., the very term "student-centered"). Cambridge University's learning landscape project is a notable exception in exploring where students study and with whom and how IT fits into this. The study found students continued to work primarily in their own rooms and colleges, though social learning space was also valued. ICTs played an important role in coordinating work and communicating with peers. Such suggestive findings point to a need for more studies that look holistically at students' experiences of space when learning (Howell, 2008).

Indeed, the discussion so far has been on learning space as such, and not the campus as a whole, yet this itself shapes learning. One theme that Jessop and Smith's (2007, 2008) study of University of Winchester teaching spaces identifies is the symbolic hierarchy in the campus layout, with the "heart" of the university occupied by the most prestigious departments and administration. Thus, where a space is and its proximity to other buildings signifies status. In organizations generally, space is symbolic of status, so that the amount of space given to an individual, the quality and order of furnishings (very regular ordering indicates control), its maintenance and the degree of control over the air/light/sound environment are all indicators of status (Baldry, 1999). Thus, the ordering of space may itself reproduce specific power relations or categories, most obviously in the symbolic priority given to certain types of space.

Further, the notion of the hidden curriculum may have some bearing on how space influences learning. Above the facts and knowledge more obviously imparted to learners, much of what is learned in school are disciplines, habits, and implicit values conveyed through rules about behavior, role models, and the design of physical space. Thus, Costello (2000) sees the opulent buildings of a law school, donation plaques, art works, and lecture theatre layouts socializing students to "adopt role expectations of power and authority, wealth, comfort and an appreciation of upper class culture" (p. 58). The faded grandeur of a school of welfare, in contrast, with its more personal decoration, student work displays, and

seminar rooms laid out so students face each other in circles sends alternative messages of "limited resources and class aspirations, and about the values of empathy, modesty, tolerance, public service and communal responsibility" (2000, p. 58-59). Because these things are partly imparted through, and apparent in, the built environment of learning spaces, one could say that the hidden curriculum is visible (Prosser, 2007) or "hidden in plain sight" (Costello, 2000, p. 59).

Research Questions

Thus the literature as yet tells us relatively little about how students experience new learning spaces like the IC, and about what the impact has been on their places of study. More immediate evaluative studies of specific new buildings are likely to neglect the wider picture in terms of re-evaluation of existing space or the hidden curriculum in campus design more generally. The study reported here endeavored to make a small contribution to filling these gaps by pursuing the following three research questions:

1. How do undergraduate students (UGs) and staff of one particular department experience university provided teaching spaces?
2. When and where do students prefer to conduct independent study?
3. How do students and staff experience the physical environment of the department, and how does this shape their relations with staff?

Methodology

The study was conducted at the author's own department in a research strong (Russell Group) university in northern England. The Information School is recognized as one of the UK's leading Departments of Information and Library Science; for example, it has been ranked first in every one of the Research Assessment Exercises. It has around 400 undergraduate, postgraduate, and research students. The project was a small-scale exploratory study and the primary data source consisted of six in-depth semi-structured interviews conducted with third-year (finalists) UGs on the BSc in Information Management. Three interviewees were students in the cohort that finished in 2009, and three with the cohort that finished in 2010. Each cohort is small with 25-30 students in it. Three interviewees were female. Finalists were chosen partly because aspects of their understanding of their subject explored in the individual interviews were most relevant to finalists. It is acknowledged that final year UGs have a particular viewpoint and that their perspectives would not represent those of all other level students or postgraduates. Two interviews were also

conducted with staff members. All the interviews lasted between 40 and 80 minutes. Data collected about the researcher's own experience of space included notes on memories and feelings about different teaching spaces and the building. Some material was also generated in an interview conducted by a colleague as part of a joint study of teachers' views of space (author co-authored paper).

Both the student and staff interviews employed visual methods, namely using photos as a tool for eliciting opinion and memories. The research questions revolved around everyday experience of space and emotional and aesthetic responses to it. Yet getting participants to articulate aesthetic and symbolic experiences of organizational space is hard (Jones, 1996; Taylor, 2002; Halford, 2004). Taylor identifies the cause of such "aesthetic muteness" in the way that talking about feeling is a less legitimate discourse in many organizations because it is subjective; it undermines instrumental cultures because it "complexifies and distracts" (Taylor, 2002, p. 835) and detracts from subjects' attempts to represent themselves as the "powerful and effective manager." This may be less true in academia, where the emotionality of learning is partly recognized. However, much of the talk of learning as a purely cognitive process of transmitting and absorbing information will again limit the extent to which the fullness of experience can be easily explored.

Visual methods were considered to be a promising approach to overcome such barriers since images tend to have a strong symbolic or connotative element and open to many interpretations, excite discussion and exploration. An interest in the multiplicity of everyday experiences of educational space has led a number of researchers to adopt participative visual methods of research (McGregor, 2003, 2004; Loxley, 2009; Mannion, 2003). The use of imagery could take the form of asking respondents to make drawings (Jones, 1996), take photos of favorite or significant objects (Tian & Belk, 2005), or take images that express their feelings about their work environments (Warren, 2002). Montgomery (2008) asks respondents to reflect on teaching practices by looking at schematics of possible room layouts. One problem with drawing or complex representational tasks is that it requires a degree of skill. Thus the simplest approach is to use images produced either by the researcher or the interviewees to elicit comments or stories in interviews, through captioning or discussion. The approach taken here was to use researcher-created color photos, and it involved the use a dozen 6" by 4" prints as an elicitation tool within an in-depth semi-structured interview in which interviewees were also asked about preferred learning spaces and study practices. Clearly the particular

photos chosen for the interviews constructed the spaces in particular ways. One staff interviewee commented on how well the photos used in the study captured the spaces; no one explicitly said they were misleading. However, it is hard to disentangle how far interviewees' responses were to the picture offered or to the room itself. They did elicit specific memories of those spaces, but the pictures could also be seen as representations of types of space, as in Montgomery (2008).

The analysis was thematic, using coding and rereading to identify themes emerging from the data (Braun & Clarke, 2006). The study sought to investigate the experience of social actors and how these are shaped by social structures. There was a concern to explore emic perspectives: students' experiences understood through their own words. It is recognized after Geertz, that understanding of social life is inevitably indirect, "our constructions of other people's constructions" (1973, p. 9), yet that language and interaction is adequate to build some reasonably trustworthy account. It is also recognized that the interview is a co-creation between the interviewer and interviewee, but without saying that the data collected is only about the interview process. Reflexively we have to locate ourselves in the research. Indeed, according to Hammersley and Atkinson (2007) we should be "systematically exploiting" (p. 18) our participation in the social world we are studying to enrich our accounts of it. Here the researcher's own intimate knowledge of the spaces being talked about and his reactions to what students and colleagues told him was an important source of insight. Equally as interviewing is itself a form of engagement, he learned a lot about relational aspects of student engagement by examining the interview itself and by looking at his own participation in it. All the interviewees were known to the interviewer. While this is again a limitation on the potential validity of the findings, the approach saw the pre-existing relationship between the interviewee and interviewer as a strength in terms of increasing understanding and honesty. The inclusion of the researcher in the study does not qualify the attempt to understand actors' own viewpoints for themselves; indeed, by being explicit about the researcher's place in the research, such subjectivity can be limited.

Although there was a central concern to discover the views of actors, this cannot be the end-point of analysis, since there is a moral imperative to explore the shaping of actors' experience by social structures, which may be outside their own awareness in order to inform action. So broadly the research could be positioned as critical interpretivist.

The research observed the guidelines of the British Educational Research Association (BERA, 2004) and was cleared under The University of Sheffield ethics review process. The ethics review process provided external validation of the application of procedures for gaining voluntary informed consent through explaining the research to potential participants verbally and in a written information sheet, anonymization of interviewees, as well as legal compliance to the Data Protection Act. As well as producing practical recommendations to the department concerned, the interviews were inherently useful. Sagan (2008) sees her own collection of learning biographies for research as an active, essential part of the learners' learning process itself. Similarly, this research was a positive act of engagement, enhancing rapport between the researcher and the students concerned, as well as being justified as research because of the theoretical and practical value of the findings.

Results: Teaching Space

Five of the thirteen photos shown to interviewees were of teaching spaces- including lecture theatres, labs and a redesigned "collaboratory" which had laptops at clustered tables- and that they might have remembered using in their first year. All names included are pseudonyms. Grant and Harold are the names given to the lecturer interviewees.

Broadly, the response to these photos was what would be expected in terms of a preference for the "interactive" (Dawn, Fiona), "specialized" (Ellen), "spacious" (Fiona), and technology rich environment seen in a collaborator in the IS, over a "stereotypical . . . utilitarian" (Charles), "traditional" (Fiona), even "old-fashioned" (Ellen) lecture theater. There was some acknowledgement that the computers could be a distraction. Staff were more skeptical and felt that rich technologies were not often used effectively. The space was actually difficult to reorganize, because of the need to secure laptops. Furthermore, because there were many screens, "students don't know where to look" (Grant). So, there were more tensions between Chism's (2006) principles than is immediately apparent. The notion of decentering is particularly problematic.

Despite their preference for the collaboratory, most of the student interviewees were quite accepting of the value of the lecture theatre when fit for purpose. Only one took the preference for the collaboratory further to be strongly critical of more lecture-orientated spaces.

> It's very rigid. Very static . . . Everyone is focussed and guided in their attention. Obviously there's going to be somebody standing at the front there, talking. . . . The way it's organized, it's just very static. It's not like we are all facing in a big circle. It doesn't show we are going to have a discussion, it shows very much that someone is going to be lecturing at us. And we've to sit quietly and take notes.

But this extension of criticism was unusual. Looking at the lecture theatre layouts interviewees tended to focus on the importance of simple comfort, of being able to see and hear. So complaints about one room were around its tendency to get hot, but too noisy if the windows were opened to cool it down. The space was cramped:

> I don't like the fact it hasn't got proper desks. It's just got the pull out table on the arm of the chair. I'm not a big fan of that because you haven't got space to spread out, like I mentioned earlier, so it's pretty much you've got the paper you're writing on and your pen in your hand and that's it. No space for pencil case, no space for a bottle of water. (Dawn)

The inability to have room to "spread out" was a recurrent theme in Dawn's interview. Another interviewee pointed to the difficulty of finding space for one's bag and coat, suggesting a sense of never really being able to occupy a space.

Implicit acceptance of transmissive modes of learning was also indicated by feelings about the virtual learning environment (at Sheffield called "MOLE"). Whereas lecturers saw it as over-complicated and difficult to allow students to add content, students often liked it:

> Everyone uses MOLE. MOLE is the university. This is what you are paying your 3000 pounds for. This homepage here. It's got everything you need on it. (Bob)

> Everything you need is there (Adrian)

> I love MOLE . . . now that I've learned to use it properly in my final year, I think its brilliant. (Fiona)

Thus, students liked the idea of the social interactive spaces, but they were mostly rather accepting of lecture type delivery too.

One interviewee complained about the repetitive character of color scheme in rooms and the sense of their looking very much like all the places he had been taught in. "Same as any room I've learned in throughout my life. White walls. Rows of chairs. Desk at the front." (Charles)

There is the sense that all the spaces were rather similar because of institutional branding and ironically because of attempts to standardize equipment. One of the teachers had experience of school teaching and mourned the loss of the ability to shape a classroom into different areas and celebrate student work in displays. Customization or domestication in efficiently managed space is hard to achieve. But in the interview he also reflected on not customizing things where it was possible, e.g., in handbook design or on the VLE. There is a tendency of things to become standardized and regimented.

Independent Study

Another focus in the interview was where students conducted independent study and where they most liked to work, be that at home, in the library or a lab, or elsewhere. It was evident from these discussions that students work in less than ideal conditions. Students who still lived with their parents had better spaces. Student housing is often cramped, noisy, and poorly equipped, e.g., without a big desk. But the number of distractions where one lived was the main problem, students said. Even those who could concentrate in their rooms suffered from constraints of noise from neighbors or the wider environment. Ellen had to stop working when the local pubs and bars started opening because of the noise. Fiona felt she could only work away from home, yet fears about walking home after dark constrained the time she spent studying, even though the IC was open after 5:30. Such constraints forced students to be quite mobile, which also seemed to be linked to a lack of temporal routine. Time management for Bob revolved around putting himself in a position where it was more inconvenient to go and eat and risk getting diverted than to work. Students' mobility is associated with lack of routine and distraction.

All the students said that they always had a computer when they were studying. Ellen talked about "switching off" to mean finishing work for the day. This is could be particular to these students' subject of study, but is perhaps not untypical of students as a whole (Howell, 2008). Yet these students did not bring their laptops to campus because they were too heavy. This was an important factor shaping where they could study.

The IC was a recurrent reference point for the interviewees: an admired building, but it was not a popular place to study for these third-year students. In essence, this was because it was hard to find a computer and the "busyness" and chances of bumping into friends were too distracting:

> I don't know what people did before the IC was here. Where did everyone go? (Adrian)

> The building is brilliant, looks good. A proper Hi-tech library. . . . Everyone loves going to the IC. It's a social environment. It's like going out clubbing . . . you see everyone that you know there. It's like a huge cafeteria. Eating, relaxing, working, chatting. (Bob)

If you sat and closed your eyes 'its just chatter.' (Bob)

During the day:

> The IC is a common room. It's a massive 26 million pound common room. And it's full of thousands of computers used for Facebook and BBC news and sports. . . . A conversation is 2 minutes away from you wherever you are. (Bob)

He concluded that 10 p.m.- 2 a.m. was when to work in the IC.

So, students sought out other library spaces, labs which were quiet at certain times (or at least where one was unlikely to bump into someone one knew), and above all the two computer labs in the department itself. Entering the department building, students turned naturally out of the lifts[elevators] towards the labs, it "seems like our area" (Charles). "Because there is not really a common room, so that's where people go" (Charles). Thus, one of the favored spaces for study on campus was in the department itself.

The Department

The final area of investigation was indeed the whole building and offices of the department. Students expressed strong identity with the department because it was small and because staff were friendly and helpful. Nevertheless, students complained about the entrance area of the department:

> Drab and uninteresting. The same sort of faded grey on the walls and carpet. Not a very exciting environment. (Adrian)

Charles associated it with waiting:

> Waiting for the lift, waiting in reception, waiting for a lecturer. There is nothing to do. Enclosed whitey/greyed colors.

Yet they did look and enjoy the research posters dotted around the Department, indeed complaining that they were not changed often enough.

But it was a photo of a corridor that produced some of the most interesting reactions. Although the corridor is merely a row of staff offices, there were genuine doubts in some students' minds about whether they were allowed there:

> You'd open the door and you'd be like: should I be down here? Because it's so quiet. And . . . I don't know. I can't really explain why. You just felt like you were trespassing in somewhere you shouldn't

have been. To some extent I still walk down here slightly frightened to breathe 'cause you've got all the staff offices and you know that people are working inside and (whispering) you don't want to make too much noise. (Dawn)

For Dawn it felt like she was trespassing where important work was being done, and she worried about disturbing the occupants of the rooms. "It reminds me almost of an empty hospital or something because it's so quiet. No doors are opening, there's nothing anywhere, there's no posters, no nothing. Yet it does look a bit dark" (Fiona). Ellen liked walking down the corridor to playing the computer game Doom, where monsters might jump out of the doors. "It looks like a maze. It looks like the long walk before you go off the plank" (Ellen). So, it was threatening, and although the whole department is only two floors in a small building, it produced the effect of feeling confusing like a maze. Thus, entering into the department in one direction the students felt at home, while a few yards away they felt like trespassers. There was a sense of withdrawal and distance. The layout was confusing, even frightening.

The effect was inadvertent, due to closing fire doors and perhaps also students' security concerns; the building has no controlled access, and security is simply achieved by the sense of privacy. The sense of withdrawal, even absence, also reflects the realities of pressures on academics to do research. The largely unintended—and for staff probably unnoticed—effect of these simple physical arrangements is a sense of distance.

Discussion

In reflecting on the findings about the first research question for this study, which related to experiences of teaching spaces, students like the newly designed, technology rich environments. Yet problems in terms of distractions were still acknowledged, and for the teacher interviewees there were doubts about how well the technology was used, especially about the decentering of attention and inflexibility. Providing computers securely rendered the room rather inflexible. Thus thinking through Chism's (2006) list of spatial design principles for active learning reveals the contradictions between the different characteristics. The university provides a variety of types of learning space in terms of scale and layout, but they are not in themselves greatly flexible, as Jessop and Smith (2007, 2008) observe. The timetabling system and simplicity suggest using one or two rooms for an entire module, but that means that too often the teacher will find himself or herself fighting the room design to deliver teaching in particular ways.

Further, Chism's (2006) claim that a key driver for the changed use of space is change in student learning preferences did not seem to be supported here. Rather, students were relatively accepting of transmissive modes of learning. Significantly, the basic comfort, audibility, and visibility in rooms became critical in evaluating space in this context. Acceptance of transmissive modes of learning was particularly evident in the positive view taken of the VLE. Some interviewees felt all the spaces looked the same, and certainly we seem to be a long way from being able to provide "domesticated" space in this context.

As the researcher in this study, and also an active participant in teaching in the department, I was quite surprised by lack of strength of criticism of lecture type spaces. Perhaps I should not have been; inevitably in mass institutions students are socialized into the lecture as a way of learning. While not ideal, they can be effective. They suit some students' learning styles. Yet it did make me reconsider my own practice. Without diminishing my commitment to bring active, social learning into the classroom, it convinced me also of the need to attend to basic comfort, especially in terms of students having space for their things. Of course this is basic good practice, but I do think these issues tend to get masked by a focus on active learning. Further, the research strengthened my sense of the tendency of everything to get standardized in the name of efficiency and consistency. We need to struggle against this almost inadvertent regimentation, which is likely itself to help produce the surface or strategic learner.

Turning to choice of independent study space (the second research question), the impression is of how far student conditions of study fall short of the ideal as defined by Bennett or Sagan, at least for those who do not still live with their parents. The IC is an incredibly powerful symbolic statement in placing a large area of student space at the heart of the university campus. Collectively the students have a sense of owning the IC. In reality, individually, they do not own space there. The IC works as a spectacle of a student centric institution. It revalues all other space relatively, by being a benchmark in terms of high quality, purpose built spaces for students. It certainly relieves pressure on other spaces. But the competition for resources within it is intense. Its "busyness" is a distraction. These students did not use the IC, but rather sought out other quieter spaces where competition for space and computers was less. This included seemingly obscure labs, other library spaces (at certain times) and the department itself.

These findings convinced me that thinking more about where students study is an important part of

reflective practice as a teacher. Of course, readers of this paper, as well as myself, were students once and the picture is perhaps not very different from what we experienced. But we can easily lose touch with such experiences, another effect of the distance between the teacher and the immediate experience of learning in a mass system. It had not been visible before to me that students liked to work in our own labs, even though my own office is just down the corridor.

As regards responses to the departmental building and offices themselves (research question three), students felt a strong identity with a small and friendly department. Yet the feelings of confusion, distance, and even fear generated by the corridor photograph reveal another layer of affect. The impression of distance seems to arise partly as an inadvertent by-product of health and safety concerns, as well as security concerns. Entirely necessary security measures have a pervasive impact on campus on student engagement by creating barriers. I do not think, as staff, we do enough to counteract these effects because we ourselves barely notice them. We may contribute to this distance via our efforts to put relevant information into web sites and VLE, reliance on email to communicate and most recently electronic submission of course work. Creeping virtualization in the name of efficient service reduces direct contact. The sense of distance is also about a withdrawal of staff from engagement, created by the pressure to do research and our loyalties to academic tribes beyond the institution. Our own qualified engagement in the institution is reflected in qualified student engagement. Our own needs for privacy, quiet, for our own learning, for our own transitional space, creates a necessary exclusion. Further, sheer student numbers, the complexification of the student body through internationalization and greater social inclusion, and the fragmentation of teaching through modularization all contribute to a distance, further reproduced as lack of student engagement.

Relistening to the interviews to what I myself had said and thinking how I felt during them, I was struck by a degree of emotional distance. In retrospect I seem unnecessarily doubtful of asking about the affective or imaginative response to the photos. My questioning too, at times, showed signs of a concern about invading their privacy. I think it is reasonable to interpret this reserve as produced by institutional discourses which continuously construe learning as capable of rationalized, large-scale solutions. Affect is acknowledged at end-of-module evaluation or as personal problems to be referred to professionalized counseling services (Sagan, 2008). These responses themselves tell us much about the withdrawal from personal engagement which a mass, pressurized system tend to produce.

Conclusion

The students interviewed for this paper were keen on their subject, and they liked the small friendly department. As third years they were engaged in studying quite intensely. Yet the investigation revealed much visible in the spatial environment that limits student engagement, features themselves reflecting wider structures. I suggest the same processes are at work in many departments in many institutions. Part of the power of the IC building is for us to see this more clearly. Change defamiliarizes the everyday experiences of space (Halford, 2004).

Improving teaching space is partly about providing more flexible, more technology-rich spaces. But in the context of partial acceptance of transmissive modes of teaching, there is a need to pay attention to basic comfort and to think about how to allow students to spread out and own space. Where students live is often poor for sustained independent study. The Information Commons is an acclaimed solution, not just architecturally, but by users. But there is a risk of seeing the IC as the whole answer. Individual groups of students, such as the finalists studied here, had very specific needs that were not always well met by IC. We need to explore more deeply differing needs and expectations (e.g., among international students). We need ongoing engagement with students about space; such discussions can open our eyes to how familiar spaces order the way students and staff relate, often in unwanted ways.

In reflecting on the spaces we use daily, Mann (2001) offers various theoretical resources for understanding student alienation and also strategies to address the issue. From this study of space, it is clear that strategic or surface learning seems to be partly a product of a mass system in which space is managed efficiently, at a cost in terms of flexibility, customization, "domestication" and, at times, even comfort. Even where sheer class size is not the issue, managerial efficiency, health and safety concerns, and security, continuing patterns of transmissive teaching, the time saving appearance of technologization, and pressures of competing staff priorities tend to produce a somewhat regimented, depersonalized environment. In this context students see themselves as outsiders (Mann, 2001). It may also be that because it is difficult to provide the spatial and other conditions for creativity, this produces a sense of alienation, too (Mann, 2001). Acknowledging these forces opens up many possibilities for fighting against the insidious effect of the structures. Simple personalization of learning materials, friendlier, hospitable signage and discourse, actively problematizing the effects of space during teaching, and the active creation of safe spaces are all available as strategies when the issues are made visible to us. As questions about membership of the organization are a common issue for staff and students, solidarity is another strategy (Mann, 2000). Practitioner research, such as that described here, as itself an act of engagement, is a contribution to such solidarity.

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Educative Outcomes for Academic Service-Learning:
Explicit Illustrations of Reflection

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Higher education faculty are drawn to academic service-learning (AS-L) for its positive outcomes. In order to achieve such outcomes, it is necessary for faculty to be intentional about students' reflections on their AS-L experiences. This article describes research on three reflection exercises conducted with 41 students enrolled in two sections of an Educational Psychology course. Each reflection exercise was designed to help students achieve one of the following outcomes: becoming aware of negative stereotypes, making connections between their AS-L experiences and course content, or developing an appreciation for complexity in a situation at the AS-L site. Qualitative analysis was used to examine the data for patterns of the personal and academic knowledge study participants gained from each of the reflection exercises. Suggestions are included for adapting the three reflection exercises to suit the varying needs faculty have for their courses.

Higher education faculty turn to academic service-learning (AS-L) pedagogy because it connects classroom instruction with community service and helps students learn about the complexity of societal issues firsthand. AS-L experiences help students to enhance their academic knowledge, reduce negative stereotypes, develop a greater appreciation of other cultures, increase self-knowledge, and cultivate civic participation (Eyler & Giles, 1999). These are the outcomes faculty hope for when placing students in AS-L settings. Unfortunately, not all students leave their AS-L experience with increased academic knowledge and greater social, personal, and civic awareness. When faculty are not intentional about building in class time for reflection on AS-L experiences, some students can leave their AS-L experience with less than desirable results (Ash & Clayton, 2009).

Dewey's classification of experiences as either "educative" or "miseducative" provides a useful framework for AS-L faculty as they consider how to incorporate reflection into their courses (Bringle & Hatcher, 1999). Experiences are *educative* when reflection leads to new discoveries about oneself and the world, personal and professional growth, and the ability to take informed action. Experiences are *miseducative* when critical thought is lacking and students become more ingrained in their existing schemata (p. 180). Reflection is a critical element for determining whether experiences are educative or miseducative.

Definitions of Reflection

Eyler and Giles (1999) identify the need for balance between community service and academic learning in AS-L, noting, "[T]he hyphen in the phrase symbolizes the central role of reflection in the process of learning through community experience" (p. 4). Within the AS-L community there is consensus that reflection is essential for optimal student outcomes (Weigert, 1998; Eyler & Giles, 1999; Hatcher, Bringle, & Muthiah, 2004; Correia & Bleicher, 2008). Reflection is often thought of as the bridge between academic concepts and concrete experiences in AS-L (Bringle & Hatcher, 1999; Felten, Gilchrist, & Darby, 2006). Indeed, Hatcher and Bringle (1997) define reflection as "the intentional consideration of an experience in light of particular learning objectives" (p. 153). Stanton, Giles, and Cruz (1999) likewise observe that reflection represents a "stepping back from intense social engagement to learn more from it in order to be more effective the next time, and the connecting of these reflections with existing theoretical knowledge" (p. 191).

Bringle and Hatcher (1999) note that in addition to linking the service-learning experience to course objectives, well structured reflection is needed on a regular basis throughout the semester to provide students with multiple opportunities to practice the art and skill of reflection. They also believe the instructor needs to provide feedback that encourages students to deepen and broaden their reflection. Finally, Bringle and Hatcher argue that reflection should include opportunities for students to study, clarify, and reframe their values.

Need for Reflection in AS-L

When reflection is not central to the educational process, there are several ways AS-L can go awry. Potential negative outcomes include, but are not limited to, reinforcement of negative stereotypes (Jones, Gilbride-Brown, & Gasiorski, 2005; Ash & Clayton, 2009), disconnection of AS-L experience from course content (Eyler & Giles, 1999), and simplistic understandings of situations at the AS-L site (Ash & Clayton, 2009). These outcomes are discussed in greater detail below.

While the reduction of stereotypes is often identified as a goal of AS-L, the exact opposite result, reinforcement of stereotypes, can also occur. Jones et al. (2005) note that when students engage in AS-L, "previously held assumptions, stereotypes, and privileges are uncovered" (p. 4). Darby, Knight-McKenna, Spingler, and Price (2008) found that placing middle-class college students in AS-L experiences at high poverty public schools without significant preparation resulted in students making negative generalizations about the children, families, and teachers at these schools. Faculty seeking to avoid such outcomes will be motivated to focus students' reflections on assumptions and stereotypes and to provide opportunities for students to reframe their thinking.

Students miss learning opportunities when they fail to connect their AS-L experience to course content. Simply completing the service is not enough to attain desired outcomes (Jay, 2008). In research conducted by Eyler and Giles (1999), students who volunteered without the structure of an AS-L course tended to talk about the people they met and the experiences they had. In contrast, students who engaged in AS-L with a strong reflection component talked about what they learned and how that learning could be applied to real work situations. Reflection appeared to support students in making connections between the personal and the academic. Eyler and Giles concluded, "[R]eflection is a useful tool for most service-learning goals, but it is central . . . for improved academic outcomes" (p. 173).

The third potential negative outcome of an AS-L experience that does not emphasize reflection is that students may leave the experience with only simplistic understandings of the things they have seen and experienced. Ash and Clayton (2009) explain that students may make sweeping generalizations based on their narrow perceptions and the limited data at their AS-L site. Some students have a superficial understanding of complex social conditions, which can lead to "students supporting the status quo, rather than being the effective agents of change that service-learning proponents hope to help mold" (Ash & Clayton, 2004, p. 139). For example, at an AS-L setting of a high poverty school, one undergraduate student noted that parents of students often do not review their children's folders and sign appropriate paperwork to send back to school. This undergraduate student concluded that the parents do not care about their children's education instead of considering the parents' work schedules, language differences, and literacy levels (Darby et al., 2008). Unless students are asked to step back, gather data in a comprehensive way, and analyze it to discover its complexity, they may retain oversimplified notions of situations that actually contain layers of complexity.

To avoid these negative outcomes and achieve the educative outcomes AS-L can offer, faculty need to carefully plan how their students will reflect on their experiences. This article presents research on three reflection exercises designed by the authors. Each reflection exercise is intended to help students achieve one of the following educative outcomes: becoming aware of negative stereotypes, making connections between their AS-L experiences and course content, or developing an appreciation for complexity in a situation at the AS-L site. There is some overlap between these outcomes, but each reflection exercise is most strongly associated with one of the three educative outcomes.

The need for well-structured reflection is firmly established in the AS-L literature, yet there are few examples in the literature of actual AS-L reflection exercises and little research on students' learning as a result of participating in the exercises. Most of the articles on reflection present general models for faculty to adopt for their courses rather than concrete examples of reflection exercises that have been successfully implemented in AS-L courses. With this in mind, we share research on three reflective exercises with analyses of student feedback.

Methodology

Desiring educative outcomes for our AS-L, we examined the epistemology of pragmatism espoused by Dewey. This framework is known for being real world centered and for having an emphasis on "what works" (Creswell & Plano Clark, 2007, p. 23). Despite its appeal, we realized this approach was missing a critical examination of assumptions and the need to consider multiple perspectives. Knowing how important these aspects are to AS-L reflection, we decided to look beyond the framework of pragmatism. Along with many others, Brookfield (2005) notes the limitations with pragmatism. He argues for an epistemology that encompasses both real world applications and a critical stance. This approach, which he calls critical pragmatism, "allies itself with the struggle to create a world in which one's race, class, and gender do not frame the limits within which one can experience life" (p. 16). AS-L provides a natural connection with critical pragmatism because of its emphasis on experiential learning and critical reflection. Thus, this epistemological framework guided our study.

Context of Study and Participants

Nationally recognized for its implementation of AS-L pedagogy, the university which served as the context for this study is a private mid-sized liberal arts

institution located in the southeast region of the United States. The university faculty is over 90% Caucasian, as are 81% of the students. Many of the students come from the middle to upper-middle socioeconomic class, and most are of traditional college age. A significant majority of the students study abroad and participate in volunteer opportunities. The local community provides a contrast to the university with regard to racial makeup and socioeconomic status. Over 40% of the members of the local community are African-American or Hispanic with 16% living below the poverty line and nearly 11% lacking employment. These figures do not include undocumented workers. The local school district has been designated a Title I district due to the high numbers of students receiving free and reduced lunch.

Specifically, this study was situated in two sections of an undergraduate educational psychology course held on the university's campus. Students enrolled in this course come from a variety of majors; however, a large percentage have declared either education or psychology majors. Several sections of the course are offered each semester, giving students the choice of selecting a section with or without AS-L pedagogy. The 41 participants in this study chose AS-L sections of the educational psychology course. Thirty-five participants were female, and six were male; all were of traditional college age. Fifteen of the participants were seniors, and 26 were juniors. Thirty-eight participants were Caucasian, two were Asian, and one was Hispanic.

In this course, college students carried out 20 hours of service-learning during the semester at a local high poverty elementary school. The racial breakdown of the elementary school student population was approximately 40% African-American, 40% Hispanic, and 20% Caucasian and others. The college students' AS-L experience involved working one-on-one or in small groups with students on math or reading, assisting teachers with student behavior problems, and/or supporting everyday classroom activities. Each Educational Psychology class entailed discussion, reflection, and synthesis to help the students connect their AS-L experience with the course material.

Research Methods and Analysis

Case study methodology applies as this research was bound by the length of a single semester and bound by the context of an educational psychology course offered on campus (Creswell, 1998). Data collection methods for the reflective exercises came from three sources: participants' responses to the reflection exercises; the instructor's notes, taken during and after the classroom discussions; and participants' written responses to the prompt, "What did you learn as a result of participating in this reflection exercise?"

Our interest in the educative outcomes for AS-L led us to filtering the data according to two guiding questions: "What did the students learn academically?" and "What did the students learn about themselves?" Each of the participant's written responses and the instructor's notes were coded for answers to these questions. As we read each written response, we referred to previous participants' words and codes to identify similarities and differences. We created memos explaining the similarities and differences in an effort to generate categories pertaining to educative outcomes. Further analysis of the memos and the participants' written responses allowed us to refine the categories and reduce the data. This approach, called the constant comparative method (Roulston, 2010), enabled us to deepen our understanding of the personal and academic knowledge participants gained from each of the reflection exercises.

Findings

In presenting our findings we describe each reflection exercise in detail and then provide illustrative quotations related to the research. The research findings support the three educative outcomes of recognizing and refraining from stereotypical thinking, discovering the connections between the course objectives and their AS-L experience, and developing an appreciation for the complexity of situations at their AS-L site.

Alternative Explanations

The first reflection exercise was called "Alternative Explanations." Strategically placed at the beginning of the semester, this reflection exercise helps prepare students for their initial AS-L experience. The exercise focused on recognizing negative stereotyping and provided an opportunity for students to consider alternative ways to understand others. A strand within the Educational Psychology course is the understanding of cultures and families different from the student's own. Specifically, at the beginning of the semester, students read about culture and diversity in their textbook (Woolfolk, 2010) to learn about socioeconomic class differences as well as issues of prejudice, discrimination, and stereotyping. While reading the unit on families, we accessed the information introduced by the textbook and discussed its influence on our interpretation of families. In this reflection exercise, the students were asked to read quotations from former university students that portrayed negative views of the families of children who live in poverty. The students were then asked to

discuss these views, consider where they may have originated, and generate alternative ways to interpret the family's behavior. This reflection exercise helped students become aware of negative stereotyping of families living in poverty and generate other explanations for family members' behavior.

Below is one example of a quotation from a former student that was shown to the participants in this study for analysis and discussion. Similar to many of the participants in this study, this student was white, female, and traditional college age.

> They'll have like award ceremonies for the kids that get all As and Bs, no one's there. Like, Open House, no one's there. They have to bribe the parents with food a lot of the times to get them to come in and . . . even if a little kid goes home and he's like look, I got a 100 on my spelling test and nobody cares.

Study participants were asked to discuss this student's view and why she may have developed this perspective, and to provide a list of explanations, other than lack of caring for their children, for why parents did not attend award ceremonies and Open House. Since they were analyzing another student's words, the exercise created a safe atmosphere for them to objectively discuss assumptions and stereotyping. For this quotation, participants quickly recognized how the judgment of the former student was influenced by her upbringing and socioeconomic privilege. The study participants pointed out that it is unlikely that "no one" attended the award ceremony or Open House; some family members did attend. They also noted that the former student could not actually know whether family members responded with disinterest when a child brought home a spelling test with a high grade.

The study participants listed several alternative explanations for poor attendance at school events, such as lack of transportation, lack of fluency with the English language, working two or more jobs and not having time, apprehension about entering a school, not feeling welcome, and not wanting to interfere with a teacher's role. The participants had to place themselves in the role of the parents who were not attending school events to understand what might prevent them from participating. This helped move them beyond negative generalizations to considering multiple perspectives.

When the study participants read the quotations from former students, they were able to see the initial responses one could have about the level of parental involvement in high poverty schools. With further analysis and reflection, they developed a broader understanding of the challenges facing families living in poverty and the obstacles they experienced to fuller participation in their children's schools.

After analyzing the former students' quotations, the study participants were asked to write about what they had learned from this exercise. Carrie Ann, a white, female sophomore student majoring in elementary education, wrote, "It is important not to stereotype and to be empathetic to the situations others are in that could affect their involvement in education." Chelsea, a student with the same demographics as Carrie Ann, wrote, "Things aren't always as they seem, and you have to step back and think of other explanations."

The class period ended with a discussion about how this new learning could be referenced throughout the semester in their AS-L experience. Study participants discussed the value of withholding judgment and refraining from jumping to conclusions about situations they had not observed, particularly in the child's home. They talked about the need to consider alternative explanations to negative stereotyping when observing behavior different from what they experienced in their upbringing.

Cognitive Disequilibrium

The second reflection exercise, "Cognitive Disequilibrium" was conducted soon after the first exercise at the beginning of the semester. This exercise supported students in making connections between their AS-L experiences and the course content. Before engaging in this exercise, students learned in class and through their textbook (Woolfolk, 2010) about the Piagetian theory of cognitive disequilibrium. People experience disequilibrium when they feel "out of balance" in their approach to solving a problem or making sense of a new situation. In striving for balance or equilibrium, people either change their perspective to fit the new circumstances – a process referred to as *accommodation* – or try to fit the new situation into their existing perspective – a process known as *assimilation* (Woolfolk, 2010, p. 33). In preparation for an upcoming class, students were asked to write about a new experience at their AS-L site where they experienced disequilibrium and to identify how they went about creating equilibrium through assimilation or accommodation.

Kevin's response to this reflection exercise provides an example of the work participants brought to class. Kevin, a white middle-class male, was a junior majoring in history. He wrote,

> The first time I experienced disequilibrium was on the orientation day. It stemmed from a mixture of things. I had never gone to a public school, I knew little about the education system, and everyone else did . . . this was totally different for me.

Kevin referenced his private school education and acknowledged his lack of familiarity with the public schools, which led to a cognitive state of disequilibrium.

Discussion time was provided for students to share their experience of cognitive disequilibrium and how assimilation and accommodation play a role in the learning process. At the end of the class period, students answered the prompt, "What did you learn as a result of participating in this reflection exercise?" One student responded that the reflection exercise "provided real-life examples of disequilibrium and therefore accommodation and assimilation within schools. Overall, I got a better understanding of these theories." Another participant said she learned "that there is a name and a definition for the confusion and disorientation I feel sometimes."

Similar to Kevin, the pattern for many students was first to identify their disequilibrium, then to explore the differences between their own schooling experiences and what they saw in high poverty schools, and next to realize how the differences led to their disequilibrium. The final step involved the students sharing how they achieved equilibrium or balance in their thinking by pulling back and analyzing the situation. This reflection exercise provided a tool to help students understand Piagetian theory as they explored the sources of their own cognitive disequilibrium while gradually moving toward reestablishing equilibrium.

The Challenging Student

The third reflection exercise, conducted half-way through the semester, was called "The Challenging Student." The students moved beyond initial negative views of a challenging child by identifying the child's strengths. This reflection exercise helped the study participants learn to see complexity in a situation at their AS-L site. Before engaging in this strategy, students learned in class and through their textbook (Woolfolk, 2010) about behaviorism and aspects of the environment that reinforce certain behaviors. In analyzing the behaviors, students were asked to choose a child from their AS-L site whom they considered difficult in some way and to write down their impressions of this child. The faculty member collected this paper for comparison purposes at the end of the exercise. The study participants were then asked to observe the child with challenging behaviors for two weeks and fill out a form after each observation. On the form they recorded what happened that day, looking specifically for positive behaviors, strengths the child exhibited, and positive interactions the child had with peers and teachers.

At the end of the two weeks, the students completed a summary in which they described the overall strengths of the challenging child. Students were asked to bring this description to class, along with the observational data collected over the two week period. At the beginning of this class, the faculty member returned the papers study participants wrote regarding their initial impressions of the challenging student. Next, the students were asked to write about the similarities and differences between their initial impressions and final summary. The students also wrote about how this exercise related to the course content, particularly with regard to the role of the environment in reinforcing negative behavior.

Rhonda's response to this reflection exercise provides an illustration of our students' work. Rhonda, a psychology major, was a middle-class white, female student. She wrote:

Initially, I assumed that the student acted out in class due to a lack of attention at home. Careful observation and conversations with the boy have helped me to see that he is more complicated than that . . . The constant reprimanding from his teacher makes him extra sensitive and causes him to get angry easily. However, I see a maturity in this child that I did not initially notice . . . Originally I thought he was just doodling and refusing to participate, but actually he was taking time to calm down so he could effectively participate later.

Rhonda described behaviors she observed in this child, including leaning back in his chair, sticking his tongue out, and laughing at inappropriate times. She concluded that this student was challenging. The second question, "Where did my perception come from?," prompted Rhonda to examine her belief that poor behavior stems from lack of parental oversight. When answering the question for the third step, "How else might I view this situation or understand this person?," Rhonda commented on ways that this student did exhibit self-control in a high stress situation. This reflection strategy helped Rhonda move beyond her initial negative view of this student to a new appreciation for the student and a more complex understanding of his situation. She came to think of him as a mature child who was finding unique ways to solve problems.

The participants whose views changed while engaged in this reflection exercise emphasized a deeper understanding of the challenging child and the role of the classroom environment in provoking students' negative behaviors. By carefully observing the child's strengths, participants uncovered academic and social abilities in these children that they had formerly overlooked, uncovering layers of complexity they had previously missed. Rhonda illustrates this point, noting,

"I really liked this assignment. It showed the importance of stepping away and removing yourself from the situation to try and fully understand where the student is coming from, rather than being so immersed in the stressful classroom."

Discussion

Similar to previous research, we viewed reflection as a central aspect of the AS-L experience (Eyler & Giles, 1999; Hatcher, Bringle, & Muthiah, 2004; Ash, Clayton, & Atkinson, 2005; Felten, Gilchrist, & Darby, 2006; Correia & Bleicher, 2008). We saw a need to structure reflections in order to help students recognize and reduce stereotyping, make stronger associations between their AS-L experiences and course objectives, and achieve more complex understandings of the people and dynamics at their AS-L site. The three reflection exercises presented here accomplish these goals.

AS-L experiences can uncover assumptions, stereotypes, and privileges (Darby et al., 2008; Jones, 2005). With the reflection exercise called Alternative Explanations, students had the opportunity to recognize, analyze, and discuss negative stereotyping with another student's words. They then examined how privilege led to the tendency to stereotype. When encouraged to move beyond negative stereotypes and generate alternative explanations for the behavior of the children or family members living in poverty, participants provided a long list and engaged in a discussion about the value of withholding judgment. Although the data did not clearly point to prevention of negative stereotyping, participants did report that they learned to consider alternative explanations in situations that typically led to stereotyping.

As noted by Eyler and Giles (1999), a well structured reflection component supports students in making robust connections between the AS-L experience and the course content. The Cognitive Disequilibrium reflection exercise had strong links with the curriculum of the educational psychology course. Students did not merely memorize a definition; they had an experience of cognitive disequilibrium they could then analyze. By reflecting on their disequilibrium and how they reestablished equilibrium, participants gained insight into how their own schooling experiences influenced their initial impressions of the high poverty schools.

Without reflection, students may have superficial understandings of the complex situations (Ash and Clayton, 2009). The third reflection exercise, The Challenging Student, was designed to help students gather more data in order to achieve a multifaceted understanding of a situation at their AS-L site. Each student was asked to catalogue the positive behaviors of

a child in the high poverty school known to display challenging behaviors. As Rhonda's comments demonstrate, this process helped study participants develop a deeper understanding of a child who initially was seen only as a problem.

Implications

The reflection exercises used in our AS-L course – Alternative Explanations, Cognitive Disequilibrium, and The Challenging Student – can be adapted by other faculty seeking ways to support their students' reflections on their AS-L experience. Alternative Explanations can be adapted by having students consider negative generalizations about any situation or a group of people relevant to their AS-L experience. Reflecting on alternative explanations for that situation or behavior gives students the chance to view the dynamics or the people in a new way.

The Cognitive Disequilibrium exercise can be adapted by choosing any construct from the course objectives that students can experience themselves in the AS-L setting. When students reflect on the experience, they are able to understand the construct from a personal vantage point. Similarly, The Challenging Student exercise can be adapted by having students rethink any person or situation labeled as difficult or challenging and search for positive ways to view the person or situation. In many cases this leads to new insights about the person or situation and a better grasp of the complexity involved. All three reflection exercises can be adapted in a variety of ways to suit the varying needs faculty have for their courses.

Telling students that "it is now time to reflect" (Welch, 1999, p. 1) will not produce the quality of thinking that faculty desire (Ash & Clayton, 2009). Providing structure and guidance for the reflection is more likely to produce educative results. The reflection process does not need to be complicated or elaborate, but it should be arranged so that students have the opportunity to recognize and refrain from stereotypical thinking, discover the connections between the course objectives and their AS-L experience, and develop an appreciation for the complexity of situations at their AS-L site.

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Faculty Perceptions of Relevance in Teaching and Learning

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In this study, we analyzed a selection of extensive inquiries into teaching and learning made by faculty who were participating in a year-long, substantial faculty development program by examining the questions they raised, their rationale, their methods, and their outcomes. Specifically, we explored how these faculty members understand relevance, mapping that understanding to their goals as teachers and the kind of reflective judgment they seek to elicit in their students. As we suggest in this paper, how faculty think about relevance—in terms of why they believe their course matters, as well as what they think their students should learn, how they should develop, and the kind of reflective judgment-making they expect to see in their students—may have significant implications for how these faculty think about teaching and, consequently, how they teach.

The notion of relevance has for many years been debated in higher education circles. Does a course or subject need to be "relevant," and if so, what does such relevance entail? Certainly, early colleges—Oxford, Cambridge, Bologna, Harvard, Yale—understood relevance as having immediate application: college graduates, as a result of their education, were expected to be able to strike out on their own in specific professions as clergymen, lawyers, and physicians (Thelin, 2004). At the same time, there were long-standing assumptions about what it meant to be an educated person in society: colleges were increasingly expected to provide the "discipline and furniture of the mind"—that is, students needed to be able to think logically and critically about complex and novel issues and then apply that logic to everyday concerns (Yale Report, 1828). Thus, non-professional and traditionally non-applied fields such as classics, philosophy, Latin, and mathematics were considered relevant in a way that was both abstract and concrete (Thelin, 2004). Over time, as higher education has experienced tremendous changes in demographics and funding sources, and also witnessed great paradigmatic shifts in college curricula and massive tuition hikes, the notion of relevance seems to have been seized upon by some (e.g., job-seeking students and their parents; policymakers) and rejected by others, especially those faculty members concerned that making a course relevant is somehow akin to destroying the ivory in the tower.

However, relevance matters. What exactly relevance means in higher education settings, however, is unclear. In this study, we analyzed a selection of extensive inquiries into teaching and learning made by faculty who were participating in a year-long, substantial faculty development program by examining the questions they raised, their rationale, their methods, and their outcomes. As we examined these inquiries, the concept of relevance was inescapable, which is to say, relevance found us. We felt compelled to explore how these faculty members perceive relevance, which varied tremendously, mapping that understanding to

their goals as teachers and introducing a student development perspective to the study, the kind of reflective judgment they sought to elicit in their students. As we suggest in this paper, how faculty think about relevance—in terms of why they believe their course matters, as well as what they think their students should learn, how their students should develop, and the kind of reflective judgment-making they expect to see in their students—may have significant implications for how these faculty think about teaching and, consequently, how they teach.

Relevance and Learning

Educational researchers have for many years noted the importance of relevance in motivation and learning frameworks. Perceived relevance of a task, for example, may help individuals value a task more (Wigfield, 1994), which, when coupled with a sense of choice and control over their actions and environment, may in turn result in enhanced performance, persistence, creativity, and increased self-esteem (Ryan & Deci, 2000). Similarly, Pintrich and Zuscho (2007), in their examination of college students' motivational beliefs and self-regulation within specific classroom contexts, have suggested that if learners "believe that the task is relevant or important for their future goals or generally useful for them . . . then they are more likely to be engaged in the task as well as to choose to engage in the task in the future" (p. 754).

Researchers, however, still seek to identify the nuances of relevance in a student learning context, often focusing on the course in terms of content or the relevance of a course within the curriculum. Kember, Ho, and Hong (2008) sought to "characterize teaching and learning environments capable of motivating or demotivating student learning" (p. 252) by looking specifically at the relevance of what is taught. At the one end, abstract theory was found to take away from, or demotivate, student learning because of a perceived lack of relevance. On the other hand, such teaching

strategies as giving students the ability to apply theory to practice, establishing the relevance of topics, and identifying relevance to local issues and everyday applications served to motivate students. Similarly, other scholars have found that relevance can be established by real-life examples, case studies drawn from current issues, local examples, and again, by relating theory to practice (Kember & McNaught, 2007; Youseef, 2010). Additionally, proponents of more active learning (e.g., problem-based learning, service learning, experiential learning, internships) usually adhere to the notion of relevance at the core of learning (Hmelo-Silver, 2004). Yet, significantly, relevance in these contexts often focuses on content knowledge, course materials, and subjects, and it underemphasizes a student's conceptual world view or holistic development through the vital post-adolescent, pre-adulthood college years.

Conceptions of Teaching and Learning

As we will suggest in this paper, how teachers understand relevance may inform how they conceive of and approach teaching. Researchers have found that faculty conceptions of teaching typically fall into several broad orientations. For example, Kember (1997) identified five general conceptions of teaching in higher education that fall under two broad orientations: teacher-centered/content-oriented and student-centered/learning-oriented. These conceptions range from teachers who view teaching as essentially imparting information, to those who conceive of teaching as facilitating conceptual change in their students. Similarly, Prosser and Trigwell (1999) describe six faculty conceptions of teaching, which move from teaching as a transmission of concepts, to teaching as helping students acquire the concepts of a course, to teaching as facilitating conceptual change. Building on these categories, Calkins and Light (2008) identified these same orientations as teacher-focused, student-focused, and learning-focused. Here, student-focused refers to the middle acquisition stage in which faculty view teaching as helping students acquire the tools to help them learn for themselves. It should be noted, too, that descriptions of facilitating conceptual change map onto descriptions of facilitating transformative learning, as articulated by Mezirow and others (Taylor, 2007). Moreover, as we will explore in this paper, faculty members' conceptions of teaching also reflect the level of reflective judgment they expect to see in their students.

Reflective Judgment in College Students

The ability of college students to make reasonable reflective judgments is crucial to their development as life-long learners and productive, thoughtful, ethical citizens. Being able to understand the subtleties of complex issues and problems and form sound, contextually-based judgments about those issues is essential in everyday adult life. The *National Survey of Student Engagement* (NSSE) and, in particular, the "Benchmarks for Effective Educational Practice" derived from NSSE, note that college coursework should emphasize "making judgments about the value of information, arguments, and methods" (National Survey of Student Engagement, 2009). These benchmarks complement Chickering and Reisser's (1993) well-respected model of psychosocial development, which states that when they reach the highest "vector," college students will have developed a sense of integrity and a more humanized and personalized value system.

King and Kitchener's Reflective Judgment Model (RJM), rooted in the work of Dewey, Piaget, Kohlberg, and Perry, among others, is a cognitive development stage model defined by seven sets of epistemological assumptions, with particular emphasis given to the development of high-level thinking skills among college students (King & Kitchener, 1994). Each set of assumptions in the RJM is characterized by increasingly sound forms of justification in dealing with vexing or ill-structured problems. Compared to the more black-and-white *well*-structured problems (e.g., "solving for x in an algebraic equation") (p. 11), *ill*-structured problems operate in intellectual gray areas and do not have complete, certain, agreed-upon solutions.

The seven stages of the RJM fit into three broader groupings: pre-reflective thinking (stages 1-3), quasi-reflective thinking (4-5), and reflective thinking (6-7). In pre-reflective thinking, reflective judgment is not in fact engaged because the individual does not perceive the problem to be ill-structured. To the pre-reflective thinker, the problem contains a single right answer and no contextual justification is required; if that person does not have the answer, authorities (e.g., teachers) are presumed to have the answer. In the more developed quasi-reflective thinking, knowledge is viewed as uncertain, and a single right answer no longer exists; however, in these stages, knowledge claims are seen as subjective and virtually any answer might be considered "right." The idea that, based on sophisticated use of a range of supporting evidence, certain conclusions can be considered more reasonable than others—the hallmark of the highest grouping, reflective thinking—does not exist for quasi-reflective thinkers. In addition, reflective thinkers, significantly, possess a willingness to reconsider previously held views based on the availability of new data and frameworks (as opposed to making new data "fit into" an existing viewpoint).

As we will describe more fully later in this paper, the level of reflective judgment that faculty expect of their students maps onto both faculty's conception of teaching *and* their perception of what makes their courses relevant to students.

Faculty Development Program Description

The year-long faculty development program discussed here is comprised of pre-tenure, early-career faculty who draw from a broad range of disciplines run by our university's Teaching and Learning Center (TLC). Initiated in 1999, the program is designed to provide participants with the expertise and knowledge to critically assess and solve problems in their courses in order to foster deep student learning (Entwistle, 2005). The program seeks to rethink the teacher-focused paradigm (i.e., teacher transmits knowledge and expertise to passive students) in favor of a learner-focused paradigm (i.e., learners construct knowledge for themselves) (Prosser & Trigwell, 1999; Kember, 1997; Calkins & Light, 2008; Light, Cox, & Calkins, 2009).

Participants

Over the program's 10-year history, 112 tenure-track faculty members have successfully completed the program. For this study, we focused on the critical accounts (see "Description of Critical Accounts") written by the three most recent cohorts (2006-2009). Of the 40 program participants in those years, we used the critical accounts of 30 faculty members. (See the "Limitations" section for further description of these exclusions). Nine faculty members came from humanities and social sciences, eleven from engineering and science, six from medicine, and four from theatre and communications.

Program Requirements

Throughout the academic year (September-June), participants in the program are required to attend a series of linked events, which include four dinners with featured faculty speakers and conversations about teaching and learning, a two-day overnight retreat in the fall, and a one-day retreat in the spring. The retreats include structured workshops, interactive presentations, and individual and group work. In addition, participants work in peer groups, sharing what they have learned from the scholarship of teaching and learning (SOTL). Participants also identify a senior colleague in their department to serve as their mentor for the year. (A mentor is not required to be an "expert" in teaching and learning, but he or she should care about his or her colleague's professional development as a teacher.) Participants are strongly encouraged to observe their mentor's teaching and, in return, be observed by their mentor and a member of the TLC's consulting staff. Most participants also will have a focus group conducted by a member of the staff to acquire information about their students' learning.

Description of Critical Accounts

In addition to developing or revising a course or curriculum, or revising a key assessment strategy, participants must write a critical account detailing their year-long critical inquiry and reflection on their teaching. As facilitators, we adhere to the idea that "authentic practice" is at the heart of SOTL—that is, not only can teachers find the process of critical inquiry into their teaching fulfilling, but also that this inquiry can help build "vital bridges" between themselves and their students and, thus, enhance the student learning experience (Kreber, 2007, p. 3).

Buttressed by relevant literature and pedagogical theory, the critical accounts include a description of the teaching project, its learning outcomes, teaching methods, assessments, and evaluation. Participants are provided with a template that includes key questions the program facilitators would like them to address in their accounts, but participants may write the account as they like. This study's first author oversees the program and, in doing so, provides guidance and also makes light edits to the critical accounts. These accounts range from 5 to 30 pages, averaging 12. Each account includes selected appendices, which might include a course syllabus and specific assignments, activities, and assessments used in the course.

Methods

Initial Exploration of Critical Account Themes

Before we began the research we describe here, we first did a cursory exploration of the approximately 100 critical accounts in our database. One of us, the first author, has worked with the program for six years, directing it for the last three. The second author, a graduate student at the time, had worked with the program for five months while serving as an intern at the TLC. Each critical account has been previously cross-indexed by three or four keywords (which, for the most part, were generated by the participants). This gave us some sense of scope and direction for the kinds of questions our participants were seeking to address in their critical accounts. We found that our faculty described widely divergent contexts and problems (e.g., teaching diverse learners, engaging students in large

introductory classes, and facilitating peer-led project groups) and employed all types of teaching methods and activities (e.g., interactive lecture, pre-post knowledge assessments, and debate and role play) to address the teaching question or problem.

In this initial exploration, we began to see the same critical issue playing out across these diverse teaching and learning contexts. As a result, we started to question the degree to which faculty sought to help learners transcend their identity as students, as well as the degree to which they may have sought to dislodge students' notions of what teaching means and who has the authority to teach. These questions likely were informed by the first author's experience with faculty development and as an instructor of college-level history, as well as by the second author's graduate studies in student development theory and experience as a student affairs professional. This orientation served as a starting point as we identified our emerging themes.

Finding Emerging Themes

We began by independently reading through the most recent cohort's critical accounts to generate themes and ideas as they emerged from the data (Glesne, 1999). In comparing our initial notes, we found that we were struck by how faculty understood and valued the concept of "relevance" as they analyzed their courses. This was particularly notable because this concept is not explicitly dealt with or focused on through materials or program activities, suggesting relevance indeed is an issue of concern among faculty members. Additionally, we did not, as authors, bring to this study a specific definition of relevance or a framework for how different faculty members might perceive relevance. As we honed in on this initial question—How do faculty understand relevance in their teaching?—we began to refine our analysis, exploring how faculty understand relevance in terms of building capacity in their students.

Keeping our emerging theme in mind, we then independently read through the critical accounts from three consecutive years of the program, focusing on each participant's rationale, descriptions of the project, and final reflections. Throughout this process, we collaborated to create a conceptual framework to capture how faculty members understand relevance as a construct as it pertained to their teaching context and their perceptions of their students' learning. We regularly compared our interpretations, in an iterative process, reviewing a given critical account in its entirety when we differed in our analysis and refining how each critical account fit into our emerging conceptual

framework. Table 1 reflects this conceptual framework and is described more fully in our findings.

Limitations

We ultimately excluded 10 critical accounts from our study, primarily because these faculty members were engaged in a different type of educational research that did not focus on designing a course or innovation. As such, we could not discern any attitudes concerning relevance. Of those excluded from the study, six were medical faculty, two were from engineering and science, and one was from theatre and communications.

We should also note that the findings described here are the product of faculty members' self-reported data as detailed in their critical accounts. Additionally, for many of the faculty members, the project described in the critical account represented an outline for future teaching and assessment; thus, their conclusions oftentimes are of a purely speculative nature.

Findings

From our analysis of 30 critical accounts, we found that our faculty participants perceived relevance—that is, why their classes and what they teach matter—in four qualitatively different ways, which we classified as hierarchically related perceptions, distinguished by increasing complexity in their beliefs (see Table 1). We also looked at three additional dimensions which seem to be shaped—even informed by—how faculty perceive relevance: their teaching goals (what they hope to accomplish as teachers), their understanding of what it means to build capacity in their students (what they hope to help their students do), and the level of reflective judgment they expect to see in their students.

Perceptions of Relevance

Faculty holding Perception (A) understand relevance primarily in terms of *content,* and they tend to hold more teacher-focused conceptions of teaching. Here, students need to learn the course material because the teacher views the content as important information. While the faculty member may believe abstractly that such information is important for educated people to possess, relevance is expressed at the course level; that is, there is little expectation that students will use the knowledge in other contexts—in or outside of the academy—in a meaningful way. Faculty holding Perception (B),

Table 1
Faculty Perceptions of Relevance

Perception	A	B	C	D
Understanding of relevance *Why my class, or what I teach matters*	*Content Acquisition* Recognizes that students need to acquire teacher's content knowledge because the teacher knows it is valuable information; course-bound	*Tools Acquisition* Understands that students need to learn key concepts and/or skills for practical or professional purposes; discipline-bound	*Conceptual Change* Recognizes that students need to develop the ethic of a professional (professional or creative thinking); transcends disciplinary boundaries	*Personal Change* Recognizes that students need to evaluate and make decisions, and to value/internalize professional ideas and concepts; transcends academic or professional boundaries
Teaching goals *What I hope to accomplish as a teacher*	To improve content in order to capture student interest, or to make class more fun or interesting	To help students acquire useful tools to be able to learn on their own	To promote conceptual understanding among students so they can create or innovate on their own	To create conditions that encourage students to critically examine their values, beliefs, and world views
Building capacity in students *What I hope to help my students do*	For students to learn course content in order to pass exam or complete course requirements	For students to grapple with / solve scripted or real-world problems; to use skills of a professional to appreciate that there is not one fixed idea or perspective	For students to learn to get at the nature of an ill-structured problem, following a full, rich process of critical and reflective inquiry; for students to create or innovate	For students to evaluate questions and problems holistically; develop in a way that asks them to reflect on what it means to be a productive citizen and part of society
Level of reflective judgment *What I expect to see in my students*	*Pre-reflective* Knowledge is mostly absolute and concrete; not abstract	*Quasi-reflective* Knowledge is uncertain, subjective, and contextual	*Reflective* Knowledge is not absolute, but reasonable judgments can be made with evidence	

meanwhile, understand relevance as students acquiring key *tools, concepts,* and *skills* for practical purposes that transcend the immediate teaching context. Faculty with this conception tend to be more acquisition-focused. While they may see relevance as being able to directly apply course content and skills in a specific professional context, these professors primarily want students to be able to relate what they have learned in the course context to novel contexts and be able to solve real-world problems. By comparison, faculty holding Perception (C) seem to believe that students need to develop a professional ethic and be able to create and innovate as professionals do, and in a way that transcends disciplinary boundaries. These faculty, like those holding Perception (D), tend to be more

learner-focused. Faculty holding Perception (D), however, view relevance as students being able to successfully evaluate and make decisions given ill-structured questions, as well as to value and internalize professional ideas and concepts. In this perception, students develop not only along intellectual lines, but also along moral and ethical lines. The following examples illustrate each perception—and the variation from one perception to another—in detail.

Perception A: Teaching What Needs to be Covered

Faculty holding the first perception understand relevance as having a local, classroom focus, and tend

to be more teacher-focused in their approach to teaching. In this view, a course becomes relevant by its ability to engage students in the course material so as to ensure course success. Course materials are relevant because they convey to students "what they need to know" for papers, quizzes, and exams, and they represent the instructor's concept of what an educated person should know. Mastery of the teacher's knowledge is the focus and chief determinant of student success. This particular faculty view of relevance would seem to encourage—even reward—King and Kitchener's pre-reflective thinking, in which authority figures are presumed to have (and often supply) the answers, which students can then regurgitate on command. King and Kitchener (1994) explain, "People who assume that knowledge is authority based also assume (consistently so) that an authority can provide a solution for the problem" (p. 9). Students are not expected to be contextual decision-makers, but rather consumers of teacher knowledge. Faculty holding this view seek to build capacity in their students *to succeed in that course* and thus focus their teaching on improved course content and presentation; there is little emphasis among these faculty on encouraging any wider application of the course, such as through skills-building or promoting consideration of new perspectives.

For example, one program participant created a plan to revise a large introductory history course, focusing on her lectures. In doing so, much of her project proposal pulled from simple tricks of the teaching trade: "Think about time in chunks of ten to fifteen minutes"; "Do not read from lecture notes"; "Ask questions during lecture." As part of her project, this professor explored literature on lecturing and, within the context of the survey course, how best to present materials. "It is difficult to determine," she wrote, "whether the course should focus on introducing students to methods used by historians or to the 'story' of United States history, or to some combination of the two." However, unlike some of the other program participants when faced with such a dilemma—and despite advice she noted from the literature—this professor rejected the notion that instilling a professional orientation in her students was a useful, worthwhile, and relevant course objective. As she noted in her critical account:

> The first problem is that we are not teaching undergraduates to be historians. Discovering and discussing a "signature pedagogy" for history and helping history Ph.D. students learn it makes a great deal of sense to me. But I am not quite convinced that teaching the disciplinary norms of history to undergraduates is useful.

The relevance of this course hinged, then, on content concerns and, specifically, the successful presentation of "the 'story' of United States history," (i.e., "teaching what needs to be covered"). This professor positioned the aims of the course squarely within the walls of the classroom and, in particular, in her lectures. In the process, she set expectations conspicuously low for her students in making the decision not to treat her undergraduates as budding historians and intellectuals but rather as knowledge-sponges. Connecting students to the course, consequently, became a matter of livening up the presentation of materials rather than helping students fashion a new, more sophisticated intellectual perspective or acquire new tools to be used in this course and beyond.

The critical account of a physics professor teaching a graduate-level course likewise provides an interesting profile of Perception (A). The problem identified by this faculty member concerned teaching an interdisciplinary physics course to a group of students with varying academic backgrounds and interests, and his project focused almost exclusively on ways to keep this diversity of learners interested and satisfied. (This focus is reflected in the professor's repeated references to performing well in student ratings.) Rather than attempting to build up his students' problem-solving skills, this professor conceived of his course's relevance as a response to the recent focus of the National Research Council (NRC) on interdisciplinarity in physics. As a result, the course is seen as relevant because the NRC says it is (and, therefore, the professor says it is). The development of broadly applicable skills or conceptual frameworks that might help students better manage their own learning or foster their development as college students does not fit well into this authority-dependent learning paradigm, and certainly the creation here of a teacher-focused learning environment, as described by Calkins and Light (2008), is not surprising given this low-level perception of relevance.

Perception B: Helping Students Acquire Professional Tools, Skills, and Concepts

While those faculty holding Perception (A) view relevance as a matter of fact—that course materials are relevant because students need to master them in order to succeed in the course and become "educated citizens"—those holding Perception (B) view relevance as hinging on the ability to effect some sort of useful change in students' classroom approach and thereby build up their capacity to learn and, subsequently, better manage their own learning. These faculty express the notion that students need to learn key concepts, skills, and tools for practical and professional purposes that might transcend the class. This perspective maps onto a student-focused view of teaching, which suggests that teaching is the process of facilitating acquisition—that

is, as helping students acquire the tools they need to do well in the class and in future learning (Prosser & Trigwell, 1999; Calkins & Light, 2008). Professors holding this perspective seem to want students to be able to grapple with, and even solve, both scripted and real-world problems, recognize that knowledge is not fixed, and understand that questions often are not simple yes-or-no propositions demanding one "right" way of thinking.

Unlike the history professor holding Perception (A), who argued that undergraduates are poor candidates for indoctrination into the "disciplinary norms of history," a second professor of history, facing a similarly large introductory course with a diversity of learners, argued otherwise. In doing so, he sought to "engage students in the very 'practice' of *history,*" and he employed what he referred to as the "'history-as-verb' approach," which "seeks to help students interrogate history, developing thinking skills that allow them to question received wisdom of historians, to question national narratives." He elaborated on this approach, writing:

> It is an attempt to make history both relevant and accessible, to empower students by exposing them to the 'craft' of history inquiry and writing. This approach stands in opposition to approaches that stress the acquisition of textbook knowledge centered upon the names, dates, people and places most prominent in critical historical developments.

This faculty member maintained that introducing students to some professional practices of the historian could, in his words, make the course "both relevant and accessible," even among those students not planning to become professional historians—undoubtedly the majority of the class. Students could find the course relevant by its ability to provide them with not only a body of knowledge, but also a useful set of intellectual skills. There is an attempt by this professor to get students to probe content, question evidence, and understand some of the core underlying processes of the field; however, interestingly, while these are skills with obvious application outside this course, that does not seem to be the message conveyed by this professor. Rather, these are regarded primarily as class-specific skills, suggesting this professor resides on the low end of Perception (B).

Another example of a faculty member holding Perception (B) is a professor of civil and environmental engineering who redesigned a course in order to better align it with the traits of "Generation Y" students, for whom relevance, he says, is "crucial." In his critical account, this professor notes that relevance "is somewhat brushed

over in core courses because instructors feel it is 'obvious' that the course has relevance given the student's major." Here, however, the professor hoped to make his course relevant beyond the perfunctory matter of it being a major requirement. As an antidote to this approach, this professor proposed to move toward an inquiry-based method of teaching, as opposed to using the traditional deductive approach of first "submerging the students in definitions." He explains, "Instead of beginning with general principles and eventually getting to applications, instruction begins with specifics—a set of observations or experimental data to interpret, a case study to analyze, or a complex real-world problem to solve."

This professor links relevance to the key, fundamental ability to work through a "real-world problem" using professional academic skills. Students are asked to do more than consume the teacher's knowledge as in Perception (A). Additionally, as compared to the other Perception (B) faculty member described, this professor sought to instill in his students a set of problem-solving skills designed to have application *throughout* the civil and environmental engineering curriculum, not just in his course. This perception more closely resembles the quasi-reflective thinking of King and Kitchener in that, by forcing students to grapple with real-world problems, they must begin to confront the intellectual gray areas in which problems so often operate. Still, the learning environment that arises here does not challenge students to develop the creative, innovative qualities of the professional academic, as seen in the next perception.

Perception C: Helping Students Develop a Professional Ethic

Faculty holding Perception (C) want to build capacity in their students to create or become innovative in their field—in essence, to develop a professional ethic that transcends simply grappling with real-world problems. Taking a learner-focused approach, these faculty members wish to get beyond the confines of the course, creating learning environments that allow students not just an opportunity to access real-world problems, as in the previous perception, but also to create and think for themselves and not fall into the trap of derivative thinking. The focus here is getting students to improve or expand a field in a way that transcends specific disciplines.

For example, a computer engineering professor sought to promote student creativity in a class that focused on understanding the underlying structures and fundamental principles of large-scale distributed computer networks. He wanted his students to be able

to use problem-solving methods associated with the field, which is similar to those holding Perception (B), but he also wanted to make sure they explicitly understood how the tools and problem-solving process worked. As he indicates:

> . . . [C]arefully explaining the [specific program] approach to problem solving, i.e. making students explicitly aware of the method, has a powerful effect on students . . . Being aware of the entire process and particularly understanding that one should *move* through the [specific program] cycle is important for "debugging" the problem-solving process.

Moreover, this engineering professor wanted his students to analyze and critically reflect upon cutting-edge research in the field, again distinguishing him from those holding Perception (B), so that they will "synthesize their knowledge by predicting sustainable Internet architectures of the future." As he explains:

> One of the key guidelines I give to students is to remove the existing assumptions hindering the development of the Internet. Indeed, one of the main issues in solving problems is that people are making *implicit* assumptions about the nature of a problem that are limiting their ability to find solutions. I advise students to go even beyond removing implications, and remove one or more *realistic* (yet not fundamental) assumptions in order to open new and currently unanticipated problems. Indeed, changing assumptions can have powerful effects on the conclusions.

Clearly, he is aware that facilitating an environment where students will learn how to be innovative, critical, and reflective thinkers is essential to helping build student capacity and creating a meaningful and relevant academic experience.

Similarly, a linguistics professor designed his entire course around questions. As he explains, "My goal is to present problems and pose questions that will help students learn to think like researchers that work on topics concerning language evolution." Elaborating further, he adds:

> I will provide multiple opportunities for the students to conduct research of their own on aspects of linguistic behavior. . . . As part of that inquiry, I am confident that students will uncover novel connections between findings in disciplines such as ethology and linguistics, as well as identify new sources of data.

This instructor wants to do more than have students address real-world, ill-structured problems; he wants them to create and innovate and, in some respects, assume the role of teacher. Getting them involved in research early on as undergraduates, he says, is key: "My hope is that the class will serve as a point of entry for our undergraduate students to get involved in research in linguistics and topics concerning language evolution beyond the confines of the course."

In both cases, relevance is linked to the expectation that students be able to make connections among ideas and draw on their own experience and expertise so that they can learn how to make new contributions to the field, not unlike faculty members.

Perception D: Helping Students Value and Internalize Professional Ideas and Concepts by Probing their Role in Society

For those holding the most complex perception, relevance is understood as helping students value and internalize professional ideas and concepts by evaluating and making sophisticated reflective judgments about knowledge. While they also want their students to be critical and creative thinkers, as those holding Perception (C), these faculty members want students to develop and commit to their own values as citizens in a global society. This philosophy is about creating a learning environment that encourages students to engage in active reflection on their beliefs and values and that allows for student change and development in a larger, more holistic way that transcends the boundaries of a course, a discipline, or even a field.

For example, a chemical engineer insists it is essential students in his courses become ethical, even moral, decision-makers and citizens. In addition to asking ongoing ethical questions through a variety of course projects and readings, which drew on ill-structured, real-world problems, he also surveyed his students about their backgrounds and opinions regarding chemical engineering, which served several important goals. He explains: "This survey gave students a chance to think concretely about how their chosen major engages with society, and how they in turn will wish to engage with society as a professional." Engaging with society is a crucial part of being an engineer, and that engagement, according to this professor, demands that students begin to think through their future ethical, professional, and social obligations to the public. The survey acts as a catalyst for students to probe their attitudes and feelings about the field and to raise larger questions in class discussion. The professor views this as important, explaining:

Engineering students do not necessarily feel socially engaged in their job or preparation, perhaps because of the newness of an emphasis in civic engagement within the engineering curriculum. Discussing the survey with the class shows the students that their peers think about social responsibility, such that they do not feel like a lone outsider in the field.

While this professor admittedly did expect that most of his students would become engineers, others holding this perception, significantly, not expect their students to follow their same career path.

A professor of African literature, meanwhile, wants his students to do more than probe their misconceptions about the field—he wants them to take control of their value judgments. As he suggests:

I had also wrongly assumed that I need to police Western students against committing the cardinal sins in reading African literatures—Larsony and Eurocentricism—and to protect the students from accusations of implicit racism in their later careers. It turned out that once these terms were defined and explained clearly, the students would criticize an implicit racism in their own work and the work of their colleagues.

He does not just want his students to think differently about African literature, nor does he simply want students to confront their own misconceptions, although these goals are certainly part of what he hopes to accomplish. Ultimately, he wants students to always think about the judgments they make, the language they use, and the ideas and language they are exposed to, and to subsequently question and evaluate—with evidence— where ideas come from. While King and Kitchener (1994) focus on intellectual judgments rather than moral and ethical judgments, for this professor, sound *intellectual* judgment is not unto itself sufficient. Indeed, consideration of the whole person (i.e., the intellectual, moral, and ethical dimensions) is vital to this professor's course objectives. In doing so, he challenges students to critically consider their world view through the study and discussion of course materials, creating a learning environment well-suited to this more holistic student development.

Participants' Perceptions of Relevance by Discipline and Level of Teaching

As Table 2 indicates, we classified half the participants as holding either Perception (A) (n=3) or Perception (B) (n=12), and half holding Perception (C) (n=10) or Perception (D) (n=5). Faculty in humanities and social sciences (traditionally less applied fields)

represented all four perceptions, as did faculty in engineering, science, and medicine (traditionally more applied fields). As Table 3 indicates, faculty who taught undergraduate courses were represented in all four categories (n=18); faculty who taught graduate courses represented three perceptions (B, C, D) (n=6); and faculty who taught medical courses represented two perceptions (B and C) (n=6).

Conclusions

In this study, we explored the variation in how faculty perceive relevance and what this means in terms of how they teach, how they attempt to build capacity in their students, and, finally, how they perceive the level of reflective judgment they expect of their students. Cultivating this form of cognitive development among college students is, in particular, a key and emerging goal of higher education. Consequently, we were encouraged that all but three faculty members held a view of relevance that transcended immediate course content and recitation of teacher knowledge, moving into more substantial intellectual and even ethical and moral student development concerns. We also found it notable that no particular field or discipline, nor the level at which the faculty focused on in their critical accounts, dominated a particular perception.

Additionally, we were heartened that so many of the faculty viewed relevance as finding ways to help students learn to create or innovate on their own. Faculty who adopted this approach, whether in fine arts, engineering, or social sciences and the humanities, championed the idea that students themselves should be the creators and producers of their own knowledge and make strong reflective judgments about their academic, professional, and ethical responsibilities. For a professor of microbiology, students are not "science-workers," but rather future visionaries who will move the field forward; for a historian, students must interrogate their own deeply held beliefs and never stop questioning the nature of knowledge. To promote relevance means getting beyond covering materials for the next exam, or even preparing students for the next course in their curricula or field of study. Indeed, that is insufficient. Relevance can be a higher-stakes game, helping prepare college students to think critically, reflectively, and creatively, as well as to become ethical individuals capable of forming sound, evidence-based judgments in college and beyond.

As such, our study suggests several implications, both in terms of getting faculty to reflect critically on how they understand relevance (and challenge the stigma often associated with the term in some faculty circles) and exposing them to a more complex notion of relevance— which, we hope, they would come to adopt—that raises their students' levels of reflective judgment.

Table 2
Participants' Perceptions of Relevance by Discipline (n=30)

Discipline	Categories of Perceptions				
	A	B	C	D	Total
Humanities and Social Sciences	2	3	1	3	9
Science and Engineering	1	5	4	1	11
Medicine	-	3	3	-	6
Theatre and Communications	-	2	1	1	4
Total	3	12	10	5	30

Table 3
Perceptions of Relevance by Level of Teaching (n=30)

Level of Teaching	Categories of Perceptions				
	A	B	C	D	Total
Undergraduate	3	6	6	3	18
Graduate	-	3	1	2	6
Medical School	-	3	3	-	6
Total	3	12	10	5	30

Yet putting this into practice is not easy. While this study suggests considerable, if somewhat private, concern among faculty members regarding the relevance of their teaching, we (faculty/staff developers and administrators) must find ways to help faculty confront their notions of relevance more openly, through workshops, roundtables, and other activities where faculty can find space and time for critical reflection. We can do more, certainly, to help faculty think about the level of reflective judgment they can hope to stimulate amongst their students. Such methods may include helping students examine underlying social, ethical, and political constructs in course material; creating opportunities for students to probe multiple perspectives on a given topic; and, more generally, helping students reflect critically on their own judgments, values, and decisions. By rethinking relevance, faculty will be rethinking what it means to teach—and ultimately, what it means to learn.

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Acknowledgments

Student Evaluation of Teaching: An Instrument and a Development Process

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This article describes the process of faculty-led development of a student evaluation of teaching instrument at Centurion School of Rural Enterprise Management, a management institute in India. The instrument was to focus on teacher behaviors that students get an opportunity to observe. Teachers and students jointly contributed a number of desirable and undesirable performance examples that went through a process of filtration using mean-difference item response analysis and factor analysis. The final instrument has 18 examples to be rated on a six-point scale. It was used with a formative focus; however, the post-implementation experiences indicated the need for limited summative focus as well. New students need to be educated about student evaluation of teaching and its relevance for a quality academic life. It also emphasizes the need for open communication and a climate of trust for a successful student evaluation of teaching.

Introduction

Student evaluation of teaching (SET) remains a keenly debated issue (Langbein, 2005; Murray, 2005). It is one of the most criticized (Ellis, Burke, Lomire & McCormack, 2003; Wright, 2006) and yet the most prevalent (Richardson, 2005; Shevlin, Banyard, Davies, & Griffiths, 2000) practices in higher education. Most US business schools use SET to determine teaching effectiveness (Comm & Mathaisel, 1998). The All India Council for Technical Education (AICTE), the major regulator for management education in India, considers SET as an important indicator of the academic quality of a management institute. Therefore, it becomes important for a new college to institute such a practice in India.

This article focuses on SET instrument developed for Centurion School of Rural Enterprise Management (CSREM), India and its systemic usage. The instrument uses 18 behavioral performance examples along three performance dimensions on a six-point rating scale. It marries the simplicity of a graphic rating scale with the precision of critical incidents. It captures 10 key areas of faculty performance that students can observe: course design, instruction skills, depth of knowledge, facilitation skills, student-faculty interaction, ability to motivate, quality of assignments, organization of assessment, perceived fairness, and quality of feedback.

The article begins by reviewing SET literature and discussing the context in which the instrument was developed. It goes on to describe in detail the procedures followed and discusses the reactions of students and teachers. It discusses the post-implementation issues and proposed counter-measures, and it concludes by pointing out the limitations as well as the insights of the study.

Literature Review

The North American model is the dominant model of management education (Clegg & Ross-Smith 2003). It emphasizes analytical generalizations for developing broad knowledge concerning business functions such as marketing, finance, human resource management, production and operations, and systems. Today it is facing tremendous demands for relevance and accountability (Gosling & Mintzberg, 2006; Knowles & Hensher, 2005). Rising salaries of management graduates, rising costs of management education, and media rankings have fuelled these demands (Zell, 2001). Business schools are struggling to meet the demands of a fast changing business world (Knowles & Hensher, 2005).

Leading business schools are responding through radical curricular reforms (Bisoux, 2007). The new focus is on flexibility and an integrated view of business. Issues of practical relevance such as leadership, globalization, communication skills, problem identification in ambiguous situations, and self awareness are going to anchor management education for the 21st century (HBS Centennial Colloquia Report, 2009). Teaching effectiveness is critical for the success of any such initiative.

While other measures of teacher performance have gained momentum, SET continues to hold its primacy (Arreola, 2007; Emery, Kramer & Tian, 2003; Murphy, Maclaren, & Flynn, 2009; Seldin, 2006). It largely reflects the effect of a teacher (Marsh, 1982; Marsh & Roche, 1997; Wright, 2006). Besides, it considers feedback from students who are best placed to observe the in-class performance of a teacher.

The validity of SET information has been a contentious issue (Berk, 2005). SET scores do not necessarily correlate with overall teacher evaluation that typically includes peer and supervisor evaluations as well (Dunegan & Hrivnak, 2003). Its methods are

not necessarily in sync with the transformed technological environment of a management classroom (Serva & Fuller, 2004). On the other hand, SET scores are known to reflect students' perception of the teacher's attitude, presentation skills, reliability, and learning skills (Kim, Damewood & Hodge, 2000). These factors are amenable to learning and improvement.

SET can be used for formative or developmental and summative or administrative purposes (Murphy, Maclaren, & Flynn, 2009; Theall & Franklin, 1990), though considerable disagreement exists on the issue of choosing one over the other (Centra, 1993; Miller, 1987; Seldin, 1984; Waller, 2004; Younes, 2003). Arreola (2007) warned that teachers would consider any attempt to evaluate as punitive unless it is linked with professional development opportunities. In other words, a summative purpose would be counterproductive in the absence of a well articulated formative purpose. Centra (1993) suggested that teacher evaluations should be formative to begin with. It would help teachers understand what is required of them before being judged in a summative manner. In any case, SET should not be considered as sufficient for summative decisions (Berk, 2005).

SET operates within the limits of rationality (Waller, 2004). Rationality is often associated with an emphasis on objectivity in evaluation, which explains the quantitative nature of most SET instruments. Qualitative feedback can further enrich the outcome of student evaluations (McKone, 1999).

The SET literature emphasizes the multidimensionality of teaching (Arreola, 2007; Braskamp & Ory, 1994; Centra, 1993; Feldman, 1988; Fink, 2008; Marsh, 1984; 1993). Most SET forms are multidimensional in nature as well (Marsh & Dunkin, 1992). Overlapping of dimensions is not known to significantly affect student ratings (Marsh, 1987).

Scholars are increasingly emphasizing that the reliability, validity, and usefulness of a SET instrument should be determined at the institution where it is to be used (L'Hommedieu, Menges, & Brinko, 1990; Murray, Rushton, & Paunonen, 1990; Seldin & Angelo, 1997). Harrington and Schibik (2003) reported that despite the availability of commercially available instruments, more than 80% of the surveyed institutions used "home grown" instruments to address faculty preferences. Quality of teaching itself is a discipline-specific construct as disciplinary differences affect beliefs about the nature of knowledge and learning, teaching practices, and perceptions about what is effective teaching and how to evaluate it (Braxton & Hargens, 1996; Cashin, 1990, 1995; Hutchings & Shulman, 1999). Therefore many scholars have advocated for discipline and culture-specific faculty evaluation systems (Aubrecht, 1984; Cashin, 1990; Geis, 1984).

Institution-specific SET instruments are in a better position to address many of such concerns.

Perceptions of teachers and administrators are often at variance when it comes to evaluation (Younes, 2003). SET ratings have considerable influence over administrative decisions (Emery et al., 2003), whereas, they often evoke cynicism and even hostility among teachers (Franklin & Theall, 1989; Nasser & Fresko, 2002). Cashin (1999) argued that teachers would use the evaluation data provided they have confidence in its reliability and validity. Franklin and Theall (1989) found that teachers with greater awareness about the research on student evaluations showed more positive attitude toward their usage. Involving teachers in the development of SET instrument improves the chances of its acceptance (Seldin & Angelo, 1997).

Background

India has more or less adopted the North American model of business education though with a difference. Indian business schools are largely driven by the prospects of lucrative placements for the students. Recruiting organizations tend to approach newly established business schools to meet their basic needs. Thus a newly established business school may choose to cater to niches such as telecom, retail, and insurance, or they may offer a traditional commoditized business education. A commoditized business education involves less operational costs as teachers would be readily available.

Offering the AICTE-approved two-year traditional management program was a strategic choice for CSREM. In June 2006, CSREM was established in Paralakhemundi in the state of Odisha, India. It is the result of a public-private partnership among the Government of India, the Government of Odisha, and the CSREM Trust. Being an autonomous institution, it allows teachers to design their courses, pedagogy, and assessment within the limits of the institutional framework. It can admit 120 students per year, though the actual intake so far has remained close to 70. There are 14 permanent teachers and a number of visiting professors for the program.

The AICTE mandates SET for all credit courses taught in an approved management program in India. Therefore, SET came early on the administration's agenda. It was decided to develop an institution-specific SET instrument with a formative focus and a limited summative significance. It was to be a quantitative instrument with a place to write comments. The administration asked for faculty volunteers to lead the instrument development. The author volunteered to take the project from concept to commission. From the beginning, students and teachers were apprehensive yet enthusiastic about the instrument development process.

The Instrument Development Process

The first task was to decide what to evaluate. One can choose to evaluate performance on three bases: traits, behaviors, and outcomes (Mello, 2004). Traits are largely stable and hence not suitable for developmental purposes. Learning outcomes, though they correlate well with student ratings (Theall & Franklin, 2001), are a function of student characteristics such as ability, attitude and motivation, institution characteristics such as class size, learning resources and institutional climate, and teaching effectiveness (Berk, 2005). Teaching effectiveness alone cannot account for learning outcomes. Teacher efforts can be better appreciated by evaluating their job-related behaviors. Performance examples that students can directly observe are well suited for SET purposes.

To begin, the author studied about a dozen of SET instruments used by various Indian business schools. Because the focus was to develop an institution-specific SET instrument, other instruments were studied primarily to gain insights into what is typically assessed. This study was supplemented with an exhaustive literature review. The author made a brief presentation about the literature and argued for the behavioral basis of SET that convinced the teachers and the administrators to accept it. Identifying the performance dimensions for evaluation was next on the agenda.

A brainstorming session with students and teachers resulted in the identification of 16 key areas along three performance dimensions as given in the Table 1. The key areas identified were more or less in sync with the evaluation factors commonly reported in the literature (Braskamp & Ory, 1994; Centra, 1993; Feldman, 1988). Further, the students wanted to keep the instrument short and less demanding on time.

Research about the relative effectiveness of behaviorally-anchored rating scales and Likert-type graphic rating scales in the context of SET is more or less inconclusive (Cook, 1989; Eley & Stecher, 1997). Agree/disagree type Likert scale is less demanding on time as compared to BARS; however, a BARS-type critical incident-based performance example offers precision. The author decided to construct a Likert-type graphic rating scale using precise performance examples.

A workshop was conducted to train students and teachers in writing effective and ineffective examples along the performance dimensions and the key areas identified earlier. To begin with, the author presented a number of written examples of effective and ineffective performance for deliberations. The participants were encouraged to critique the substantive as well as the formal aspects of the examples. They developed a few sample examples and presented them for critique. By the end of the workshop, they were assigned the key areas and asked to submit four examples, two each on effective and ineffective performances. Within a week, they submitted 116 examples. It was time to screen unacceptable examples.

Example Selection Criteria

Apart from the frequency of mention, five other criteria were used to select examples:

1. Examples must be observable. Idealistic or non-observable examples were eliminated.
2. Examples must describe the teaching performance. Examples describing administrative or environmental aspects were eliminated (e.g., "This teacher used to take classes in the evening.").
3. Examples must not be biased toward a particular sex, caste, or state.
4. Examples must not be offensive in nature. Examples with a potential to hurt teachers were eliminated.
5. Examples must be clear, unambiguous, and one-dimensional in meaning. Multidimensional examples were eliminated (e.g., "This teacher hardly motivated students and answered their queries.").

A total of 68 examples passed the screening criteria: 16 for course organization, 32 for quality of teaching, and 20 for assessment and feedback. Equal distribution of effective and ineffective examples for each key area was not insured at this stage. The selected examples were retranslated to ensure clarity and brevity.

Another workshop was held to assign the re-translated examples to the relevant key areas. It was required for communicating the SET results to the teachers. An example was assigned to a key area if at least 80% of the participants favored it.

Scale Construction

Forty-three students volunteered to participate in the scale construction process. They were asked to rate 68 examples on a seven-point semantic differential scale along a "worst performance – best performance" continuum. The seven-point scale was used because the respondents' ability to reliably distinguish between adjacent categories is known to suffer with more rating points (Krosnick & Fabrigar, 1997).

It was important to identify examples invoking highly biased responses as they cannot provide any

Table 1
First Identified Performance Dimensions and Key Areas

Performance Dimension	Sl. No.	Key Areas
Course Organization	1	Course Design
	2	Quality of Course Materials
	3	Course Difficulty
	4	Articulated Pedagogical Diversity
	5	Respecting the Timeframe
Quality of Teaching	6	Instructional Skills
	7	Depth of Knowledge
	8	Facilitation Skills
	9	Student-Faculty Interaction
	10	Ability to Motivate
	11	Tolerance of Disagreement
	12	Maintaining Class Discipline
Assessment & Feedback	13	Quality of Assignments
	14	Organization of Assessment
	15	Perceived Fairness
	16	Quality of Feedback

significant insight into the rater's mind. Twenty-nine such examples with the values of either Z (Skew) or Z (Kurtosis) higher than 1.96 were weeded out through an exploratory data analysis.

Responses utilizing the middle values of a scale are ambiguous to interpret. Quartile analysis helps to identify respondents with highly favorable (fourth quartile) or highly unfavorable (first quartile) attitudes toward the scale items. Twenty-two such respondents were identified at this stage.

If an example fails to discriminate between a highly favorable and a highly unfavorable respondent, then its ability to provide any useful insight is questionable. Statistically, in more than 5% cases, the difference in means between the fourth and the first quartiles for such examples can be attributed to chance. Fourteen such examples were eliminated through a mean-difference item response analysis using a two-tailed t-test.

Reliability Analysis

A Cronbach Alpha reliability analysis was conducted on the remaining 25 examples. It led to the elimination of seven items having less than 60% correlation with the scale. The remaining 18 examples showed a very good item-scale correlation with the reliability coefficient Alpha being 0.9507. Deleting any more items would have reduced the overall reliability of the scale. These 18 examples still represented the three performance dimensions; however, they could represent only 10 out of 16 key areas initially identified.

Validity Analysis

A preliminary principal component analysis gave the scree plot with a slope reducing greatly at the level of the second factor. Accordingly, a second principal component analysis was conducted for two factors. Factor loadings with less than 0.4 absolute values were suppressed to assist interpretation. Varimax rotation was used to clearly reflect the loading of different variables on either of the factors. It resulted in two factors with nine variables each as presented in the Table 2. The factors seemed to indicate the orientation of the teachers. Accordingly they were named "learning orientation" and "learner orientation"; the first factor indicated the teachers' concern for the students' learning, whereas, the second factor indicated their concern for the students. The two factors accounted for 64.269% variance.

It is known that some teachers are rated relatively high as instructors but relatively low as producers of study and learning, and vice versa (Stapleton & Murkison, 2001). Accordingly it is assumed that learning and learner orientations are two independent factors. It would be possible to score high in both or low in both or high in one and low in the other.

Face validity and criteria validity were established through the process of developing and selecting the examples themselves. The initial constructs of the three performance dimensions were subsumed under the two larger constructs: learning orientation and learner orientation.

Table 2
Factors Underlying the Performance Examples

Factor	Sl. No.	Performance Examples
	1	Gave assignments that were helpful in understanding the subject better.
	2	Strictly adhered to the deadlines of assignment submission.
	3	Used to create a threatening environment in the class.
	4	Used to look confused while teaching complex topics.
Learning Orientation	5	Used to briefly summarize the previous lecture at the beginning of each class.
	6	Never made any attempt to make the class interesting.
	7	Described the concepts and processes related to the topic with the fundamental logic behind them.
	8	Used to mention areas of improvement and the ways to improve while giving feedback to students.
	9	Emphasized only the theoretical aspect of the subject.
	1	Encouraged students to think and to question.
	2	Asked students for suggestions regarding the course outline.
	3	Used to answer students' questions clearly.
	4	Often said, "I have explained the topic. It is your problem if you have not understood it."
Learner Orientation	5	Used to take very interactive sessions.
	6	Provided course outline having helpful suggestions regarding recommended books/websites, group formation, projects, evaluation pattern and general rules for the course.
	7	Offered to explain questions and their answers once exams were over.
	8	Clearly explained the evaluation criteria to students.
	9	Encouraged students to seek his or her help whenever in need.

Pilot Test

The tendency of respondents to avoid end points of rating scales or contraction bias is widely reported in literature (Tourangeau, Rips, & Rasinski, 2000). Satisficing, i.e., the tendency of respondents to use the path of least cognitive work while responding to surveys is also well known (Krosnick & Alwin, 1987). No opinion options such as "Can't Say" might invoke satisficing, thereby effectively precluding some meaningful opinions (Krosnick et al., 2002). Contraction bias can be minimized by increasing the number of rating points while avoiding a mid-point on the scale. Satisficing can be possibly tackled by avoiding no-opinion responses. Considering these issues, the author opted to pilot the SET instrument with a forced choice six-point Likert-type graphic rating scale ranging from "Fully Disagree (FD)" to "Fully Agree (FA)" with the mid-point split into "Slightly Disagree (SD)" and "Slightly Agree (SA)." Numbers were replaced with letter codes to forestall any role that they might play in making the raters lenient.

A typical response on a particular example would more accurately represent the view of the class than a response adjusted for extremities. On the other hand, justice demands that exceptional performances should also be considered while making a statement about the overall performance of a teacher. Accordingly, the median was used to indicate the typical performance on an individual example, whereas the average of medians was used to indicate the overall performance on the two factors, the three performance dimensions and the 10 key areas. Semi-interquartile range (SIR) was used to indicate the nature of opinions on individual examples. SIR is a measure of spread or dispersion that is little

affected by extreme scores. It is for the median what standard deviation is for the mean. A SIR of 0.5 or less was taken to indicate consensus.

Students enthusiastically participated in the pilot test, and teachers eagerly waited for the results. A focus group discussion with the students and the teachers showed the general acceptance of the instrument.

The Final Instrument

The final instrument has 18 examples to be rated on the six-point scale as indicated in the Appendix. It also provides space to let students write qualitative feedback. The instrument is being implemented using intranet.

Implementation and Impact

The reliability of a SET instrument might suffer in case less than 10 students respond (Cashin, 1988). CSREM has tackled this issue to a certain extent by making an institutional policy that prohibits elective courses with less than 10 registered students. The impact of class size on SET score remains keenly debated (Fernandez, Mateo, & Muniz, 1998; Lesser & Ferrand, 2000; Marsh & Roche, 1997; Mateo & Fernandez, 1996) though, at CSREM teachers generally score high in elective courses with smaller batch sizes.

The SET instrument is in use since 2007. It has been used over 100 times for various courses. The teachers feel that the precise performance examples facilitate their understanding of the areas of improvement. The administration has shown a positive attitude toward the SET results. Consistent with the good practices recommended in literature (Arreola, 2007; Centra, 1993), the institute sponsored two teachers for attending national level faculty development programs conducted by the prestigious Indian Institutes of Management. In 2008, regular internal faculty development programs were initiated. External experts were involved in validating the course outlines and course materials. Moreover, a series of curriculum development workshops ensued in the first half of 2009.

The formative focus went well with the teachers for sometime before they started feeling the need to get recognized. In faculty meetings, the issue of recognition was often raised. In their view, the instrument succeeded in measuring their orientation as well as areas of improvement, but failed in discriminating between excellent teachers and good teachers. A certain degree of summative focus was required to address their esteem needs.

The batch of 2006-08 has participated in the SET development. New students did not show much enthusiasm about SET. They did not understand the importance of feedback, and the Institute had no formal system to educate them in this regard. Besides, it was not mandatory for a student to give feedback. A focus group discussion with them revealed that they were not particularly happy about the end term SET as that hardly improved their ongoing courses in any way. Finally, the administration decided to address the concerns of the students and the teachers.

It is proposed to educate students about the SET before they evaluate the teachers. In order to discriminate between excellent and good teachers, the computation process for the overall faculty score would change. The faculty score would represent the sum of the key area scores instead of the average. The maximum possible score would be 60. The faculty score would be graded as per a grading scale depicted in Table 3. Assigning different weights to different performance dimensions is also on the agenda. These changes are likely to fulfill the esteem needs of the teachers to a certain extent. Midterm feedback consultations are also being contemplated to facilitate improvement of ongoing courses.

Conclusion

This article has presented the rationale and the processes concerning institution-specific SET for a very small management institution. Because it is institution-specific, it cannot be substantively compared with SET instruments of other institutions. It must be noted that these processes were situated in a relatively small and young organization where personal contact and informal interactions could largely substitute for the formal organization in many respects. These processes are expected to be much more complicated for large and established universities. The relative effectiveness of SETs based on behaviors, outcomes, traits, or judgments on broadly mentioned issues needs further study.

Involvement of students and faculty in the development process may be important for the success of SET. Post-implementation experiences with the instrument highlight the importance of linking SET with professional development opportunities. Simultaneously it is also apparent that a wholly formative SET might not contribute toward fulfilling the esteem needs of teachers. A limited summative focus appears to be justified. The experiences highlight the importance of open communication and a climate of trust for a successful SET. All new students need to be educated about SET and its impact on the quality of their academic life. It is more likely to lose effectiveness with time if it fails to reflect the changing needs of students, faculty, and administration. SET should be allowed to evolve rather than settle in certain grooves for a long time.

Table 3
Proposed Grading Scale for Overall Faculty Score

Faculty Grade (Acceptable)				Faculty Grade (Unacceptable)			
A+	A	B+	B	C+	C	D+	D
52.50-60.00	45.00-52.49	37.50-44.99	30.00-37.49	22.50-29.99	15.00-22.49	7.50-14.99	< 7.50

Endnote

CSREM is now a part of the School of Management of Centurion University of Technology and Management (CUTM), Odisha.

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Appendix
Faculty Evaluation Sheet

Thoughtful student feedback can help improve teaching effectiveness. This tool is designed for that purpose and your cooperation is highly appreciated in this regard.

General Instructions

- Given below are 18 performance examples of your teacher for your rating.
- Please indicate your rating on each performance example by darkening ● the appropriate circle.

FD	LD	SD	SA	LA	FA
Fully Disagree	Largely Disagree	Slightly Disagree	Slightly Agree	Largely Agree	Fully Agree

PE No.	Performance Example	Rating Scale					
		FD	LD	SD	SA	LA	FA
1	Gave assignments that were helpful in understanding the subject better.	○	○	○	○	○	○
2	Strictly adhered to the deadlines of assignment submission.	○	○	○	○	○	○
3	Encouraged students to think and to question.	○	○	○	○	○	○
4	Used to create a threatening environment in the class.	○	○	○	○	○	○
5	Asked students for suggestions regarding the course outline.	○	○	○	○	○	○
6	Used to look confused while teaching complex topics.	○	○	○	○	○	○
7	Used to answer students' questions clearly.	○	○	○	○	○	○
8	Used to briefly summarize the previous lecture at the beginning of each class.	○	○	○	○	○	○
9	Often said, "I have explained the topic. It is your problem if you have not understood it."	○	○	○	○	○	○
10	Used to take very interactive sessions.	○	○	○	○	○	○
11	Provided course outline having helpful suggestions regarding recommended books/websites, group formation, projects, evaluation pattern and general rules for the course.	○	○	○	○	○	○
12	Never made any attempt to make the class interesting.	○	○	○	○	○	○
13	Described the concepts and processes related to the topic with the fundamental logic behind them.	○	○	○	○	○	○
14	Offered to explain questions and their answers once exams were over.	○	○	○	○	○	○
15	Used to mention areas of improvement and the ways to improve while giving feedback to students.	○	○	○	○	○	○
16	Clearly explained the evaluation criteria to students.	○	○	○	○	○	○
17	Encouraged students to seek his or her help whenever in need.	○	○	○	○	○	○
18	Emphasized only the theoretical aspect of the subject.	○	○	○	○	○	○

"It's a Lonely Walk": Supporting Postgraduate Researchers through Writing

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Traditional views of the writing process as a solitary and painstaking task can inhibit postgraduate students from pursuing useful conversations about their writing. Recent research has suggested that spaces for opening discussion on writing are needed and are important in supporting postgraduate writers to develop their academic identity (Cuthbert & Spark, 2008; Cuthbert, Spark & Burke 2009; Kamler & Thomson, 2007; Lee & Boud, 2003). This paper explores the experiences of five students at University College London (UCL), who were the first cohort to take a writing module which aimed to introduce theoretical and practical approaches to writing and to encourage reflection and evaluation of writing practices. The three key themes to emerge from the research were related to the development of the students' confidence as writers and more generally as researchers. These were: (1) Space – the value of having a defined space for writing, providing a new focus for learning in a less formal environment; (2) Academic Identity – the development of the students' academic identity through writing and gaining confidence as writers; and (3) Peer Learning – the importance of discussion with peers in developing writing and academic identity.

Introduction

For many Ph.D. students, the challenge of writing their theses (and thus developing an academic identity) is undertaken without a great deal of guidance. While supervisors provide insight into crucial subject debates and advice on research design, they do not always create a space in which to discuss and engage with issues of reading and writing, an awareness of which is critical during the transition from student to academic (Ivanic, 1998; Kamler & Thomson, 2007). One student in our study remarked on her experience of doing a Ph.D.: "You're on your own, and it requires a great deal of diligence and discipline, and it's a lonely walk." Recent research suggests a sociable space for discussion about reading and writing is needed: an opportunity for introducing new ideas and more generally for airing academic concerns and successes (Cuthbert & Spark, 2008; Cuthbert, Spark, & Burke, 2009; Kamler & Thomson, 2007; Lee & Boud, 2003).

This study explores the experiences of five students at UCL (University College London) who were the first cohort to take a writing module entitled "Developing a Literature Review," designed for students studying for a Professional Doctorate in Speech and Language Therapy in the Division of Psychology and Language Sciences. In this paper we situate the module within the context of academic writing in higher education in the UK and within the local university context at UCL. We also provide a description of the module: its general focus and ethos, the content of each of the nine sessions, and details of its organization and delivery. After describing our qualitative research methods, we then present the experiences of the students and analyze their developing confidence as writers and as scholars, focusing on three key themes: space, identity, and peer learning.

Postgraduate Writing in the U.K. Context

Since the late 1990s, research into academic writing in higher education in the U.K. has been influenced by a "writing as social practice" approach, promulgated by, among others, Lea and Street (1998) in their academic literacies framework (see also Ivanic, 1998; Lillis, 2001; and Lillis & Scott, 2007). In this approach, writing is viewed as an ongoing pursuit that student writers must constantly develop, particularly when they enter a new learning context, such as postgraduate study. This "writing as social practice" approach is a critique of a generic study skills model of writing development, which is still a feature of U.K. Higher Education. The generic skills model presupposes that writing is a fixed skill that can be easily transported across boundaries, with scant reference to the context in which the student is operating.

The academic literacies approach to writing takes into account disciplinary, institutional, and even cultural conventions, and it acknowledges that writing is bound up with issues of identity and power. Writing is thus seen as a social act informed by practices of departments, subjects, and institutions. Many of these same issues are also foregrounded in the Writing in the Disciplines (WiD) approach to university writing development (largely in operation in North America), the central tenet of which is that writing cannot be separated from the learning of a discipline. Therefore, the proponents of WiD argue, writing development should take place in the subject curriculum, and in U.S. WiD programs, writing tuition is largely embedded in subject teaching in the form of writing-intensive courses (Russell, Lea, Parker, Street & Donahue, 2009).

It is worth observing that much research into writing in higher education has taken undergraduate work as its subject, with rather less focus on postgraduate writing, although Ph.D. writers have attracted increasing attention more recently. As Badley (2009) has suggested, the lack of focus on Ph.D. writing in research and curricula is almost certainly due in part to the assumption that students at Ph.D. level do not need to address writing development explicitly. That said, there is no shortage of "how-to" manuals aimed at Ph.D. writers themselves, as Kamler and Thomson (2008) note.

There is also a shift in recent research in student writing away from the idea of 'writing up', which implies that writing is done only in the final stages of a dissertation, and towards thinking of writing as an important part of the research process from the start. Kamler and Thompson (2008), in particular, promote this shift, and the work described here is premised on this move towards recognizing that writing should be an integral part of the Ph.D. throughout.

Writing Development at UCL

UCL is a large, multi-faculty institution, and support for student writing is organized both centrally and within departments. This work includes the Academic Communication Program (ACP) (located in the Centre for Advancement of Learning and Teaching), which offers courses and institution-wide programs that are informed by academic literacies and WiD perspectives. Two ACP strands of work are relevant to the current study. The first is the Writing and Learning Mentors program (WLM) in which a network of Ph.D. writers from across UCL are trained as mentors to support the writing development of undergraduates in their departments. The program explicitly offers WLM mentors a space in which to consider their writing development during this important transitional stage between being a student and becoming a professional; additionally, through interacting in a multidisciplinary group, the mentors have the opportunity to compare the writing practices of their disciplines with those of writers working in other fields. One of the authors of the current study (Beeke) previously participated in the WLM program, and some of its theoretical and practical work informed the development of the Literature Review module described here. (See Creme & McKenna, 2010, for an account of the WLM program.)

The other aspect of the ACP that is relevant here is the series of collaborations between members of the ACP and subject academics. These institutionally funded projects offer opportunities to embed (and research) the teaching of writing practices in the curriculum. Recent collaborations have included the creation of a legal writing workshop series for 3rd year Law students; the construction of a writing-intensive, compulsory first year course called Writing History; and the support and evaluation of online writing in a Masters course on world literatures. As with the WLM, these projects are premised on the idea that writing development should be located in subject departments wherever possible. The current paper reports on another of these collaborative projects that aimed to establish a module, entitled Developing a Literature Review, as part of the UCL Professional Doctorate in Speech and Language Therapy (DSLT).

Description of the Module

The module, Developing a Literature Review (DLR), is taken by students in the second year of the DSLT. At its inception in 2007, the DSLT was the first professional doctorate available in the UK for speech and language therapists (SLTs). Students make research links between their professional work and their studies at UCL, while continuing to be employed in the NHS or private sector. It is a 4 year part-time program, with a taught component of up to two days per week in the first 2 years. The final 2 years focus entirely on the research project. In its first year, the DSLT recruited a cohort of three students. The DLR module's focus on academic writing renders it a unique learning and teaching experience for postgraduate students in the Division of Psychology and Language Sciences, the home of the DSLT. For this reason, two Ph.D. students following a traditional (non-taught) route opted to join the course in its first year.

The focus of the DLR module is academic reading and writing with the end goal of producing a literature review. (For DSLT students this is submitted for assessment by their supervisors). In addition, all students produce and present a poster on their research, and they receive formative feedback on this from the staff and postgraduate students who attend the poster session. (See below for further details). The module is delivered via nine 2 hour long group sessions (called units), in which time is dedicated to: discussion of current practices and issues; discussion of module readings; writing activities (completed both within and between sessions); generative and thinking writing; peer review; reflective writing and learning journals; the introduction of new ideas about reading and writing; and reflection on issues raised in prior sessions. In general, sessions were approached by both the module facilitator (the second author) and the students as an informal space where reading and writing were prioritized; discussions were open and often student-led, and learning was often peer-based.

The content of sessions was developed by the authors and based in the academic literacies and WiD literature, as well as the work of the WLM program (see above). The module's delivery over two terms and the allocation of 2 hours for each of the nine sessions allowed for the exploration of a wide variety of approaches for the learning and teaching of academic writing. The aims and objectives of each session are listed below as they were presented to the students:

- Unit 1: Thinking Writing and Learning Journals: This unit will explore writing as a way of thinking and learning – "writing to learn" vs. "learning to write," and explain why this approach means that reading and writing are inextricably linked. It will introduce the concepts of "freewriting" and learning journals. You will produce some entries in your own learning journal, to be kept over the duration of the module.

- Unit 2: Reading and Evaluating: This unit will explore what is involved in the process of reading literature: not just searching for new information, but also articulating questions, reading critically, acquiring knowledge, distinguishing between positions, and developing a stance. It will support you in developing practical strategies to encourage you to engage with each of these parts of the process.

- Unit 3: Note Taking: This unit will encourage you to evaluate how you currently take notes, and it will equip you with some practical strategies for facilitating the process of reading and evaluating literature via note taking. You will try out several different ways of taking notes on a research paper.

- Unit 4: Communicating with the Reader: Writing for Different Purposes: This unit will introduce the idea of writing with the reader in mind and writing for different purposes, exploring the differences between writing for a literature review, presentation and poster. You will explore the relationship between text and image and begin to think about preparing your poster.

- Unit 5: Developing an Argument: This unit will explore the processes involved in the development of the argument in your writing. You will be encouraged to view the argument as both a story and a conversation with the reader. You will also be encouraged to focus on the overall structure of your argument as well as the progression of the argument at paragraph level. The unit introduces you to a simple method of analyzing the structure of an

argument in a paragraph of writing, and it supports you as you analyze some student writing in this way.

- Unit 6: Purpose, Focus and Structure of the Literature Review: This unit will explore the processes involved in constructing your literature review and creating a focus. It will explore the purpose of the literature review and how it can be structured. You will be encouraged to review the work of others for indicators of their focus and develop the focus of your own work.

- Unit 7: Style: This unit will explore some of the stylistic features of academic writing, both in your own work and in the work of others. It will encourage evaluation of the strategies employed in academic writing to guide the reader, to balance meaning and readability, and to create cohesion. You will be encouraged to identify and review your use of specific stylistic features and develop an appropriate academic writing style.

- Unit 8: Writing and Identity: Putting Yourself into Your Writing: This unit will explore the relationship between the writer and the text. It will raise questions and debate about the use of the first person in academic writing. It will also explore the aspects of writer identity which affect the production of text. You will be encouraged to evaluate your own sense of identity in your writing and have an opportunity to develop the presentation of yourself in your work.

- Unit 9: Editing: This unit will explore what is involved in the process of editing your writing: not only checking coherence, but also polishing your argument and refining modes of expression. It will support you in developing practical strategies for reviewing your work and encourage you to take part in peer review in order to refine the editing process.

Conducted at strategic intervals alongside the nine group sessions were three 1-to-1 writing mentoring sessions with the module facilitator. These focused on: (i) personal writing concerns, drawing on a page of current writing; (ii) effective poster construction, referring to a draft of the student's poster; and (iii) a draft of the literature review. One-to-one sessions provided an opportunity to air personal concerns and receive individualized feedback from the module facilitator.

The module organization and delivery were supported by a site created within UCL's virtual learning environment, Moodle, where all course materials including unit handouts, writing tasks, and

readings were made available. The site also supported informal discussion about writing through an online forum.

Assessment of the module was formative. All students were required to produce a poster reporting an aspect of their research, and they presented this at a poster session to which all staff and postgraduate students in the Division of Psychology and Language Sciences were invited. The poster session included a brief verbal presentation by each student in turn at the start of the session in order to introduce themselves and their research area to the audience, as well as to attempt to interest people in reading and discussing the poster with them. For the first cohort of students to take the module, this ran successfully with 21 staff in attendance. Feedback forms, completed by all staff, requested a rating from 1 to 4 (with 4 being the highest score) on the following parameters for each poster: appeal of verbal presentation; overall visual impact; use of images; readability; presentation of information. This was later collated and returned to each student individually. In addition, DSLT students were required to submit a literature review of 6-7,000 words to their supervisors for formative assessment approximately 2 months after completion of the module, in accordance with the DSLT assessment schedule. Ph.D. students following a traditional (non-taught) route who attended the module were not required to produce a literature review, but those who were at a stage where this might be considered an appropriate personal goal were encouraged to make an independent arrangement with their supervisors to submit and receive feedback on such a piece of writing. Thus, the students' various Ph.D. supervisors provided feedback on the content of the literature review; input from the module coordinator (via unit discussion and 1-to-1 sessions) focused on issues of writing.

Research Methods

This research was conducted specifically to evaluate the impact of the module upon the first cohort of participants, and the design was qualitative. We adopted a critical ethnographic approach as proposed by Lillis and Scott (2007), which prioritizes researching the context in which writing is situated and integrates the analysis of "talk around text" with the examination of texts themselves as a means of exploring writers' perspectives. Lillis (2008) argues that to adopt ethnography as a methodology is to keep up sustained involvement of the researcher throughout the process of writing "to explore and track the dynamic and complex situated meanings and practices that are constituted in and by

academic writing" (p. 355). This study draws on a number of data sources produced at various stages in the writing process in an attempt to explore Ph.D. writing in context and appreciate more fully the complex process of academic writing in practice. These sources include focus group and interview transcripts, reflections on assignments, drafts of writing, autobiographical texts, and learning journals.

Five students participated in the module and subsequent research. The number of participants reflected the cohort of students who were eligible to take the module. The DSLT, for which the module was designed, was in its first year, and numbers were small: the cohort was three. The other participants were students studying for a Ph.D. by the traditional route; the year that the module ran for the first time, two chose to take it as an option. While the small sample size limits the study in that it only reflects the perceptions and experiences of a few individuals, the very nature of qualitative research is that it prioritizes depth over breadth. The range and rich nature of the data gathered enabled us to undertake a fine-grained exploration of the postgraduate writing process, identify subtle shifts within writing development, and generate a set of inter-related themes.

The students whose experiences form the focus of this work will now be described. The three DSLT students were all experienced SLTs exploring research interests within their working environment. Mary was conducting research into the use of technology to deliver SLT; Sarah was researching the impact of a training program for health care assistants working with individuals with dementia who had feeding and swallowing problems; and Chris was carrying out a randomized controlled trial of a drug treatment for managing the secretions of patients with tracheostomy. The two Ph.D. students who took the module were Alison, who was carrying out a qualitative investigation of stroke-related language disorder (aphasia) in bilinguals, and John, who was researching the neural basis of intelligible speech. (The students have been assigned pseudonyms; these are not intended to reflect their social or cultural identities.) These diverse research interests, drawing on various disciplines, are reflective of the multi-disciplinary nature of SLT and the wider research interests of the Division of Psychology and Language Sciences.

We developed the following research questions in order to investigate the impact of the module on the students' writing:

- What did the students get out of the module, and how did they feel about it?
- Has the module changed their understanding of what a literature review is?
- Has exposure to different ways of writing

changed the students' views of writing (writing as process, as product)?

- Has the module changed the students' sense of self as a writer?
- How did the students use the learning journal?
- Have the students found the assessment and feedback process useful for developing their literature review specifically, and their writing more generally?
- What is the impact of the module at a curricular/divisional/institutional level?

Evidence for the evaluation of the module and exploration of the experiences of the students was collected in three ways:

1. Reflective writing: Before the first unit the students were asked, "Tell me about your writing . . ." in a piece of reflective writing, to be submitted to the module coordinator. Following this, two further pieces of writing were requested at different stages during the course, detailing the students' writing experiences. After completing the module, the students were asked to submit one final piece of reflective writing. All students granted permission for these reflections to be examined and used as evidence for this research.
2. Interviews and focus group: Individual interviews were conducted with all five students following completion of the module, and at a point when the three DSLT students had submitted the literature review to their supervisors, but had not yet received formative feedback. The interviews lasted roughly 30 minutes and were conducted by the third and fourth authors (McKenna and Creme), who had not met the students before. It was thought that the choice of interviewers would encourage the students to be more forthright as to the value of the module. The focus group was facilitated by the third author (McKenna), and took place 3 weeks after the interviews. Four of the five students took part; John was unable to attend. The interviews and focus group were audio recorded with the students' permission, and the data were transcribed and coded by theme by the first author (Fergie).
3. Textual analysis: Examples of writing from before the module and from the literature review were collected with the permission of the students.

Emergent Themes:
Space, Identity, and Peer Learning

Throughout the course of the module, as well as in its evaluation, the response of the students was resoundingly positive. Some reflected that before the course they had little, if any, awareness of writing within the university setting: "You're supposed to know all about it, you're supposed to achieve a standard that's not discussed but expected" (Sarah). An opportunity for discussion about writing, therefore, was welcomed wholeheartedly and indeed, the students were surprised by the content of the course and the effect it had on them. Chris talked about the newfound importance he now places on developing his academic writing: "I just think it's powerful, I mean, the whole, you know, aspect of writing, and how powerful it can be if you get it right."

Despite this, the students came to the module with varying expectations, not all of which were positive. Sarah anticipated a "woolly" course with little engaging content. Alison explained her initial expectations and how they differed from the reality of her experience in the following way: "I started out thinking it was going to be just the literature review and ended up learning more about writing as a whole process." These thoughts about how the module's content extended beyond the literature review were shared by others. Mary commented that completing the module "is a way to learn systematically how to improve [your writing]." Alison also suggested the key practical outcomes of the course were "strategies and having structure to the work, developing more discipline, getting over the blocks."

In the interviews and the focus group, as well as in reflective writings, the students described their development in terms of confidence. All of the students, having completed the module, felt their confidence had increased and were positive about writing in the future. Mary explained this increase in her confidence: "I'm certainly a bit more confident, but perhaps that's a combination of feeling confident about writing and knowing how to write but also more confident about things that I've been reading about." Alison also mentioned developing confidence: "It has helped to develop confidence, the feedback I get from my supervisors now, the feedback that we had in the . . . one to one and peer sessions in the class, yeah, it has helped me become more confident." However, this development was not always an upward trajectory; the interview and focus group data also revealed that some of the students felt unexpected knocks to their confidence. Sarah felt she was now critical of her own work: 'I wonder how I passed my MSc, I looked at it and went oh that's really bad, great big huge holes in it.' Chris mentioned that he felt "quite deflated" after

the first two sessions. He described his experience thus: "You're thinking, oh my god, my work's really crap and then, I don't know when it happened to me. . . . You start turning and you are changing your writing . . . so, you know, you're quite at a low confidence level initially, and then you're just building on that really, knowing that you're working upwards." While increased awareness of and reflection on writing aroused concerns, thinking about writing, developing new writing and reading processes, and increased interaction about writing were all mentioned as factors contributing to an increase in confidence.

The following sections explore this further by discussing three key themes in the development of the students' confidence, how it was facilitated and fostered, and what effect it had on them as academics and clinical practitioners. These themes are space, identity, and peer learning.

Space

A key theme evident in both the interviews and the focus group is the importance of defined spaces for reading and writing. By carving a space in the curriculum for students to attend a sustained series of reading and writing sessions, where the focus was not the content of their research project, a new opportunity for academic development was created. This new space for talking about reading and writing was welcomed by the students. Discussing his general experience of the module, John comments:

> One of the things I really appreciated was having . . . places to read about writing 'cause that's something that I've not really ever done before . . ., and I've found the discussion with other people very useful . . . and it kind of allows you to . . . consolidate in your head, okay, well, these are the things I do, and these are the reasons, perhaps, why I do them, which allows you to perhaps take a little bit more control over them.

Here, John suggests the value of airing ideas, often previously unexpressed, about writing and comments that this helps to identify current practices. The students revealed, both in the interviews and focus group, that opportunities for this kind of discussion are not always present on the "lonely walk" (Mary) of the Ph.D. A space for this appears to be valuable.

The new space established through the module created an opportunity for self-reflection and discussion. Students were encouraged to discuss issues and ideas about writing, share established practices, and develop new strategies for future writing. This finding has much in common with the concept of "third space" (Bhabba, 1994; Gutierrez, Rhymes, & Larson, 1995),

explored in recent writings on innovation in higher and further education (Curry, 2007; Ivanic & Satchwell, 2007) which suggest effective learning is stimulated by an environment somewhere between formal teaching and informal experience. Creating a more informal space, a third space in educational terms, is to create a productive space for learning where traditional teaching methods are used less and the roles of student and teacher (novice and expert) are less well defined. Curry (2007) highlights "the desirability of creating 'third spaces' in which students can discuss experiences, grapple with challenges, and build confidence in using academic literacies – to enter an 'engaged state'' (p. 126). The students' experiences during this module suggest that the space it created operated as a third space, rather than as a traditional university teaching space.

Importantly, the roles of the students and the module coordinator within the space created by the module were fluid, with the coordinator acting not as teacher but as facilitator, encouraging and supporting discussion rather than lecturing. Through less well defined roles and an emphasis on sharing thoughts and experience (positive and negative), the module provided an opportunity for less self-conscious interaction, where students were not presenting their most polished academic personas but were comfortable talking about shortcomings and tackling problematic issues. Sarah's comment that the module was "almost like insider information" gives weight to the concept of the module as a less self-conscious space.

As well as a forum for discussion, the module was also created as a space for reflection. Each student was provided with a learning journal and encouraged at regular points in the course to write reflectively about their experiences of writing, as well as their intentions for future writing. Both Chris and Sarah felt they developed a greater sense of awareness about their writing:

> I think [the module has] made me more aware . . . of the things . . . involved in the writing process, which all become intrinsic really . . . I didn't, take a step back, em, and look at my writing in such depth, I think and in such awareness. (Chris)

> Before I did this module I think I was floundering but I wasn't aware of it, em, and I came to the course, and . . . I thought okay, this will be fine, I'll just do it, but it really has taught me a lot and it's provided me with a real structure to my writing and emphasized how important it is. (Sarah)

John made a similar comment: "I feel a bit more, um, empowered and, em, a bit more, kind of aware and in control." These sentiments rang true with all the

students: reflection on writing became important to them as a means of developing awareness. Gaining confidence by learning about their own writing, and writing more generally, appeared to facilitate the development of authoritative modes of expression, and with this they developed a greater sense of academic identity.

Another important feature of the new space created by the module was the focus on writing as a process. In this space, the act of writing was actively encouraged, and the students were supported in shifting focus from "writing-up" to just writing, little and often, producing both exploratory writing and more polished pieces. Sarah appreciated the opportunity to write consistently and now sees writing as a means of "keeping in touch" with her studies. Mary also changed her approach to writing and as a result no longer "loathes" it, but instead has learned "to think about writing not as a chore but as a tool." Regular writing support was a key in fixing writing as a crucial and useful part of the students' studies. As they became more disciplined and confident writers they were less daunted by writing at length, and indeed Mary comments, 'As I was writing [my literature review] I was thinking I could write a book."

Identity

Mary's shift in thinking about writing relates to Kamler and Thomson's ideas about academic identity (2008). They suggest:

> Doctoral writing is best understood as text work/identity work, . . . texts and identities are formed together, in, and through writing. The practices of doctoral writing simultaneously produce not only a dissertation but also a doctoral scholar. In the academic world, texts and their authors are inseparable. (p. 508)

Through writing and discussion about bodies of work, the students developed a greater sense of their position within the literatures they were reviewing. All of the students identified successfully critiquing the work of others, situating their own work within existing literatures, and making a contribution to the body of research in their discipline, as important learning outcomes of the module, and some directly related this to their developing academic identity. For example Sarah said:

> I've got to identify where I stand in the . . . framework of the research and how my research slots in, and contributes to the literature . . . so I see my literature review now as more [of] a finely honed contribution, developing academic authority, making a contribution to the discipline.

Development of the students' academic identity is also evident in assertions of authority. Sarah's wish to make a contribution is echoed in Mary's thoughts on her research project: "I think it has a very small part to play but I think quite a good part to play, in perhaps changing how we deliver healthcare." Mary is not only identifying a place for her work among the literatures she is reading, but also identifying herself as producing valuable research which will have an impact in a clinical context. It appears that creating a space for thinking about reading and writing is useful for giving students an opportunity to refocus, not on the intricate details of their research, but on the wider academic community, helping them to envisage themselves as a part of it. In doing this, and recognizing the validity of their research, they gain confidence to talk and write with academic authority.

In a piece of reflective writing submitted mid-way through the module, Alison commented on a developing confidence in her academic identity: "Knowing the right labels for what I wanted to write about has been important to me. These are important because they create a sense of continuity and (also a sense of belonging for the novice writer) in the academic community." In this writing, she showed an awareness of the academic community and specific conventions of her discipline, and yet identified herself as a "novice writer." This was not the case in her post-module interview. At this point, she had received positive feedback on her writing from her supervisors at a formal Ph.D. upgrade meeting. Discussing her developing confidence she explained: "This is *my* research, I've seen this in my data, this is relevant, this is how *I'm* going to say it." (italics added to denote stress). At this later point, Alison appeared willing to claim authorship of her work and was more confident in asserting the validity of her contribution. Interestingly, Alison was the only student in the group for whom English was a second language, and it is therefore possible that her sense of her academic identity in relation to writing was more acute. She charted her progress, saying: "I have moved from being this second language writer to someone who can say I know what I'm writing about."

An opportunity for important interaction within the wider research community was provided by the poster session. Chris saw the opportunity to present his research to members of the academic staff of the Division and gain their feedback as "invaluable." Preparing and presenting a poster, as well as developing the students' appreciation of poster writing as a genre, provided them with an opportunity to socialize within the department, raising the profile of their research and promoting networking opportunities. All of the students mentioned the significance of this experience to their development as researchers. Thus, findings suggest that

the students' developing sense of academic identity was influenced not only by the process of writing, but also by the provision of practical experiences within the wider research community that increased their confidence to work within it.

Peer Learning

The final theme that emerged was the significance of sharing the writing process with peers. The realization that they were "all in the same boat together" (Mary) led to the creation of an environment that fostered peer learning. The regular meetings of the group created a space where students could discuss progress and intentions for writing, providing a relief from the experiences of writing in solitude. On being asked to comment on her general experience of the module, Alison prioritized the importance of peer support: "The last piece of writing that I did I didn't feel alone doing that, it wasn't a lonely journey because I had [. . .] friends with me doing things like this." All of the students reported that sharing the experience of the writing module was important to them.

Creme and Cowan (2005) promote a model of "peer engagement," which aims to build confidence and autonomy in writing through regular peer feedback exercises. They suggest this is "one way of helping students take seriously the idea of writing as a process that is complex and develops over time" (p. 113). Furthermore, the authors suggest, "[I]f such peer- and self-review processes were built into the curriculum as common practice, students would be helped to realize that they can make use of their own and each other's critical abilities in order to develop their writing" (p. 113). The responses of the students throughout the current research suggest that the challenges of postgraduate writing can also be supported by continuous "peer engagement."

Despite never having read each other's writing before, the students were prepared to share their work. Chris wrote: "I now feel more confident in sharing my writing with some colleagues / peers (which I wouldn't have even considered in the past!)." Peer feedback was valued. Sarah was keen to "look at other people's writing and how they write and pick up tips from them, that was really important." Mary also commented, "It was good to have somebody look at what I had written who . . . wasn't embroiled in it, in the way, perhaps, my supervisors will be because . . . they know possibly where I am going." Chris talked about the importance of getting constructive criticism from peers: "There isn't any sort of negative or degrading feedback it's all constructive feedback and . . . it's to improve you and your self and I think that's important to take with you." All the students saw peer review as a useful exercise for progressing writing that had not previously been

available to them outside of the module, because it was unlikely to happen spontaneously and without structured ground rules. It appears that peer support and peer review can be an important relief from the more intense relationships students might have with their supervisors. Peer reviewers, removed from the intricacies of the project, were able to provide alternative insights into less considered issues.

Peer review could also be considered useful as an "academic" experience. The students were happy to provide and receive comments on draft writing in this less formal setting; later in their academic careers this process, although more formal, will become familiar to them, for example via peer review of journal articles. Working alongside peers is, perhaps, another important experience in developing students' confidence as they begin to identify themselves as researchers.

Alison suggests that her interactions with peers brought to light the real issues she was encountering in her own writing:

> Part of . . . the confidence in writing was to do with the fact that I was writing in my second language, but having found during the interactions in the class that issues I had about my writing was not really about writing in my second language it was about writing academically, it's about developing yourself as a researcher . . . more than writing in my second language.

Peer support and interaction, in this case, appears to have encouraged a heightened awareness of personal writing processes and indeed challenges. By providing consistent interaction with peers, with writing as the focus, the module encouraged productive peer-learning experiences and relationships.

Conclusion

This ethnographic study of five students' experiences of an academic writing course produced a large volume of rich data through which we were able to explore the postgraduate writing process. The analysis has highlighted key themes - space, academic identity, and peer learning - that resonate with existing literature and provide useful insights for future research. Kamler and Thomson (2008) suggest that universities should prioritize writing cultures and adopt an approach which "recognises that research practices are writing practices and that all university staff and students benefit from systematic attention to writing" (p. 177). By developing a module for postgraduates where reading and writing are foregrounded, we have attempted to create a space which supports such attention. The students' descriptions of this space and how it was utilized suggest they found it invaluable as

an opportunity for discussion and learning. Increasing confidence in their writing and in their role as researchers confirms, as suggested by Kamler and Thomson (2008), that to support one is to support the other. The results of this research suggest that postgraduate students can benefit from having a defined space for writing that facilitates learning in a less formal environment and highlights the importance of discussion with peers in developing writing. This not only benefits writing and increases students' confidence as writers, but it also contributes to the development of their academic identities. Additionally, our findings confirm the precepts of the Writing in the Disciplines model that writing development work of the type described here is best situated within a disciplinary and program context.

This study has influenced the practices of both postgraduate students and staff within the Division of Psychology and Language Sciences. After its initial success, the module continues to run as an option for students following a traditional (non-taught) Ph.D. route (the DSLT does not recruit every year; the next intake of students will complete year two of the course in 2011/12). Although optional, its reputation is such that interest is growing year on year, and Ph.D. supervisors are beginning to suggest the module to their students. This growth has been achieved largely through word of mouth, as a result of students who have completed the module recommending it to their friends, and supervisors observing positive changes in their supervisees' writing. A second cohort of eight Ph.D. students opted to take the module in 2009/10. They had wide-ranging research backgrounds from audiology to behavioral neuroscience. Written feedback from them at the end of the module revealed their experiences to be overwhelmingly positive: "I've really . . . enjoyed the course. It's . . . helped me see that my writing's not that bad. My issues are a combination of lack of confidence and laziness. It's been like therapy!" (3rd Year Psychology Ph.D. Student). The third cohort (2010/11) also numbers eight students, again with wide-ranging research interests, from regional accent variation in Saudi Arabian Arabic to the sociolinguistics of British Sign Language. Knowledge of the module has also helped to raise awareness of writing among academics in the Division, such that a number of colleagues have set up a writing group which meets twice a term to provide both peer support for the process of writing academic papers and grant applications and dedicated time in which to write.

The future of the centrally run Writing and Learning Mentor program at UCL is uncertain. However, its basic premise that writing is best developed within the discipline has borne fruit as evidenced in the module described here. In a time of financial austerity it may be difficult to carve out such 'third spaces' for writing and learning, the value of which has been amply demonstrated through this research.

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Acknowledgments

Exploring Learner-Centered Assessment: A Cross-Disciplinary Approach

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Frustrated by students' disappointing performance on traditional exams, an education professor and a psychology professor independently asked their students to simply demonstrate what they had learned during a given time frame. In this article, we will argue that when students are provided opportunities for learner-centered assessment, they dedicate more time, show more creative output, and are often more successful than when answering questions on a traditional assessment measure. Research has demonstrated that students who create their own assessment must show that they understand the information by re-interpreting it in a different way, the very definition of deep learning (Atherton, 2005; Saljo, 1979). When instructors require that students really think about what and how they have learned, they are encouraging further learning to occur (Bransford, Brown, & Cocking, 2000). Sample methods of learner-centered assessment with rubrics are provided, as well as suggestions for implementation and improvement.

Rationale

During a break between sessions at the 2009 meeting of the International Society for Exploring Teaching and Learning, the authors – an education professor and a psychology professor – shared their personal experiences with assessments. Frustrated by students' disappointing performance on traditional (i.e., multiple-choice and short-answer) exams, the authors independently asked students to simply demonstrate what they have learned during a given time frame. Even more surprisingly, the authors found they experienced many of the same advantages and frustrations, which was unexpected since they were from differing academic disciplines (psychology and education). Thus, this instructional article offers an opportunity to share these experiences with others in hopes of furthering discussion on learner-centered assessment.

Literature Review

For many years in education, the focus has been on content with experts (i.e., teachers, delivering the content to novices; i.e., learners). In contrast to this passive, teacher-centered approach, a constructivist approach, influenced by the theories of Vygotsky (1986) and Piaget (1977), relies on active exploration by students with professors providing guidance as needed. Through his initial research with snails, then later with children, Jean Piaget (1977) provided a basis for a theory of constructivism whereby knowledge is not something which is produced independently, but instead it adapts according to the organism's experiential world (Fosnot, 1996). Von Glasersfeld (1996) states, "Knowledge, then, could be treated not as a more or less accurate representation of external things, situations, and events, but rather as a mapping of actions and conceptual operations that had proven viable in the knowing of the subject's experience" (p.

3). Learners must pay attention to relevant information, organize the information into logical representation, and integrate these representations with existing knowledge (Mayer, 1999).

The constructivist approach also emphasizes the role of intrinsic motivation which involves engaging in a behavior that is satisfying in and of itself (Schmitt & Lahroodi, 2008). Underlying this approach is the belief that individuals learn best when they are intrinsically motivated to seek out new knowledge and skills (Norman & Spohrer, 1996) and that intrinsic motivation is key to creativity (Runco, 2004; Sternberg, 2000). Thus, because learners are at the center of the educational process, this approach is often referred to as learner-centered. Constructivist theorists contend that students do not have to have mastery of a subject, but instead they are "encouraged to explore it, handle it, relate it to their own experience, and challenge it whatever their level of expertise" (Weimer, 2002, p. 13). Piaget along with Vygotsky and other semiotic interactionists held the idea that we as humans cannot have an objective view of reality because we continually transform and reconstruct it and ourselves (Fosnot, 1996).

However, while there has been a plethora of time and energy devoted to developing methods and techniques of learner-centered teaching, not as much attention has been focused on learner-centered assessment.

Traditional Assessment

Our society has come to expect an evaluation, grade, assessment, or numerical ranking to determine educational value and/or worth. Popham (2005) states:

> Standardized tests have been used to evaluate America's schools since 1965, when the U.S. Elementary and Secondary Education Act became

law. That statute provided for the first major infusion of federal funds into local schools and required educators to produce test-based evidence that ESEA dollars were well spent. (para. 3)

In the field of education, there are local, state, and national standards which students must meet in order to progress through schooling and an inordinate amount of funds dedicated to maintaining these standardized assessments.

Many instructors still rely on standardized or traditional forms of assessment. Commonly used traditional tests are an appropriate method of measuring declarative knowledge or basic facts (Pellegrino, Chudowsky, & Glaser, 2001), but they may not be reasonable for the learner-centered style (Norman & Sphorer, 1996). Retention tests, often used, evaluate how much of the given material a student can remember. A retention test may take the form of recall or recognition (Mayer, 1999). A recall test asks students to record all the information they can recall from a given source, while a recognition test asks students to choose which of several possible answers is best. Both recall and recognition tests measure rote learning. Rote learning is defined as learners adding behaviors or information to their memories and is best supported by drill-and-practice instruction methods (Mayer, 1999).

Most recall and recognition assessments take the form of a multiple-choice test. Disadvantages to this method of assessment are plentiful. First, the learner may interpret the information on the test differently than was intended and, therefore, answer the question incorrectly. The wrong answer, then, would signify a different interpretation, not necessarily incorrect learning. Second, multiple-choice assessments offer an all-or-none approach for gauging a student's learning. Students do not receive credit for what they do know. Third, because students have different options to select, a test taker may receive credit for a correct guess. With all of these disadvantages, the problem with the assessment is the same: process is not being measured, only final outcome.

Finally, there is concern over a potential gender bias. Research has indicated that males perform better than females on multiple-choice exams (e.g., Bolger & Kellaghan, 1990; Murphy, 1982). Recent research on traditional assessments has identified several serious limitations with them (for a complete review, see Pellegrino et al., 2001). There are two weaknesses relevant to the classroom setting. First, these assessments may not effectively portray the kinds of sophisticated knowledge and skills deemed necessary for success in our complex society (Resnick & Resnick, 1992). They are not structured to identify key differences in students' levels of

understanding (Pellegrino et al., 2001.) Second, traditional assessments do not show students' progression of knowledge over time; they depict understanding at *one* specific moment in time.

To create an alternative measure of assessment, educators moved to transfer tests. Transfer tests require that students apply the information they have learned in a novel way. Some researchers have argued that transfer tests are an accurate way of assessing constructivist learning or active learning (e.g. Mayer, 1999). However, in this article, we argue that true constructivist methods allow students to engage in their assessment process through product development; students must create their own assessment. Student-centered approaches promote a feeling of ownership among students (Pedersen & Liu, 2003). Shepard (2000) recommends the use of open-ended assessment techniques that are designed to involve students in their own learning process. If viewed as an instrument, assessment allows both professor and student to evaluate what the student knows and what the student can do with the new knowledge and skills (Gerdy, 2002).

Learner-Centered Assessment

Student-centered learning demands that students set their own objectives for learning and determine the resources and activities that will help them meet those objectives (Jonassen, 2000). This approach begins with a central question that creates a need for certain knowledge and activities, and learning is the result of students' attempts to respond to that question (Jonassen, 1999). Through learner-centered teaching, evaluation is used to provide a balance between generating grades and promoting learning (Weimer, 2002). We set out to challenge our students to be more fully engaged in both the learning and assessment process. The *Principles of Engagement* (Cambourne, 2002) framework supports this task:

- Learners are more likely to engage deeply with demonstrations if they believe that they are capable of ultimately learning or doing whatever is being demonstrated.
- Learners are more likely to engage deeply with demonstrations if they believe that learning whatever is being demonstrated has some potential value, purpose, and use for them.
- Learners are more likely to engage with demonstrations if they are free from anxiety.
- Learners are more likely to engage with demonstrations given by someone they like, respect, admire, trust, and would like to emulate. (p. 28)

Summary of Purpose

Based on our experiences using learner-centered assessment, we will argue that when students are asked simply to demonstrate what they have learned, they dedicate more time, show more creative output, and are often more successful than when answering questions on a traditional assessment measure. Research has demonstrated that students who create their own assessment must show that they understand the information by re-interpreting it in a different way, the very definition of deep learning (Atherton, 2005; Saljo, 1979). When professors require that students really think about what and how they have learned, they are encouraging further learning to occur (Bransford et al., 2000). While the authors do relay numerical information relevant to their courses, it is important to note that this is not an empirical study and, therefore, "data" was not systematically analyzed. Demographic information, for example, is provided to give the reader a context for interpreting the information that follows. The experiences of students and instructors will be discussed broadly so as to inform on an innovative higher education teaching methodology. This instructional article will include reports of class demographics; descriptions of class experiences with new assessments; and a discussion focused on strengths, challenges, and applicability of learner-centered assessment methods.

Education Class Demographics

Introduction to Language Arts (EDU 300) is considered an entry-level, required course for admission to the undergraduate Teacher Education program at Meredith College, a private women's institution. Education is not a major at our institution, so students may select any major and receive a teaching license in one of the following areas: birth-kindergarten, kindergarten-sixth grade, sixth grade-ninth grade, or kindergarten-twelfth grade. The official course description reads:

> This course will address the research, theory, and instructional practices related to teaching the language arts. Emphasis will be given to methods for fostering development in all language processes: speaking, listening, writing, and reading. Students will examine process writing in detail and observe/assist in a classroom.

Students do not have to be admitted into the Teacher Education Program to enroll in the course, and it has only one pre-requisite. However, students must pass the course with a grade of "C" or better in order to be admitted into the program. It is a broad-based course which introduces students to a myriad of topics in language arts, as well as methods for implementing reading and writing teaching strategies within the classroom. There is also a field experience component where students are required to observe/assist in an assigned classroom, from first through eighth grade, for a minimum of 8 hours over the course of the 16-week semester. They are also required to interview their field experience teacher on his/her writing practices and teaching philosophy.

The following scenario reflects the author's experience with one section of this course offered during the spring 2010 semester. Twenty female students (16 juniors, 3 sophomores, 1 provisional teaching license) were enrolled in the course. Since all students were preparing to enter the Teacher Education Program, intended majors were not relevant.

The Education Experience

After a class discussion with my pre-service teachers and reading their reflections on assessment, I had planned and prepared my students for a traditional midterm assessment. Although I knew it was not a method of assessment I liked or promoted, I felt I had to have something to measure my students' knowledge. My thinking correlated with the following findings by Black & Wiliam (1998):

> Tasks have to be justified in terms of the learning aims that they serve, and they can work well only if opportunities for pupils to communicate their evolving understanding are built into the planning. Discussion, observation of activities, and marking of written work can all be used to provide those opportunities, but it is then important to look at or listen carefully to the talk, the writing, and the actions through which pupils develop and display the state of their understanding. (p. 143)

I had the naive assumption that because I had a ready-made test of questions, the students would absorb the knowledge from the text and our course discussions if they so desired, and display their understanding through rote memorization, if only they had the will to do so (von Glasersfeld, 1996). However, I knew this assessment devised of true/false, fill in the blank, short answer, and matching questions was not the method for these students. I could not in good conscience offer them an assessment that was in direct contrast to the effective teaching and learning practices I was attempting to model. I enlisted the help of my students and requested that they provide suggestions for an alternative way to measure their knowledge. I received many responses ranging from creating a lesson plan to playing a game of Jeopardy. I coupled some of their

ideas with some of my own and created a 4 x 4 Think-Tac-Toe (see Appendix A). A Think-Tac-Toe is designed like the game Tic-Tac-Toe, but instead of blocks for X's and O's, there are blocks of assignments. The students had 2 hours during class to complete 4 activities of any directionality (vertical, horizontal, diagonal, four corners) on the form. I chose to use the Think-Tac-Toe format because it allowed me to retain some control over the level of difficulty of each block, as well as provide a form of differentiation for students by addressing a variety of intelligences. Additionally, there was a specific task (designing a lesson plan) that I wanted to place in several locations to ensure that most students would select this option in order to meet course standards.

I was very excited about this constructivist approach to learning, but nervous that I would not get the information I desired. I shared my idea and final product with my colleagues who raised valid concerns: "How will you grade this? How will you know if they know the information? Will they have enough time? Aren't you letting them out easy?" I did not know the answers to these questions, but knew I had to take the risk. The students did not know how they were going to be tested, but they did know the topics from a prepared study guide. After thinking through the process, I knew that my nervousness about this assessment stemmed from having to release control over the information and how it was applied. Weimer (2002) states, "Constructivism challenges faculty expertise, not so much arguing against its validity as objecting to its exclusivity, opening and legitimizing students' interaction with the content" (p. 13).

The reward of taking this minor risk was that not only did every student pass the exam, but they did so with flying colors! They were thoughtful, creative, reflective, insightful, and downright impressive. I could not say the same for the previous responses given when I used a traditional method of assessment. Table 1 shows a comparison of a traditional midterm question with response and the same question addressed by a student during the learner-centered assessment. The improvement in quality of work is clearly demonstrated by this example. The students had finally produced the quality of work that I knew they were capable of as future educators. I could visualize my students in every one of their creations, and it was so much fun to grade.

However, there were difficulties involved with this type of assessment. I could not create a variety of rubrics for each and every square, but instead I had to use a generic rubric which measured accuracy, creativity, completion of required components, and conventions of writing based on a twenty-five point scale. It was also extremely time consuming to grade and provide feedback for students because they were truly individual creations.

Psychology Class Demographics

Adolescent Psychology (LA3034) is an upper-level elective offered to any student who has completed Introduction to Psychology at Delaware Valley College, a small, private co-educational college. The official course description reads:

This course studies the development and behavior of adolescents with a focus on understanding the adolescent in terms of family, peers, school, culture, and the community at large. Identity development, delinquency, and sexuality will all be examined with an emphasis on how to provide services to the adolescent in need.

This paper reflects on the author's experiences with one section of this course, offered in the spring semester of 2010. Twenty-three students were enrolled in the class; however, one student never attended this class and, therefore, is not included in this reflection. Of the remaining twenty-two students, sixteen were female and six were male. Three students were sophomores, six were juniors, and thirteen were seniors. Five students had declared Counseling Psychology as their major; two had declared a Psychology minor. Students in the Counseling Psychology major may choose Adolescent Psychology out of nine courses as one of their advanced psychology courses. For a minor, students may select any five psychology courses of their choice. Three students had declared Criminal Justice Administration as their major; these students may choose from either Adolescent Psychology or Abnormal Psychology (LA4014). The remaining students were of various majors, none of which require or recommend Adolescent Psychology. While the authors acknowledge that simply receiving course credit is a form of extrinsic motivation, since students have a multitude of courses to choose from, it is reasonable to assume that intrinsic motivation played a strong role in students' performance in this particular course. Based on the majors represented in this class, it is reasonable to assume that most students were intrinsically motivated to enroll in this course. As previous researchers have noted (e.g., Runco, 2004; Sternberg, 2000), intrinsic motivation is linked to creativity; thus, it was expected that these students were capable of generating innovative products.

The Psychology Experience

For their first assessment students were given a two-part exam consisting of a section of multiple-

Table 1
Comparison of Assessments for Education Experience

Traditional Assessment Question	Learner-Centered Assessment Option
List the five stages of the reading process.	Write a descriptive scenario, story, or poem which highlights the five components of the reading process.
1. Pre-reading	When we read, we go on a wild ride
2. Reading	A ride in which we are not alone, with great characters on our side!
3. Responding	Before jumping into a great new book
4. Exploring	There are some steps at which you must take a look
5. Applying	**Pre-reading** is the first of your steps
	It will help you go exploring to great new depths
	During the pre-reading stage you will establish a purpose and goal
	If you do not build background knowledge, it will surely take a great toll
	Once you have done you pre-reading to preview the reading
	Into the **reading stage**, you will go speeding!
	Reading takes on many shapes and forms
	You can read by yourself, in groups, with a teacher, or with a slew of book worms
	Reading requires lots of strategies and skills
	Be ready for a great adventure full of turns and spills
	Once you have finished reading you will surely have a lot to say
	You think to yourself, "How do I write down all that I have learned, I just can't think of a way"
	Do not fret, you have many choices
	You can **respond** in reading logs or discuss with your voices
	The responding stage gives you a chance to summarize the book
	You will get a chance to reflect and take a new look
	Now, off to the **exploring stage** you must go
	There are texts to be studied, authors to be examined, and words to know!
	You have made it through pre-reading, reading, responding, and exploring
	The though of now **applying** seems awful luring!
	To apply takes a book to a great new place
	Create a project, connect to other books, but remember it is not a race
	Reading is something that is personal to you
	If you follow your 5 steps, you will soon be a reading "wiz" too! (K.Herrmann, 2010).

choice questions and a section of short-answer essay questions. The exam questions were generated using supplementary materials supplied by the textbook publishing company. I was disappointed with their lackluster results. I felt the students had demonstrated excellent understanding in class discussions, but only average comprehension on the exam. Many students also completed the exam quickly, but they did not earn high marks leading me to question the extent to which their thoughtfulness was devoted to the exam content. When I asked the students for feedback regarding the assessment process in the spirit of Cambourne (2002) and Vandenberg (2009), they too were dissatisfied with their results. One student eloquently said, "Class is fun, but the test was not. I didn't get a chance to show you what I know." I agreed whole-heartedly, but I was unsure of how to proceed.

I decided to enter completely unfamiliar territory and place the assessment in the hands of the students. For their second "exam," I told students to "Show Me What You Know." Students were told they must create a way of demonstrating their understanding of information on our most recent four units: Identity, Family, Peers, and Sexuality. I offered suggestions such as creating a magazine for adolescents or a guide for parents of teens. They also were instructed to give a brief presentation to the class in which they must show their end products and describe what they did and why. Grading rubrics were provided (see Appendices B and C).

Their products varied greatly, ranging from educational games to collages to magazines. The presentations were wonderful. Students were proud of their work and enjoyed seeing what their classmates had created. I was enthusiastic as well. The traditional assessment format that I utilized with their first exam tested a list of disconnected facts rather than usable knowledge (Bransford et al., 2000). Table 2 shows a comparison of several traditional exam questions and answers assessing knowledge about psychopathology in adolescence and the same concepts addressed by a student during the leaner-centered assessment. The example from the learner-centered approach demonstrates that students were able to understand the information and transfer it to a new context. They show deep learning: they had applied their knowledge in a novel and creative way (Atherton, 2005; Saljo, 1979). Furthermore, students dedicated much more time and effort on the learner-centered assessment than they had on the traditional exam. One student, for example, informed me that I had "tricked him." He informed me that instead of studying for one to two hours like he would for a typical exam, he had spent three days preparing his product for the learner-centered assessment. Their effort resulted in outstanding products, and we were all thrilled by the experience.

I did, however, face several challenges with this assessment approach. First, most students wrote using prose and did not include any references which created two problems. Regarding language, there were some words and phrases that I found inappropriate for college writing. Without references, when a student included incorrect information, I had no way of determining where the misunderstanding had occurred. Was I unclear in class? Did the student find the misinformation on a website? To address this dilemma, for their third "exam," additional instructions were added regarding references. Students were told to provide the source for information, using internal documentation (APA format) or footnotes.

The other major challenge involved grading. The products were so different from each other that I had difficulty determining an appropriate standard. Also, while their presentations did provide insight into their thought process, they were brief, so students did not go into much detail. For their next "exam," I decided to require a reflective write-up in addition to the final product to aid in my evaluation process. I provided students with questions to address in their reflection that asked them to explain their choices:

1. What did you choose to create as a way of demonstrating your knowledge? Why did you make this choice?
2. Which concepts did you select from each unit? Why did you select these particular concepts?

3. Overall, what did you learn about adolescents in these units that will help you in the future?

The reflection paper also was to be written using APA format. A grading rubric is provided in Appendix D.

The alterations in the instructions proved successful. Students' products retained their creativity and individuality, but were more professional than what they had completed the previous time. The reflections aided students in thinking about what and how they understood the material (Bransford et al., 2000), which pushed their learning even further. Several students wrote personal notes telling me how much they enjoyed the class, including these "exams." For the first time, in addition to loving teaching, I also found pleasure in assessment. I was able to assess each student's growth from one "exam" to the next and also to see the class standard rise. It is certainly an approach I will continue to use.

Discussion

As the authors began to share their excitement about the newly redesigned assessments and the success of the students, it became clear that our backgrounds are really not very divergent. Fosnot (1996) states, "Psychology – the way learning is defined, studied, and understood – undergirds much of the curricular and instructional decision making that occurs in education" (p. 8). We both began to realize that through "the process of shifting our attention to the constructive activity of the learner, we recognize[d] the need to anchor learning in real-world or authentic contexts that make learning more meaningful and purposeful" for our students (Bonk & King, 1998, p. 27).

Strengths

Simply put, using learner-centered assessment brought fun back into the classroom. Our students reported enjoying completing their project and seeing assessment as a process, rather than just an end product. As professors, we felt enthusiasm when grading their projects, rather than a dreary sense of resignation typically experienced when evaluating exams. We were nurturing and developing lifelong learning skills in our students and giving them the confidence to use them (Weimer, 2002).

Another advantage to this assessment approach was the variation in products that reflects diversity of students. The Think-Tac-Toe capitalizes on Gardner's multiple intelligences (1983), allowing students to

Table 2
Comparison of Assessment for Psychology Experience

Learner-Centered Assessment	Traditional Assessment

General symptoms of _____ include excessive fatigue, inappropriate guilt, difficulty concentrating and being decisive, and dwelling on thoughts of death.
  a. bereavement
  b. eating disorders
  c. DEPRESSION
  d. self-mutilation
	I chose to create the diary of an adolescent girl, Charlene, who is in high school… I believe that this is a unique way of showing how the information I learned in these units would apply to understanding real life situations in an adolescent's life.
	
	Dear Diary…
	What a shock! Today in school I learned that a girl in my gym class tried to kill herself. I don't know her real well cause I only spend time with my teammates. Everyone is talking about it & there were counselors all over talking about depression and what to do. I don't think they know how much pressure we are under. Some of the girls on the team are so worried about keeping themselves in shape they lose most of their food. I won't do that but some days I will skip lunch to try & keep in shape. But I would never try to kill myself.

In adolescence, more _____ attempt suicide; more ____ complete or "succeed" at it.
  a. boys; boys
  b. boys; girls
  c. GIRLS, BOYS
  d. boys; girls
	Charlene's classmate is one of 3 million adolescents struggling with depression. Warning signs may include changes in eating, sleeping, grades, and social abnormalities lasting more than several weeks (7). The counselors at her school may have advised friends to ask questions if a friend talks about suicide. Students may also be advised to see if their friend has a plan on how they would commit suicide and in any case to stay with them and sincerely try to get them to go for help or ask for help for them.

A characteristic of anorexia is _____; bulimia is characterized by _____.
  a. RESTRICTED EATING; BINGING & PURGING
  b. restricted eating; over-eating
  c. over-eating; restricted eating
  d. binging & purging; restricted eating
	Adolescent girls like Charlene admit that they feel like they are under pressure. Hormonal and body changes conspire together at this age to create changes in adolescent girls that society does not aspire to. The media portrays sexy models that often bear little resemblance to the person that the adolescent female sees in her mirror (8). In response, some girls like Charlene's teammates may resort to purging. Anorexia Nervosa and other eating disorders are becoming more common. Research has shown that a combination of Prozac and CBT are effective for about 60% of adolescents suffering from depression (9). For adolescents struggling with eating disorders, intervention is paramount. This life threatening behavior can be at times treated with behavioral therapy (8).
	
	(Numbers refer for sources cited.)

select the products that best suit their particular interests, talents, and skills. Similarly, the open-ended nature of "Show Me What You Know" also permitted students to showcase their best work. In the psychology class, one student created a website for parents of adolescents while another created a comic strip. Education students' products varied from original poems to newsletters. The range of products generated was truly incredible.

A final strength of learner-centered assessments was that students demonstrated they could apply knowledge in a novel and creative way. Because learning is highly individualized and often considered during instruction, multiple intelligences should also be considered when developing assessments (Gardner, 1983). Certainly the output of a multiple-choice exam cannot be viewed as creative. However, even short-answer essay questions proved to be highly structured in the type of responses they elicited from students. Students relied on the same pieces of information, and they utilized those pieces in very similar ways. However, with the learner-centered assessment methods, students focused on various aspects of the material and applied them to real-world circumstances. Without precise directions from their professors, students were free to determine the resources and activities that will help them meet their learning objectives (Jonassen, 2000).

Challenges

While this is an assessment approach we believe is valuable to the learner-centered approach of education, we do acknowledge its challenges in implementation. In both settings, the class size was relatively small (education class: n=20; psychology class: n=23). At larger institutions, the attention and time required to grade each assessment may be overwhelming to faculty. Also, an important aspect of this assessment was students' sharing of their work with each other. This activity was also time-consuming and may not be feasible with a larger number of students.

Perhaps the biggest challenge we faced were our own issues of control. As its name implies, a teacher-centered approach makes the professor the center and expert in the classroom. The professor selects the content of assessment and determines the correct (and incorrect) answers ahead of time. In contrast, the learner-centered approach requires that professors and students collaborate in the educational process with learners playing an active role in selecting and defining both challenging and intrinsically motivating activities and with instructors providing appropriate levels of support (Gould, 1996). Professors must not see themselves as the only ones with knowledge to provide, but instead they must consider that students may have expertise to offer as well (Weimer, 2002).

Applicability and Future Discussion

While we do believe learner-centered assessment is possible and advantageous to all students and courses, we also advocate that particular methods might be best suited for depending on learner, teacher, and class characteristics. The Think-Tac-Toe method necessitates a long class time, unless it were modified to be a take-home assignment. For instructors and students who are uncomfortable with ambiguity, this approach may be more appealing than the "Show Me What You Know" method. While "Show Me What You Know" provides few limits on students' creativity, it also demands their maturity and, therefore, may not be appropriate for introductory courses.

We believe learner-centered assessments deserve much more attention in the literature and in the classroom. Not only do they follow in the tradition of constructivism explored by theorists such as Piaget (1977) and Vygotsky (1986), but also speak to Bloom's (1956) taxonomy as well. In Bloom's (1956) original report, he found that over 95% of exam questions required students to recall information, what he considered the lowest possible cognitive level. Bloom hoped educators would aim towards synthesis (collecting, creating and developing information) and evaluation (arguing, assessing, and appraising information). Anderson revisited these categories, switching the order of synthesis and evaluation, but still agreeing that they are the two highest cognitive levels (Anderson & Krathwohl, 2001). The assessments described in this article demand that students synthesize and evaluate information in creating their "exams." Our students demonstrated higher levels of learning, and we now had products to show for it. Barr and Tagg (1995) describe the newest shift taking place in higher education:

> A paradigm shift is taking hold in American higher education. In its briefest form, the paradigm that has governed our colleges is this: A college is an institution that exists to provide instruction. Subtly but profoundly we are shifting to a new paradigm: A college is an institution that exists *to produce learning*. This shift changes everything. It is both needed and wanted. (p. 12)

We concur and hope our experiences aid in this shift.

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Appendix A
EDU 300 Midterm Assessment/Think-Tac-Toe/2010

Write an essay defining, explaining, and providing examples of the five stages of the **Writing Process**.	Select a book and identify ways you could teach with it using the **6 Language Arts**.	Design a lesson for any content area or grade level on a language arts topic of your choice. You may use the mini-lesson template.	Create a parent newsletter defining, explaining, and providing examples of **Phonemic Awareness** in young children.
Use Comic Book Creator or your own illustrating skills to design a comic strip in which the characters demonstrate the three **types of listening**.	Design a lesson for any content area or grade level on a language arts topic of your choice. You may use the mini-lesson template.	You have completed your training in *Principles of Fluency Instruction* and are an expert in fluency and fluency development. Design a PowerPoint which can be used as a presentation to teachers and staff at your school.	Illustrate or provide a written example of the **stages of spelling**.
Select a book and identify ways you could teach with it using the **6 Language Arts**.	Design a Jeopardy game which incorporates clues and answers for the **alphabetic principles, parts of speech, steps to learn to spell a word, rules of grammar, and the 6 language arts**.	Write a descriptive scenario, story, or poem which highlights the five components of the **Reading Process**.	Write a case study which exemplifies a child or adolescent using or attempting the four types of **word knowledge**.
Design a lesson for any content area or grade level on a language arts topic of your choice. You may use the mini-lesson template.	Create a parent brochure defining, explaining, and providing examples of the **types of reading**.	Write a story or poem which contains one or more examples of the following **literary devices**: personification, hyperbole, imagery, comparison, symbolism, tone.	Develop a quiz on the following topics: SES and vocabulary, invention of the printing press, left-handed writers, rubrics, and synonyms.

Appendix B
Psychology Assessment Rubric for Show Me What You Know

Criteria for Grading Product	0	3	6	9
Creativity & Thoughtfulness	Project appears as if completed right before class	Project appears as if several hours was spent creating it	Project appears if several days was spent creating it	
Concepts- Identity5	Project demonstrates poor knowledge in chapter 5.	Project demonstrates fair knowledge in chapter 5.	Project demonstrates good knowledge in chapter 5.	Project demonstrates excellent knowledge in chapter 5.
Concepts- Family	Project demonstrates poor knowledge in chapter 6.	Project demonstrates fair knowledge in chapter 6.	Project demonstrates good knowledge in chapter 6.	Project demonstrates excellent knowledge in chapter 6.
Concepts- Peers	Project demonstrates poor knowledge in chapter 7.	Project demonstrates fair knowledge in chapter 7.	Project demonstrates good knowledge in chapter 7.	Project demonstrates excellent knowledge in chapter 7.
Concepts- Sexuality	Project demonstrates poor knowledge in chapter 8.	Project demonstrates fair knowledge in chapter 8.	Project demonstrates good knowledge in chapter 8.	Project demonstrates excellent knowledge in chapter 8.
Sources	Project contains sources (text, notes) for no information	Project contains sources (text, notes) for some information	Project contains sources (text, notes) for most information	Project contains sources (text, notes) for all information

Appendix C
Psychology Assessment Rubric for Show Me What You Know Presentation

Criteria for Presentation	0	1	2	3
Professionalism	No eye contact; Lots of pauses; < 1 minute	Only looks at 1 person; Some pauses; 1 minute	Occasionally scans audience; Few pauses; 2 minutes	Scans audience; Rarely pauses; 3 minutes
Content	No summary or no examples	Basic summary of project with few examples	Decent summary of project with few examples	Excellent summary of project with several examples
Display	No finished project available for class to see, hear, etc.	Finished project is difficult for class to see, hear, etc	Finished project is a bit hard for class to see, hear, etc.	Finished project is easy for class to see, hear, etc.

Appendix D
Psychology Assessment Revised Rubric

Criteria for Grading	3	5	7	10
Creativity & Thoughtfulness	Project appears as if completed right before class	Project appears as if several hours was spent creating it		
Concepts- Media	Project demonstrates poor knowledge of topic	Project demonstrates fair knowledge of topic	Project demonstrates good knowledge of topic	Project demonstrates excellent knowledge of topic
Concepts- Physical Health	Project demonstrates poor knowledge of topic	Project demonstrates fair knowledge of topic	Project demonstrates good knowledge of topic	Project demonstrates excellent knowledge of topic
Concepts- Psychopathology	Project demonstrates poor knowledge of topic	Project demonstrates fair knowledge of topic	Project demonstrates good knowledge of topic	Project demonstrates excellent knowledge of topic
Concepts- Delinquency	Project demonstrates poor knowledge of topic	Project demonstrates fair knowledge of topic.	Project demonstrates good knowledge of topic	Project demonstrates excellent knowledge of topic
Sources	Project contains sources (text, notes) for no information	Project contains sources (text, notes) for some information	Project contains sources (text, notes) for most information	Project contains sources (text, notes) for all information
Mechanics	Numerous mistakes in grammar, spelling, and punctuation make it difficult to reading	Most grammar, spelling, and punctuation used properly; paper is relatively easy to understand		

Learning Ethics through Virtual Fieldtrips: Teaching Ethical Theories through Virtual Experiences

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Teaching ethical reasoning is considered an important component of the undergraduate learning experience. A recent approach to teaching using experiential learning is through virtual worlds such as Second Life. We discuss how ethics may be taught using experiential learning in the virtual world of Second Life. Participants in the class in this example were eleven undergraduate honors students. The course involved presentations in ethical theories such as Buddhism and Utilitarianism. Students completed assignments based on experiences in Second Life that were then linked to ethical theories discussed. The observations and analyses they completed demonstrated that the experiential learnings provided opportunities to apply concepts and theories in a virtual and real world. Interestingly, the students found evidence of residents of the virtual world of Second Life to hold ethical principles which influenced their actions. However, there were other instances where residents adhered to few ethical principles other than self interest. Suggestions are made about the importance of introducing ethics to a virtual world such as Second Life.

The Association of American Colleges and Universities (AAC&U) (2007) have identified essential learning outcomes for undergraduate education. They proposed 15 essential learning outcomes. One outcome is Ethical Reasoning. They define ethical reasoning as the following:

Reasoning about right and wrong human conduct. It requires students to be able to assess
their own ethical values and the social context of problems, recognize ethical issues in a variety of settings, think about how different ethical perspectives might be applied to ethical dilemmas and consider the ramifications of alternative actions. Students' ethical self-identity evolves as they practice ethical decision-making skills and learn how to describe and analyze positions on ethical issues.

Ethical Reasoning is separated into five categories: ethical self-awareness; understanding different ethical perspectives/concepts; ethical issue recognition; application of ethical perspectives/concepts; and evaluation of different ethical perspectives/concepts. They further proposed that acquisition of various complexities of understanding, application, and evaluation be considered in teaching ethics to undergraduates. No recommendations are proposed as to the format for teaching ethical reasoning.

Methods of teaching ethics have varied widely without any unified agreement on what constitutes a "best practices" approach (Canary, 2007; Castleberry, 2007; Corey, Corey, & Callanan, 2005; Kyle, 2008). Some of the methods used in teaching ethics include: role-playing, review of vignettes, reflection, informational field trips (visiting a prison), and written

case analyses. Smith, Fryer-Edwards, Deikema, and Braddock (2004) suggested that the intent of ethics education is to increase sensitivity and understanding of ethical issues and develop an ability to use reasoning to solve ethical issues. The question remains as to the best approach for teaching ethics. An additional question is, what are foundational issues in the development of best teaching practices for ethics education?

One approach that has been proposed for teaching various topics is experiential learning (Kayes, 2002; Kolb, 1984; Moon, 2004). Experiential learning allows for the use of simulation and role playing based on experiencing real world issues within a closed and somewhat protected environment. O'Sullivan and Copper (2003) critiqued traditional teaching and stated, "The traditional method of lecturing to classes is not always the most successful approach. Encouraging students to formulate their own ideas, draw conclusions from experimental evidence, and participate in other similar activities can be more effective" (p. 448). Van Sickle and Kubinec (2003) further concluded, "People need experiences if they are really going to understand and apply what they know" (p. 260).

Kolb (1984) proposed that experiential learning is composed of six assumptions: learning is considered a process; learning comes from experience; learning requires the person to integrate opposing points of view; learning involves an interaction between the person and the environment; and the outcome of learning is knowledge creation. Theoretically and practically, the instructor can integrate learning using experiential activities with reflection and analysis. Boud (2001) described reflection in the following way: "Reflection involves taking the unprocessed, raw material of experience and engaging with it as a way to make sense of what has occurred. It involves exploring

often messy and confused events and focusing on the thoughts and emotions that accompany them" (p. 10).

Jarmon, Traphagan, Mayrath and Trivedi (2009) proposed that a virtual world such as Second Life is ideal for using experiential learning. The use of a virtual world in learning is increasing for several reasons. Virtual worlds such as Second Life provide opportunities to experience both similar and different real world experiences. In Second Life (SL) one can fly with his/her avatar. However, many other activities of real life may be replicated in a virtual world such as SL. There is a robust economy with the buying and selling of items such as clothing, furniture, housing, etc. Second Life provides extensive opportunities for social interaction. Such social interaction may take place in a virtual bar or on a dance floor. Social interaction also may take place in a small group meeting or through informal or formal meetings of members of education or social groups.

There has been a steady increase in the use and incorporation of virtual worlds such as Second Life in teaching in higher education (Burgess, Slate, Rojas-LeBouef, & LaPraire, 2010; Penfold, 2008; Salt, Atkins, & Blackall, 2008). Burgess et al. described multi-user virtual environments (MUVEs) as "3-D environments that support exploration, simulation, role-play, interaction and experimentation via avatars, or 3-D self-representation" (p. 84). A key benefit of using MUVEs is the feeling of presence, through avatars, which translates into a feeling of being connected to others (Burgess, et al., 2010). The applications of virtual worlds such as SL range from more traditional distance education applications to simulations that would be difficult to replicate in the real world. Simulations have been of particular interest to educators. There are many examples of programs including: medicine, providing instruction on diabetes (Wiecha et al., 2010); nursing, simulating a particular procedure (Skiba, 2007); psychology, experiencing social interactions as a women or man; and social services, developing a plan for service learning (Maxim, Sable, & Cristiano, 2009). Penfold (2008) provides another example of using SL in higher education. He incorporated SL into teaching travel and tourism to undergraduates. Virtual hotels and yachts were constructed to give students virtual experiences in these environments in which they eventually will work. Delwiche (2006) used a virtual world to teach qualitative research, ethnography, to undergraduates. Specifically, he involved students in evaluating behaviors, cultural practices, and motivations of those participating in the virtual world. The benefit of using virtual worlds in teaching in higher education continues to be documented, and the potential for its use is open-ended. Despite several disciplines using virtual worlds to teach in higher education, the use of virtual worlds in teaching ethics in higher education has not been reported.

The introduction of ethics to various disciplines is widespread, and there is recognition of the importance of teaching ethics, either as a stand alone course or inserted into foundation courses (Castleberry, 2007; Corey et al., 2005). Teaching ethics in different disciplines frequently involves introduction to principles and theories followed by the application to real life issues or practice (Canary, 2007; Corey et al., 2005). The development of an ethics course for undergraduate honors students followed a similar approach, and it fit into the AAC&U (2007) essential learning outcomes which focused on Ethical Reasoning. Instruction focused first on the presentation and understanding of ethical theories/principles and moral psychology. The second part of the course focused on specific ethical/moral dilemmas such as sexual morality, abortion, suicide, etc. An experiential method was used through the introduction of a virtual world. Rather than subject students to real life circumstances that involve potential ethical/moral issues, the use of Second Life (a virtual world) was used to simulate many social interactions/situations that potentially involve ethical/ moral dilemmas.

Ethics Class Format

This undergraduate course, Ethical Development: Comparisons in Virtual World and Real World Ethical Issues, had 11 students who received instruction in moral psychology and ethical philosophical theories. Initial introduction of the course content and the virtual world of Second Life was completed in person in a computer lab. We explained the format of the class (it was scheduled to be a three-day-a-week 50-minute class): the class would meet in Second Life two days a week, and the third day would be devoted to spending time in Second Life completing assignments. During the first class meeting students were introduced to Second Life and provided with information on how to set up an account and design an avatar. Students reported that they did not have any experience in Second Life; however, they entered the virtual world, quickly set up an account, and designed an avatar. They were able to complete this task in less than 15 minutes and then began to search sites for clothing beyond the standard available to new members of Second Life. The remainder of the class was held in Second Life on an island owned by the College of Education at The University of Alabama. The setting was an open classroom, located in the sky. We used a PowerPoint board to present lectures, and we conducted discussions both verbally (voice) and through text: Second Life supports both verbal and text communication.

Students were exposed to Western, Eastern, and Middle Eastern philosophical theories of ethics. Most students did not have previous experience with ethical/moral theories of ethics. The Eastern ethical theories covered included Taoism, Confucianism, and Buddhism. Western theories included Virtue ethics, Natural Law, and Utilitarianism. Islamic ethics was the Middle Eastern Theory that was presented. Presentation on these various theories included introduction of major concepts? Discussions centered on the application of the concepts in virtual and real worlds.

In this paper we provide examples of how ethical/moral concepts found in theories may apply in a virtual world and compare them to similar issues in the real world. Additionally, we provide examples of common ethical/moral issues that were addressed including sexual morality, abortion, suicide and euthanasia, morality in the family, ethics in business, etc. Also, we link student comments to the AAC&U (2007) Ethical Reasoning outcomes (understanding different ethical perspectives/concepts, ethical issue recognition, application of ethical perspectives/concepts, and evaluation of different ethical perspectives/concepts).

The format of the course involved first meeting in the real world and introducing Second Life, a virtual world. The class was scheduled to meet three times a week. The first two classes of the week were devoted to presentation of, and the third class involved "field trips" into a virtual world, Second Life. Based on the student "field trips," they were assigned to explore and answer questions related to the presentations and readings.

Student Analyses and Reflections

Student assignment for examples linking and analyzing the philosophical perspective of Buddhism to the virtual world of Second Life was stated as such: "Consider the Eightfold Path in Buddhism and how they contribute to achieving and understanding the Four Noble Truths. What are concrete examples can you find in Second Life (interviews or observations) of the Eightfold Path (e.g., right conduct, right speech, right effort, etc.)?"

Buddhist Ethics Applied to a Virtual World and Real World

One student was able to differentiate what he/she thought were concepts from Buddhist ethics as they applied to a virtual world (see Appendix A for complete text). For example, he/she did not connect concepts of Right View, Right Speech to Second Life. However,

he/she did find a connection with Right Action and even noting that some governments (real life) are investigating theft in Second Life, the loss of $10,000 in U.S. currency. The student was able to apply ethical perspectives from Buddhism in his/her examples and evaluated each perspective as it applied or did not apply (AAC&U, 2007). Also, the concept of Right Livelihood was identified in Second Life, specifically the construction and selling of weapons. This student clearly linked virtual world experiences with real life experiences as they related to Buddhist ethics, loss of money through theft, and construction of weapons.

Utilitarian Ethics Applied in a Virtual World and Real Life

Students were assigned the following question after discussion of the Western ethical theory of Utilitarianism: "Can you find examples in groups in Second Life that illustrate the Greatest Happiness Principle in Utilitarian theory?" The Greatest Happiness Principle is to eliminate/reduce pain and seek the greatest happiness for the most people.

One student (see Appendix B for complete text) began his/her exploration into the application of Utilitarianism in Second Life with a considerable amount of skepticism and evaluation of different ethical perspectives/concepts (AAC&U, 2007). He/she was able to discover whole communities in Second Life that were essentially founded on Utilitarian principles of the Greatest Good (Happiness), applying the essential learning outcome of ethical reasoning (application of ethical perspectives). He/she still maintains some skepticism about the usefulness of Utilitarianism with a conclusion that such beliefs are not spread throughout regions of this virtual world. His/her experiences possibly could be an experience with the microcosm of real world depictions of the Greatest Good for the Greatest Number principle.

Application of Moral Dilemma, Sexual Morality, in a Virtual World and Real World

Students had an opportunity to apply ethical theories to real life dilemmas that may be played out in Second Life. The assignment they were to address stated: The exercise this week is to discover and identify at least three examples of the following potential common sexual moral issues that can be found in Second Life and compare them to real life examples. Also, discuss at least how two ethical theories can be applied to these sexual moral issues: (a) premarital sex; (b) extramarital sex; (c) consent-rape; (d) homosexuality; (e) pedophilia; (f) pornography; (g) bestiality; and (h) incest. One student responded with the following observations about this assignment:

One of the common sexual morality issues that I have heard of being an issue is that of extramarital affairs, or relationships. This can be looked at in two separate ways: one being that if someone is married in real life, is it cheating for them to have romantic relationships in Second Life; the other being that if some who chose to marry in Second Life may have romantic relationships in Second Life outside of their chosen partner. In my opinion the first situation of extramarital affairs is more serious because by entertaining the thoughts of romantic relationships with others, the individual is considering cheating in real life on some level. However, this cheating in Second Life is less serious than in real life, because no actual sexual actions are carried out.

The student further linked ethical issues in a virtual world to ethical theories:

Of the ethical principles that deal with sexually morality, virtue ethics relates the most with the issues of pornography, extramarital affairs, and homosexuality the ideals of honesty and trust. If someone is consumed with honesty and trust they are less likely to participate in these activities, either virtually or in real life.

With concerns to natural law, the actions of pornography and homosexuality would break natural law more so than extramarital affairs. The fact that natural law focuses on the procreation primarily, any sexually related things in a virtual world would go against natural law.

The use of a moral dilemma such as sexual morality provides a unique opportunity to use a virtual world to explore ethical/moral behavior through experiential observations (hopefully not through actual experiences). The student notes the distinct intersection between a virtual world and real life ethics when he/she identifies the potentially moral issue of extramarital affairs: being married in real life and entering Second Life and engaging in sexual relations with other avatars (Ethical Reasoning essential learning outcome-ethical issue recognition). The idea of entertaining thoughts of extramarital affairs in a virtual world may translate into the connection between thoughts and action. How ethical is it for someone to fantasize in a virtual world about sexual relations outside a marriage? Acting on the fantasy is a reasonable ethical question.

Another student further discusses how a virtual world may be a place to begin to explore sexual preferences like homosexuality without the negative consequences of real life "coming out" (see Appendix C for complete text). The student was able to employ and demonstrate several components of Ethical

Reasoning (ethical issue recognition and application of ethical perspectives/concepts). The student links concern over real life disclosure of his/her sexual preference as it relates to Natural Law ethics and Virtue ethics. Interesting the student notes the potential different interpretations of what is ethical based on the theory which is an interesting way to introduce the complexity of ethical thinking (understanding different ethical perspectives/concepts).

Summary and Conclusions

Students in this honors class, which was taught in the virtual world of Second Life, had an opportunity to integrate theories and concepts of ethical theories with experiential learnings through interactions and observations. The observations and analyses they completed demonstrated that the experiential learnings provided opportunities to: apply concepts and theories in a virtual and real world; show ethical issue recognition; demonstrate the skills to differentiate ethical perspectives/concepts; and evaluate different ethical perspectives/concepts (AAC&U, 2007). Interestingly, the students found evidence of residents of the virtual world of Second Life to hold ethical principles that influenced their actions. However, there were other instances where residents adhered to few ethical principles other than self interest (e.g., griefers). A virtual world such as Second Life provides unique opportunities to observe how humans demonstrate ethical or unethical behaviors in a minimally controlled environment and one with minimum consequences. The important question is whether more formal efforts need to be pursued in providing and promoting ethical behavior.

The experience of using a virtual world such as Second Life had significant benefits as has been noted. A question that a few students raised was whether a virtual world truly captures similar real life issues and experiences. The discussion was positive and fit well with linking it to ethical issues. A concrete example was whether having sexual relations with an avatar in Second Life was cheating on a real life partner. Students demonstrated an advanced level of understanding and were particularly adept at analyses between ethical concepts/theories and virtual/real life experiences. There are several issues to address and changes in teaching in the future; we plan to teach the course annually. First, we left open the initial Second Life sites they might visit. Some students consistently visited the same location and interacted with the same avatars. Consequently, they did not take the opportunity to explore beyond a comfortable zone or location. A solution we may adopt is a recording of sites by students and set a minimum number of sites to visit so there is more exposure for the student. Most students

did explore and seemed to enjoy visiting a range of sites and locations in Second Life. Students did encounter periodic uncomfortable interactions, particularly in sexually explicit sites. The benefit of a virtual world compared to real world is that they could extricate themselves by simply teleporting out to another site. We did warn students that uncomfortable experiences may occur and that they can easily teleport to another location in Second Life (teleporting is a simple procedure of locating another site through the Second Life world map and clicking on the site). We processed the experience of Second Life for students at the end of the semester, and we received important feedback. Many reported it was a good opportunity to explore ethical issues in virtual worlds and real worlds. Suggestions were that we meet at times in person in a real life classroom: they felt a need to see other students and the instructors beyond seeing an avatar. Based on these suggestions we plan to employ a format of once-a-week in-person class meetings, once-a-week meetings in Second Life, and the once-a-week exploration in Second Life.

Certainly, in the not too distant future more and more of our actual real world will be intimately linked with virtual worlds. The reality of our virtual world will become the reality of our real world. A systematic structured, virtual world society may be necessary to continue on in a real life civilized society. Humans have established norms, laws, and ethics/morals throughout history, and there is no reason to not continue such inventions. We have not reached a place where humans have internal ethical/moral compasses without some form or structure to guide us. The use of a virtual world such as Second Life opens up many creative opportunities for teaching; the same can be said for future research. For example, one could study student perceptions of content understandings, ethics, and learning outcomes. A related study could be a comparison of learning outcomes between a virtual world learning experience, experiential learning, and a strictly theoretically based classroom experience.

The students' exploration of the virtual world of Second Life discovered that there exists a variety of ethical/moral perspectives or lack of such perspectives. Clearly there are individuals in Second Life who adhere to basic principles of respect for persons; however, there exists those, as in real life, that do not. An ethics course using a virtual world such as Second Life provides a medium to teach important internal mature ethical/moral perspectives that serve the individual well in any world he or she seeks to engage. There are several methods of introducing ethics in a virtual world such as Second Life. A virtual world may be a natural environment to use with current and future students who are tech savvy and embrace such a world quite readily. The opportunities for teaching experientially in

a virtual world, real life issues may be readily accomplished in such environments.

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Appendix A
Buddhist Ethics Applied to a Virtual World and Real World: Student Response

A student provided the following insight:

Before addressing the Eightfold Path, I feel that I should address the Four Noble Truths. I grant that life can be viewed as suffering and that suffering does stem from attachment to transient objects, ideas, or the self. However, I don't believe that the best course of action is to become completely detached and dispassionate. You might experience less suffering, but without suffering or pain there can be no real pleasure. And then of course the ultimate goal of the eightfold path is the end to the cycle of rebirth, a return to nirvana or oneness with the universe.

Right view- I am not certain I can think of any concrete example of right view in Second Life. Most people don't dwell on the suffering of their real life in SL. Second Life can be an escape from current predicaments, situations, and people or lack of community. Most people don't grasp the impermanence of the world nor are they aware of the Four Noble Truths.

Right Intention- I don't believe many persons on the Internet govern their thoughts and actions with right intent. Since the virtual world is less real, people should put more weight on the thoughts and intentions of individuals, yet this does not appear to prevent debauchery and ill willed pranks. I wonder if desire and temptations are not resisted as much on the Internet.

Right Speech- Not telling lies, abstaining from slanderous speech, or using words maliciously and abstaining from idle chatter that lacks purpose and depth . . . The Internet wouldn't exist without idle chatter. Of course, what really matters? Someone starts a topic on a message board presumably because it matters to them. Who decides what matters? The Internet is full of slanderous things and people offending other people. Certainly very few of the conversations on Second Life are deep or meaningful. The Internet would be a very quiet place if people only spoke when necessary.

Right Action- abstaining from robbery, fraud, dishonesty, or sexual misconduct. I would say that the rampant infidelity if not in action at least in thoughts is proof that people on second life care very little for right action. It's hard to say if virtual sex counts as a real action however certain RL governments are investigating and taking actions against SL virtual pedophilia. http://www.techcrunch.com/2007/10/30/virtual-pedophilia-report-bad-news-for-second-life/

Robbery is quite real in second life as it translates to real money in RL, albeit a lot less money. The world stock exchange was vandalized in Second life, losing 2.8 million ($10,000 Real Life dollars).
http://www.businessweek.com/technology/content/aug2007/tc2007089_873900.htm?chan=technology_technology+index+page_top+stories
http://www2.ljworld.com/news/2006/nov/12/virtualreality_crimes_present_literal_challenge_re/

Appendix B
Utilitarian Ethics Applied in a Virtual World and Real Life: Student Response

A student responded and made the following observations on Utilitarian theory:

The concept of utilitarian theory is based on the notion of the greatest good. As such, a general component of utilitarianism is that an action's moral worth or value is directly proportional to its positive impact on the largest possible crowd. Furthermore, those who attempt to apply the idea of utilitarianism to their own lives generally do so in accordance with the Greatest Happiness Principle. This central tenet of utilitarianism advocates the consistent elimination or reduction of pain and the establishment of the greatest happiness for the largest number of people. In reality, this theory maintains relevance to foreign policy, the creation of laws, medicinal practices, and other aspects of life that focus on the preservation or achievement of the multitude's well-being. Yet, in Second Life, the applications of this theory are a bit more arbitrary, as consequences do not factor as heavily into people's decision-making process when their primary identity is not at stake.

While I maintain that the applications of the Greatest Happiness Principle may be arbitrary, I initially believed that its relevance to Second Life would be completely non-existent. With an almost unwavering degree of skepticism, I began my exercise by searching for Second Life zones under the keyword of Utilitarianism. My skepticism was affirmed when the search results related in no way to the idea of the exercise. So, instead, I searched for zones under the phrase The Greatest Good (as that is, essentially, the crux of the Greatest Happiness Principle). This search proved to be more rewarding, as the search results were comprised of numerous groups dedicated to preserving some notion of good for the Second Life community. In fact, the first group I researched (and subsequently joined) was called . . . which was designed to spread optimism, i.e., good vibes, to the Second Life community. In fact, this goal is clearly indicated in their group charter: "Why is everyone making their Av's black and evil? What is so great about being a jerk to people that you aren't already friends with? Nothin' foo. We're some good furs with good hearts. We have the ability to forgive and forget. We practice tolerance and patience, not unjust revenge. Join us for the greater good of everyone on SL and show that you care for something bigger than yourself." In spite of this very hopeful determination to work for the greater good in Second Life, it is hard to determine for sure just exactly how they attempt to achieve this goal, aside from just being nice to other avatars in Second Life.

Appendix C
Application of Moral Dilemma, Sexual Morality, in a Virtual World and Real World: Student Response

A student made the following comments in regard to sexual morality:

Since the outset of civilization, the topic of sexual relations has been the grounds of debate. This ancient, yet consistently relevant debate has focused on both the theoretical and pragmatic implications of sexual relations. Given that these implications extend to two distinct contexts for assessing human functions, conflicts often arise in the process of determining which one is more appropriate for characterizing sexual activities. Adding depth to this historically prevalent conflict is the existence of an institution like Second Life, which has created an almost purely theoretical basis for the moral implications of sex among people in general. Thus, Second Life (by offering a purely theoretical outlook) can be contrasted with the pragmatic approach to sex that is common in modern society, thereby indicating a modern approach to the classic debate of sexual moral issues. In turn, this contrast reflects much about the differing ethical outlooks on sexual relations, especially in dealing with extra-marital relations, bestiality, and homosexuality.

In regard to homosexuality, Second Life provides a much more hospitable forum than real life. In the . . . in Second Life, many female avatars present themselves as overtly homosexual. When I visited this region for a previous exercise about griefers, one of the . . . explained to me that in real life, she was less open about her sexuality, as she thought it would reflect upon her family and friends. However, Second Life offered her the opportunity to express her sexuality without it reflecting on her background as an individual. Thus, based on this instance of homosexuality, Second Life offers people the opportunity to express themselves without having to deal with any consequent damage to their reputations, as is typically a result of being similarly expressive in real life.

One explanation for why people are reluctant to acknowledge their homosexuality in real life is because many people disapprove of it in accordance with Natural Law ethics. This ethical principle suggests that humans are most ethical when they act according to their natural human instincts (particularly self-preservation). Since pro-creation is one of the most natural instincts of all animals, a sexual preference that lacks the creation aspect is logically unnatural. Thus, according to the Natural Law system of ethics, homosexuality is unethical. Yet, according to Virtue ethics, any behavior that affirms trust and fidelity and that is executed autonomously can be considered ethical. Thus, if two people consciously employ homosexual relations to ensure trust and fidelity between them, they are utilizing sound ethics according to the Virtue-based ethical system.

Student-Centered Pedagogy: Co-Construction of Knowledge through Student-Generated Midterm Exams

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Using the example of student-generated midterm exams produced during a university classroom exercise, this narrative account examines student-centered pedagogy from both the university faculty and student perspectives. The central question revolved around how to actively engage a community of diverse university students from different academic, social and ethnic backgrounds in working as partners to co-construct knowledge in a pre-service teacher course. Applying a student-centered pedagogy informed by social constructivism, the authors reflect on how the student-generated midterm exams challenged the participants to think about their approach to learning. Through this experience, students were provided with multiple entry points to access the curriculum and were empowered as active agents of their own learning, while the instructor found an interactive arena for reflection on her own pedagogical practices in action. The authors propose a change from the traditional teacher-centered lecture style to a higher education pedagogy that places students in control of their own scholarship.

Introduction

As a higher education faculty member, I (faculty, first author) have always seen my role as a facilitator of learning, guiding my students to be active and critical participants and agents of their own learning (Freire, 1970). Because of this clear philosophy of teaching, I intentionally promote student-centered learning by staying away from a traditional lecture style. During the past three years as an instructor of Pedagogical Foundations, a post-baccalaureate class open to undergraduate students in the Teacher Education program, I have continued to wrestle with how to make my class an arena where students feel they can take ownership of their own learning and are empowered to construct knowledge with the instructor as well as with their peers (Vygotsky, 1978).

When examining education in the U.S., it is clear that nurturing critical thinkers and independent learners in post-secondary education is a more serious challenge today than ever before, at a time when our overall international academic standing has declined (OECD, 2010) and the classroom itself has undergone extreme demographic changes. Students today are more diverse than at any point in history (Santangelo & Tomlinson, 2009). For example, at our own university in Southern California, which is considered one of the most diverse post-secondary institutions in the U.S., White, Hispanic, Asian/Pacific Islander, and Black students comprise 25%, 30%, 26%, and 3.5% respectively of the entire campus student population (California State Polytechnic University, Pomona, 2009). Based on these statistics, White students are no longer a majority but are the minority here.

Despite the benefits to society inherent in improved access to education for all groups, this increasing racial and ethnic diversification creates a persistent challenge. There have been heated discussions nationally about closing the achievement gap between White and other students from various minority groups. Within our K-12 school system, a clear divide exists between student groups that differ from one another racially, culturally, linguistically, socioeconomically, and geographically (Cochran-Smith, 2010; Ladson-Billings, 2009; Cochran-Smith & Zeichner, 2005; Darling-Hammond, 2006). According to the National Assessment Educational Progress (NAEP), while 51% of White fourth-graders scored at or above the proficient level in mathematics, only 16% of African American, 22% of Hispanic, 21% of Native-American students, and 12% of English Learners reached this level. Similarly, in reading, 42% of White fourth-graders scored at or above proficiency level, while only 16% of African American, 17% of Hispanic, 20% of Native American students, and 6% of English Learners scored at the same level (NCES, 2009).

Although standardized testing of this sort is not administered to college students, we can view the same achievement gap by examining retention rates among various demographic groups. Although 57% of all students nationally finish their bachelor degrees in six years or less, the graduation rates for various groups of students differ markedly, according to the Education Trust. Whereas 60% of White students earn their bachelor's degrees within this time frame, only 49% of Latinos and 40% of African-Americans accomplish the same (Education Trust Data, 2010).

The question, then, becomes one of figuring out how to actively engage a community of diverse learners and provide entry points for each student, regardless of his or her prior academic preparation, current skill level, and background. How do we partner with students to inspire them to be active and critical

learners? We propose that the social constructivist model based on Lev Vygotsky (1978) can inform a powerful pedagogical approach to teaching and learning in post-secondary classrooms.

The application of Vygotsky's social constructivist model of learning is not entirely new. John Dewey, in the early 1900's, proposed lessening the use of competition in education and urged structuring schools as democratic learning communities (Woolfolk, 2007). This concept, commonly called "cooperative learning" or "collaborative learning," was further developed by Slavin and other scholars who saw the opportunity to promote student learning of academic content in small groups so that students could help one another (Slavin, 1995).

Although not without criticism, educators have recognized the cooperative format as a powerful tool in the K-12 classroom and embraced the benefits of providing students with the opportunity to work in small groups rather than relying entirely on the lecture format. This inclusive approach, based on Vygotsky's social constructivist model, encourages learners at different academic levels to work together in the co-construction of knowledge through active exploration and negotiation.

Peer collaboration characterized by open dialogue has proven effective over a broad range of subjects. For example, in reading, Block, Parris, and Whitely (2008) found that standardized reading test scores improved among 257 students at two urban elementary schools after a twelve-week reading intervention program, which used kinesthetic strategies to teach students effective dialogue in both large group instruction and in small cooperative learning groups. In addition, two studies examined the benefits of cooperative learning in mathematics. Dekkar, Elshout-Mohr, and Wood (2006) conducted a case study of two elementary school students in the area of self-regulation during a collaborative math activity. The authors found that even very young students can take responsibility for balancing the various aspects of collaborative experience and that they can successfully monitor themselves and change their learning approach when necessary. The other study by Kramarski and Mevarech (2003) examined mathematical performance of eighth graders who received direct instruction in metacognitive and communication strategies. The results of the study revealed that first, cooperative learning groups markedly outperformed students who received individualized math instruction, and, moreover, groups who received this direct instruction outperformed students who did not, whether they worked collaboratively or received individualized instruction. In the area of academic writing, Carter (2009) described successfully structuring mathematical learning in her classroom, first through whole and small

group open dialogue surrounding mathematical concepts and solutions, and later extending the experience into academic writing. She found that using collaborative discussion format facilitated students' academic writing. Finally, in teaching history, Deaney, Chapman, and Hennessy (2009) examined the use of interactive whiteboard technology to support cooperative learning activities for middle school students through a series of six history lessons. The authors found that this electronic medium provided a supportive environment and a meaningful forum for "active student participation, encouraging students to take responsibility for their own learning" (p.383).

These previous studies point to the importance of small group learning opportunities as good teaching practice. However, this particular approach has been slow to reach post-secondary education (De Kock, Sleegers, & Voeten, 2004; Koljatic & Kuh, 2001), which continues to rely heavily on the lecture format and reward individual success. Recent studies demonstrate, however, that cooperative group activities are well received by the majority of university students. For example, Peterson and Miller (2004) surveyed undergraduate educational psychology students who participated in cooperative learning and large group instruction regarding their perceptions of these experiences. The study found that the students were more engaged during cooperative learning and perceived that their learning task during cooperative learning was more important. Hancock (2004) additionally showed that the cooperative learning format benefited even those who voiced a preference for working alone. Moreover, modern technology as used in university coursework has proven adaptable to and beneficial for collaborative learning activities, as evidenced by the peer scaffolding identified by Pifarre and Cobos (2010) during a 12 month electronic discussion board learning project.

It is interesting to note that some K-12 and university educators have expanded the collaborative learning model by teaching metacognitive skills (Block et al., 2008; Pifarre & Cobos, 2010; Carter, 2009). Metacognition is defined as "questioning one's own learning or thinking about one's own thinking" (Loughran, 2006, p.93). This approach has been demonstrated to improve learning for all participants, including comparison groups of individual learners (Kramarski & Mevarech, 2003).

Despite burgeoning research on group work, there seems to be a paucity of study integrating student and educator perspectives. In this paper, we attempt to address this issue.

In discussing the dynamics of small group collaboration based on Vygotsky's model of social constructivism, we suggest that it is possible to shift the power from instructor to student and to make the

students themselves agents of their own learning. This is precisely the nature of our experiment in which university students were placed at the center of pedagogy to generate their own midterm exam questions in collaboration with their peers. These questions were later used in the actual exam for the course (See Appendix). Intense self-reflection was strongly encouraged: students examined their own assumptions about learning, their personal teaching philosophies, and the pedagogical implications for their own future classrooms.

It is thus our intention to examine our own teaching and learning in order to pursue effective pedagogy. According to Shulman (1999), explicating and making public our understandings of practice leads to enhanced understandings of teaching and learning. In this narrative account from the Academic Year 2009-2010, we offer two perspectives based on anecdotal observations: through the lenses of the course instructor and post-baccalaureate student who was initially a skeptical participant of group learning activities but later came to appreciate this approach.

Social Constructivism

Russian psychologist Lev Vygotsky (1896 – 1934), an early pioneer in the field of developmental psychology, theorized that learning and cognitive maturation into higher level thinking develop via social interactions (Vygotsky, 1978). He can be included among the major spokespersons for sociocultural theory (Woolfolk, 2007). As children grow, they are guided by experts such as parents, educators, more capable peers, and the like. This theory can also be extended to various key members of the community such as ministers, sport coaches, and neighbors. Transmission of knowledge is not passive in this equation. Rather, important individuals in a child's life facilitate exploration while the child himself or herself actively participates in constructing his or her burgeoning knowledge. The nature of this interaction has profound implications for both teaching and learning, making teachers and students partners in the latter's growth.

It is important to note that Vygotsky viewed language as the instrument most responsible for shaping an individual's system of meaning and thinking processes – not because of any meaning inherent in units of sound or because of the limitations of grammar or vocabulary or syntax, but because language is actively practiced via social engagement (Vygotsky, 1962). The external dialogue among people provides an interactive platform for learners to collect data, sort and organize experiences, and test or explore new information, all in an effort to create meaning. Vygotsky further asserted that external dialogue was the precursor to the development of internal dialogue,

whereby individuals learn to monitor and control their own mental processes. In other words, verbal interactions literally train individuals to engage in inner speech, which "readily assumes a planning function" (Vygotsky, 1962, p.45), or, to use modern pedagogical terminology, to engage in metacognitive thinking.

A central concept in Vygotsky's model is the zone of proximal development (ZPD), which refers to the optimal level of difficulty wherein successful learning occurs (See Figure 1), a zone in which the learning task is neither too difficult nor too easy. Vygotsky defined this as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p.86). The ZPD represents work which learners are capable of accomplishing, through extending their capacities just enough with guidance from an appropriate mentor or teacher.

Modern researchers have extended Vygotsky's work. Donato (1994) looked beyond the concept of expert-novice and identified the relationship between equal learners engaged in a shared task, terming this relationship "collective scaffolding." Van Lier (2004) expanded the ZPD to include learners working with more, less, and equally capable peers; Van Lier also clarified that learners may engage in self-help by using inner resources such as prior knowledge and experiences, as well as drawing energy from their personal commitment to a task. Walqui (2006) asserted that instructional scaffolding, including support for social interaction, is so closely related to the ZPD that it is only within the ZPD that scaffolding can occur. It was precisely on this platform that our co-construction of knowledge took place, as students worked and negotiated meaning with their peers – equal as well as more or less capable – and on their own to create exam questions under the guidance of a professor. This enlarged view of the ZPD, when applied in the university context, can guide educators in providing appropriate entry points for students at various stages of academic preparation to access the course material. In doing so, we facilitate students to negotiate their own role and contributions with each other in both small groups and the whole class setting. This is scaffolding at its finest, occurring seamlessly within the ZPD.

The Process of Co-Constructing Knowledge

Prior to creating midterm exam questions in class, the students received direct instruction from the instructor regarding the cognitive continuum from lower-order thought processes, characterized by memorization, through higher-order thinking

Figure 1
Zone of Proximal Development
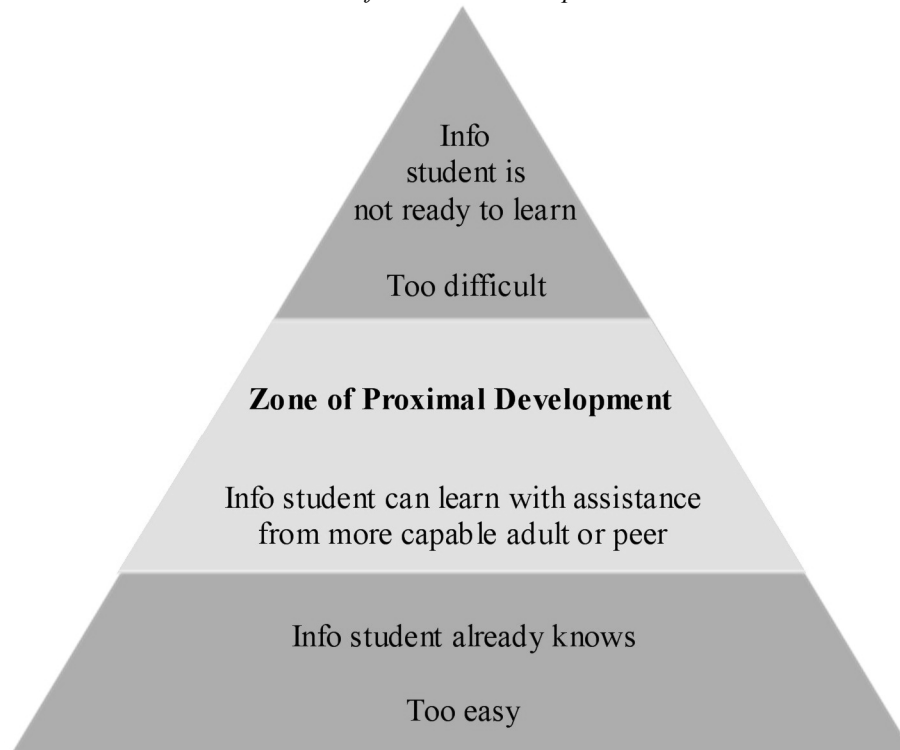
such as the synthesis of information following Bloom's Taxonomy (Bloom, 1956; see Figure 2).

By encouraging the class to use higher-order thinking skills, students were able to experience the complexity of creating exam questions that required the synthesis of knowledge acquired during the quarter. Examples of exam questions tapping into the various levels of cognitive processing were discussed (see Tables 1 and 2). Students then practiced drafting questions in their groups, drawing from real life examples that would require an answer that analyzed and synthesized information. It was at this time that students learned that the questions they generated might be on at the next exam.

On the first day, the class split into small groups responsible for one chapter from the course textbook. The instructor selected students who had previously conducted chapter presentations as "expert" leaders. Signs-ups were provided to the remainder of the class in order to motivate student interest and active participation. The newly formed groups were instructed to draft three multiple-choice and two essay questions that would draw on the evaluation and synthesis levels of thinking, rather than eliciting a memorized or rote response. The choice to adopt each potential question required group consensus, and groups were allowed to split the work between individual members in any way

they chose. Once completed, the questions were written on large post-it notes and displayed on the walls around the classroom.

On Day Two, students mixed into new groups so that one member from each of the original groups was represented in each new group. These individuals became the "chapter experts," corresponding to the text chapter they had used to draft exam questions in the previous session. Students visited each chapter station and discussed the material, facilitated by the expert for that chapter. Responsibility for facilitation rotated among all members of the group as they moved from station to station. By playing this essential role, students inevitably became accountable for their own participation and learning, just as creating meaningful questions had ensured responsibility in the first phase of their activity.

Lessons Learned from Students Generating a Midterm Exam

A Student Perspective

I could not help feeling a moment of delight, when I first heard we would be writing our own example questions and allowed to use our notes and textbook during the midterm. "Could anything be easier?" What ensued was instead one of the most interesting and
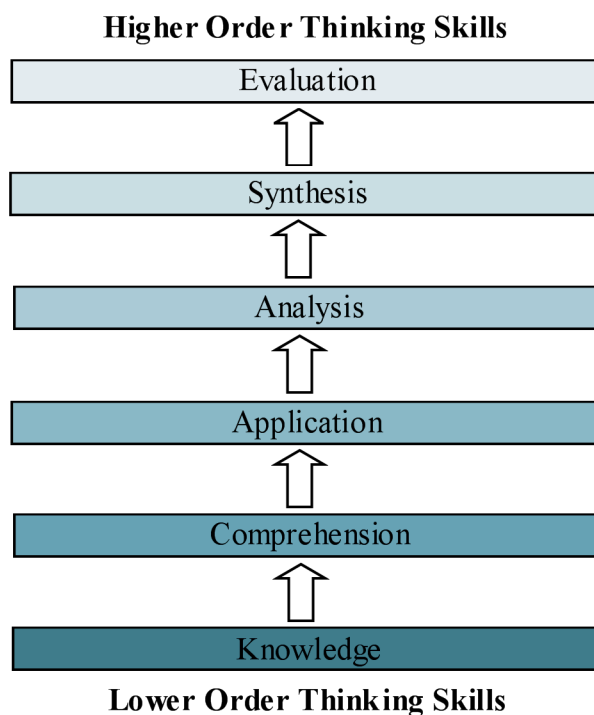
Figure 2
Bloom's Taxonomy

Higher Order Thinking Skills

Evaluation

↑

Synthesis

↑

Analysis

↑

Application

↑

Comprehension

↑

Knowledge

Lower Order Thinking Skills

Table 1
Examples of Multiple Choice Questions at Different Cognitive Levels

Memory-tapping Multiple Choice Question	Synthesis/evaluation-tapping Multiple Choice Question
Which of the following is NOT one of Piaget's development stages? A. Sensorimotor stage B. Preoperational stage C. Concrete operational stage D. Formal operational stage	Which example best exhibits a limitation of Piaget's theory? A. A 7-year old and a 12-year old are reading at the same level. B. An adult becomes aware of social issues C. A 7-year old understands laws and conservation D. An adult is able to solve abstract problems in a logical fashion

Table 2
Examples of Essay Questions at Different Cognitive Levels

Memory-tapping Essay Question	Synthesis/evaluation-tapping Essay Question
Why do positive and negative reinforcement differ?	Your students are not performing to expectations you know they are capable of achieving. How would you motivate your students to improve using positive AND negative reinforcement? Give specific examples of each.

difficult tasks I have undertaken as a credential candidate. In our group, we decided that each member would complete the entire assignment – drafting three multiple-choice and two essay questions – before presenting them for a group vote as to the best examples. I was interested to note, however, that other groups divided the work differently among themselves. For example, one group assigned each member a single question which was automatically accepted by the group. Another group chose several writers, who assigned the rest to research specific details on topics they chose for exam questions.

I will never again underestimate the challenge of writing an effective exam that truly monitors student understanding and mastery of the subject. We were stunned by the difficulty of writing higher-order questions, quickly recognizing that easy to draft (and answer) questions along the lines of "Skinner used what type of animals for his conditioning experiments? Cats, dogs, pigs, monkeys, or none of the above?" would not meet the exercise requirements. We were forced, then, to delve deeply into our lecture notes and the course textbook in order to craft the sort of questions that required the type of thinking and elicited the kinds of answers we desired. No group finished on this first day, despite being accorded approximately two hours to meet and work. In fact, one or two groups never fully completed the assignment to draft five questions, even after the exercise was continued to the following week's class meeting.

The second portion of the activity proved equally challenging. As chapter "experts," we each needed mastery over our own questions to facilitate dialogue at our chapter stations, especially since the professor had given clear instructions not to simply pass out the answers. This required skills that were new to me: Not only did I have to encourage my peers' discussion at my station, I also struggled to scaffold information so as to encourage their own understanding rather than resorting to handing out the answers. I found that leading requires an entirely different type of conversational planning than passively dispensing knowledge. I had to mull over the subject matter in reverse, as it were, in order to guide dialogue at my station and aid group members in mastering the topics.

I came through this exercise amazingly equipped to take the midterm exam, understanding the course material much more deeply and with a different perspective than previously. Knowing the exam questions in advance became moot, and being allowed open textbook and notes was rendered obsolete. Although my classmates and I brought these materials to class, I noticed very few students referencing them. We literally knew the subject too well by this point.

This exercise coincided with a shift in my own pedagogy of teaching. Although experienced in the classroom, having been both a substitute teacher and an aide in special education for a number of years, I continued to struggle with classroom management. I realize now that I had an overly traditional view of my and my students' roles in the classroom. In short, I had interpreted my responsibility as imparting knowledge, and it was the students' role to absorb that information. When students performed poorly, I would offer extra help, but essentially I believed that academics (like life) were competitive and not everyone was capable of keeping up. When I experienced difficult behavior, I tended to blame the student.

Working in a group to construct knowledge for all of the participants changed my assumptions about the learning process in general and students in particular. I began to realize that everyone could be successful when we worked as a team and that each of us had something unique to contribute. Some were strong question writers, others had near photographic memory of details in the text, and everyone brought different vantage points to bear in synthesizing the course material. I am a strong student, yet I learned as much, if not more, from my peers as I did on my own during the activity.

As I reflected on this, I realized that the exam writing exercise had provided an entry point for every student, regardless of ability level, and enabled their active and successful participation in the activity, and, thereby, their learning. In addition, each student was accorded the opportunity to be the "star" at some point, whether by sharing a special talent or perspective, or when operating as the chapter expert. Because of this, everyone remained highly engaged and had quite a bit of fun… *preparing for an exam!* This made an enormous impression on me, and turned many of my previous assumptions upside down. I see now that facilitating academic competition and orchestrating the classroom to support individual achievement short changes students who could perform much more effectively with only a simple shift in teaching strategies to something more inclusive and empowering.

The Instructor Perspective

I felt nervous and uneasy when I decided to shift the power of creating midterm exam questions to my students and treat them as partners. The thought of letting go of my power as the person-in-charge initially frightened me. I grappled with my decision in terms of whether it made more sense to take the risk of trusting my students to write meaningful exam questions or to stay in the comfort zone of using questions from past exams or the instructor's manual. This tension or discomfort surrounding teacher educators' learning about their own practice is documented by Berry (2007).

Among the six tensions that Berry identifies, "confidence and uncertainty" and "safety and challenge" best describe my experience. A conflict between the first pair of emotions is experienced when teacher educators experiment with new approaches in the classroom. Similarly, they experience a contradiction between safety versus challenge when "engaging students in forms of pedagogy intended to challenge and confront thinking about teaching and learning, and pushing students beyond the climate of safety necessary for learning to take place" (p.120). Thus, in considering this as an opportunity for me to grow as a teacher educator, I decided to take the risk of a new approach to pedagogy: inviting my students to create their midterm exam questions to be used for the upcoming exam.

In shifting more responsibility over to my students, I had multiple purposes. First, my teaching philosophy is based on empowering students to be active and critical agents of learning (Freire, 1970). As such, the focus of learning should be on students and not the instructor. As a facilitator of their learning, I saw that my students could maximally benefit from being actively engaged in creating their own midterm exam, tapping into higher-order thinking skills to create critical-thinking questions. During the process, I had to remind my students to stay away from creating questions that required rote memorization of facts, but rather, to create questions that required deep understanding of the concepts.

Another important purpose centered on process. While many instructors and students are accustomed to emphasizing tangible products such as test scores and grades, I wanted my students to focus on the process of learning itself by writing their own exam. I anticipated some growing pains for all of us, as it is completely natural to experience disagreements, discomfort, frustrations, and even anger when faced with a demanding, unfamiliar task. I wanted to focus on this very discomfort and facilitate a process where students and teachers alike could work past this stage.

Finally, I saw that prospective teachers would benefit from this type of learning activity as they engaged in deep reflection about their learning process. Zeichner and Liston (1996), extending from Dewey's (1933) and Schon's (1983) work, asserted that reflective teaching was at the heart of teacher education. Through reflecting on our own teaching, we become "more skilled, more capable, and in general better teachers" (Zeichner & Liston, 1996, p.xvii). This includes regularly questioning the assumptions, biases, and values that we bring to our own teaching. Perhaps the most extensive type of reflection is metacognition, defined earlier as "thinking about one's own thinking" (Loughran, 2006, p.93). As discussed previously, the use of metacognition is highly encouraged for students

and teachers alike in teacher education in order to build, extend, and develop ideas. Being engaged in metacognition promotes critical thinking and understanding more deeply about one's own learning. In this case, during the whole process of creating the exam questions, I continued to challenge my students to reflect on their own learning as prospective teachers: Which part of this process is bothering them and why; what is helpful in their learning; and how can we improve this process? In this way, they examined and made sense of their own learning experiences, using extensive reflection and metacognition.

During this activity, while I was monitoring the students' progress, I could see that many of them struggled as they realized the complexity of the activity. I detected through their harsh tone in their questions and comments, as well as flushed faces, that some students were unhappy and initially directed their anger and frustration at me, which made me wonder if I was doing the right thing. Others simply wanted to be spoon-fed, expecting the instructor to "transmit knowledge" or "deposit knowledge" (Freire, 1970). By inviting them to construct knowledge with me in conjunction with their peers, I had caught these students by surprise and pushed them out of their comfort zone with an assignment that was contrary to their expectations. I believe their initial negative reactions resulted from distress arising from cognitive dissonance (Loughran, 2006). While painful, this type of cognitive stretching is necessary for students to learn and grow personally and professionally. Based on their changes in demeanor and statements made after the exercise, I perceived that many students were able to grasp the deep meaning of this process-oriented exercise and came to respect the experience in terms of how it might shape their own pedagogy as a teacher. At the same time, by going through this process of working with their peers, more students seemed to be engaged and not off task. Most importantly, specific tasks and responsibilities were negotiated within the groups rather than being assigned by the instructor. As such, the activity promoted peer accountability because decisions were made collaboratively with peers. While each group had the freedom to decide how to go about delegating responsibilities, each in its unique way accomplished their mission to write three multiple-choice and two essay questions that tapped into higher-order thinking skills.

Sharing the Experience with Other Higher Education Faculty

Shortly after conducting this exercise, we had the opportunity to present this pedagogical approach as a

successful learning experiment to higher education faculty from various disciplines at a regional conference. Believing that participating in students' experiences is crucial for teachers in understanding how our students learn, we designed a miniature activity that duplicated what the students had experienced. We designed single page sheets discussing various theories of cognitive development and asked conference participants to split into groups to draft one question – either multiple choice or essay – and write it on sticky sheets pre-placed around the hall. They were given 15 minutes to draft their question, then mixed into new groups to travel to one or two stations.

Participants were agreeable and seemed to enjoy themselves. However, we noticed that two participants exhibited strongly contrasting responses. One participant seemed especially able to grasp the possibilities for student learning and, in fact, later invited us to facilitate her undergraduate social science class in the same exercise. The other particularly active participant from the humanities department reacted negatively to both the pedagogy informing the activity and the assignment to draft exam questions. This participant objected, "I came here to learn something today, not to write exam questions. I already get paid to do that!" Moreover, this person voiced the concern that less motivated students would quickly take advantage of more engaged students by allowing them to do the work and copying the results. The instructor's apparent lack of trust in students surprised us, as from our perspective, student accountability was inherent in the exercise itself, most notably when each student acted as chapter expert. Misapprehensions such as this are not uncommon regarding constructivist practices.

Fox (2001) suggested that constructivism's call for "active learning" unnecessarily elevates the understanding of concepts over "passive" listening, reading and remembering, when all of these aspects work together. He also argued that the idea of "knowledge construction" offered nothing new and was no more than an elaborate re-statement of previous views. Fox furthermore asserted that the very concept of "social co-construction of knowledge" is flawed, and denies the role or influence of the individual on his or her own learning. To us, it seems that criticisms such as these arise from misconceptions regarding constructivism. Scheuermann & Hall (2007) observe that much distrust stems from a misuse of constructivism's techniques and terminology. In many cases, teachers have neither had the opportunity to participate in a constructivist classroom nor seen it modeled, and so they fall back on traditional methods with which they are more familiar (Allesandrini & Larson, 2002).

We suggest, as believers in constructing knowledge through active interaction, that the dialogue inherent in constructivist teaching approaches benefits student and instructor alike. As mentioned in our brief overview of social constructivism, Vygotsky hinted that the verbal exchanges between learners and more capable parents or teachers literally fosters the development of inner dialogue or metacognition, a concept picked up and elaborated upon by modern practitioners (Walqui, 2006; Wagenheim, Clark & Crispo, 2009). In contrast, the absence of opportunities for external dialogue might actually prevent individuals, including students, from developing the ability to make meaning altogether (Wagenheim, Clark & Crispo, 2009). For teachers, the cycle between external and internal dialogue is equally crucial – as an interactive platform for self-reflection. This is the arena where the assumptions and beliefs behind one's own teaching practices can be either validated or disproved (Wagenheim, Clark & Crispo, 2009). Thus, despite one higher education colleague's outrage, we take the position that collaboration grounded in the social constructivist theory is essential for both student and faculty growth and learning in higher education.

Presenting the Activity to an Undergraduate Social Science Class

As a result of this conference, we were invited to share our experience with an undergraduate social science class consisting primarily of juniors. In order to personalize the experience for them, we examined their course textbook in order to design appropriate topics related to their upcoming midterm exam and identified pages to assign each potential group. Because these students had no prior knowledge or experience with this type of an activity, we had to first provide background to build schema in order to lay the groundwork for our exercise. Students were introduced to the reasoning behind the exercise, Bloom's Taxonomy, the social nature of learning, and Vygotsky's ZPD, before being split into groups. Students were then given about 30 minutes to draft a single multiple choice or essay question before being reshuffled into groups to travel among the stations. Essentially, they went through the same process as the higher education faculty went through at the conference.

Like their graduate counterparts, the students were surprised by how challenging writing exam questions could be. Only one or two groups jumped straight into the activity. Many students did not know how to begin and were at a complete loss for the first 10 minutes, unused as they were to cognitively demanding opportunities that required creativity and tapped into higher-order thinking. They, like the faster acting groups, particularly struggled to draft questions that would require a synthesis of course material rather than eliciting a memorized detail. They were experiencing

cognitive dissonance, faced with a task they expected only teachers to perform and feeling uneasy about their abilities to shift gears.

Even those who cheerfully accepted the challenge were surprised by the effort it demanded. Later during the debriefing time, one student marveled, "I thought writing a multiple choice question would be easy, but it wasn't! We had to think backwards and write the kind of answer we wanted and only then write the question that would pull that response." Another student also expressed discomfort in going through this exercise, joking and making a gesture as if her head were being torn open. When a third student shared, "I just felt really uncomfortable," we assured him that this was actually good. It meant he had been pulled out of his academic comfort zone and stretched intellectually.

This, of course, was exactly the purpose of the exercise. Students used higher-order thinking skills and delved more deeply into the course textbook and material – active learning at its finest - as they engaged in backwards planning to successfully draft exam questions that met the conditions set forth by the assignment. This was precisely the process and outcome we envisioned: The activity facilitated students' transformation from mere memorizers of deposited knowledge into active and critical agents of their own learning (Boyer, 1990; Freire, 1970). During this process, students who initially struggled to lay aside habitual assumptions about typical exam preparation began to embrace the challenge of building their own knowledge in partnership with their peers and professor.

Conclusion

It is our belief based on these interactions that working in groups to construct knowledge improves student participation and can change their approach to learning. By allowing each individual to bring his or her own unique contributions to a particular task, as well as creating a climate of open dialogue between students at all academic levels, learning becomes an inclusive exercise that potentially benefits and empowers all of the actors and excludes none. Moreover, the person-to-person interaction via external dialogue inherent in the social constructivist approach lends itself to encouraging higher order thinking under the guidance of the facilitating professor. It also provides a type of practice or primer that engenders cognitive maturation and, ultimately, metacognitive abilities. Likewise, social constructivist practices benefit teacher educators by providing an arena for self-reflection where the efficacy of one's own pedagogy can be examined in action.

In short, worthwhile benefits can be realized for students and instructors alike within different disciplines through a shift in pedagogy from a traditional teacher-centered to a student-centered approach grounded in social constructivism. This is especially crucial in an era of educational crisis for the U.S. when internationally, as noted by President Obama in his August 9, 2010 address at Texas University, "In a single generation, we've fallen from first place to 12th place in college graduation rates for young adults" (The Daily Texan, 2010). Partnered with the persistent achievement gaps between White and various racial or ethnic groups already mentioned at the outset of this paper, this state of affairs is nothing short of a call to action. Students in post-secondary education must be empowered as agents of their own learning, something which can only be accomplished within a higher education pedagogy that places students at the center of their own scholarship.

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Acknowledgments

Appendix
TED 406 Midterm Exam

Your Name: _____

Part I: You have <u>30 minutes</u> to answer the following 10 multiple-choice questions.
(0.5 point x 10 = 5 points)

1. Based on the theories of Vygotsky and Piaget, which example exhibits a combination of the two theories?

    a. A 6-year old child tries to understand that the same amount of rice crispies exists in a tall bowl vs. flat bowl
    b. A child learns most in the "Magic Middle": neither too bored or too frustrated
    c. A Native American child learns about his history through Native American dance and weaving
    d. None of the above

2. Which example best exhibits a limitation of Piaget's theory?

    a. A 7-year old and a 12-year old are reading at the same level.
    b. An adult becomes aware of social issues
    c. A 7-year old understands laws and conservation
    d. An adult is able to solve abstract problems in a logical fashion

3. According to Erickson's industry vs. inferior concept, what should a teacher avoid most?

    a. Create challenging tasks to allow students to excel
    b. Display publicly test scores of individual students to encourage competition
    c. Point out general flaws and problems in exams/discussions
    d. Give shorter assignments first and gradually move on to giving longer assignment

4. Which of the following is not an example of grouping/tracking?

    a. The upper tracks tend to attract a higher number of minority group and lower SES group members
    b. Low-ability classes tend to receive lower-quality instruction in general
    c. Grouping/tracking is likely to benefit high achieving students
    d. Possibilities for friendship s become limited to students in the same ability range

5. The following is an example of the Premack Principle:

    a. The teacher gives $1 after her students give her a correct answer
    b. The teacher gives her students a 10-minute recess before they take the test
    c. The teacher gives her students 30 minutes to focus on their assignment first and later shares with them about her recent adventurous trip to Machu Picchu in Peru
    d. All of the above

6.   Gigi and Craig make about $38,000 a year working as a part-time office assistant and full-time gardener respectively. They completed their high school diploma and have been attending a local junior college for the last three years to get their A.A. They have partial health coverage from Gigi's employer. They live in a tiny 2-bedroom house, which they bought last year. Which level of SES do they most likely fit?

    a. Upper class
    b. Middle class
    c. Working class
    d. Lower class

7. Which of the following plays a part in gender-role identity?

    a. Home life
    b. Biology
    c. Interactions with peers
    d. All of the above

8. Billy is stuck on a math problem. Jen is using a number line to complete the problem. Engaging in vicarious learning, Billy would do the following:

    a. Give up
    b. Observe what Jen is doing and apply her method to his own work
    c. Copy Jen's answers
    d. Ask the teacher for help

9. According to Vygotsky, what is the primary role of adults in students' learning?

    a. Facilitate student learning
    b. Providing "scaffolding" to teach in the "Magic Middle"
    c. Guiding student participation
    d. All of the above
    e. None of the above

10. Now create a new multiple-choice question based on the most important concept you have gained from Ch. 2-6. Provide 3-4 answer choices.

Part II: You have <u>50 minutes</u> to answer the following essay/short answer questions. First, you will **CIRCLE TWO** questions of your choice. Second, begin writing using the attached blank page on both sides, if necessary. Be sure to mark the question # so that the instructor knows which question you are addressing. (5 points x 2 = 10 points)

1. Do you prefer Piaget's theory on cognitive development or Vygotsky's theory on Sociocultural perspective? Why? Describe strengths and weaknesses of each theory and how you would apply the preferred theory in your teaching with concrete examples.

2. Part 1 – What are the differences between positive & negative reinforcement and punishment?
    Part 2 – Your students are not performing to expectations you know they are capable of achieving. How would you motivate your students to improve using positive AND negative reinforcement? Give specific examples of each.

3. Describe culturally relevant pedagogy and give two concrete examples based on your observations and/or experiences.

4. Based on the guest speaker's presentation and the reading, why is it important to understand the human brain when teaching students with learning disabilities? Give specific examples.

5. Based on the textbook and class discussions, describe effective strategies for teaching Special Education students and English Learners. Be sure to use concrete examples.

6. Using metacognition, reflect upon the process of creating the midterm exam. Describe what you learned from this experience and how you would go about creating a test/exam in your K-12 teaching, citing concrete examples.