ABSTRACT

            A study conducted to compare Generation X allied health
students' perceptions about instructional evaluations and assessment with
those of their counterparts in mechanical engineering studied earlier found
them to be similar. A survey containing 60 questions concerning their
learning styles and preferred instructor characteristics and course methods
and formats was administered to 52 allied health students enrolled in 5
university health profession programs. Results suggest that teachers should
do the following: provide exam review sessions (90 percent of student
responses); provide study guides that contain course material (81 percent);
be nurturing (73 percent); be demanding (71 percent); be challenging (96
percent); insure avenues are available to obtain extra credit (81 percent);
accommodate individual student abilities and learning styles (81 percent);
provide group activities that promote critical thinking (78 percent); not be
an easy grader (81 percent); and not ignore student rudeness (94 percent).
Among other ideas from respondents were the following: (1) learning is more
important than obtaining good grades (76 percent); (2) demonstrating courtesy
towards college professors is important (92 percent); (3) the source of
authority and knowledge is generally trustworthy (78 percent); (4)
evaluations are not used to "get back" at demanding instructors (75 percent);
and (5) being entertained is not a priority (75 percent). (Contains 24
references and the survey instrument.) (KC)

Generation X

in

Allied Health Education

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ABSTRACT:

A survey instrument containing sixty questions was administered to 52 allied health students enrolled in five health profession programs. Perceived changes in the performance of recent health professions students conflict with traditional characteristics that describe past college students. The post modern student may not conform to the traditional model of the studious collegian whose foundation of learning incorporates reason, truth, and values. Today's student learns from a perspective of relativism, truth questioning, and changing values that prohibits easy comparison to their modern counterpart. The survey instrument targeted Generation X students who comprise the majority of program participants (48/51, 94%). The questions were developed based on observations regarding student attitudes, expectations, and desires (Thomas, 1998). Conclusions have been drawn based on the percentage of responses deemed relevant to the characteristics of college instructors and the format of their courses. Furthermore, students provided several insightful responses that should be considered when formulating program or instructional improvements. Student responses suggest that teachers should provide exam review sessions (90%), provide study guides which contain course material (81%), be nurturing (73%), be demanding (71%), be challenging (96%), be warm and friendly (73%), insure avenues are available to obtain extra credit (81%), accommodate individual student abilities and learning styles (81%), provide group activities that promote critical thinking (78%), not be an easy grader (81%), and not ignore student rudeness (94%). Regarding general assessment of various aspects of course quality and administration the students suggested that learning is more important than obtaining good grades (76%), being admitted to college does not entitle one to good grades and a college degree (73%), demonstrating courtesy towards college professors is important (92%), the source of authority and knowledge is generally trustworthy (78%), evaluations are not used to 'get back' at demanding instructors (75%), being entertained is not a priority (75%), college classes should not be like T.V. (71%), the truth is out there (75%), the student should bother (75%), students do have emotions (82%), and they do care (71%), education should extend beyond the routine and predictable (88%), and at college, to beat the system, study (80%).

INTRODUCTION:

My first full year of teaching was filled with a variety of challenges and expectations that made the transition from the clinical environment, in which I had spent the past 14 years, to the world of academia both rewarding and difficult. I found developing the abilities for administering academic course work in addition to accommodating the learning characteristics of students to be the most interesting and challenging. In an attempt to gain a better understanding of students and clarify the nature of those enrolled in allied health education I sought information relevant to addressing student perspectives on assessment of instruction. I was able to identify a study by Thomas (1998) at Purdue University that provided some intriguing data that seemed pertinent for addressing the characteristics of allied health students. The study presented in this paper focuses on the current student population often referred to as Generation X.

The term Generation X has been used by marketers, mass media, and educators to describe the collective personality of a generation which has gained considerable attention throughout the 1990's. A number of groups and institutions interested in understanding the dynamics of this group have attempted to characterize them into identifiable target audiences. Categorically defining a group is somewhat limiting and oversimplified. However, for the purpose of understanding certain identifiable characteristics such classifications may be justifiable. My own experiences as a new faculty member were ironically chronicled long before I arrived on campus. Peter Sacks' book "Generation X Goes to College" foretold the complicated nature of instructing, developing relevant instructional materials, and performing up to the various expectations encountered by first year post-secondary educators (1996). Though his observations of problem areas in the delivery of instruction have been cited as a reflection of his inexperience as a teacher, they appear to be accurate in describing the differences between the way current students learn and the approach teachers use when instructing.

Understanding the dynamic in which both student and teacher interact requires a brief discussion of education's current transitional state. The transition from the industrial age of modern educational philosophies, in which learning and knowledge were based on reason, truth, and values to present day postmodernism, where the same premise of learning and knowledge are based on relativism, questionable truth, and less rigorous standards of behavior, seems to have occurred within the boundaries that define this generation. Sacks (1996) argues that Generation X is the first truly postmodern generation, a product of their culture and place in history. The modern culture that has exposed this generation to numerous experiences, has produced a generation that seems continuously at odds with other generations including their own parents and siblings.

Michael Hays (1997) has identified various concerns in delivering instruction to Generation X currently encountered among educators. He states that Xers have unique abilities to absorb information through the use of technology. They seem to interact more effectively with technology than they do with people. As children of the information age they have responded to the use of multiple forms of information delivery. Multi-media formats such as charts, photos, text graphics, cartoons, sound, music, and narration are all ideal for stimulating interactive learning (Caudron, 1997). Moreover, electronic conferencing, e-mail correspondence, and the use of the internet for instruction or related activities can also be beneficial. Teachers should create an atmosphere that allows the learner to discover knowledge through the application of technology. Teachers should also expect questions from this group of students regarding the purpose, relevance and ultimate outcome of what it is they will be learning. They will ask questions like, "Why am I reading this?" "What can I do with this information?" "Does this new information effectively link to some previous information I have received in this or related area?" Finally, to foster continuous active learning, the instructor must remain active in utilizing various methods and techniques when delivering instruction. No longer will the teacher be the exclusive 'guardian' of

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knowledge but must become an active participant in the facilitation of learning (Hays, 1997).

The present dilemma facing educators is identifying how one should effectively teach a generation of young adults who possess not only a different concept of learning, but learning styles that have evolved in an era of tremendous technological change. Educators should ask themselves how should they effectively prepare instructional materials for a group of students whose characteristics do not lend themselves to traditional techniques? Furthermore, how should we assess (formative/summative) the perceptions of the students who receive the material we present ? Therefore, addressing the perceptions of allied health students in a state university system was the focus of this investigation.

Statement of Problem

Efforts to determine the perceptions of students, with the intent to improve instructional methodology, by measuring preferences of students based on perceptions, has not been widely disseminated in the health professions. Most assessment tools provide summative post-course information based on student perceptions regarding certain generally defined aspects of the course. However, these types of tools have been limited in providing relevant interpretive information for altering course administration.

Surveying students currently enrolled in allied health education and investigating their perspectives on evaluation and assessment of instruction, as identified through predefined generation cohorts, was the primary purpose of this investigation. Based on previous findings, though limited and not validated, it is hypothesized that students currently enrolled in allied health education programs will demonstrate characteristics similar to those previously identified in the literature describing generation cohorts and consistent with perceptions identified in the Thomas (1998) study.

Review of Related Literature

Numerous authors (Rushkoff, 1994; Coupland, 1991; Tulgan, 1995; Loeb, 1994, Cowan

& Nelson, 1995) have written fictional and nonfictional accounts on the subject of Generation X and their role in today's society. Some authors (Strauss & Howe, 1991; Howe & Strauss, 1993; Holtz, 1995; Thau & Heflin, 1997) have even speculated on the role this group will play in determining the future of American society. To gain a better understanding of the general characteristics of these students, information was sought regarding generational issues with emphasis on the current group of students known as Generation X. The term Generation X, as previously mentioned, is a media and marketing creation and must be used cautiously when generalizing to all members of this group (Collins & Tilson).

Current literature describe and define this cohort group in various ways. Again, an effort has been made to explain the reasoning for selecting certain definable parameters. Several authors (Strauss & Howe, 1991; Howe & Strauss, 1993; McNamara, 1995; Kalata, 1996) have used a variety of definitions to describe the characteristics of Generation X. The most inclusive includes all individuals born between 1961 and 1981. Others (McGarvey, 1997; Caudron, 1997; Losyk, 1997) focus on various subsets that alter birth year parameters within the 1961-1981 year range. Not only are these definitions based on a predetermined birth year range but they include analysis of the collective experiences of the cohort group. Acknowledging that certain characteristics may be more prominent within the various subsets, generalizing the collective experiences shared by Generation X should accommodate a broader definition (Collins & Tilson)

It was determined that the definition of cohorts proposed by Strauss and Howe (1991, p. 84) which identifies the generation "as a cohort-group whose length approximates the span of a phase of life (roughly 22 years) and whose boundaries are fixed by peer personality (observable characteristics)," be used for this study. Simply stated, Generation X includes individuals born between 1961 and 1981, who have experienced similar life events, and can be identified by observable personality characteristics (Collins & Tilson). The terminology used to describe this generation includes; Generation X, GenX, GenXers, Xers, Baby Busters, and 13th Generation.

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These terms are consistent with their general use in the literature. Table 1 (Collins & Tilson) identifies 10 learning characteristics of this generation.

Table 1: Identified Learning Characteristics of Generation X.
1. Highly independent problem solvers and self starters.
2. Technologically literate.
3. Responsive and focused.
4. Ambitious and fearless.
5. Crave stimulation.
6. Prefer concrete and specific information.
7. Desire personal interaction and constant feedback.
8. Desire to learn leading edge technology.
9. Seek a balanced lifestyle.
10. Parallel thinkers able to perform multiple tasks simultaneously.

Mechanisms available for assessment and evaluation of instruction and curricula are usually specific to individual institutions. A uniform assessment tool for evaluating instruction and course content based on the perceptions of students has yet to be universally accepted. Unfortunately, findings in recent literature on the subject of assessment and evaluation provides few conclusive guidelines for establishing a standard evaluation tool. However, some insights can be shared regarding the latest narratives on learning and assessment.

Several authors (Villaescusa, Franklin, & Aleamoni, 1997; Young & Shaw, 1997; Gardiner, 1994; Cambridge, 1997; Haskell, 1998; Tauber, 1998) have investigated student evaluation of instruction and teacher effectiveness and have written on the inconclusiveness of their findings. They do acknowledge that progress has been made in understanding and interpreting

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student assessment of instruction and teacher effectiveness. Furthermore, information gleaned from student evaluations of course content and instruction can be used to improve the techniques of teacher effectiveness as well as material development and delivery. Several narratives have been included to outline the dissimilarities on how student evaluation of instruction should be interpreted and used.

Sacks (1996) dismisses the ubiquitous use of student evaluation of instruction as without merit, fundamentally due to the lack of inherent knowledge the student has of the process of instruction. It can be argued that student evaluations should not be considered biased or ineffectual because they do provide information that can be used to improve the delivery of instruction. The information obtained from student evaluations is only as ubiquitous as the instrument. If the instrument is biased or compromised then the evaluations may not provide adequate information from which instruction and teaching can be improved. Regardless of the instrument, the information obtained should lend support to initiating action in an effort to alter or realign instructional approaches. Essentially, each institution provides their own assessment instruments, specifically designed to solicit student feedback regarding course quality and teacher effectiveness.

Villaescusa et.al. (1997) presented a study examining the effects of training on the knowledge, attitudes and skills of the users of student ratings. Their findings suggest that a relationship exits between knowledge and attitude regarding instructors interpretation of student evaluation. As knowledge and understanding of the evaluation instrument increased so too did the teacher's attitude towards its use. They concluded that continuous training of personnel using assessment data would prove valuable.

Young and Shaw (1997) looked at student status and gender in the use of assessment of instruction. They acknowledged that inconsistency of instructor's ratings have been difficult to generalize in various settings. They recognize that information obtained from evaluations has lead to general agreement on what effective teaching is. Effective teaching is multidimensional, context

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driven, and evaluated in a valid, reliable, and stable way by students. Moreover, student ratings data has indicated that effective teaching is largely dependent on the characteristics of the students. Furthermore, effective teaching is also dependent on understanding the various levels at which teachers and students interact. Determining characteristic similarities and differences theoretically influences the perceptions of instruction and the overall effectiveness of teaching and learning. However, this continues to be something that requires further research to clarify.

Gardiner (1994) outlines several ideas that would aid teachers in addressing various learning styles of their students. Brief overviews were included on how we develop our students' intellectual abilities, understand how hard do they work, recognize whether they can learn, explore how student outcomes can be improved, and what affects curriculum has on performance. Gardiner suggests developing clear missions: "develop clear missions, carefully define our intended outcomes, hold high expectations for our students and ourselves, comprehensively assess both students and institutions, use research on student learning and organizations, integrate our curricula, systematically design instruction that will involve students actively at every point, teach students how to learn, develop a campus climate that challenges and supports each person, and ensure each student has high-quality developmental academic advising." All of these are ideal, however, and may not be collectively attainable.

Tauber (1998) alluded to teacher expectations as a significant factor in determining student success, specifically citing the Pygmalion effect. Tauber cites Brehm & Kassin's (1996) definition which defines the Pygmalion effect as: "the idea that one's expectations about a person can eventually lead that person to behave and achieve in ways that confirm those expectations." Understanding this effect and using it effectively is key to elevating student performance beyond that which has previously been demonstrated.

Haskell (1998) addresses concerns over students evaluation of faculty (SEF) and its impact or imposition of academic freedom and tenure issues for the professorate. Haskell suggests that

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the use of subjective questionnaires, which the student can use as they please with immunity to responsibility through anonymity, have resulted in compromised educational standards. A question that may be offered in higher education is, when and where did educational standards become a rigid construct unable to adjust to the changing environment in which it operates? Similar to the concept in physics that states with every action there will be a reaction, likewise, a change in any variable of the education dynamic (student, teacher, curriculum, technology, etc) will ultimately result in a corresponding change or adjustment from any one or all other variables.

Finally, Cambridge (1997) focuses on providing resources for the development of assessment and evaluation systems that will work for a particular program. She included the most influential resources of five assessment directors from the American Association for Higher Education. She generalized five perspectives of learning: learning from practice, learning from and about faculty, learning from and about students, learning from researchers, and learning from expanded contexts or one's own perspective. All contribute valuable information for the development and refinement of materials for those interested in expanding a programs assessment of learning.

In summary, a general consensus has been established regarding categorically defining generations. Most of the students with whom current college faculty interact were born between 1961 and 1981. All have shared similar life events, and are identifiable by observable personality characteristics previously mentioned, which are much different from preceding generations. This has resulted in exhibiting very different learning characteristics dissimilar to those that dominated the modern era of education. Acknowledging the variety of current literature regarding education assessment, it appears that standardizing such instruments for specific programs of study may be required. Furthermore, standardizing such evaluation should be the result of understanding the need to link assessment findings with improving instruction and/or other learning activities which should be a continuous process of every institution, program, and faculty member.

Statement of Research Question

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Investigating evaluation and assessment perspectives of students in allied health programs are usually relegated to end of semester, end of course evaluations. Little has been documented regarding the perceptions of students as a component of their sociological interaction and reaction to the dynamics of post-secondary education. Therefore, the purpose of this study focused on adopting a survey which had previously been administered to mechanical engineering students.

Furthermore, the primary objectives focused on identifying student assessment and evaluation perceptions of teacher effectiveness and course administration. It is hypothesized that students will demonstrate response characteristics consistent for this generation, as described by Strauss and Howe, and similar to their counterparts in the previous study conducted by Thomas (1998).

METHOD

Since no individual identifiers were used for participants, an exemption was requested and granted from the University's Institutional Review Board for the Protection of Human Subjects prior to the start of the study.

Subjects

Subjects were selected from the population of students enrolled in the allied health programs at the State University of New York, Health Science Center (now known as Upstate Medical University) in Syracuse, New York, 1998-99 academic year. Seven programs within the College of Health Professions were asked to participate. These included: Cardiorespiratory Sciences, Cardiovascular Perfusion, Cytotechnology, Medical Radiography, Physical Therapy, Clinical Laboratory Sciences, and Radiation Therapy. Of the seven programs, five elected to participate in the study. Programs in Physical Therapy and Clinical Laboratory Sciences were unable to participate.

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Instrument

The survey questionnaire used had been developed by Charles R. Thomas (1998), a professor at Purdue University, to investigate the perceptions of students enrolled in the mechanical engineering program. Though it was suggested by various College of Health Professions program chairs, and later acknowledged by Mr. Thomas (Personal correspondence via electronic mail, 3/4/99), that several questions may be biased or misleading, no alterations where made to the survey instrument. Mr. Thomas did acknowledged that certain questions were misleading, however, there construction was focused on determining if Generation X students felt collectively similar regarding certain perceptions of instruction and faculty.

The instrument contained 60 questions (See Appendix A). All questions were retained in their original form and customized as a two sided questionnaire. Additional information sought for this study included gender, predetermined birth year ranges and program of study. This information could be compared for future analysis to highlight possible perceived differences between participants of various programs.

Design

An initial presentation was made to the department chairs of the seven allied health programs in the College of Health Professions. The nature of the research and introduction of the questionnaire was included. Approximately four weeks following this initial session a follow-up electronic mail (e-mail) message was sent to the respective department chairs. Of the seven programs, two expressed continued interest. Two additional programs had previously committed to the project bring the total number of participating programs to four. One final e-mail was sent one week later. Of the remaining three programs, one elected to participate, one declined, and one, though initially supportive, was not able to respond. The distribution of the survey was left to the discretion of faculty from the respective participating departments; Cardiorespiratory Sciences, Radiation Therapy, Cytotechnology, Medical Radiography, and Cardiovascular Perfusion.

Limitations

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A primary limitation of this study was the use of an instrument that was exclusively designed to evaluate the perspectives of students enrolled in a specific mechanical engineering program at Purdue University. The instrument's reliability and validity had not been assessed. Furthermore, several questions included in the instrument were considered highly biased in their presentation and inferences. These considerations may have limited the interest of some program's willingness to participate, thereby limiting the number of potential respondents.

Individual program participation was voluntary, and individual student participation was also made voluntary. The amount of support and participation provided by program faculty was critical in determining the size of the potential sample. This passive approach compromised the potential size of the sample. Regardless of the inherent bias and limitations of the instrument and its design, those departments which did participate were given the latitude to distribute and collect the surveys without significantly compromising student, instructor, or class time.

RESULTS:

Due to the large number of questions, listing each individual response and the corresponding percentage makes it impractical to include here. The results have been summarized under two separate table headings. Table 2 provides information regarding what students think instructors should do in administering their course. Table 3 highlights respondents concerns for program administration. Elaboration on individual questions are provided in the summary section of this paper. Only those questions that exhibited a 50% or greater response are discussed. However, this does not infer that questions containing less than 50% agreement, disagreement or undecided yield less significant information.

<u>Summary of Survey Questions</u>

Forty-seven of the sixty questions provided information that indicated over 50% of the respondents either agreed or disagreed with the statements. One statement, question 35, noted 73% undecided. Questions 34 and 42 were identical, and produced nearly similar results. The

remaining 11 questions (1,7,16,18, 24,31,37,44,49,50,54) did not generate a 50% response or greater for the three measurable areas. For the sake of brevity, questions included in this summary were selected based on their relevance when considering the development of future instructional methods and presentation of material.

The following questions focus on what the student's expectations of the instructor. Eighteen questions were identified as teacher specific. Over half of these questions produced a 70% or greater response and are included. Students suggest that teachers should provide exam review sessions (90%), provide study guides which contain course material (81%), not ignore student rudeness (94%), be nurturing (73%), be demanding (71%), be challenging (96%), be warm and friendly (73%), insure avenues are available to obtain extra credit (81%), accommodate individual student abilities and learning styles (81%), not be an easy grader (81%), and provide group activities that promote critical thinking (78%).

Table 2 provides all questions that produced a majority of responses regarding agreement or disagreement with the statements that were directly related to perceptions of instruction.

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Table 2

Questions addressing what College teacher/instructors should do. (N=52)

1. provide exam review sessions (Q2) [**90% agreed**, 10% undecided, 0% disagreed]

2. include class attendance as substantial part of course grades (Q3) [**59% agreed**, 14% undecided, 25% disagreed)

3. provide frequent quizzes of material which counts for a 'reasonable' portion of course grade (Q4) [**69% agreed**, 8% undecided, 21% disagreed]

4. ignore student rudeness (Q5) [4% agreed, 2% undecided, **94% disagreed**]

5. provide incentives (bonuses) and detail penalties to encourage students to do assigned work (Q6) [**54% agreed**, 19% undecided, 27% disagreed]

6. a good faculty member is very nurturing (Q8) [**73% agreed**, 17% undecided, 10% disagreed]

7. include class participation as an important percentage of the course grade (Q11) [**63% agreed**, 10% undecided, 25% disagreed]

8. a good college teacher is demanding (Q13) [**71% agreed**, 10% undecided, 20% disagreed]

9. insure that avenues for obtaining extra credit are available (Q19) [**81% agreed**, 13% undecided, 6% disagreed]

10. be warm and friendly (Q20) [**73% agreed**, 21% undecided, 6% disagreed]

11. be responsible for delivering instruction and insuring that the student, as customer/consumer learns (Q23) [**54% agreed**, 19% undecided, 25% disagreed]

12. be challenging to students (Q25) [**96% agreed**, 0% undecided, 4% disagreed]

13. attempt to maximize the learning of all students (Q28) [**69% agreed**, 15% undecided, 15% disagreed]

14. accommodate individual student abilities and learning styles (Q29) [**81% agreed**, 13%

15. be an easy grader (Q38) [8% agreed, 10% undecided, **81% disagreed**]

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Table 2 continued.

Questions addressing what College teacher/instructors should do. (N=52)

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16. provide study guides which contain course material summaries that is easily digestible (Q40) [**81% agreed**, 10% undecided, 10% disagreed]

17. provide group activities that promote critical thinking (Q41) [**78% agreed**, 8% undecided, 14% disagreed]

18. accommodate most students wishes (Q43) [25% agreed, 23% undecided, **52% disagreed**]

The remaining 29 questions were identified as pertaining to general assessment of various aspects of course quality and administration. Of these, 13 produced responses that 70% of those surveyed either agreed or disagreed with the statement. The students suggested that learning is more important than obtaining good grades (76%), being admitted to college does not entitle one to good grades and a college degree (73%), extending courtesy towards the college professor is important (92%), the source of authority and knowledge is generally trustworthy (78%), evaluations are not used to 'get back' at demanding instructors (75%), being entertained is not a priority (75%), college classes should not be like T.V. (71%), the truth is out there (75%), active participation is important (75%), they do have emotions (82%), they do care (71%), education should extend beyond the routine and predictable (88%), and at college, to beat the system, study (80%).

Table 3 provides all questions that produced a majority of responses regarding agreement or disagreement with the statements that were directly related to perceptions of course quality and administration.

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Table 3

Questions addressing student's perceptions of course quality and administration. (N=52)

1. learning at college is far less important than getting good grades (Q9) [16% agreed, 6% undecided, **76% disagreed**]

2. college textbooks are simply too hard (Q10) [25% agreed, 12% undecided, **62% disagreed**]

3. once admitted to college, they are entitled to good grades and a college degree (Q12) [15% agreed, 10% undecided, **73% disagreed**]

4. college grades should be negotiable and/or easily changed (Q14) [19% agreed, 25% undecided, **56% disagreed**]

5. being at work is more important than attending class (Q15) [16% agreed, 24% undecided, **61% disagreed**]

6. verbal excuses should be sufficient to receive legitimate excused absence (Q17) [**62% agreed**, 23% undecided, 15% disagreed]

7. assignments should not be made over the weekend (Q21) [33% agreed, 12% undecided, **55% disagreed**]

8. most college courses are boring (Q22) [25% agreed, 12% undecided, **62% disagreed**]

9. courtesy towards college professors is not necessary (Q26) [4% agreed, 4% undecided, **92% disagreed**]

10. student evaluation should not be anonymous (Q27) [21% agreed, 17% undecided, **62% disagreed**]

11. {they should} trust no one (Q30) [33% agreed, 13% undecided, **54% disagreed**]

12. the average college student should study for classes at least 5 hours per day (Q32) [25% agreed, 13% undecided, **60% disagreed**]

13. achievement should be assured because of the student's basic rights and entitlement to

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Table 3 continued.

Questions addressing student's perceptions of course quality and administration. (N=52)

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17. being at college, they should be entertained (Q45) [13% agreed, 12% undecided, **75%**
disagreed]

18. reality and truth espoused by the college are a fiction (Q46) [6% agreed, 42% undecided,
52% disagreed]

19. teachers who get upset, shouldn't, because they are just teachers (Q47) [15% agreed, 23%
undecided, **62% disagreed**]

20. college classes should be more like TV (Q48) [16% agreed, 14% undecided, **71%**
disagreed]

21. college faculty are just so totally arrogant (Q51) [17% agreed, 15% undecided, **67%**
disagreed]

22. {see Q46 also} reality and truth are fiction (Q52) [8% agreed, 26% undecided, **66%**
disagreed]

23. the truth is out there (Q53) [**75% agreed,** 15% undecided, 10% disagreed]

24. why bother... (Q55) [14% agreed, 12% undecided, **75% disagreed**]

25. forget emotions, machines are easier (Q56) [6% agreed, 12% undecided, **82% disagreed**]

26. who cares? (Q57) [8% agreed, 20% undecided, **71% disagreed**]

27. education should not extend beyond the routine and predictable (Q58) [6% agreed, 6%
undecided, **88% disagreed**]

28. clarification of grade values, on transcripts, should include course averages (Q59) [**57%**
agreed, 18% undecided, 25% disagreed]

29. at college, to beat the system, study (Q60) [**80% agreed**, 10% undecided, 10% disagreed]

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DISCUSSION:

Allied health students tend to be slightly more decisive in their agreement or disagreement with several statements when compared to Thomas' engineering students. For example, 52 of the 60 questions produced 25% or less undecided responses from allied health students while only 36 questions produced 25% or less undecided from Purdue's engineering students. Meaning that a significant number of allied health students appear more certain of their perceptions regarding individual questionnaire items.

Of the 60 questions (See Appendix A), 28 (Q's 2,3,4,6,8,9,10,11,13,14,15,17,19,20,21, 23,25,28,29,32,40,41,46,52,53,58,59,60) should be considered for future use in a revised survey instrument. All 28 produced responses that demonstrated a 50% or greater response in agreement or disagreement with the written statement. It was to these questions that my attention was directed in altering instructional methodology and curriculum management. Consequently, I have increasingly relied upon personal experience as it relates to program content and integrated experiential knowledge with curriculum objectives. I have also produced packets of information (Units) to provide summary notes (study guides) for all material being covered. I have purposely included a review session that provides the students the opportunity to ask questions and make comments regarding the subsequent unit examinations. I have continued to maintain an my open door policy to encourage out of class interaction. Furthermore, I have attempted to maintain a challenging environment for learning that can be directly or indirectly related to clinical experiences. Finally, I have implemented, to a limited degree, group activities that integrate relevant subject matter with laboratory exercises in an attempt to promote critical analysis of what is learned and what is applied.

CONCLUSION:

The intent of this study was to determine whether allied health students, predominantly categorized as Generation X, would present similar perceptions of instructional evaluation and assessment that their counterparts in a mechanical engineering program exhibited. Indeed similar findings where demonstrated. The collective nature and disposition of student responses produced valuable information regarding perceptions of teachers, courses, and programs. It is these data that were considered for modification of instruction, courses, or program goals as they relate to existing coursework. Regardless of ones approach in collecting data on the delivery of instruction, the ultimate goal should be to continuously improve the educational outcome with which the program has been charged.

Recommendations

If further work is to be done using the instrument as described above, significant modifications should be made. Questions with less than a 50% response should be considered for omission from future instruments, not necessarily because they were poor questions, but primarily because they failed to produce a majority response. The lone question which produced 73% undecided, should also be omitted due to its ambiguity. Furthermore, eliminating the decidedly biased questions, as determined by individuals familiar with questionnaire writing, should be strongly considered. Moreover, it is encouraged that each question be reviewed for possible modifications. Once modifications, deletions, and/or corrections have been made, a new instrument of significantly reduced length could be developed for wider distribution, specifically targeting health profession programs in order to gain a better understanding of student perceptions of instruction.

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Appendix A

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STATE UNIVERSITY OF NEW YORK HEALTH SCIENCE CENTER
COLLEGE OF HEALTH PROFESSIONS

INSTRUCTIONS FOR FILLING OUT THIS SURVEY

If you elect to participate in this study, read each question and circle the corresponding response that reflects your feelings about the statement. The completion of this survey is voluntary. All responses are anonymous and confidential. Each statement has five possible responses; Strongly Agree (AS); Agree(A); Undecided (UN); Disagree (D); Strongly Disagree (SD). If you elect to participate please begin by completing the following demographic information. This information will be used to correlate gender participation in allied health occupations, identify the age groups of current students, and determine program of study.

GENDER:	YEAR OF BIRTH (RANGE):	PROGRAM OF STUDY:(Please mark degree program)
( ) FEMALE	( ) 1925-1942	( ) Cardiorespiratory Sciences ( ) AAS; ( ) BS
		( ) Cardiovascular Perfusion ( ) BS
( ) MALE	( ) 1943-1960	( ) Cytotechnology ( ) BS
		( ) Medical Radiography ( ) AAS
	( ) 1961-1981	( ) Medical Technology ( ) BS; ( ) MS
		( ) Radiation Therapy ( ) AAS
	( ) 1982-	( ) Physical Therapy ( ) BS; ( ) MS

1. *Title of Research Study: Assessment and Evaluation Perspectives of Allied Health Students.*
2. *Investigator: Dale E. Collins, MS, RT (R)(M)(QM), RDMS, Instructor, Medical Radiography.*
3. *Purpose: The purpose of this research project is to identify the assessment and evaluation perspectives of students enrolled in seven allied health programs in the College of Health Professions.*
4. *Procedures: Participation in this study will require one written questionnaire, specifically the C. R. Thomas (1998) survey instrument which identified the assessment and evaluation perspectives of mechanical engineering technology students at Purdue University. The questionnaire will take approximately 15-20 minutes to complete. The results will be tabulated by the investigator and correlated with previous findings.*
5. *Risks: The risks involved with participation in this study are no more than one would experience in regular daily activities.*
6. *Benefits: Potential benefits that subjects may attain from participation in this project include; a greater understanding of personal perspectives on assessment and evaluation of education and instruction.*
7. *Contact Information: For questions regarding this survey you may contact the principal investigator, Dale E. Collins at 315-464-6928.*

Thomas, CR. (1998). *Generation X at Technical College.* Available on-line:
http://et.nmsu.edu/~etti/winter98/education/cthomas.html

2 3

Student Survey Questionnaire

Question 1: Most of the good teachers I have had taught in grades 1 through 12 rather than at college

Question 2: An exam review session focusing on probable exam questions is an important course feature

Question 3: Class attendance should count for a substantial part of course grades

Question 4: Frequent quizzes covering the text reading and counting for a reasonable final grade percentage are necessary in most courses

Question 5: Instructors should generally ignore student rudeness in college courses

Question 6: Bonuses and penalties are the best way to get college students to work in a course

Question 7: Faculty need to make many accommodations to assure happy students

Question 8: A good faculty member is very nurturing

Question 9: Learning at college is far less important than getting good grades

Question 10: Many college textbooks are simply too hard for students

Question 11: Class participation should form an important percentage of course grades

Question 12: Once admitted to college, students are entitled to good grades and a college degree

Question 13: A good college teacher is demanding

Question 14: College grades should be negotiable and/or easily changed

Question 15: Being at work is often more important than attending classes

Question 16: A good college teacher is highly entertaining

Question 17: Verbal excuses should be sufficient to receive legitimate excused absences from class

Question 18: The 'B' grade should be the average for most college work

Question 19: Avenues for obtaining extra credit should be made available to students who desire it

Question 20: A good college teacher is warm and friendly

Question 21: Assignments should not be made over the weekend

Question 22: Most college courses are totally boring

Question 23: Students are consumers and customers so instructors are responsible to assure that they learn

Question 24: I feel that my high school education properly prepared me for the challenges I now face in college

Question 25: A good college teacher is challenging to students

Question 26: Courtesy towards college professors is simply not necessary

Question 27: Since grade assignment is not anonymous, student evaluations should not be anonymous

Question 28: Regardless of level of student preparation, faculty should maximize the learning of all students

Question 29: A good college teacher accommodates individual student abilities and learning styles

Question 30: Trust no one

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Question 31: Grades should be based primarily on how much a student improves relative to where he started rather than course performance and knowledge.

Question 32: The average college student should study for classes at least five hours per day

Question 33: College achievement should be assured because of student basic rights and entitlement to success

Question 34: Students at college distrust anything that claims to be a source of authority or knowledge

Question 35: Oh

Question 36: Students are clients of teachers who should have undisputed classroom authority

Question 37: College follows outmoded game rules, but it's still the only worthwhile game in town

Question 38: A good college teacher is an easy grader

Question 39: Student evaluations are one way of getting back at highly demanding instructors

Question 40: Most courses should have study guides which contain course material summaries in easily digested bite-sized chunks

Question 41: Most technical courses should have students working in groups to promote critical thinking

Question 42: Students at college distrust anything that claims to be a source of authority or knowledge

Question 43: Students are customers, faculty should accommodate most student wishes

Question 44: The course content in many courses should be adjusted to meet the abilities and needs of students

Question 45: We have made it to college, so entertain us

Question 46: The reality and truth espoused by the college institution are a fiction

Question 47: Why do teachers sometimes get so upset, after all, they are just teachers

Question 48: Why can't college classes be more like TV?

Question 49: Effort expended should count more than achievement

Question 50: Students at college are questioning authority and what is supposed to be going on

Question 51: So many college faculty are just so totally arrogant

Question 52: Reality and truth are a fiction

Question 53: The truth is out there

Question 54: Traditional values and rebellion are all bunk, everything is up for grabs

Question 55: Why bother, sit back, turn off, and enjoy the spectacle

Question 56: Forget emotions, machines are easier

Question 57: Who cares?

Question 58: Education should not extend beyond the routine and predictable

Question 59: College grade transcripts should publish course averages next to grades to clarify grade values

Question 60: At college, to beat the system, study

Thomas, CR. (1998). *Generation X at Technical College.* Available on-line: http://et.nmsu.edu/~etti/winter98/education/cthomas.html]

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