Millennial Expectations, Constructivist Theory, and Changes in a Teacher Preparation Course

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The Millennial Generation (born ~1982-2002) is now well represented in the university setting. This cohort has its own unique expectations that are in many ways aligned with constructivist propositions of learning. These Millennial expectations will likely necessitate changes in instructional approaches used in the university environment. This paper considers such changes that were made in a six-hour secondary education course, which serves as the methods and assessment course that all students, regardless of academic major, complete in one university's secondary education program. By applying constructivist propositions and by considering Millennial Generation expectations, several revisions to this six-hour course were implemented.

The Millennial Generation (born ~1982-2002) has entered and is now entering the university setting in large numbers. Like other generational cohorts before it, the Millennial Generation has been shaped by a variety of influences (Howe & Strauss, 2000; Oblinger, 2003; Raines, 2003). Such influences include a shift to a child-centric society as evidenced by record numbers of parenting magazines, child safety products, amber alert initiatives, educational tools, and extra-curricular activities (Elam, Stratton, & Gibson, 2007; Howe, 2005; Lowery, 2004). As noted by Howe and Strauss (2000), parental involvement with this generational cohort has increased to the point that a new term, helicopter parenting, has been used to describe these parenting practices. Further influences involve the emphasis upon this generation by advertisers and businesses simply due to the sheer size of the cohort (~76 to 82 million members), which rivals that of the largest generational cohort in history – the Boomer Generation (~80 million members) (Howe & Strauss, 2000).

As it relates to the university setting, the Millennials enter the university with expectations of streamlined communication environments, networking opportunities with other novices and experts, immediate evaluative feedback, and a continually-improving use of multiple tools and resources (Oblinger, 2003). Such expectations for the learning environment coupled with the already strong consumer demands of our society are presenting universities with new and fairly complex situations when attempting to recruit and then retain the majority of this cohort until graduation (Chronicle of Higher Education, 2007; Elam, Stratton, & Gibson, 2007; Lowery, 2004; Merriman, 2007; Van Horn, 2006). Such expectations have resulted in universities creating stronger parent initiatives (Merriman, 2007), refined requirements for timely communication of faculty to students (Lowery, 2004), considerations involving the use of various technologies (Oblinger, 2003; Van Horn, 2006), and an examination of how instruction should occur within the classroom setting (Atkinson, 2004).

With these changes in generational expectations, it should be noted that educational experts have been systematically developing and testing learning theories for over a century now that speak directly to many of these expectations.

One theoretical perspective of particular note when attempting to teach this generational cohort is that of constructivism. According to Eggen and Kauchak (2007), "constructivism can be described as a view of learning suggesting that learners create their own knowledge of the topics they study rather than having that knowledge transmitted to them by some other source" (p. 235). Millennial Generation expectations appear to be fairly well-aligned with key propositions of constructivism, specifically emphasizing instructional approaches. The Millennial cohort, due to the effect of societal shaping influences on the generation, has come to expect and/or demand much of what educational theorists have long recommended. Consequently, the application of constructivist approaches may need to be considered more intentionally to better educate this cohort.

The following discussion will examine how a university professor attempted to meet these Millennial expectations and constructivist propositions. Specifically, this discussion will examine changes that were implemented in one six-hour secondary education course to meet Millennial expectations while applying constructivist methodologies. It should be noted that this discussion of "constructivist" approaches follows the delineation of Null (2004) who suggests that research in constructivism can generally be separated into epistemological/philosophical discussions, instructional approaches, and "prescriptive" trainings. This is in agreement with Glynn and Duit (1995) who suggest using the term constructive instead of constructivist to emphasize practical rather than philosophical perspectives of learning. The emphasis here is upon practical and methodological changes that occurred in this course founded upon Millennial expectations and that were informed by a constructive learning perspective. In this paper, the use of the term constructivist should be understood as being synonymous with constructive or constructivist instructional approaches as defined by Glynn and Duit (1995) and Null (2004).

The course titled Classroom Applications of Educational Psychology examines theoretical and practical perspectives of learning, motivation, assessment, and management; applications of these perspectives to the classroom through models and methods of instruction, management strategies, and motivational tools; different assessment techniques, assessment interpretation, and planning based on these assessments; and various elements of teacher professionalism. The course meets for three, 2-hour sessions each week of the semester. It serves as the only theory, methods, and assessment course that all secondary education program candidates must complete irrespective of their major. During the first years of teaching the course, the approach used was a "conceptual" one following the definition of the Salish I Research Project (Yager, 1997), which defined beliefs and actions used in this approach as those that, "tend to be teacher-centered, but also include hands-on activities, group work and discussion as ways of helping students to clarify understanding of ideas" (p. 9).

Initial Changes in Instruction – The Overview of Constructivist Theory

In this course, one particular topic (the overview of constructivist theory) helped contribute to a paradigm shift concerning how to better instruct the Millennial Generation cohort and successfully apply constructivist methodologies. For several semesters, when considering the ideas of Piaget, Vygotsky, Dewey; the information was presented via direct instruction and lecture methods. Students were asked questions to make certain they were taking notes and understanding the presentations. After the presentation each day over a period of several class sessions, students were asked to complete a short activity to ensure they had learned the information. Such approaches involving lecture have been and are quite commonplace in university settings with varied levels of student engagement (Atkinson, 2004). Therefore, this approach followed the norm of university practice.

However, the approach did not apply the propositions of constructivist theory nor was it meeting the expectations of the continually-increasing number of Millennial students attending the course for several reasons. First, the approach being used did not allow the students to have a primary role in their construction of knowledge; a point of necessity that has been well-examined in educational research literature (Brandt & Perkins, 2000; Campbell, Campbell, & Dickinson, 2004; Piaget, 1995; Vygotsky, 1978).

Second, as related specifically to Millennials, the teaching method used in this course did not consider this cohort's expectations of the learning environment. Specifically, this cohort has grown accustomed to learning environments in which multiple information sources are used and where opportunities exist to interact with others in the learning process. They have also learned that multiple information sources are a common part of learning and that one expert may not be the only expert. Further, this cohort expects environments where people are working together rather than alone and where the whole is truly greater than the sum of its parts. In fact, this generation has been better networked than any generational cohort in history through the use of text messaging, Internet usage, after school initiatives, community service efforts, team sports, cell phone use, instant messaging, and community-building media tools (e.g., FaceBook, MySpace, etc.), and the cohort, therefore, expects these aspects to be present in their learning environments (Baker College, 2005; Chronicle of Higher Education, 2007; Howe, 2005; Howe & Strauss, 2000; Lowery, 2004; Oblinger, 2003; Van Horn, 2006).

Third, the teaching approach used in the course initially, even with very creative and informative presentations, many times placed the students in a passive rather than an active role. According to Brandt and Perkins (2000), Bruner (1996), Piaget (1995), and Vygotsky (1978); a constructivist environment should place learners in an active role in the learning process. Incidentally, this active role also connects well with the expectations of the Millennial cohort.

Therefore, to provide an environment to better meet the propositions of constructivist learning approaches and Millennial expectations, a change was made concerning how this information was presented. First, rather than continuing to do presentations using lecture methods accompanied by some direct instruction approaches, a website was used to introduce students to the ideas of constructivism (Ryder, 2008). This website, hosted and maintained by the University of Colorado at Denver's School of Education, contains multiple links from a variety of experts concerning definitions of constructivism and articles written by educational researchers who specifically examine and/or apply this area of expertise. Students were asked to read each of the definition links and one expert article. They then worked in teams of three to four members to create a definition of constructivism, state the types of constructivism, and list its major seminal proponents. After this activity, students placed this information on a flip-chart and shared it with their peers in the class.

Following this step, students worked together as a class (using keywords that had appeared across the definitions) to create a class definition of constructivism without the aid of the instructor. Course sections' definitions, although lacking in some ways, did demonstrate that students were developing an understanding of constructivism during this activity. For example, one class section's definition stated, "Constructivism – a learning theory that is centered on the learner, who is actively constructing/connecting new knowledge with previous experiences. Learning is dependent on the social and cognitive contexts of the individual." Another class section's definition stated, "Constructivism is a learning theory which states that individuals actively and continually construct knowledge based on previous experiences and knowledge."

During the next class period, students read a packet of information concerning Piaget, Vygotsky, and Dewey (who they had previously identified as three proponents of this view). They then completed a matrix involving these three theorists and their type of constructivist belief, the core ideas of their respective theory, and their unique explanation of how cognitive development occurs. The students then provided practical classroom applications based upon each of the respective constructivist theorist's ideas (i.e., What would a classroom look like that was applying the ideas of Vygotsky? Of Piaget? Of Dewey?). Following this activity, students completed a graphic organizer dealing with each of the three theorists. They also listed unfamiliar terminology on index cards for further clarification by the instructor, and they revisited their initial definitions of constructivism.

In subsequent class periods, students analyzed written scenarios and video scenarios using the ideas of Piaget, Vygotsky, and Dewey. Finally, they completed the examination of the topic of constructivism by creating their own scenarios where these ideas were being implemented. Throughout the remainder of the course, students consistently reflected upon how their plans (or plans of another) applied or did not apply previously learned constructivist propositions.

Subsequent Changes in Instruction – Facilitating the Learning of Multiple Intelligences Theory

Changing this approach to teaching about the topic of constructivism and observing the results for Millennial learners led to further changes within the course. For example, the theory of multiple intelligences (Gardner, 1983) was initially taught using direct instruction and lecture approaches similar in form to how the topic of constructivism had been previously taught. Following the change concerning the approach to teaching students about constructivism and after discussion with teaching colleagues, a new approach was used in the teaching of multiple intelligences theory.

Guided by constructivist learning ideas and Millennial cohort expectations, students created stand-alone multiple intelligences learning centers. Students created these centers as a small-group effort using multiple resources and materials provided by the instructor, their textbook, computer website resources, and from materials provided by the curriculum library and by peers. Students randomly chose one of three topics concerning multiple intelligences. One involved defining the theory itself along with the different intelligences. Another pertained to how multiple intelligences could be applied to the planning and implementation of learning activities in the classroom. The final topic dealt with how multiple intelligences could be used to design assessments (in addition to paper and pencil tests).

Students worked in small groups to design the centers as the instructor provided additional guidance. In the following class period, students visited and interacted with each learning center created by their peers. After this activity, unclear terminology was addressed, and the instructor provided additional information to the students concerning multiple intelligences theory. In addition, students analyzed how the activity applied multiple intelligences theory and constructivist theory propositions. In the subsequent class periods, students analyzed written and videotaped scenarios in which a teacher was implementing the theory in his or her classroom. As previously mentioned with the ideas of constructivism, students revisited multiple intelligences theory throughout the remainder of the semester as they learned about different instructional methods and models and as they planned their units and lessons.

In each of the above learning situations, the instructor created and implemented plans, which required active facilitation and provided opportunities for students to work with original sources

instead of the instructor transmitting information as the sole source. As noted previously, such approaches apply aspects of constructivist learning theory where the teacher is viewed as the expert in the classroom (Vygotsky, 1978) but who also serves the roles of facilitator, coach, and mentor (Brandt & Perkins, 2000; Feiman-Nemser, 2001; Piaget, 1995; Vygotsky, 1978). In addition, such activities allow the learners to be actively engaged individually and socially with multiple sources, the instructor, and each other in the learning process, which are other important applications of constructivist thoughts (Bruner, 1996; Piaget, 1995; Vygotsky, 1978).

This approach to learning about multiple intelligences theory also aligned with the previously discussed expectations of the Millennial cohort concerning the classroom. There existed in this activity social interaction with multiple sources of information being present (Howe & Strauss, 2000; Lowery, 2004). Additionally, the instructor engaged with students in the learning process through active facilitation, scaffolding, and guidance, which Millennials have come to expect due to their prior experiences. The instructor, in this situation, considered these Millennial experiences which have included strong aspects of structure, mentoring, and feedback from parents and/or guardians, educational systems (e.g., detailed rubrics), and from consistent interactions with adults in various structured contexts (e.g., sports activities, lessons, after-school programs, homework help websites, etc.) (Elam, Stratton, & Gibson, 2007; Howe, 2005; Merriman, 2007).

Additional Changes – Further Revisions in Methods and Assessment

Consequently, such changes continued in other content areas within the course and caused modification of assessment approaches as well. For instance, as approaches to instruction became more constructive in nature and as they were designed to better meet Millennial expectations, students began to work more as a community of learners (DuFour & Eaker, 1998; Eggen & Kauchak, 2007). This community of learners began to create a variety of products within the class setting, which resulted in a rich diversity of informal assessment artifacts (e.g., graphic organizers, brainstormed lists of applications, lists of objectives across Bloom's Revised Taxonomy, peer-checked lesson plans, peer evaluation comments, written reflections, etc.) as they worked at times in content area teams and at other times in cross-content teams. These informal assessments provided both support and opportunities for immediate feedback to students and helped them prepare for their formal assessments, which they completed individually.

Learning approaches coupled with these formative and informal assessment opportunities moved the environment more towards a student-centered one. This student-centered environment is defined in part by the Salish I Research Project (Yager, 1997), which states that, "Teachers' actions in this category include: a) organizing activities for students to gain experiences that will lead to learning, b) asking questions of students to guide them in learning from activities, and c) using alternative forms of assessment to appraise students' learning" (p. 9). By consistently considering propositions of constructivism and Millennial cohort expectations, an environment was created in which both the product and process of learning were considered. Such an environment is supported by the work of a variety of educational theorists (Brandt & Perkins, 2003; Bruner, 1996; Campbell, Campbell, & Dickinson, 2004; Piaget, 1995; Vygotsky, 1978) and is thought to better meet the needs of Millennials as they enter the university and our schools of education (Baker College, 2005; Elam, Stratton, & Gibson, 2007; Howe, 2005; Howe & Strauss, 2000; Lowery, 2004; Merriman, 2007).

Initial anecdotal evidence from student reflections indicated that students were highly motivated by engaging in these sorts of learn-

ing approaches. For example, one student noted, "This activity allowed everyone in the class to take charge of what we learned today. With this personal involvement, every student came to have a better understanding of 'constructivism' as opposed to listening to a lecture." Another student stated, "This approach to learning allows the students to come up with and have ownership with their ideas or concepts." Yet another boldly suggested, "This is a useful approach for student learning because we have just proven that students learn best by involving themselves in the process of constructing new ideas, and if they do that, they will retain that information while applying it to life."

In addition to such informal comments, formal teacher evaluations including self-reporting of the attainment of classroom objectives, instructor effectiveness, and additional open-ended responses indicated that students found the instruction to be effective and motivating in their learning. In addition, subsequent assessments in the following semester (e.g., Internship Exit Portfolio results, Student Internship Evaluations, etc.) suggest that students applied the information learned in this way to their subsequent internship experience. These results seem to indicate initial success for changes in instructional approaches based upon Millennial expectations and constructivist propositions. In the future, more data should be collected to test these initial conclusions as the instructor continues to consider Millennial expectations and attempts to better apply constructivist propositions.

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