

Technology in the 21st Century Classroom: Key Pedagogical Strategies for Millennial Students in University Business Courses

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This study's *purpose* was to discover key pedagogical strategies for millennial generation students in university business courses. The *design* was qualitative, using semi-structured interview questions, and purposive sampling with snowballing techniques, and was based upon opinions of 15 faculty members. Questions were validated by a panel of experts. Data was analyzed using Content Analysis. A second rater established reliability. Themes were identified, categorized, and presented. *Findings* show millennial's are: pro-technology, unrealistic about work and life, multi-taskers, and not prepared for college. They have poor written communication skills, short attention spans, and a global view. Classroom pedagogical strategies included: using real-world examples; providing clear structure, and creating participatory activities - projects, group work. Online pedagogical strategies incorporated: using hybrid courses; applying online strategies-Social Networking, YouTube, Blackboard; and providing feedback. *Recommendations* included replicating the study in different geographic locations, using a larger sample size, comparing private and public institutions, and examining other disciplines.

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I. INTRODUCTION

Millennial generation university students have their own nuances that require new teaching strategies. According to Strauss (2005), the millennial generation was born between 1982-2005. Researchers have recently turned their attention to the unique needs of the millennial generation in higher education classrooms and online courses. The literature demonstrates that university students in the millennial generation are bored and uninspired in many of today's business university classrooms (Brown, Armstrong, & Thompson, 1998). Conflicts currently exist between students' preferences to learn and professors' preferences to teach

(Graubard, 2001; Proserpio & Gioia, 2007). According to Proserpio and Gioia (2007), the lack of compatibility between today's business college students' learning styles and faculty teaching styles suggests it is "less than it could be or should be, and that we need to act to avoid a disconnect" (p. 70). This study responds to this call to action, addressing key pedagogical strategies for millennial generation students in university business courses.

II. PURPOSE OF THE STUDY

The purpose of this study was to discover key pedagogical strategies for millennial generation students in university business

courses. There is scant literature about pedagogical strategies for millennial generation students, and specifically about university business school classrooms and online courses. Prior research identified that millennial generation university students in business courses require new pedagogical strategies (Moore, 2007). Further, the studies indicate a need for research that explores and promotes a deeper understanding that can assist university faculty in teaching (Coomes & DeBard, 2004; Mitchell, 2003; Proserpio & Gioia, 2007).

III. RESEARCH QUESTIONS

1. What are the unique issues of teaching millennial generation students in university business courses?
2. What are the key pedagogical classroom strategies for millennial generation students in university business courses?
3. What are the key pedagogical online strategies for the millennial generation students in university business courses?

IV. LITERATURE REVIEW

The literature in three relevant areas is reviewed: millennial generation students, pedagogy/andragogy, and challenges of pedagogy in the university.

4.1 Millennial Generation Students

The millennial generation has been referred to as the Echo Boom, Generation Y, Baby Busters, Generation Next (Lancaster & Stillman, 2002), and the Virtual Generation (Proserpio & Gioia, 2007). The majority of the current university students are from the millennial generation. They were born between 1982 and 2005 (Howe, 2005). Today's millennial generation university students share a common persona, interests, music, and similar life experiences. There are over 80 million millennial Americans (Coomes & DeBard, 2004; McGlynn,

2006). This generation constitutes nearly 30% of the people in America today (McGlynn, 2006). These millennial generation students fill up the seats in colleges and universities across America. There has been a steady increase from 2002 of 6.9 million (44.2% of all students) enrolled in America's colleges and universities to an estimated 13.3 million (75% of all students) in 2012 (Coomes & DeBard, 2004). Graubard (2001) states, "In the years ahead, there will be enormous pressure on faculty to change the way they teach to match the ways in which students learn" (p. 9). According to research, this generation has its own nuances that require a new strategy of teaching.

The millennial generation is the most ethnically diverse generation to date. The United States millennial generation including immigrants totals approximately 90 million (Coomes & DeBard, 2004), and is approximately 33% larger than the previous largest generation, the baby boomer generation (Atkinson, 2004). About half of the millennial generation is offspring of the baby boomer generation and the other half are offspring of Gen X (Strauss, 2005). In the year 2000, the millennial generation constituted 26% of the United States population (Mitchell, 2003).

Immigration has a much greater impact on this generation because most immigrants are children or young adults (Lancaster & Stillman, 2002; New Strategists, 2001; Oblinger, 2003). The data show that non-Hispanic Whites account for 71% of all Americans, and that number decreases to 64% when looking at Americans under age 25. The diversity of the age group 25 and under consists of 4% Asian, 14% Black, 1% Native American, and 16% Hispanic (New Strategists, 2001).

Millennial generation traits

According to Coomes and DeBard (2004), "The millennial generation, who began arriving on college and university campuses around 2000, are described as special, sheltered,

confident, team-oriented, conventional, pressured, achieving, optimistic and upbeat, accepting of authority, rule followers, and structured” (pp. 64-65). These characteristics differentiate them from previous generations (Atkinson, 2004; Coomes & DeBard, 2004; Howe, 2005; Howe & Strauss, 2000). These core personality traits emerge in multiple writings and in the press as descriptors of the millennial

generation college student (Coomes and DeBard, 2004).

They had parents who watched their every move, and they are more intelligent than most view them. They have grown up with computers, e-mail, DVDs, and iPods (Howe & Strauss, 2000; Strauss & Howe, 1991). Seventy percent of college students reported playing online computer or video games.

TABLE 1. Traits of the Millennial Generation

Topic	Summary	Main Contributors
Traits of the Millennial Generation	The millennial generation was born between 1982 and 2005 (Strauss, 2005).	Butterfield & Fox (2007); Coomes & DeBard (2004); Howe & Strauss (2000, 2007); Lancaster & Stillman (2002); McGlynn (2006); Oblinger (2003); Proserpio & Gioia (2007); Strauss (2005)
	Millennials are the most ethnically diverse generation.	
	The millennial generation has seven traits: special, sheltered, confident, team oriented, achieving, pressured, and conventional.	

Note. Adapted from *Key Pedagogical Strategies for Millennial Generation Students in University Business Courses*, by N. Merlino, 2009, Ann Arbor: ProQuest LLC, p. 88.

Millennial generation students’ expectations of colleges and universities

This high-achieving, conventional, but pressured generation enters the college and university setting with higher expectations and greater opportunities for disillusionment. Howe (2005) describes that 73% of today’s high school students say they want a 4-year degree. The millennial generation student has high expectations upon entering college, and most have endured a great deal of stress in high school to assure college acceptance.

Upon entrance, first-year students are expected to be highly involved in clubs,

organizations, and activities and receive good grades. Millennial generation students want to see the immediate real-world value of the things they learn. Students view courses that give them a leg up on the working world with significance and value and require a new host of faculty to motivate them in the classroom (Brown et al., 1998; Graubard, 2001; Knowles, 1984; Svinicki, 2004).

Table 2 summarizes the millennial generation’s expectations of colleges and universities. It also summarizes the campus life for millennial generation students.

TABLE 2. Expectations of Colleges and Universities

Topic	Summary	Main Contributors
Millennial Generation's Expectations and Campus Life of Colleges and Universities	Millennial expectations in college and universities are high with the expectation of involvement on campus with the same good grades they received in high school.	Atkinson (2004); Coomes & DeBard (2004); Howe (2005); Howe & Strauss (2000, 2007); Jennings (2007); New Strategists (2001); Wilson (2007)
	Professors have changed from the familiar teacher role (as a conveyer of knowledge) to the role of the facilitator.	
	The college ratio of men to women has changed drastically, with 57% of bachelor degrees conferred to women in 2004-2005 (Snyder et al., 2007).	
	Financial aid has changed from need to merit and from grants to loans.	
	Sixty-five percent of students are employed while attending college.	
	More students are working off-campus, resulting in less study time.	

Note. Adapted from *Key Pedagogical Strategies for Millennial Generation Students in University Business Courses*, by N. Merlino, 2009, Ann Arbor: ProQuest LLC, p. 88.

College and University Campus Life for Millennial Generation Students

Not only must the millennial generation navigate a new role between themselves and an authority figure to which they have traditionally looked for direction and shelter, but they must create for themselves a community within the college or university. The college and university campus life is different than it was for the previous generation. The campus women-to-men ratio and the resurgence of joining campus clubs have affected campus involvement (Coomes & DeBard, 2004; Howe & Strauss, 2007; Wilson, 2007).

However, the amount of hours students are working interferes with how much campus involvement each student can devote. More and

more students are partially or fully responsible for funding their education. Research noted that the change of reduced financial aid availability has a trickling effect on the amount of time students are working while going to college (Coomes & DeBard, 2004).

According to Howe and Strauss (2007), the millennial generation wants to be part of campus life by joining clubs and being proud of their alma mater logos and colors. This differentiates from the countercultural dissent from the previous generation. Students want that feeling of being part of something bigger that helps give them the group dynamics that they enjoy (Coomes & DeBard, 2004). Figure 2 summarizes.

Millennial Learning Preferences

According to Davis (2003), “It will surely be remarked that never was the misfit between professors’ favored styles of teaching and the actual skills and predilections brought to learning by the young so great, or so rapidly increasing” (p. 19). According to Oblinger (2003), the millennial generation learns differently and interacts differently than previous generations. The millennials want experience, teamwork, structure, and use of technology. Further, Cameron (2005) delineates 10 learning preferences: (1) twitch speed more equivalent to game speed; (2) parallel processing, doing multiple things at a time; (3) graphics first, then text as a backup; (4) hyper linking through materials, not step by step; (5) connectivity by electronic communication; (6) instructional activity, learn by doing; (7) prefer instruction that is fun, not viewed as work; (8) immediate gratification; (9) fantasy and play included in work; and (10) technology as essential.

Coomes and DeBard (2004) report preferences for curriculum design to reduce pressures of succeeding or failing. Millennial generation students want more quizzes and multiple assignments rather than a few heavily weighted exams. The use of online quizzes provides immediate feedback. When working in teams, they prefer the ability to incorporate peer evaluations and individual grades on group projects. A structured class with clearly set norms is also preferred. Norms can help students develop empathy and expectations of each other during the class.

Furthermore, Coomes and DeBard (2004) report that classroom reward structure is expected to be clear and followed by the millennial generation students without deviation. The millennial generation does not do well with ambiguity; they want everything spelled out as to what it takes to earn an A. Older generations’ tolerance for ambiguity was looked at as strength, and this is frustrating for older generations when working with the millennial generation. The preference is for objective, not

subjective, means of evaluation. The millennial generation does not want to do more than what is required to achieve the desired grade. It is noted that not all students are trying to get A’s. When taking all of this into consideration, numerous online and hybrid college and university classes are now added to the mix.

4.2 Pedagogy and Andragogy

Willcoxson (1998) indicates that conventional approaches to university pedagogy have been increasingly disengaging for today’s students. He notes that lectures are not an effective way to motivate students, and many professors are unaware of successful techniques that may improve student learning. Faculty believes lectures are easier to prepare, whereas discussions are more work and an unknown degree of difficulty. A lecture takes less energy from the faculty and the student (Ericksen, 1974; Willcoxson, 1998). Kolitch and Dean (1999) state that professors are not responsible for motivating students, but that the student is solely responsible for his/her poor performance. Willcoxson (1998) maintains that the job of the professor is “to assist students’ learning” (p. 13).

Researchers assert that even with an increased emphasis on teacher development, an informed reflective practice is required to change teaching habits, construct innovative, and effective learning (Beegle & Coffee, 1991; Katz, 1988; Willcoxson, 1998). Table 3 provides a Summary of Pedagogy versus Andragogy.

4.3 Classroom and Online or Blended Courses

The traditional lecture classroom delivery has been used for hundreds of years. Multiple researchers have shown that university students in the millennial generation are uninterested in many of today’s university classrooms (Brown et al., 1998). According to Atkinson (2004), Beegle and Coffee (1991), Brown et al. (1998), and

TABLE 3. Pedagogy vs. Andragogy

Topic	Summary	Main Contributors
Pedagogy vs. Andragogy	Dewey’s <i>1897 Pedagogic Creed</i> has an education philosophy “process for living and not a preparation for future living” (as cited in Dworkin, 1959, p. 22).	Bowers (1977); Cheren (1978); Chickering (1993); Dewey & Dewey (1915); Dworkin (1959); Gruber & Vonèche (1977); Hilgard & Bower (1966); Katz (1988); Knowles (1973, 1984); Mezirow (1991); Milhollan (1972); Penland (1977); Peters & Gordon (1974); Suanmali (1981); Tough (1979, 1981)
	Pedagogical strategies have been used for hundreds of years and higher education is recognizing and in some instances changing to a more andragogical strategy with a core set of six adult learning principles.	
	The Andragogical model uses a “facilitator” in place of a “teacher”.	
	Andragogical methods demonstrated the importance of self-directedness.	

Note. Adapted from *Key Pedagogical Strategies for Millennial Generation Students in University Business Courses*, by N. Merlino, 2009, Ann Arbor: ProQuest LLC, p. 87.

Proserpio and Gioia (2007), there are varied teaching styles in the quality of individual university lecturers, even though universities have emphasized quality of teaching in recent years.

The millennial generation college students have grown up with the Internet and continued changes in technology that have led to the development of online web-enhanced courses. Research has reported that, overwhelmingly, both students and faculty enjoy online and blended courses (Hannay & Newvine, 2006; Markel, 1999). According to Mossavar-Rahmani and Larson-Daugherty (2007), online growth has been remarkable, doubling every 2 years between 2002 and 2006. The majority of the millennial generation students learn best when focusing on the practical and immediate physical world (Graubard, 2001) by using the

Internet and current technology (Irvine, 2004; Proserpio & Gioia, 2007).

As questioned by Proserpio & Gioia (2007), “How might we best teach our new virtual generation students?” (p. 79). Researchers Markel (1999) and Williams and Goldberg (2005) state that for centuries there has not been any significant change in college and university education. It has not only been slow to change but many times resistant to change. With the power of information and communication technologies, the role of the faculty is changing from “sage on the stage” (Markel, 1999, p. 212), giving way to “guide on the side” (Markel, 1999, p. 214; Williams & Goldberg, 2005, p. 728).

Faculty development at the college and university level has always existed, in part, to rekindle and to revive the instructor. After years of teaching and abysmal success rates, apathy

and pessimism set in. Often students turn away from a major or subject matter because of an apparent hostile or uncaring teacher (Katz, 1988). Some teachers fail to reflect on the reason they became a teacher. They feel that they are not responsible for motivating students and feel it is the student's responsibility to learn (Kolitch & Dean, 1999).

The progressiveness has shifted from verbal to visual to virtual generational approaches to learning (Proserpio & Gioia, 2007). Proserpio and Gioia promote teaching styles that compliment learning styles. According to Katz (1988), faculty routinely face students who have difficulty speaking up, remain passive, can't handle a good debate, appear bored, rebellious, or have difficulty with constructive criticism.

College and University Classroom Pedagogy

Researchers report that various teaching techniques can be used in the classroom; techniques such as appropriate lecture, caring, alert, posing questions, connection, norms, learning groups, preprinted notes, enthusiasm, and discussion are effective learning techniques (Beagle & Coffee, 1991; Brookfield, 1990, 1995; Ericksen, 1974; Knowles, 1973; Miller, 1988; Shore & Freire, 1987; Willcoxson, 1998). Some faculty are categorized into "wonder how to learn" teachers or "eager to learn" teachers enjoying their job and connecting a lifelong meaning to their career (Van Eekelen et al., 2006, p. 409).

Another pedagogy technique is setting classroom norms. Classroom norms can set the rules for appropriate and expected behavior for the quarter or semester. The students need to be the author in order for norms to revitalize or aid the learning process and environment. Furthermore, norms have a positive effect on student achievement, class conduct, and class enjoyment (Knowles, 1973).

A different aspect of pedagogy, according to Thayer (1976), is empathy in the classroom. The ability of a faculty member to show care to a learner is motivating to the learner. Empathy in the classroom makes the faculty member a real person and therefore likable. Students try harder and want to please an empathetic and caring faculty.

Evidence by Rogers (1965) and Thayer (1976) asserts that structured experiences can enhance personal growth and stresses the experiential approach to learning. This is accomplished by focusing on the person, experience, and through behavioral testing. It is successful when the facilitator demonstrates respect for others, empathy, and genuineness. Rogers (1965) believes,

Personal growth is facilitated when the facilitator is what he is, when in the relationship with his client he is genuine and without "front" or façade, openly being the feelings and attitudes which at that moment are flowing in him. (pp. 50-51)

Table 4 outlines a summary of *Teaching Techniques for Millennial's*. These techniques can be used to create a successful learning environment for millennial generation students.

Online College and University Pedagogy

Evidence by Markel (1999) on distance education pedagogy suggests great implications for distance instruction. He indicates, "The instructor must discard the old talking-head, teacher-centered, passive-student model, substituting instead an independent-learning, student-centered, empowering model" (p. 210). Arbaugh and Benbunan-Finch's (2006) research findings with online MBA courses reported, "Group-based objectivism combines the best of both worlds, by giving learners a clear sense of

TABLE 4. Teaching Techniques for Millennial’s

Topic	Summary	Main Contributors
Teaching Techniques for Millennial’s	Teaching techniques are usually obtained by mimicking what was experienced in the faculty’s own education.	Beegle & Coffee (1991); Brookfield (1990, 1995); Chickering & Ehrmann (1996); Ericksen (1974); Katz (1988); Kolitch & Dean (1999); Miller (1988); Proserpio & Gioia (2007); Van Eekelen et al. (2006); Willcoxson (1998)
	Lecture has been the most used teaching strategy in university classrooms.	
	Progressiveness has shifted from a verbal to visual to virtual generation.	
	Effective teaching techniques are: being alert setting norms posing questions being enthusiastic making connections using learning groups provide preprinted notes cultivating a caring classroom delivering appropriate lectures facilitating relevant discussions	

Note. Adapted from *Key Pedagogical Strategies for Millennial Generation Students in University Business Courses*, by N. Merlino, 2009, Ann Arbor: ProQuest LLC, p. 89.

what needs to be learned and providing them with the reinforcement and social support structure traditionally found in group activities” (p. 445).

Chickering and Ehrmann (1996) describe how the use of video, computer, and telecommunication technology is advancing the “Seven Principles for Good Practice in Undergraduate Education” (p. 3). The use of these technological tools can be used for budget constraints affecting high numbers of students to teach with existing or shrinking tenure teaching positions. The following describes Chickering and Ehrmann’s seven principles. Good practice encourages:

1. contacts between students and faculty
2. reciprocity and cooperation among students
3. active learning techniques
4. prompt feedback
5. time on task.
6. communicating high expectations
7. diverse talents and ways of learning

Table 5 summarizes issues concerning Online Teaching in Colleges and Universities. A major issue is that the reward system for faculty fails to consider the added time required for online class preparation.

TABLE 5. Online Teaching in Colleges and Universities

Topic	Summary	Main Contributors
Online Teaching in Colleges and Universities	Changing from “sage on the stage” (Markel, 1999, p. 212) to “guide on the side” (Market, 1999, p. 214; Williams & Goldberg, 2005, p. 728).	Chin & Williams (2006); Irvine (2004); Markel (1999); Mossavar-Rahmani & Larson-Daugherty (2007); Nichols (2003); Proserpio & Gioia (2007); Williams & Goldberg (2005)
	E-learning is still in its infancy as a body of knowledge.	
	Online enrollment is increasing yearly, with 89% of public universities offering online courses in 2000-2001 (Snyder et al., 2003).	
	The reward system for faculty fails to consider the added time for online class preparation.	

Note. Adapted from *Key Pedagogical Strategies for Millennial Generation Students in University Business Courses*, by N. Merlino, 2009, Ann Arbor: ProQuest LLC, p. 88.

V. METHODOLOGY

As the purpose of this study was to discover key pedagogical strategies for millennial generation students in university business courses, qualitative methods were used. According to Patton (2002), “Qualitative data consist of quotations, observations, and excerpts. . . . They take us as readers, into the time and place of the observation so that we know what it was like to have been there” (p. 47). Descriptive research is intended to illuminate characteristic facts that, after the results are analyzed, can be used in the decision-making process (Johnson, 1977; Jones, 1973).

A descriptive study was selected to better explore the limited research regarding university business teaching strategies for the millennial generation. The study is exploratory, and qualitative methods were therefore suitable.

Qualitative analyses using semi-structured questions were used. Education, as a discipline, uses words to describe the many activities of faculty because numbers alone cannot adequately describe instructional methods (Johnson, 1977). Miles and Huberman (1994) offer this perspective: “Qualitative data are sexy. They are a source of well grounded, rich descriptions and explanations of processes in identifiable local contexts” (p. 1). Both researchers state that “undeniability” (p. 1) is the word used to describe the findings from qualitative data.

Creswell (2005) discusses that qualitative research is a good method to explore an area that has little information already published. The object of qualitative analysis is to learn more about the problem through exploration.

In this descriptive study, purposive sampling was applied. This type of sampling is

characteristic of qualitative studies; in part, “the inquirer selects individuals and sites for study because they can purposefully inform an understanding of the research problem and central phenomenon in the study” (Creswell, 2007, p. 125). Miles and Huberman (1994) suggest using purposive rather than random sampling, “partly because social processes have logic and coherence that random sampling can reduce to uninterpretable sawdust” (p. 27).

5.1 Data Collection Strategies

The literature review provided a framework to begin building interview questions for the collection of data. Semi-structured questions provided additional data intended to answer the research questions.

Participants

Narrative responses were collected from a sample size of 15 participants. Patton (2002) discusses how qualitative data can produce a detailed amount of information from a small sample size. It is not the amount of people in a study that is important; it is the quality of the study. In research, a small sample size that is studied in depth often results in more credible information than a larger sample size collecting superficial data (Johnson, 1977). The participants of this study were faculty of WASC (Western Association of Schools and Colleges) accredited college/university business programs in California. The participants had a minimum of three years experience teaching classroom business courses and one year teaching online business courses to millennial generation students.

Participants were selected using the snowballing technique. Snowballing occurs when people start referring other people, and the collection of data gets larger and larger as the snowball goes down the hill (Gall et al., 1996; Isaac & Michael, 1997; McMillan & Schumacher, 2006; Patton, 2002). In the case of

multiple potential participants meeting the sample criteria, a divergent sample is chosen based on age, gender, university, and ethnicity.

5.2 Interview Process

In this descriptive research study, semi-structured interviews were used as a means of collecting qualitative data. Gall et al. (1996) describe semi-structured interview questions as “a series of structured questions and then probing more deeply using open-form questions to obtain additional information” (p. 310).

5.3 Validity

According to Patton (2002), validity relies on how the instrument is constructed and if the instrument used is measuring what is intended. He goes on to discuss that the researcher is the instrument in qualitative inquiry.

The goal of testing for validity is to uncover flaws, limitations, or restrictions in the interview questions. This is done before the interview questions are asked to participants (Krathwohl, 2004). Validity was determined by content validity, using an expert panel reviewing and modifying the interview questions. The panel consisted of three people who are content experts and familiar with qualitative research. The expert panel members received a letter explaining the focus of the research and the principal interview question. The letter was accompanied by the Expert Panel Review Form and an abstract of the study to give the panel members some background information.

The panel of experts reviewed the background, methodology, review of literature, and the interview questions in relation to the research questions. A change in criteria for participants was suggested and accepted. Consensus was reached regarding the interview questions. Further, there was agreement that the interview questions would yield data that would inform the research questions.

5.4 Reliability

Reliability was addressed by using the transcription of the interviews, field notes that were recorded during the interviews, second rater, and comments from the dissertation committee. This second rater helped in determining if the researcher reached a common theme and appropriate conclusions. The rater added accuracy to the study (Creswell, 1998). The researcher provided a copy of the introduction, literature review, and methods to the second rater before analysis to give the background and purpose of the study.

5.5 Analytical Technique

This descriptive study used qualitative research methods. When analyzing qualitative data, content analysis was utilized. Qualitative data rely on words to describe and explore the area in which the researcher is conducting his/her study (Gall et al., 1996; Hopkins, 1980).

After conducting the semi-structured interviews, the researcher had to make sense of

the collection of words. Content analysis is an unobtrusive technique (Krippendorff, 1980) in which to categorize words into ideas by counting words or analyzing the types of words and then using this for interpretation (Hopkins, 1980; Krippendorff, 1980). Content analysis, according to Gall et al. (1996), uses procedures that are objective and systematic in order to make sense of the data. This study used a flow diagram (see Figure 1) for data analysis and coding. This model combines all aspects in a general domain for a thorough analysis.

VI. FINDINGS

The purpose of this study was to discover key pedagogical strategies for millennial generation students in university business courses. Data obtained from the participants in this study can add to the classroom and online teaching strategies in today's university business courses that are currently "less than it could or should be" (Proserpio & Gioia, p. 70).

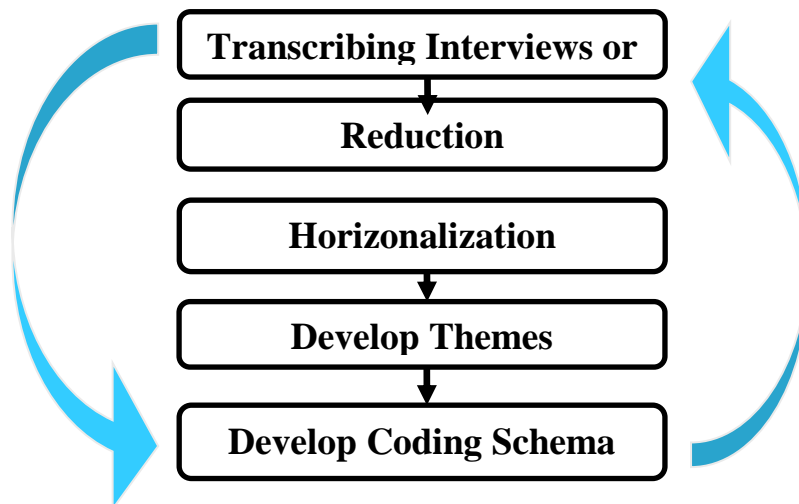


FIGURE 1. Data flow diagram
From *Qualitative Data Processes*, by L. Hyatt, January 2009, paper presented at Research Seminar, University of La Verne, La Verne, CA, p. 8.

6.1 Data Analysis

Upon transcription of the semi-structured interviews, content analysis was used to categorize text and develop themes for interpretation (Hopkins, 1980; Krippendorff, 1980). The data were further reduced, by using color coding and matrices to identify patterns and themes (Creswell, 2007; Isaac & Michael, 1997; Krathwohl, 2004; Miles & Huberman, 1994). These findings are displayed both in text and graphically (Wolcott, 1994).

A second rater was used to increase inter-rater reliability and accuracy for the study (Creswell, 1998). The second rater helped to determine if common themes and like conclusions were reached. The first participant transcription was coded independently by both the researcher and the second rater. Upon consensus, the remaining 14 were analyzed using like methods. Upon completion of all 15 transcripts, both the researcher and second rater came to consensus regarding themes.

6.2 Research Questions and Corresponding Themes

This section discusses the data from the interview questions relative to the themes that correspond to the research questions.

Research Question 1

What are the unique issues of teaching millennial generation students in university business courses?

The following issues were reported by $\geq 51\%$ of the participants. Millennial students:

1. Are pro technology,
2. Are unrealistic about work and life,
3. Aren't adequately prepared for college,
4. Have poor written communication skills,
5. Have short attention spans,

6. Have a global view, and
7. Are multi-taskers.

Research Question 2

What are the key pedagogical classroom strategies for millennial generation students in university business courses?

Participants numbering $\geq 51\%$ responded with the following key pedagogical classroom strategies for millennial generation students in university business courses were identified:

1. Use real-world examples (e.g., professor's experiences)
2. Use participatory activities including experiential activities such as applied learning, projects, group work (e.g., presentations and small/whole group discussions), and case competitions
3. Provide clear structure

Research Question 3

What are the key pedagogical online strategies for the millennial generation students in university business courses?

The following issues were reported by $\geq 51\%$ of the participants. Key pedagogical online strategies for the millennial generation students in university business courses are:

1. Blended courses
2. MySpace, YouTube, Blackboard, video, Clickers, Moodle, posting, online tests, and Skype
3. Feedback

6.3 Additional Findings

Additional findings involved the teacher-student interface. Participants suggested that faculty may have to spend more time teaching critical thinking, assess student engagement often, and value what millennial students offer.

VII. CONCLUSIONS AND RECOMMENDATIONS

Based on the findings from this study, conclusions were grouped into three areas: (a) faculty in the classroom; (b) faculty teaching online; and (c) faculty and universities.

7.1 Conclusions for Faculty in the Classroom

The findings imply that using real-world examples, participatory activities, and providing clear structure would be effective pedagogical strategies for faculty who teach millennial generation university students in face-to-face classroom courses. These key pedagogical strategies will engage the millennial generation university student and fit the learning style desired.

Using real-world examples is imperative for the millennial generation to be engaged in the classroom. This generation needs to know that their learning is related to the world outside the university setting. Learning needs to be directly related to their future jobs.

Implementing participatory activities, such as applied learning, simulations, projects, group work, presentations, small/whole group discussions, and case competitions, is an effective pedagogical strategy for millennial generation university students. Applied learning and projects are opportunities for the students to examine topics at a deeper level. Simulations offer a real-world feel for the classroom. Presentations and small/whole group discussions encourage the students to be self-directed. These activities usually require preparation before class, which puts the responsibility on the student rather than the faculty. Case competition

provides motivation for business students to succeed among their peers.

Providing clear and written structure for the course reduces the stress and anxiety of the millennial generation university student. The millennial generation university student desires structured course outlines, feedback, assignments, timelines, and explanations.

Additional conclusions are that faculty teach more critical thinking skills, assess student engagement often, and value what millennial students have to offer.

7.2 Conclusions for Faculty Teaching Online

Faculty who teach online and hybrid/blended business courses reported that a combination of face-to-face and online courses work best. These are called hybrid courses. Face-to-face meetings can be designed with specific outcomes. The online portion provides the flexibility for the student to accomplish class assignments while working around family and job commitments.

Findings also suggest that faculty use multiple online strategies. Online strategies might include MySpace, YouTube, Blackboard, video, clickers, Moodle, posting, online tests, and Skype. Millennial generation students are using these technologies in their everyday lives and have expectations that they will be used in their courses. It will be helpful for faculty to become familiar with these technologies and to develop technology literacy.

The millennial generation uses MySpace, clickers, and postings. Using YouTube and videos for examples brings the faculty into the world of the millennials. Faculty indicates that Skype is a good communication tool that can be used for free or a reasonable fee. One can leave very long voicemail messages, call long distance, and use it for audio conference calling. Skype can also be used with other technologies as well.

Feedback provides motivation for millennial generation university students. Online tests provide instant feedback on the millennials'

performance. Immediate or quick feedback, such as clickers, reduces stress and enables students to complete assignments more successfully.

7.3 Conclusions for Faculty and Universities

This study brought forth findings that point to implications for universities in the area of technology. Clearly the millennial generation and generations to follow will be continuously more technologically savvy than earlier generations. Universities will need to make updated technology available. Universities must keep pace with not only the technology, but they will want to offer continuous training for faculty to use the new technology.

Training of university professors in online technology has become a high priority. It will be important to design training for efficiency and effectiveness so that faculty can learn to use the various tools and course management systems.

Course management systems, such as Blackboard and Moodle, require continuous upgrades. This is costly, and universities might want to consider forming alliances with other institutions to reduce costs.

VIII. RECOMMENDATIONS FOR FURTHER RESEARCH

This study attempted to discover key pedagogical strategies for the millennial generation student in university business courses. The findings from this study and the literature suggest that the field would benefit from more research on the topic.

The following are recommendations for future research:

- Conduct similar studies to discover key pedagogical strategies for millennial generation students in university business courses in a different geographic location.

- The sample size of this study was very limited; therefore, a study could be conducted with a larger sample size.
- Compare and contrast the pedagogical strategies that are useful for the millennial generation and Generation X in different regions or states.
- Conduct similar qualitative studies to discover key pedagogical strategies for millennial generation students in university business courses and compare the difference between private and public institutions.
- Conduct a mixed-method study with faculty to discover key pedagogical strategies for millennial generation students in university business courses.
- Explore reasons why certain pedagogical strategies are effective with the millennial generation university student.
- Conduct a quantitative study of millennial generation university students and their perceptions of effective teaching strategies.
- Compare key pedagogical strategies for millennial generation students in university business courses with another field, such as fine arts.

IX. SUMMARY

The study resulted in a number of findings specific to key pedagogical strategies for millennial generation students in classroom and online university business courses. The classroom pedagogical strategies included the following: (a) using real-world examples; (b) creating participatory activities such as applied learning, projects, group work; and (c) providing clear structure. Online pedagogical strategies incorporated the following: (a) using blended course strategies as a best practice; (b) applying online strategies such as MySpace,

Moodle, YouTube, Blackboard, etc.; and (c) providing feedback. Additional findings emerged from the data related to the following teacher-student interfaces: spend more time teaching critical thinking; assess student engagement; and value what millennial generation student's offer.

This study reported multiple key pedagogical strategies for teaching millennial generation students in university business courses. Findings from this study will add to the literature in the field of university pedagogies, the millennial generation, and faculty development. The results of the study are intended to benefit business faculty, universities, and administrators. The recent volume of literature indicates this is an important topic impacting students, faculty, and universities.

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