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Factors Contributing to Student Success in Online and Media Site Courses: A Preliminary Study

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Authors' contributions

This work was carried out in collaboration among all authors. Author MFS designed the study. Author AJ performed the statistical analysis and assisted with the Qualtrics survey. Author MV assisted the author AJ in the development of the Qualtrics protocol. Author GF contributed to the discussion and analysis of the concerns involved in the study. Author AS assisted with both the Qualtrics and data analysis and conceptualization of the study. All authors read and approved the final manuscript.

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ABSTRACT

While online learning has been with us now as an educational, pedagogical device for a few years, there is scant research on the factors that contribute to success in this endeavour. This very brief exploratory investigation explores the thinking and perspectives and attributes of faculty, students (undergraduate and graduate) and instructional technologists via a brief Qualtrics survey. Preliminary results are discussed and implications offered.

Keywords: Instructional technology; media site; online learning; student success.

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1. INTRODUCTION

Online learning has now been firmly established as a pedagogical delivery system. Initially, there was reliance on Powerpoint and textbooks to deliver instruction but of late, there have been more improvements with the use of LMS (Learning Management Systems) such as Web CT and Blackboard and an increasing emphasis on the use of Discussion Boards and synchronous and asynchronous discussion.

However, even with advancements in connectivity, there are still students who fail to complete online classes, and while completion rates are better in MOOC's, which do not involves tests and grades there remains concerns about the specific factors that contribute to success in online and media site courses. Some view these two as very similar modalities while others view them as quite disparate entities.

This very brief exploratory study will examine some of the factors that contribute to success in online learning from the perspectives of faculty, students- both graduate and undergraduate and from a small number of instructional technologists. As the sample sizes are quite small, generalizations will be limited.

Each of these groups may have different perspectives as to what contributes to student success. The faculty member may have a different point of view than the undergraduate student who will have a different perspective than a graduate student. Further- the instructional technologist may view the teaching learning process from a quite different point of view-perhaps a technological one-which should also be respected.

1.1 Brief Concerns Regarding Media-site and Online Instruction

When instructors were first introduced to Media-site, some were misled into believing this technology would replace the use of Instructional Television as a means for distance students to be engaged in a live class. It was supposedly better than Instructional Television because the students would not have to go to a central site or location to take the class but could be involved using their home computers. One of the authors quickly realized, on their first night of a Media-site class, that this was not going to work in a live class. Media-site typically runs from 30 seconds to two minutes behind real time, making two-way communication impossible. Often instructors would ask a question, wait for an answer, hear none from distance students, continue with the lecture, and a minute later begin hearing answers to one's earlier question from other distant learning students. (Worse yet, one night a distance student was watching the wrong class and her voice would periodically interrupt a certain class with answers for questions the instructor had previously asked a week prior).

These frustrating experiences led instructors to explore, examine and attempt to discern how else faculty could run a live class for distance students. Instructors today are almost in an ongoing attempt to provide quality education to their students using an often bulky, problematic, cumbersome system that is not always "user-friendly". Often instructors gravitate toward Collaborate, which is an interactive, real-time communication technology that can be used in conjunction with Media-site.

For many years, instructors ran classes with Media-site for showing films or projecting images using the classroom ELMO and Collaborate for interactive communication. The problem, however, was that to show a map, for example, on the ELMO, what the instructor was verbally saying and what the distance education students were seeing, did not always align or combine. They could hear explanations, but would not see where the instructor was pointing on the map for up to two minutes. This lack of coordination was confusing at best. The alternative was to stop the Collaborate class, move to Media-site, do my presentation, and after two minutes of silence in the live classroom, transition back from Media-site to Collaborate for the live discussion. This was inconvenient and a major loss of valuable instructional time.

Now, after several years of experience and familiarity with the existent technology, many have learned not to rely on ELMO. Many faculty have made PowerPoints, Prezi out of nearly everything and some instructors primarily use Collaborate for all distance teaching. Some faculty do keep Media-site so that any student who misses a class can view the recording of the class and not miss important information.

One of the authors had three students live in the classroom, three students live over Collaborate, and three students who would view the Media-site recording of the class later due to work

schedules or living in a vastly different time zone. This combination has worked well. The students who only use Media-site, however, are deprived of participating in live discussion and interaction and immediate feedback.

Certainly, faculty have been in a major transition and have been attempting to cope with unreliable technology, glitches and various other technical snafus that do not contribute to superior learning and academic integrity. These stories and anecdotes are simply to demonstrate faculty concerns about academic integrity and the exasperation and frustration that instructors (and students) often feel and experience when attempting to take online or media site classes.

2. LITERATURE REVIEW

A brief review of the extant literature will be reviewed and then the construction of the survey will be discussed.

Some early work was conducted by Yukselturk & Bulut [1] as they examined various predictors for student success in online courses. Stevens [2] examined the process and procedures that contribute to a successful online class. Cheawjindakarn, Suwannatthachote, Anuchai & Theeraroungchaisri [3] reviewed the extant literature in their part of the world in terms of factors contributing to success in online classes. There has been precious little empirical research conducted in this area.

Volery and Lord [4] examined what they perceived as the most critical success factors in online education. Their work, published in the International Journal of Educational Management was one of the initial examinations in this realm.

This section will examine the ten online learning success factors are:

1. Online learners are required to be open-minded about life, work and educational experiences as a part of the training program. This means that they need to improvise when resources and facilities similar to a physical learning environment are not provided. Adaptability is an amazing human trait. When applied to the online learning environment, it yields amazing benefits.
2. Learners should be able to communicate effectively through writing. They need to try to “show” with writing, instead of “telling”. Urge them to use descriptive words and where possible, insert images to support their descriptions.
3. Online learners should also be self-motivated and self-discipline. Essentially, they need to be self-starters. They cannot afford to fall behind and expect the kind of help they received in school from their educators.
4. Learners should be willing to speak up when problems arise or when conflicts are sensed in a discussion. Holding back a decision point or an argument will only lead to dissatisfaction with the course.
5. Online learners need to be ready to commit anywhere between four and fifteen hours per week for a course. The biggest challenge in an online learning environment is keeping up with the assigned readings. Time needs to be allocated and reading materials must be downloaded beforehand. Then, they can be read while in long lines, or during a commute, to take optimal advantage of “wasted” time.
6. Trainees also need to be able to think critically and take instant decisions as a part of the learning process. Critical thinking triggers the transfer of concepts from short-term memory to long-term memory. Reflective writing is a great critical thinking activity. Keeping a reflection journal allows learners to "think aloud" their newly learned information. Connecting it with previous knowledge makes its practical knowledge.
7. They should be able to meet the minimum requirements of the program. Have everyone check the eLearning program prerequisite skills before signing up for a program. This will help them meet the challenges in the upcoming courses.
8. They, of course, must have access to a computer, the Internet and have at least a minimum ability to use them. Again, they can look into “how-to” videos and instructions to improve their computer literacy.
9. Online learners should be able to come up with ideas before responding. Being impulsive and "firing away" without thinking adds confusion to the group learning process. Composing ideas in writing and editing them before sending to the group is a quality to seek and instil in learners.
10. Above all, online learners should strongly feel that high-quality learning is possible

without going to a face-to-face learning environment.

Abell, Cain and Lee [5] have preliminarily investigated the essential attributes for online success examining both faculty teaching styles and student learning preferences. Their premise was that specific learning tips and guidance may assist students to perform better in online classes.

Kebritchi, Lipschuetz and Santiague [6] explored both the issues and challenges for teaching successful online courses in Higher Education. They indicate that many research studies and indeed actual instruction have not utilized the past empirical data and research. They utilized Cooper's framework and research to delineate the general issues and specific concerns. They ascertained three major categories of findings- a) issues about online learners, b) the instructors themselves, c) and the very large issue of global content development/. In terms of learners issues- there seem to be some concerns about their readiness to engage in online learning, their expectations, their identity issues and their participation in online classes- which is decidedly different than participating in a lecture hall or seminar room. Several other issues were of note: 1) the ability of the instructor to integrate multimedia to the content of the course, the knowledge of content strategies and how to align them with content. For faculty, as might be expected, there are time constraints, time management issues, and the seemingly greater amounts of time involved in preparing materials and providing feedback. In summary, institutions of higher learning must provide a much greater scope of instruction in online delivery models and prepare teacher and instructors for the challenges that they are going to face and assist particularly with time management.

Moore and Kearsley [7] have examined and clearly articulated the reasons why we must provide distance education and online learning, and we must reflect on these reasons, listed below:

1) Increase access to learning and training as a matter of equity
2) Provide opportunities for updating the skills of the workforce.
3) Improve the cost-effectiveness of educational resources
4) Improve the quality of existing educational structures.
5) Enhance the capacity of the educational system
6) Balance inequalities between age groups
7) Deliver educational campaigns to specific target audiences
8) Provide emergency training for key target areas
9) Expand the capacity for education in new subject areas
10) Offer a combination of education with work and family life
11) Add dimension to the educational experience.

Perez Cereijo [8] has indicated that pupils have to be cognizant as to how comfortable they are in an online learning environment and that they must be ready, willing and able to function autonomously and be self-directed, self-motivated learners. They must be good time managers and develop their study schedule and examine and explore their learning tactics, techniques and strategies. Wall & Higgins [9] further, indicate that a student must comprehend and understand their learning processes.

Waschull (2005) explored several factors such as time management, study skills, their access to various technologies and past experiences with technologies as important factors. On the other hand, Baker [10] did research on "instructor immediacy" and resultant affective and cognitive learning. It seems that students who rated professors and instructors as providing more immediate feedback indicated more positive feelings about the course and instruction. This has been referred to as "immediacy behaviours" but this can be problematic to provide in some instances. For example, in nursing courses, nurses may work on their assignments from midnight to eight in the morning and expect feedback from an instructor at 2,3, or 4 in the morning- when the faculty member is quite asleep. Kaymak and Horzum (2013) indicated that there was a strong correlation between increased interactions-between student to student and instructor to student and with the available materials. Totenel (2014) on the other hand, found the utilization of the various "social networking" modalities to be a factor in the improved online class participation and later learning. Lee [11] has expressed concern that various type of computer anxiety often interferes with focusing on learning activities and engagement. Witta and Lee (2005) utilized a factor analytic approach to identify 10 factors contributing to student success: a) Sociability b)

Student Organization c) Authority Dependence d) Avoidance e) Communication f) Reading g) Concrete, Recognition, Action and the Organization manifested by the Instructor. All of these factors bear examination in future research studies. Shaughnessy & Fulgham [12] have indicated that the content knowledge and expertise of the faculty member, their philosophy of education, and the various student goals and objectives for the course are essential variables to explore. They further specify that teaching strategies, feedback evaluation and motivation are often more important than the delivery system. Lastly, much, much greater time must be spent on the initial planning and long term planning for the course. Following up on this Van de Vord and Pogue [13] indicated that evaluating pupil work in online classes takes three time more work and time and effort than in face to face classes. Mandernach, Hudon and Wise (2013) indicate that faculty must be aware of the time commitment that must be made when teaching multiple courses online. Perez Cereijo, [8] suggests that very prompt and or almost immediate feedback from the instructor does lend some stability to the online class and contributes to a positive student climate and perception. Heinich et al., 2002, as cited in Shaughnessy and Fulgham [12] also enhances the entire realm of the learning experience. This is linked to the ultimate objectives- which also must be understood- by the class a competency-based class, a performance-based class, a demonstration class or simply an "appreciation class" (a Music or Art Appreciation class is different than a Calculus III class- as we try to explain to administrators). Thormann and Zimmerman [14] suggest that faculty and instructors consider their philosophy of teaching, and communicate this to students. Wang [15] has indicated that it is important to build student trust and to work on rapport and the relationship in online classes. Ke [16] has cautioned that instructors may need to be particularly sensitive to adult students that are returning to education.

Grasha [18,19] has suggested that instructors attempt to evaluate the specific needs of the students in the class. For example, when providing instruction for nursing students, instructors must remember that nurses work sometimes very long hours and change shifts- thus upsetting their circadian rhythm.

Thus online learning can be interactive or heavily visual or heavily auditory. Tomlinson and Imbeau [20] refer to the process of differentiation in this regard and suggest that instructors need to focus on assisting the abilities and aptitudes of all students to learn. Bach, Haynes and Smith [21] suggest that there be a focus on simply a few learning goals- that is, teach less, but work toward more comprehensive mastery of goals and objectives. They suggest more encouragement of social interaction, more emphasis on collaboration and to also use the strategies that worked in a classroom environment with the expectation that they will also work well online. Tallent-Runnels, Thomas, Lan, Cooper, Ahern, Shaw and Liu [22] have provided an excellent review of the empirical research collected as of that period.

3. MATERIALS AND METHODS

To preliminarily explore some of the relevant factors contributing to success a survey was constructed and reviewed by the Human Subjects Committee and approved and sent to faculty via electronic mail. The questions were based on the literature available and based on pre-research discussions from the contributing authors. The questions were different for students, faculty, (some of which were graduate level and others undergraduate and different for instructional technologists.

There were no specific research hypotheses in this brief exploratory study. The purpose of the study was to attempt to glean some preliminary understanding of attributional factors involved in this process.

4. RESULTS OF THE QUALTRICS SURVEY

Permission was procured from the office of Institutional Research to conduct the study and all participants participated willingly.

4.1 Subjects

Twenty-three faculty (n=23) responded to the survey and four instructional technologists employed by the university responded. There were 15 graduate students and 31 undergraduate students. The breakdown follows: Freshmen: 0.00 Sophomores, N=5 Juniors N=13, Seniors, N=13 The undergraduates (N=31) graduate students (N=15) will be examined conjointly. Not all students responded to all questions.

The questions differed for students (since they had to learn the material, were paying tuition and

were being graded) faculty (since they were responsible for the dissemination of knowledge, skills and abilities via this methodology) and instructional technologists (since they were partly responsible for trouble shooting glitches and other technological problems (students using browsers that were not compatible with Blackboard for example).

Questions asked of Instructional Technologists:

1) As an Instructional Technologist (IT) what would you say is the MAIN factor contributing to student success in an online/media site class?
2) As an IT, how important is it that students immediately read the syllabus at the beginning of the course?
3) As an IT, how important is it to have a short succinct syllabus?
4) As an IT, how important is it to have a very comprehensive thorough syllabus?
5) As an IT How important is active participation in student success?
6) As an IT how important is student daily involvement?

4.2 Results of Survey

It is important to bear in mind that there were only 4 instructional technologists, hence a small response size.

In terms of question number 1- (above) the results were:

Table 1. Details of the participants and participation frequencies

#	Answer	Percent	Count
1	Freshman	0.00%	0
2	Sophomore	7.69%	6
3	Junior	16.67%	13
4	Senior	17.95%	14
5	Graduate	21.79%	17
6	Faculty	30.77%	24
7	Instructional Tech	5.13%	4
	Total	100%	78

Table 2. Results of the question number 1 for IT

#	Answer	Percent	Count
1	Student retention in course	25%	1
2	Student engagement in Discussion board	25%	1
3	Time management via due dates	0.00%	0
4	Clear and concise syllabus	25.0%	1
5	Engaging videos and visuals	25%	1
	Total	100%	4

Student Retention- 1; Student Engagement in Discussion Board- 0; Time Management- 0
Clear Concise Syllabus- 1; Engaging Videos and Visuals-1
In terms of question number 2—the results were:
Very important=1; Important=1, Neutral=1, Least important=1

Table 3. Results of the question number 2 for IT

#	Answer	Percent	Count
1	Very important	25%	1
2	Important	25%	1
3	Neutral	25%	1
4	Least important	25.0%	0
5	Not important	0.00	0
	Total	100%	4

In terms of question number 3- the results were: Very important= 1: Important =1; Neutral = 1; Least important=1

Table 4. Results of the question number 3 for IT

#	Answer	Percent	Count
1	Very important	25.00%	1
2	Important	25.00%	1
3	Neutral	25.00%	1
4	Least important	25.00%	1
5	Not important	0.00%	0
	Total	100%	4

In terms of question number 4: The responses were: Very important=0; Important= 1; Neutral = 3

Table 5. Results of the question number 4 for IT

#	Answer	Percent	Count
1	Very important	0.00	0
2	Important	25.00%	1
3	Neutral	75.00%	3
4	Least important	0.00%	0
5	Not important	0.00%	0
	Total	100%	4

In terms of question number 5: Very important =2; Important= 0 Neutral =1; Least important= 1; Not Important

Table 6. Results of the question number 5 for IT

#	Answer	Percent	Count
1	Very important	50.00%	2
2	Important	0.00%	0
3	Neutral	25.00%	1
4	Least important	25.00%	1
5	Not important	0.00%	0
	Total	100%	4

In terms of question number 6: Very Important = 1 Important = 0; Neutral 2 Least important 1

Granted this is a small sample size, but somewhat disconcerting that there is little agreement between these four individuals. They may have been trained at different institutions, but this was not examined.

Questions Asked of Faculty

1. As an instructor what do you see as the biggest obstacles to your instructional success?
2. As an instructor what do you see as the biggest communication challenges?
3. As an instructor what do you see as the most important factor in student success?
4. As an instructor, how important is a structured or organized class to student success?
5. As an instructor, how important is it to have multiple engagement strategies (e.g. Projects, games, groups)
6. As an instructor, how important is it to have mastery of APA format and writing skills?
7. As an instructor, how important is immediate synchronous involvement (e.g. Phone, in person, SKYPE, Zoom)?
8. As an instructor- how important is synchronous involvement with you as the Instructor (e.g. Discussion Board, email, announcements)

Results from faculty: The results will be provided in both written and graph format.

Results from question # 1:

1) Competing demands- too many committees-----22.58% n=7; 2) Too many administrative duties--- 25.81% n= 8; 3) Too many research projects------29.03% n= 9; 4) Too many advisees----16.13% n=5 5) Competing Demands-Lack of Technology Skills 6.45% n=2.

Results from question #2:

1) Student not responding to Discussion 32.26% n= 10; 2) Students not replying to emails 12.9% n= 43) Students not responding to Announcements 6.45% n=21; 4) Response time to students 6.45% n=2; 5) No response at all 41.94% n=138

Results from question # 3: Computer Skills---13.79% n=4; 2) Consistency- 48.28% n=14;3) Tech Support----3.45% n=1; 4) Clear Concise Syllabus 27.27%, n=8;5) Clear concise Homepage 6.90% n=2.

Results from question #4:

1) Very important---86.36% n=19; 2) Important-----9.09% n= 2; 3) Neutral = 0; 4) Least important=0; 5) Not IMP---4.5 % n=1

Results from Question Number 5: 1) Very important 40.91% n=9; 2) Important 40.91%= n=9; 3) Neutral 9.09% n=2; 4) Least Important 9.09% n=2; 5) Not Important---0.00%.

Results from Question Number 6: 1) Very important 33.33% n=108; 2) Important--- 47.74% n= 11; 3) Neutral 18.52% n=5; 4) Least important 3.70% n=1; 5) not important 0.

Results from Question Number 7:

1) Very important---24.14% n=7; 2) Important----17.24% n=5; 3) Neutral 37.93% n= 11; 4) Least important 10.34% n=3; 5) Not important 10.34% n=3.

Results from Question # 8:

Questions Asked of Students- Graduates and Undergraduates

1) In your opinion, what is the single most important factor in your success as a STUDENT?
2) In your opinion, what are the most important tech skills for online media site as a student?
3) In your opinion, how important is Reading Comprehension in your success as a student in an online or media site course?
4) As a student, what do you see as the biggest factor contributing to your success?
5) As a student, what do you see as the single biggest obstacle to online or media site success?
6) In your mind, what is the most important personality factor contributing to your success as a student?
7) As a student, what do you see as the biggest financial obstacle to online success?

Results for Students: (both Graduate and Undergraduate).

Table 7. Results of the question number 1 for faculty

#	Answer	Percent	Count
1	Competing demands- too many committees	22.58	7
2	Competing demands-too many administrative duties	25.81	8
3	Competing demands- too many research projects	29.03	9
4	Competing demands-too many advisees	16.13	5
5	Competing demands- lack of technology skills	6.45%	2
	Total	100%	31

Table 8. Results of the question number 2 for faculty

#	Answer	Percent	Count
1	Students not replying to discussion	32.26%	10
2	Students not replying to e-mails	12.90%	4
3	Students not replying to announcements	6.45%	2
4	Response time to students	6.45%	2
5	No response at all	41.94%	13
	Total	100%	31

Table 9. Results of the question number 3 for faculty

#	Answer	Percent	Count
1	Computer skills	13.79%	4
2	Consistency	48.28%	14
3	Tech support	3.45%	1
4	Clear concise syllabus	27.59%	8
5	Clear homepage	9.90%	2
	Total	100%	29

Table 10. Results of the question number 4 for faculty

#	Answer	Percent	Count
1	Very important	86.21%	25
2	Important	6.90%	2
3	Neutral	3.45%	1
4	Least important	0.00	0
5	Not important	3.45%	1
	Total	100%	29

Table 11. Results of the question number 5 for faculty

#	Answer	Percent	Count
1	Very important	44.83%	13
2	Important	34.48%	10
3	Neutral	13.79%	4
4	Least important	6.90%	2
5	Not important	0.00%	0
	Total	100%	29

Table 12. Results of the question number 6 for faculty

#	Answer	Percent	Count
1	Very important	37.04%	10
2	Important	40.74%	11
3	Neutral	18.52%	5
4	Least important	3.70%	1
5	Not important	0.00%	0
	Total	100%	27

1) Very important 33.33% n=108; 2) Important--- 47.74% n= 11; 3) Neutral 18.52% n=5; 4) Least important 3.70%, n=1; 5) Not Important 0

Table 13. Results of the question number 7 for faculty

#	Answer	Percent	Count
1	Very important	24.14%	7
2	Important	17.24%	5
3	Neutral	37.93%	11
4	Least important	10.34%	3
5	Not important	10.34%	3
	Total	100%	29

Table 14. Results of the question number 8 for faculty

#	Answer	Percent	Count
1	Very important	48.28%	14
2	Important	31.03%	9
3	Neutral	13.79%	4
4	Least important	6.90%	2
5	Not important	0.00%	0
	Total	100%	29

1) Very important ---48.28% n=14; 2) Important --- 31.03% n=9; 3) Neutral--13.79% n= 4; 4) Least important 6.90% n=2; 5) Not important 0.0%

Question # 1 Results:

1) Having a strong interest in the subject-54.1% n=26; 2) having organizational skills 20.83% n=10; 3) Having the courage to ask questions 2.08 % n=1; 3) Convenience to work at my own pace 18.75% n=9; 4) Relief of social anxiety 4.17% n= 2.

Question# 2 Results:

1) Word Processing 8.7 %; 2) Internet access 39.13 % n=18; 3) Familiarity with LMS 47.83%. n=22; 4) Email utilization 0.00 % n=0; 5) other communication skills (e.g. Prezi) 4.35% n= 2).

Question # 3---Results:

1) Very important 71.74 % n=33; Important 17.39 % n=8; Least important 8.7.% n=4; Not important 2.1% n= 1.

Question # 5 Results:

1) Class participation 6.5 % n=3; 2) Support from peers/spouse 10.87% n=5; 3) Clarification on concepts/ideas from peers 23.9% n=11; 4) Immediate response from Instructor 19.57% n=9; 5) Instructor comments/feedback 39.1% n=18.

Question # 6 Results:

1) Persistence 41.3% n=19 2) Consistency 26.09% n=12; 3) Sociability 2.17% 4) Communication Skills 26.09% n=12; 5) 4.35% n=2.

Question # 7 Results:

1) Cost of e-book 0% n=0; 2) Cost of Textbook 23.91% n=11; 3) Gas- 0% n=0; 4) Tuition 63% n=29 Other-6% n=13.

Table 15. Results of the question number 1 for students

#	Answer	Percent	Count
1	Having a strong interest in the subject	54.17%	26
2	Having organizational skills	20.83%	10
3	Having the courage to ask questions	2.08%	1
4	Convenience to work at own pace	18.75%	9
5	Relief of Social Anxiety	4.17%	2
	Total	100%	48

Table 16. Results of the question number 2 for students

#	Answer	Percent	Count
1	Word processing	8.70%	4
2	Internet access	39.13%	18
3	Familiarity with LMS-eg Web CT, blackboard	47.83%	22
4	Email utilization	0.00%	0
5	Other communication skills-e.g. Prezi	4.35%	2
	Total	100%	46

Table 17. Results of the question number 3 for students

#	Answer	Percent	Count
1	Very Important	71.74%	33
2	Important	17.39%	8
3	Neutral	8.70%	4
4	Least Important	2.17%	1
5	Not Important	0.00%	0
	Total	100%	46

Question # 41) Technological problems---43.48% n=20; 2) Time constraints ---50.00% n=23; 3) Access to books=0% n =0; Family Constraints 6.52% n=3

Table 18. Results of the question number 4 for students

#	Answer	Percent	Count
1	Technological Problems	43.48%	20
2	Time Constraints	50.00%	23
3	Access to Books	0.00%	0
4	Relevant Current Info.	0.00%	0
5	Family Constraints Children, Spouse, etc	6.52%	3
	Total	100%	46

Table 19. Results of the question number 5 for students

#	Answer	Percent	Count
1	Class participation	6.25%	3
2	Support from peers etc	10.87%	5
3	Clarification on concepts/ideas from peers	23.91%	11
4	Immediate response from instructor	19.75%	9
5	Instructor comments and FEEDBACK	39.13%	18
	Total	100%	46

Table 20. Results of the question number 6 for students

#	Answer	Percent	Count
1	Persistence	41.30%	19
2	Consistency	26.09%	12
3	Sociability	2.17%	1
4	Communication Skills	26.09%	12
5	Technology Skills	4.35%	2
	Total	100%	46

1) Persistence 41.3% n=19 2) Consistency 26.09% n=12; 3) Sociability 2.17% 4) Communication Skills 26.09% n=12; 5) 4.35% n=2

Table 21. Results of the question number 7 for students

#	Answer	Percent	Count
1	Cost of E-book	0.00%	0
2	Cost of textbook	23.91%	11
3	Gas for library visits	0.00%	0
4	Tuition	63.04%	29
5	Other	13.04%	6
	Total	100%	46

The data for the graduate and undergraduate students was collapsed since the response rate for undergraduates (seniors, juniors and sophomores) was small.

5. SUMMARY AND CONCLUSIONS

From this preliminary exploratory study, some relevant concerns and some outstanding issues emanate.

From our small sample size, technological issues remain problematic and time constraints are a secondary issue. Undergraduate responses differed slightly from graduate although the sample size of undergraduate students was small and not representative of the student body population.

It may be important for faculty to clearly communicate time expectations, information about course demands (writing, library research, discussion board postings, possible difficulties with the learning management system) before the course begins so that students are aware of the demands of the course and can perhaps allocate adequate amounts of time to reading, responding, and preparing for tests and assignments. The results of this preliminary survey should be viewed with caution, as sample sizes were small and the university in which the research was conducted was a southwestern

rural university. Thus, results in larger metropolitan universities may be quite different.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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