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# Becoming a 21st century University: How USM Can Use Online Education to Meet the Needs of its Adult Student Population

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**Becoming a 21<sup>st</sup>-Century University:  
How USM Can Use Online Education to Meet the Needs  
of its Adult Student Population**

Amy Gieseke

Capstone Advisor: Dr. Josephine LaPlante  
10/30/09

*The twenty-first century is a time of unparalleled promise for higher education...distance education will open up new knowledge horizons for millions of people who otherwise would have no opportunity to attend a college or university, and blended approaches to elearning will enrich classroom-based education. It would be difficult to imagine a more creative or rewarding era for educators.*

- Van B. Weigel, 2002

## **Abstract**

The 21<sup>st</sup> century has been, and will continue to be, a time of great change within the world of higher education. One key demographic change lies in the growing number of adult students seeking educational opportunities. Higher education institutions, such as the University of Southern Maine, have not historically been structured to serve the needs of this important and growing student population. In the coming years, significant changes in structure and organizational mission will be critical to address the needs of these students and to capitalize on the influx of revenue they could bring to a financially struggling institution. This paper will recommend that USM focus on the needs of adult learners through: improved quality of online courses and instruction, increased number of complete programs and degrees offered in an online and blended format, implementing a systematic way to ensure that students are prepared for online coursework so they successfully complete their programs, improved customer service for adult students across all formats, and finally, ensuring that online coursework is properly evaluated.

## **Purpose**

The world of higher education as we know it is simply unsustainable. Changes are occurring economically, demographically, and globally, and if higher education refuses to bend to these forces, it will certainly eventually break. Current educational literature speaks a great deal about a “21<sup>st</sup> century University” not only because we are living in a new millennium, but because the state of higher education is substantially different than it was even 30 years ago. One of those changes is the dramatic demographic shift in *who* attends college. Since 1970, the number of adults age 25 and older enrolled in college has nearly tripled, from 2.4 million in 1970 to an estimated 6.7 million in 2006. In 2006 that number was 38% of the 17.6 million students enrolled in US colleges and universities. And today, throughout the nation, adult student enrollment in higher education is approaching 50%. This trend holds true at USM as it does around the country. While its demographic figures match national trends, USM has been slow to change its large, bureaucratic institution in a way that would position the University to better meet the needs of this important population. To both meet the needs of today’s students and to address its current fiscal crisis, and future fiscal crisis that will inevitably follow, USM must begin to accept and address these demographic realities in a determined and strategic manner.

This paper aims to aid in that initiative. It will do so by studying one of the ways in which USM is attempting to serve its current adult student population – through online education. It will first analyze surveys from students who have taken online courses, as

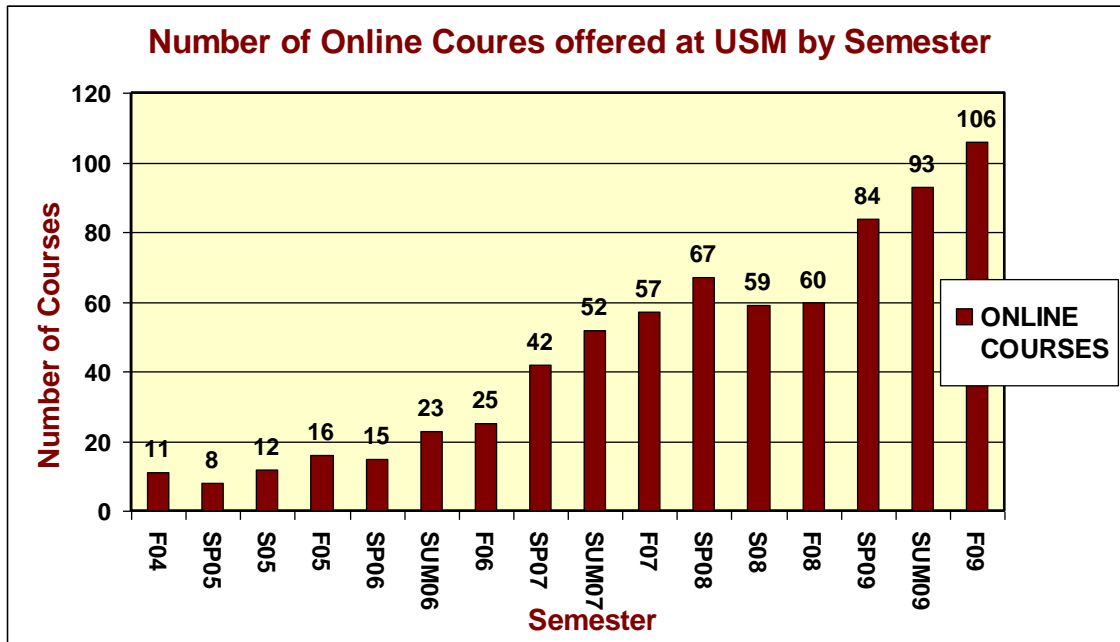
well as from students who have not taken online courses, to see what needs adult students have and how these needs may differ from those of traditional students. The survey will also look at perceived barriers to online education, as well as how online students, both adult and traditional, would like to evaluate their coursework. This paper will also, through a literature review of best practices and informal interviews with USM staff and faculty, propose additional strategies to help USM meet the needs of adult students, while at the same time placing USM on much more solid strategic and financial footing for the 21<sup>st</sup> century. It will show that becoming a 21<sup>st</sup> Century University is not merely a matter of improving technologies, but also of understanding and embracing the ways in which higher education is changing, both demographically and otherwise. Understanding those changes, accepting them, and then rising up to meet the challenges they bring, will be one of USM's largest tasks over the next 10 years.

## **Background**

As I mentioned above, the “look” of higher education in the 21<sup>st</sup> century is changing dramatically. According to *The Condition of Education 2002* (US Department of Education, 2002), approximately 75% of all college students are considered “nontraditional”; the number considered “adult” is approaching 50%. While universities are seeing more and more adults entering higher education, they are also seeing fewer and fewer high school seniors. Forecasts show that Maine, for example, will see a declining number of high schools seniors for at least the next 15-20 years (New Challenges, New Directions, 2009). One way to address this decline in traditional aged students is to better serve and retain those students that are coming to USM in larger and larger numbers – adult students. In order for this to happen, USM must recognize that adults have a very different set of needs, and experience a very different set of barriers to successful completion of their educational goals, than traditional students. Adults often attend school part-time due to work and family obligations, they prefer to be seen as partners in the learning experience as opposed to students to be taught, they want to discuss what they are learning in relation to their work and personal lives, and they expect a very high level of customer service at times and locations convenient for them. Most higher education institutions, USM included, are simply not designed and operated with these things in mind, but instead function with an eye towards the needs of traditional aged students. The reality across the country is that, “millions of adult students are seeking degrees in a system built largely for –and around—traditional students” (Pusser et al., 2007). This simply must change if USM is to be successful in coming years.

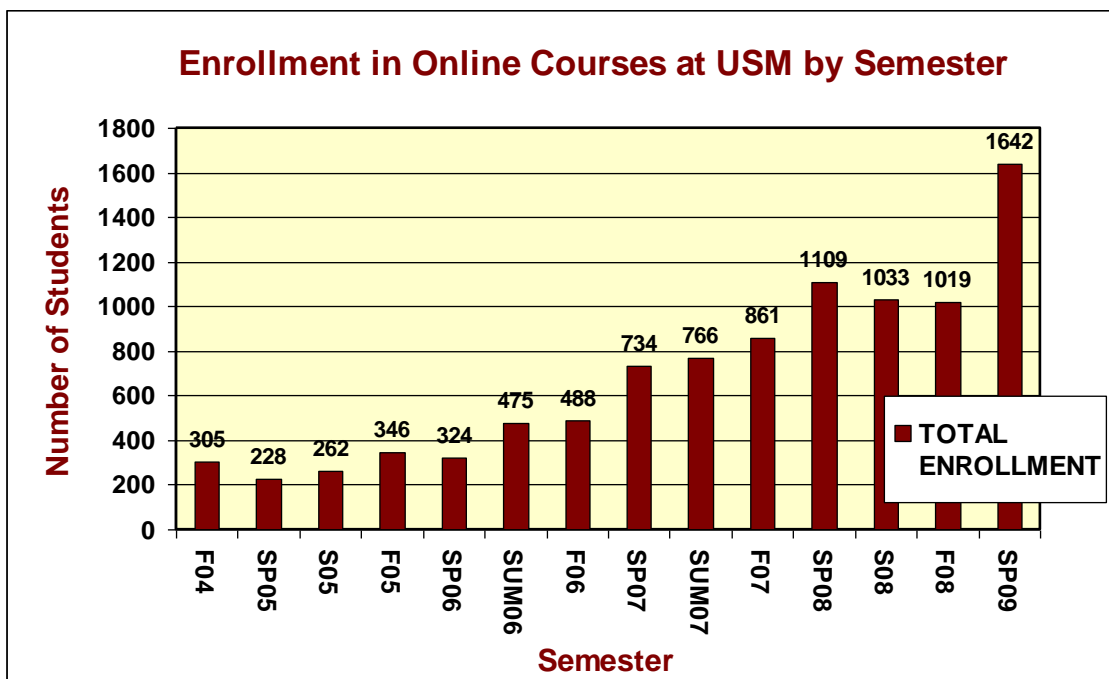
One way in which USM has begun to meet the access needs of adult learners is through the medium of distance education. While “distance education” refers to many things, including ITV and video conferencing tools, USM has recently begun to focus its distance education efforts on offering online and blended courses. The number of online and blended courses offered at USM has grown exponentially over the last five years. Table 1 shows the staggering figures in detail.

**Table 1**



One reason USM continues to offer these courses in growing numbers is certainly to improve access for students, adult and traditional alike, but this sharp increase is also simply a response to increased demand. USM has quickly learned that its students want and expect online courses in increasing numbers. As the below enrollment figures will attest, students are willing to “put their money where their mouth is”. Table 2 shows the number of students enrolled in online courses over the past five years.

**Table 2**



With the increased number of online offerings, USM has positioned itself well to better serve the access needs of its adult students, but there is still much to do. The most recent version of USM's Strategic Plan, *Preparing USM for the Future 2009-2014*, speaks to the needs of this student population, as well as to the need to invest in online education. Action items within the strategic plan include: "schedule classes at times and places best suited to student needs", "promote the development of online teaching and learning, degree programs, and academic support services", "charge an existing unit with USM with meeting the unique needs of students who work during the day, offering programs and services in times, locations, and formats that are accessible and cost-effective". And USM's own mission statement attests, "The University's principal responsibility is to provide a wide range of programs responsive to students diverse in age, background, and experience.... The University of Southern Maine...is committed to providing academic and support services essential to the needs of a diverse student body" (excerpted from the Mission Statement, USM Undergraduate Catalog, 2007-2008). USM appears to be on the right track towards addressing the needs of this very important student population group, but it isn't there yet.

USM's Board of Visitors also understands the urgency and necessity of expanding online education. In *The Southern Maine Imperative II*, released on February 20, 2008, USM's Board of Visitors recommended: "In the area of online education, the University should build on current efforts within individual degree program areas in financially prudent ways, both to expand opportunities for students and, where appropriate, to increase revenues."

The most recent strategic document to come from the University of Maine System appears to understand the importance of serving adult students both through online education and other means as well. This *New Challenges, New Directions* document states: "The Chancellor and Board should transform distance education into a core component of the University of Maine System's overall strategy to ensure affordable access". It also states that to increase revenue, recruitment activities across the system should include: "providing relevant education in consumer-convenient ways to attract adult learners – both those who are moving from one career to another, and those who simply want to pursue intellectual growth."

As these documents attest, various university stakeholders are beginning to form consensus around the importance of online education for both fiscal reasons, and for the educational access and success of Maine residents. That being said, I do not believe the point is being made clearly or loudly enough, and I do not believe the large bureaucracy that is the University of Maine System has quite figured out how best to respond to these demographic/cultural changes occurring within higher education. I also do not believe that adult students are getting the focus and attention they need at USM. Serving them efficiently and effectively through online education and other means is exactly what USM should be focusing on in these financially difficult times. The truth of the matter is, "if an institution cannot or will not provide an adult learner with a product that he or she values in a manner that is acceptable, that student will quickly take his or her business elsewhere. This is the growing nature of the 21<sup>st</sup>-century adult

learner” (Kelsen & Lesick, 2005). And the growing reality is that adult learners are becoming a larger and larger percentage of USM’s student population. This is a fact USM must face, and the sooner the better.

## **Literature Review**

The literature review for this paper focused on answering the following questions:

1. What important definitions should be guiding this research?
2. Do the needs of adult students vary from those of traditional students?
3. Do the barriers faced by adult students differ from those faced by traditional students?
4. How are universities currently using online education to meet the needs of adult students?
5. What does the literature say about best practices in adult and online education?

### **1. What important definitions should be guiding this research?**

The literature on adult education provides a varying set of definitions for what constitutes an “adult learner”. These definitions range from broad and far sweeping, to more narrow and precise. The US Department of Education provides probably the broadest definition, defining an adult learner as anyone “engaged in some form of instruction or educational activity to acquire the knowledge, information, and skills necessary to succeed in the workforce, learn basic skills, earn credentials, or otherwise enrich their lives,” (NCES, 1999). According to the Council for Adult and Experiential Learning (CAEL 1999), “adult learners” are persons who:

- are no longer financially dependent upon their parents or guardians,
- have major life responsibilities outside schooling through work, home or community, and
- whose principle identities have evolved beyond the role of full-time student.

Another important definition is that of “nontraditional” student. According to the literature available on the topic, nontraditional students need not be adult students, although that is often the case. The National Center for Education Statistics (NCES) (2002) defines “nontraditional student” as any student exhibiting one or more of the seven following characteristics. They:

- have delayed enrollment into postsecondary education,
- attend school part time,
- are financially independent of their parents,
- work full time while enrolled,
- have dependents other than a spouse,
- are a single parent, and/or
- lack a standard high school diploma.

For the purposes of this study I will use the term “adult learner”, the nontraditional component being assumed, and I will use the more narrow definition of Voorhees and

Lingenfelter’s (2003), and define an adult learner as: “someone 25 years of age or older involved in postsecondary learning activities”.

Like the terms “adult learner” and “nontraditional student”, the term “online education” also has various definitions throughout scholarly literature on the topic. The Sloan Consortium, a leading expert on distance education, defines online education as follows:

| <b>Proportion of Content Delivered Online</b> | <b>Type of Course</b> | <b>Typical Description</b>   |
|---|-----------------------|--|
| 0%  | Traditional           | Course with no online technology used—content is delivered in writing or orally.   |
| 1 to 29%                                      | Web Facilitated       | Course that uses web-based technology to facilitate what is essentially a face-to-face course. Uses a course management system (CMS) or web pages to post the syllabus and assignments, for example. |
| 30 to 79%                                     | Blended/Hybrid        | Course that blends online and face-to-face delivery. Substantial proportion of the content is delivered online, typically uses online discussions, and typically has some face-to-face meetings.     |
| 80+%  | Online                | A course where most or all of the content is delivered online. Typically have no face-to-face meetings.  |

For the purposes of this paper, the phrase “online education” will refer to courses taught at least 80% of the time online (either synchronously and asynchronously), and a blended courses will be defined as those courses taught at least 50% of the time online, with the remainder being taught face-to-face (F2F) or “traditional”.

*2. Do the needs of adult nontraditional students vary from those of traditional students?*

Why should we care that this demographic change is occurring in higher education? Don’t all students deserve and require the same level of service? The literature would say no, that adult students, and the needs of adult students, are in fact quite different from those of traditional students.

A large amount of research exists on how adults learn differently. Some even suggest the need to move beyond the term “pedagogy” when talking about teaching, and to embrace the term “andragogy” (Knowles, Holton, & Swanson, 2005). Andragogy (from the Greek meaning ‘man-leading’) is the process of engaging adult learners in the structure of the learning experience. The term was originally used by the German educator Alexander Kapp in 1883, and was later developed into a theory of adult



education by Malcom Knowles. Knowles' theory has four major points. First, adults need to be involved in the planning and evaluation of their instruction. Second, experience should provide the basis for learning activities. Third, adults are most interested in subjects that have immediate relevance to their job or personal life. Finally, adult learning should be problem-centered rather than content-oriented. Adults also bring to their education much more personal experience: experience with work, education, and life in general. This wide array of experience impacts the way adults learn and is why adults tend to be more interested in real-world application of their learning.

In addition to having different learning styles, adults also have different personal and demographic factors. As Levine and Sun state, adults "are older, attend classes part time, hold jobs, have families, and live off campus. Unlike traditional students, nontraditional students do not consider school to be central to their lives" (Levine and Sun, 2002). Levine and Sun go on to say that these students are looking for four things from their higher education experience: convenience, service, high quality, and low cost. They consider themselves consumers of education, and demand the same level of service they expect from their bank or phone company, if not better. While younger, more traditional students also expect customer service their expectations are typically not nearly as high.

Bizhan Nasseh (1999) discusses other important characteristics of adult learners that make them different from traditional aged students. He states that adult learners:

- have clear objectives for their participation in formal education,
- have other commitments such as family, work and community,
- prefer to participate in the design of the learning processes and learning activities,
- have rich life experiences that can help teachers in the design of a better learning process,
- prefer self-directed learning,
- demand out-come oriented education worthy of their time and investment,
- have individual needs, learning styles, and objectives for participation,
- expect teacher support and availability of support in technology-based education,
- expect partnership in the design of the process of learning and learning activities,
- expect orientation and training opportunities in technology-based education,
- expect adaptive educational programs that can be modified with individual's styles and needs,
- expect "teach-student-centered" or "student-centered" environment, and
- they expect to be treated as clients in the business of learning.

Research clearly states that adult students also need high quality academic advising. Many people assume that, unlike traditional students, adults come back to school with a clear sense of what they want to study and what they want to do once they graduate. According to one author, however, the opposite is typically true. Adults students most often need help choosing appropriate courses and programs, and they need help deciding what delivery method would work best for them. They also frequently request

help with sequencing coursework and planning schedules (Grunau, 2005). Adult students think of themselves as customers, and they need and expect a high level of customer service from competent, available, and caring advisors. As Grunau states, “they want an advisor to recognize their unique needs and address those needs with efficiency, intelligent feedback, expertise, and sensitivity” (Grunau, 2005).

### 3. Do the barriers faced by adult students differ from those faced by traditional students?

Adult students also face unique barriers regarding entry to, and successful completion of, higher education. One recent study found that online students are more likely than their counterparts (both younger students in any format, and all face-to-face students) to drop out of school. The study, conducted by two researchers from East Carolina University, examined graduate-level online and campus programs in two subjects, business administration and communication sciences and disorders. In the business-program sample, 43% of online students dropped out, compared with just 11% of campus students. In the communication program, 23.5% of online students abandoned their studies while just 4% of students in bricks-and-mortar classes jumped ship. The only other demographic factor significantly related to drop out rates (other than class format), was age. Age had a significant impact on whether or not a student dropped out. This suggests that adult online students need even greater levels of student support to counter their predisposition to dropping out.

According to another study conducted by Lyungai Mbilinyi called *Degrees of Opportunity: Adults views on the value and feasibility of returning to school*, the top five personal barriers for adults pursuing higher education are:

- managing all of my commitments and still finding time for school (perceived as a barrier by 73% of respondents),
- finding the money to pay for school (70%),
- providing for myself/family while in school (62%),
- making a commitment for the length of time it takes to complete a degree (61%), and
- Attending class regularly (50%).

This survey went on to show that adults were less worried about concerns typically associated with students right out of high school. Concerns more typical of these traditional students, including finding the right school or program, deciding what subjects to study, overcoming the fear of taking a risk and maybe not succeeding, and being able to learn the material and do well in class all ranked relatively low among adults in the study. The study also found that nearly half (47%) of those adults surveyed had returned to school after the age of 25. An additional 52% of the adults surveyed *wanted* to go back to school. Unfortunately, of that 52%, 36% wanted more education but were unsure they would pursue it. Improving access and overcoming barriers to participation could help see that number drop (Mbilinyi, 2006).

Another study examined institutional barriers to student success in the online environment. This study found other factors sited by students as barriers to success.

Those factors included: administrative issues, social interaction, academic skills, technical skills, learner motivation, time and support for studies, cost and access to the Internet, and technical problems. The single most important barrier across all demographic groups was the lack of social interaction. However, administrative/instructor issues, time and support for studies, and learner motivation clustered closely together as the second most serious barrier. This study found (perhaps surprisingly) that overall, as age increased, perceived barriers decreased (Muilenburg, 2005).

In her article, *Adult Learner Advising: The Vital Link*, Sue Granau discusses how important it is for people working with adult students to understand the insecurities and fears that adult students face as they begin thinking about going back to school at a later stage of adult life. She notes that “adults are often reluctant to acknowledge that they need help and are unsure how to ask for it”, and that “adult students concerns may often be based in fear”. This fear may come from a “lack of confidence in school” or from a “previous college or school experience that [was] less than successful” (Granua, 2005).

Adults are also often affected by situational phenomena that traditional students are less likely to be faced with, such as “job or health problems, financial problems, legal problems, family or personal problems” (Wonacott, 2001). In addition to these unique problems, adults are also often playing multiple roles, juggling various life commitments, and experiencing some type of life transition at the time they decide to come back to school (Skorupa, 2002).

Students who take online courses, a large number of which are adults, also face a unique set of barriers in the online environment. The results of one study found three factors that most largely determined whether or not a student completed an online course, or registered for another online course in the future. Those factors included: quality of online course materials, teacher quality, and general online access quality (Booker and Rebman, 2005).

Clearly both the needs of, and barriers experienced by, adult learners are different from those of traditional aged students. Despite this fact, adult learners have historically been considered as an afterthought in higher education. As Pusser et. al explain in their Lumina series article, *Returning to Learning, Adults' Success in College is Key to America's Future* (2007), this point is particularly ironic since it is adult students who are most at risk of falling through the cracks. They typically have more time constraints, have a harder time juggling their multiple priorities, they lack financial resources since they are often not full-time students, and they must adapt to a system that is not designed with their needs in mind.

#### 4. How are universities using online education to meet the needs of adult students?

Most universities today, especially larger universities and those universities and colleges serving a significant number of adult nontraditional students, have come to

understand the inevitable need and benefit of offering online courses and degree programs. But the reality is that they are doing so with varying levels of support and success, and for varying reasons. The Sloan Consortium annually surveys more than 2,500 universities and colleges to assess online education. In 2007, Sloan published *Online Nation: Five Years of Growth in Online Learning* which describes the top reasons why “online education is strategically important for my institution”. The top seven factors, rated as either important or very important by institutions, were: increase student access (92.8%), attract students from outside traditional service areas (81.4%), grow continuing/professional education (81%), increase rate of degree completion (72.2%), enhance value of college/university brand (69.6%), provide pedagogic improvements (70.6%), and improve student retention (65.6%).

Many universities are clearly interested in growing their online education programs for the reasons cited above, among others. So what is stopping them? The Sloan Consortium surveyed 77 college and university system heads, and asked the question, “What barriers exist to the strategic use of online learning to further institutional goals and mandates?” The survey results, published in *Online Learning as a Strategic Asset: A Survey of Presidents and Chancellors*, found that 40.8% of respondents felt that “online courses cost more to develop” than traditional offering. An additional 35.5% felt that online courses required greater faculty time and effort. These were the largest two institutional barriers. The survey also found that only 22.4% of respondents said that a “lack of acceptance of online instruction by faculty” was an issue.

One reason for offering online courses, as stated above, is that colleges and universities are trying to improve retention rates through distance education offerings. Particularly in states where degree completion lags, such as Maine, “access to higher education via online learning presents the hope that greater numbers of the citizenry will pursue and complete a college degree” (Rhoda, 2005). Online courses provide students a more flexible schedule, allowing them to stay involved in their education when they otherwise may not have been able to.

##### 5. What does the literature say about best practices in adult and online education?

Given the unique barriers faced by adult and online students, what are some of the best universities doing to meet the needs of this unique and growing student population? One benchmark study conducted by Susan Mancuso from Western Washington University (2000) looked at best practices in adult education around the country and found that successful universities had the following twelve characteristics:

1. Institutions have clearly articulated missions that permeate the institution and inspire and direct practice.
2. Institutional decision-making is a shared responsibility that used collaborative processes inclusive of faculty, staff and students to create rapid, flexible responses to student and community needs.
3. Curriculum is designed to meet individual needs of adult learners.
4. The institution uses prior learning assessment programs to honor and credit the learning which adults have previously acquired and to help plan new learning.

5. Multiple methods of instructional delivery are provided to help adult learners meet their learning goals.
6. The teaching-learning process actively involves students in collaborative learning experiences typically centered around their lives and work.
7. The institution uses an inclusive, noncompetitive admissions process designed to determine the best educational match for the adult learner.
8. The institution engages adult learners in an ongoing dialogue designed to assist learners to make informed educational planning decisions.
9. The institution makes student services easily accessible and convenient to adult learners through many venues.
10. Full-time faculty perform a blended role which combines instruction, student services and administration.
11. The institution employs part-time/adjunct faculty to assure financial viability and uses them to enhance quality through their special expertise, connections to workplace, and to deliver an accessible and flexible curriculum.
12. The institution uses technology to enrich one-on-one communication.  
The institution makes continuous and deliberate efforts to ensure that its education remains affordable for adults while maintaining access and quality.

In addition, research clearly shows that universally, adult learners who receive quality academic advising show better retention rates (Shields, 1994), and adults are more successful when that advising is specifically tailored to their particular adult learner needs (Polson, 1994). Research also shows that creating a personal connection with an adult learner and creating a feeling of belonging to a larger university community can help facilitate a successful educational experience (Naretto, 1995). This is true for both adult and online students.

Another important study sites four important strategies for institutional leaders and policy makers to consider when thinking about serving adult students. First, “there is no ‘typical’ adult student”. Each adult student walking in a university’s door will have distinct differences demographically, socially, and educationally. Second, “a key area of adult learning is poorly understood”. They area referred to here is the area of non-credit education. Many, many adult students around the country partake in non-credit education, but the arena of non-credit education is very poorly understood by most administrators and policy makers. Third, “the well-worn path will not work for most adult learners”. Most adults prefer, or are only able to attend school part-time. They prefer non-traditional access methods such as online and blended which offer high convenience. They also require a high level of certainty about what they will be studying and when they will be finishing. They want to see the educational path they are about to embark on, as well as the finish line. Finally, “to find the right path, adult learners need a guide”. Academic advising is critical, and as Dr. Richard Light of Harvard University states, “good advising may be the single most underestimated characteristic of a successful college experience” (Light, 2001). Adult learners need quality advising; they need help developing a map to success. This map should be clear, and it should provide a reliable estimate of how long it will take to a student to

earn their degree. The study also pointed to four major actions institutions could take to improve adult learner success at their university:

1. develop pre-baccalaureate, career-related certificate programs that incorporate academic credit that can be counted toward a degree,
2. provide part-time degree programs,
3. create year-around, accelerated and convenient programming, and
4. facilitate degree mapping (Pusser et al., 2007).

In their article *Recruiting and Admitting Adult Learners: They're Not Just Older—They're Different*, Iris Kelsen and Lawrence Lesick outline key components of all successful adult learner programs. The first component is “convenience, convenience, convenience”. They state that courses should be offered at times and in formats that fit adults’ schedules, all services should be available in one location and at times convenient to adults, and application processes should be simple and easy to access. Second, academic programs should be “career-oriented”. Third, there should be opportunities for nontraditional acquisition of credit. Adult learners appreciate the opportunity to demonstrate knowledge gained from their prior learning experiences and to receive college credit for what they’ve learned. Finally, successful adult learner programs have a flexible transfer policy. The last thing a student wants to hear is that prior coursework will not transfer (Kelsen & Lesick, 2005).

A useful resource for understanding best practices in online education is the article *The Role of Distance Education in Enhancing Accessibility for Adult Learners* by Karen Rhoda. In this article Rhoda outlines elements that a quality distance education program should provide. While her list is more extensive, some of the key items include:

- a comprehensive web site that is continually updated with revisions and current information,
- online admission, registration and tuition payment,
- course catalogs that are readily available by mail and online,
- same business day response to online and phone inquiries,
- a link to distance education from the institution’s home page,
- a student information letter that includes ID, password, and logon instructions mailed to each student before the start of a new term, with an online example of the same on the website,
- a tech help desk operated during regular business hours as well as evenings and weekends, seven days a week,
- a web-based help and support area complete with frequently asked questions,
- an online orientation in how take an online course, and
- assessment of student services (Rhoda, 2005).

Whether a course is online or F2F, evaluation and assessment are critical issues that must be addressed. Coralie McCormack (2005) provides four practices that would allow institutions to embed ethical values and principles into their evaluation practice. First, close the feedback loop with students. Students need to feel like the time and effort they put in to filling out an evaluation is not for nothing. Second, students should be aware of, and consent to, the use of their feedback for research and/or publication beyond the

bounds of the individuals subject/course evaluation. Third, student evaluations must be fairly administered. And finally, there must be anonymity of all evaluative data collected. This is sometimes harder in an online environment, but it still must be done. Another author, Cheung (1998) provides the following best practice principles, suggesting that teacher evaluations in distance education should:

- provide diagnostic feedback for improving the academic quality of the course,
- provide information for personnel and administrative decision making,
- allow students to express their needs and views formally and systematically,
- advance research on distance teaching,
- monitor the quality of distance teach for the sake of accountability,
- collect information for accreditation purposes,
- provide comparative data across different courses so as to monitor the consistency of standards, and
- facilitate staff development.

While this is not nearly an exhaustive list, it does provide a brief sample of the literature available on best practices for supporting online and adult students.

## **Research Questions and Design**

### ***Research Questions***

The research questions addressed in this paper are as follows:

- 1. What factors are most important to adult students in the evaluation of online courses? Are these factors different for traditional students?*
- 2. What do adult students perceive as barriers to successful participation in online coursework? Are these perceived barriers different or the same for traditional students?*
- 3. How can online education help USM meet the needs of its adult student population?*

### ***Research Methods***

The survey instrument used in this project was created by two USM Muskie School of Public Service graduate students, Janet Casey and myself, Amy Gieseke. Janet and I were both studying online education at USM, so we decided it would be beneficial to combine our efforts. Using one survey, as opposed to two separate surveys, would also ensure that we did not create respondent fatigue in the online student population. Janet Casey's research focuses mainly on demographics of online students, will this research focuses primarily on how online education can serve the needs of adult learners.

Preparation for developing the actual survey instrument began with an extensive literature review. In addition to examining the limited research on the demographics of online students, considerable time was spent learning about related issues such as learning styles, perceptions of online degrees, student engagement, the needs of adult

learners, online course evaluation, and effective online teaching practices. This literature review helped shape the research questions above, which were then used to frame the development of key variables to measure in our survey instrument.

Our initial attempts to obtain e-mail addresses of recent and current online students from USM's online education department failed. Our hope was that this department could send information about our survey through e-mail to all online students. Since this plan proved infeasible, a second plan was created in which we would reach students through individual academic departments. With this procedure, we never had access to student's emails directly. We sent the survey to individual departments, and each department forwarded the survey on to their students, thus avoiding confidentiality issues.

A history of the number of online courses offered by department was compiled for the period of Fall 2007 through Summer 2008. The nine programs enrolling more than 100 online students during this timeframe were contacted about our survey. Agreement to e-mail the survey link to our survey website and encourage students to participate was gained with seven programs: College of Education, School of Business, Communications and Media Studies, Psychology, Nursing, Music, and the Muskie School of Public Service. An initial draft of the survey was sent to the College of Education and Human Development for their review and suggestions. The College of Education expressed particular interest in this study as they offered almost 50% of the online courses and wished to use the survey results for their strategic planning. Their feedback, along with the feedback from other departments, was taken into consideration for the final survey design. This next draft of the survey was distributed to colleagues for a "test drive" to uncover design and content problems before it was administered to its final audience.

The final survey was conducted through Survey Monkey. The results were compiled online, and then downloaded into Excel spreadsheets for analysis. Variables of interest to the researcher were cross-tabulated and studied.

### ***Survey Design***

Our original intention was to only survey USM students who had enrolled in an online course during the previous twelve months. Because we could only survey students through their programs, and the programs were only able to survey their entire student group, we were then presented with the option of gathering information from students who had not enrolled in online. Since we had some interest in determining if there were significant factors that differentiated the two student populations, the survey was re-designed with a section of questions for non-users. The answer to an introductory question, "Have you enrolled in online coursework at USM?" led the participants to separate sets of questions designed for the two sub-groups. Users of online courses were asked to answer seventeen close-ended questions, nine Likert scale questions, and three open-ended questions. Non-users were asked seven closed-ended questions, three Likert scale questions, and one open-ended question. The survey concluded for both groups with seven open-ended questions that identified key



demographic data and one open-ended question for final comments. Some of the closed-ended questions also offered an “other” choice where the student could enter comments about their choice of online, the quality of online courses at USM, and the workload of online coursework. Using a combination of open-ended and close-ended questions produced a broad range of high quality quantitative as well as qualitative data to work with. We found that many students were willing to leave long, detailed responses to open-ended questions, which gave us a great deal of high quality anecdotal information.

Using the Survey Monkey tool, the survey was designed to capture data in six main areas: demographics, student characteristics, attitudes towards online education, reasons for enrolling or not enrolling, and personal experiences with online at USM. Specific variables measured included: age, gender, income, employment status, student status, distance from campus, GPA, level of computer skills, number of online courses taken, types of online courses taken, opinions about past online courses, and opinions about taking future online courses, among others.

### ***Sample Description***

We chose a non-probability, purposive sampling method to distribute our survey. We first selected programs with the highest online enrollments with the assumption that we would receive the most cooperation and interest from these programs. We also wanted our study to be useful to those at USM who were most engaged with online learning at USM. The seven programs agreeing to distribute our survey represented both graduate and undergraduate programs. Students who responded to the survey also covered a broad range of demographic categories: those who had taken online before and those who hadn't, full-time as well as part-time students, men and women, traditionally aged students as well as non-traditionally aged students, those without children and those with children, those working full-time, those working part-time and those not working at all, etc.

### ***IRB***

We submitted our research plan, survey, and proposed website to USM's Office of Research Compliance and requested an exemption from IRB Review. At the IRB's direction, we made adjustments to our claims of participant confidentiality and purchased SSL encryption from Survey Monkey. It was determined by the IRB that our survey posed minimal risk to the participants and the exemption was granted. With IRB's exemption, we were able to proceed with the survey.

### ***Procedure***

When the survey was ready to be administered in the spring of 2009, the School of Business was unable to handle our request due to limited staffing. However, Leadership Studies had dramatically increased online enrollments in the spring of 2009 and qualified for the “over 100” category. They were contacted and readily agreed to participate in the study. A suggested e-mail message was created and sent to the seven programs for distribution. The e-mail included a link to our Survey Monkey website. The

website explained the purpose of the study, offered confidentiality information, explained the benefits and risks of participation, explained that participation was completely voluntary, and provided a link to the survey. The site was designed to energize students to accept our invitation to complete the survey. Since there was so much required information to be conveyed, it was thought that the web site would be more enticing than a lengthy, text-only e-mail. We also offered a chance to win a \$15 iTunes card for completing the survey. Students were made aware that their survey responses would in now way affect their chances of winning, and that providing their names for the drawing would not mean that we could connect their name to their survey responses.

Programs e-mailed the invitation to participate in the survey to reported 1800 active students (23% of all matriculated students at USM). A reminder was sent out one week later and the survey closed two weeks after it opened. Within the initial two-week period, 311 (17% of those surveyed) participants completed the survey. At that point, we analyzed our responses to determine if we had a representative sample of USM's student population. 61% percent of the respondents had enrolled in online and 38.5% had not. Only 38.4% of the non-users were graduate students and 55.2% were undergraduate students. Online users were comprised of 64% graduate and 31.2% undergraduate students. Seeking more undergraduate online students, CTEL sent the survey to 800 undergraduate students enrolled in online coursework during the spring 2009 semester. We received 54 completed surveys in this second round for a total of 365 (14% of those surveyed) complete surveys. We had increased our percentage of online users by 5% to 66% and decreased our nonusers to 34%. The non-user profile changed minimally to 39% graduate and 54% undergrad. However, we did achieve a more balanced division of online-users with 53% graduate students and 43% undergraduate.

## **Research Results**

### **1. What factors are most important to adult students in the evaluation of online courses? Are these factors different for traditional students?**

Properly evaluating teaching instruction and course content has been the topic of debate for many years within higher education. Evaluating *online* courses adds yet another level of difficulty to an already troublesome topic. One reason for this is that online courses are often produced by a team of professionals, not simply one sole instructor. This team can include instructional designers and technical specialists along with a faculty member. The technology used to make a course possible is often integral to the teaching and learning process, and it is therefore critical that technology's effectiveness is measured alongside that of the instructor (Harrington & Reasons, 2005). But what is the best way to capture this information? In a separate evaluation? Combined with the regular course evaluation? There are a number of options. Currently, USM uses the same survey for ALL of its courses, whether online or F2F (see Appendix B).

In our survey, we asked students whether or not they felt online courses should be evaluated differently than F2F courses. The results showed that a slight majority (47%) of students thought that yes, online courses should be evaluated differently than F2F. Another 32% thought they did not need to be evaluated differently, and 21% were undecided. There was no noticeable difference in responses across age groups to this question.

Although there were no statically significant differences across age groups in student's responses regarding evaluations, respondents did have interesting comments about the evaluation of online courses. One student noted that our current evaluation for online courses doesn't always capture the relevant information. The student states, "*The current evaluation doesn't always apply to the online format. For example there should be questions about the technology aspects.*" The literature review conducted for this paper found that most scholarly articles agree with this assessment. Since the technology involved in an online course is so integral to the success of the class, it does need to be evaluated in some manner.

Other students provided additional comments and concerns regarding the current evaluation system for online classes. These students note:

*"From personal experience, the evaluation survey at the end of the semester was hard to access and was taken down before I had the chance to fill it out. Considering I had strong opinions of that particular course, I was upset I could not include my feedback."*

*"Evaluation forms need to have a way to make suggestions/comments rather than just checkboxes."*

From these comments you can see that online students want to be able to answer open-ended questions about their courses so they can provide adequate feedback. They also want and need to be given adequate access to the evaluation, and adequate time to fill out and return the survey.

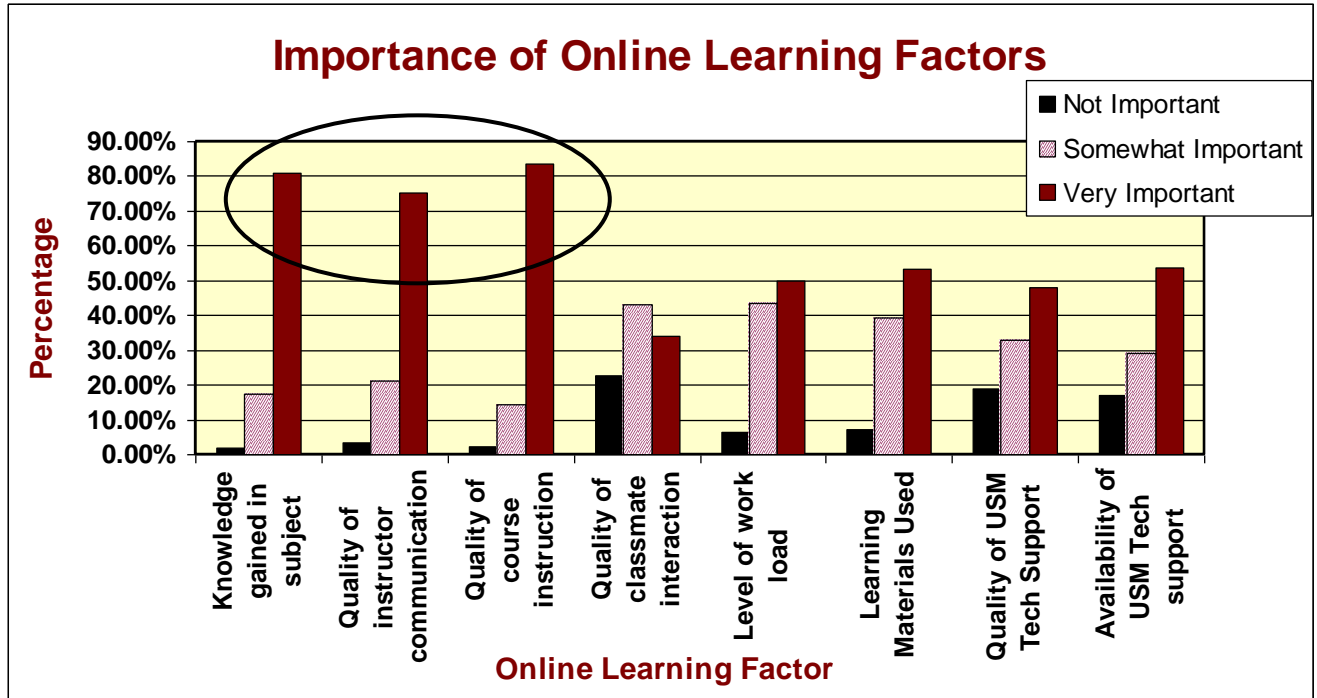
When asked how valuable students thought a mid-semester evaluation would be for online courses, 76% of students said either somewhat valuable or very valuable. But as one student put it, "*Mid-semester evaluations will only be valuable if the instructor has immediate access and makes any necessary adjustments.*" As this student notes, evaluations (whether given midway through the semester, or at the end of the semester) are only useful to students if some type of action is taken because of them. This is confirmed by yet another student said in our survey that

*"It would be nice to know that someone actually reads the evaluations. They often feel pointless because no changes ever occur. Some feedback about changes made that were suggested by students would be nice."*

In addition to asking general questions about evaluation on our survey, we asked students which specific factors were important to them in an online course. The top three responses, all rated 75% or more as very important, were: quality of course

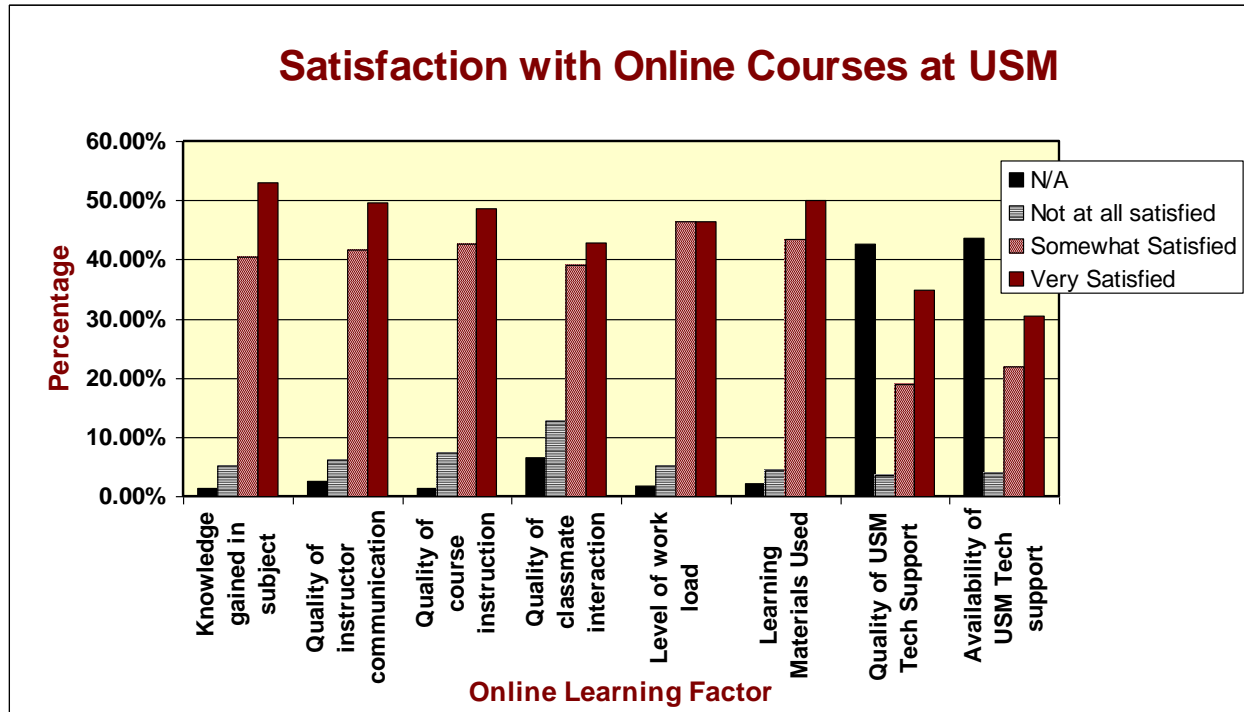
instruction (83.6%), knowledge gained about course subject (81.0%), and quality of communication with instructor (75.2%). The item rated least important by students, with 22.7% of students saying it was not important, was quality of interaction with your online classmates. Table 3 outlines how students rated the importance of certain online learning factors.

**Table 3**



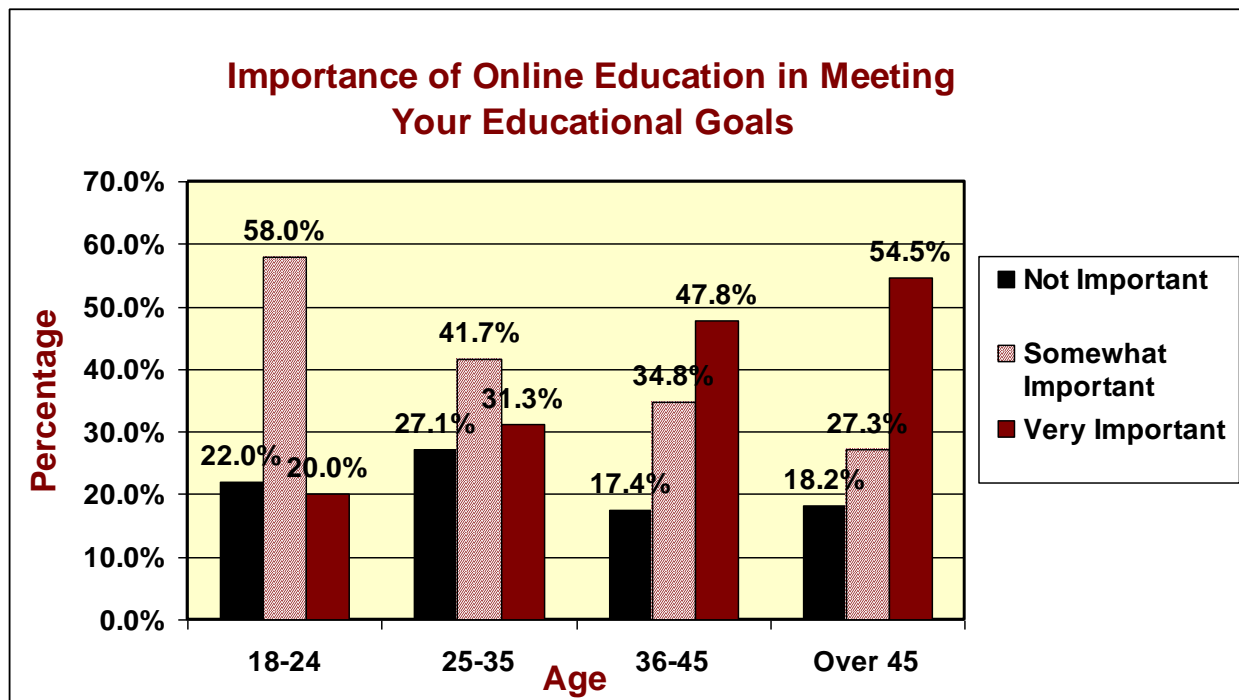
In an effort to gauge student satisfaction, we also asked students to rate how satisfied they were with these factors in their last online course. Table 4 shows this information in more detail.

**Table 4**



As Tables 3 and 4 show, a significant gap exists between what students believe to be important to high quality online education and what they experienced with online education at USM. Although approximately 50% were very satisfied with knowledge gained, learning materials, instructor communication, and course instruction, another 50% (approximately) were only somewhat satisfied or not at all satisfied in those areas. The factor with the most “not at all satisfied” responses was quality of interaction with online classmates, but this was also the factor students felt was least important. The largest gap between what students wanted and what they experienced lies in the areas of knowledge gained, quality of communication with instructor, and quality of course instruction. In these areas, USM students are demanding more, and USM must find a way to give them more. This is particularly true for adults student for whom online education is particularly important in helping them reach their educational goals (see Table 5 below).

Table 5



2. What do adult students perceive as barriers to successful participation in online coursework? Are these perceived barriers different or the same for traditional students?

In order to best serve online students, adult and traditional alike, you must know what barriers they experience to successful participation in online coursework.

Our survey results show that for students, the most important factor in their success is the quality of their online course and the quality of their online professor. Many students feel that not all courses are well suited for an online environment, nor are all professors. Here, students describe how the quality of an online experience can vary greatly from class to class, and from professor to professor:

*"This is very dependent on the professor who is teaching the course. With some professors there isn't any difference, with others the difference is much more marked."*

*"It depends on the subject. Some subjects lend themselves better to more of an independent study with online courses."*

*"I perceive the biggest factor relating to quality of online coursework is the professor's ability/willingness to put time and resources into the online course. Some undergraduate online courses I had were a joke in that the professor did not provide instruction - merely posted assignments without interaction. I was worried about this when signing up for online [graduate] coursework, but was pleasantly surprised that the professors were highly engaged."*

*“My experiences in one online class setting made me believe that it would be a positive experience. However, I've found that some professors are better able to instruct, command control, and explain expectations better than others. In sum, not all online courses are created equally!”*

*“I've only had 1 on-line course so far and I think the quality is as good as the traditional classes that I've taken. I think the professor is a better indication of the quality and their expectation from the student.”*

*“I would say that certain professors would be very adept at planning/ coordinating/ being a presence for an online course, while other would fail. The professor must be able to adjust his/her in-person coursework to the online format...the two require very different things. Very, very important to my excellent online experience was the FANTASTIC online-presence of the professor throughout the class.”*

*“It's been very convenient, and expedited the process, however the quality of the courses has not been consistent.”*

Another large group of students who say they prefer the interaction that comes with a F2F course, but that they also really enjoy the convenience and accessibility afforded by online courses. For these students, online coursework is seen as a second choice, but a choice they are glad to have the opportunity to make because it makes improves their access to courses. These students note:

*“I prefer in person classes for the interaction although online allows more flexibility with busy work schedule.”*

*“I tend to think that I learn more in traditional classrooms, but I value to convenience of online courses.”*

*“It's a good resource for some classes but in my case it wouldn't replace the pleasure of participating to a live class. I strictly chose online classes for my schedule, if I had a choice I would still go to class live”*

*“It's a toss up between not having to drive vs. lack of personal contact. I miss interacting with other students.”*

*“It is primarily distance from USM campus that motivates me to choose online education. I much prefer to be in the classroom where I can more easily interact with the instructors and other students.”*

*“It's mostly about convenience. As a full-time employee, the online courses allow me to study at times that are most convenient for me and my family.”*

This feeling holds true not only for adult non-traditional students, but for traditional students as well. These comments come from traditional aged student:

*“My motivation and overall learning experience has been better in the traditional classroom setting. I take online courses because of their convenience.”*

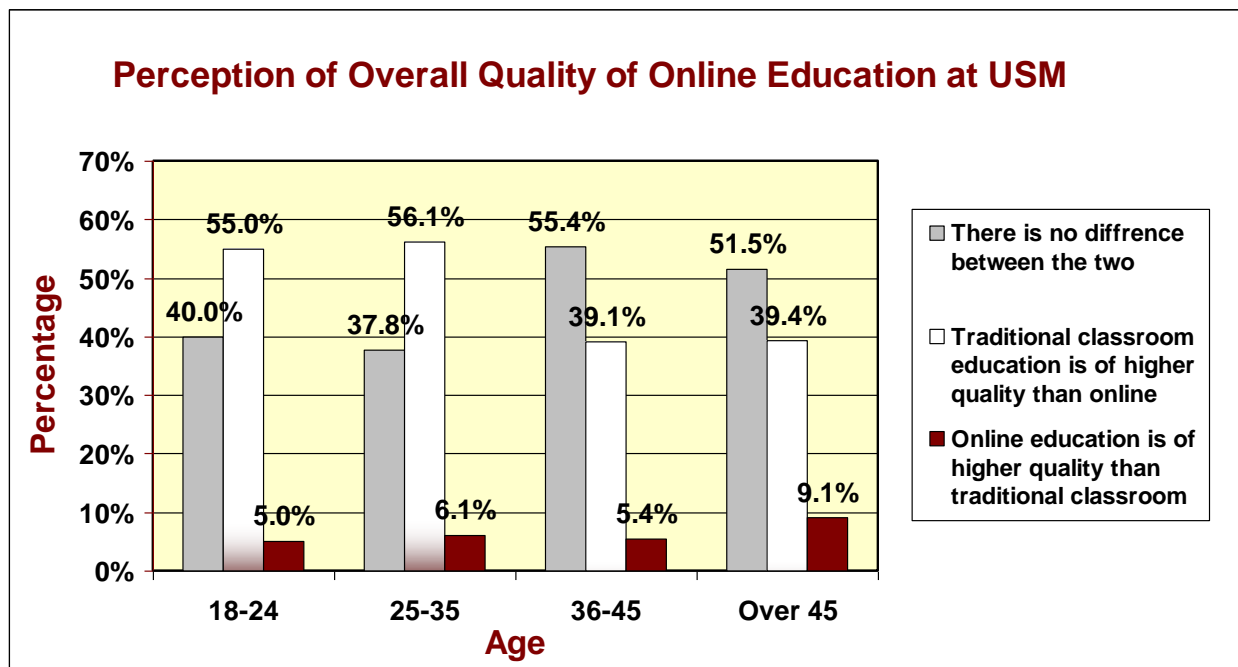
*“They are different. Traditional is ideal, but for those of us who work full time and aren't able to make the daytime classes physically, we can make up for it at home and on the weekends online.”*

There is also a large number of students who are worried that their online courses won't be as high of quality and that they won't learn as much. In some cases this is from experience, and in other cases this is an untested assumption. This student's comments were reflected by quite a few others:

*“I would prefer to attend a [F2F] class, but sometimes it is only offered online. I find that I learn better when I attend a class in person. I don't feel that I learn as much online.”*

Table 6 shows respondent's overall perception of the quality of online education at USM (when compared with F2F) in more detail.

**Table 6**



It is interesting to note that adult students are much more likely to feel that there is no difference between online and F2F courses than their traditional counterpart. They are also more likely to feel that online education is of higher quality than traditional classroom, and conversely, they are less likely to feel that traditional is of higher quality.

Thus, perceived quality of online coursework appears to be more of a barrier for traditional aged students than it is for adult students. That being said, respondent comments clearly show that the quality of online coursework and instruction is critical. A student will likely judge all online coursework from their first experience with the



medium. USM must ensure that its online courses are at least as high of quality as their F2F courses, if not better.

Another important barrier issue that was measured in our survey is the student's ability to access and use various technologies. (Table 7 outlines results in more detail.) These technological abilities can often affect a student's ability to access, and have successful learning experience with, an online course. Our survey results show that younger students do have an easier time with many different technological skills, but the gap may be smaller than many people assume. A majority of adult learners found the following tasks "very easy": accessing the internet and logging on to black board. And for the most part, the remaining tasks were mainly coded as "easy" by adult learners. The only task that a significant number of students rated as difficult was learning about the availability of online courses. 14.5% of both traditional and adult learners found this task to be difficult. This is useful information for USM when deciding how to market their online classes. While still not a large number of students, the item "getting USM Technical support when needed" did receive by far the highest number of "very difficult" ratings. Improving our service in these areas, particularly our marketing of online coursework and technical support services, will decrease barriers to online education for all students.

**Table 7**

|  | <b>Age Range</b>    | <b>Very Difficult</b> | <b>Difficult</b> | <b>Easy</b> | <b>Very Easy</b> |
|--|---------------------|-----------------------|------------------|-------------|------------------|
| <b>Accessing the Internet</b>                            | <i>18-24</i>        | 0.0%                  | 7.3%             | 18.2%       | 74.5%            |
|  | <i>25 and older</i> | 1.2%                  | 3.5%             | 28.6%       | 66.7%            |
| <b>Learning about the availability of online courses</b> | <i>18-24</i>        | 1.8%                  | 14.5%            | 49.1%       | 34.5%            |
|  | <i>25 and older</i> | 0.0%                  | 14.6%            | 51.5%       | 35.7%            |
| <b>Registering for online courses</b>                    | <i>18-24</i>        | 0.0%                  | 5.5%             | 41.8%       | 52.7%            |
|  | <i>25 and older</i> | 1.1%                  | 9.9%             | 48.0%       | 40.3%            |
| <b>Logging on to Blackboard</b>                          | <i>18-24</i>        | 1.8%                  | 1.8%             | 23.6%       | 72.7%            |
|  | <i>25 and older</i> | 0.0%                  | 4.1%             | 40.3%       | 56.1%            |
| <b>Getting USM Technical Support when needed</b>         | <i>18-24</i>        | 4.1%                  | 10.2%            | 59.2%       | 26.5%            |
|  | <i>25 and older</i> | 3.3%                  | 14.6%            | 59.0%       | 23.2%            |
| <b>Downloading Documents from Blackboard</b>             | <i>18-24</i>        | 5.5%                  | 3.6%             | 43.6%       | 47.3%            |
|  | <i>25 and older</i> | 0.6%                  | 10.7%            | 47.3%       | 41.4%            |
| <b>Posting assignments/papers to Blackboard</b>          | <i>18-24</i>        | 1.8%                  | 5.5%             | 52.7%       | 40.0%            |
|  | <i>25 and older</i> | 1.8%                  | 10.6%            | 47.6%       | 40.6%            |

|  |              |      |      |       |       |
|--|--------------|------|------|-------|-------|
| Evaluating the course at the end of the semester | 18-24        | 0.0% | 5.9% | 54.9% | 39.2% |
|  | 25 and older | 1.2% | 4.8% | 52.7% | 41.2% |

The survey results show another barrier for many online students. Online courses are just not available in their major. Many students would love to take more online classes if they were offered. As this student states, *“I would take more online courses if more of them were offered.”* In regards to online classes another student notes, *“I love it: more online classes would only make my life easier!”*

Another barrier that universities and colleges may or may not be able to influence is the type of learner a student is. Online course are quite different from F2F, and it takes a certain type of student to excel in them. As this student says, success in an online course depends on the type of student you are:

*“I believe it really depends on the type of student you are. I am able to set deadlines for my self and pace what I have to do. If you are a procrastinator or need one-on-one connections then going to class would be a better option. I also like that I have a discussion prompt in many of my classes. I am able process the material and then respond. I am not a quick thinker. I got more out of the discussion board format than a live discussion format.”*

While universities may not be able to change a student’s personal characteristics a great deal, they can at least make sure student’s understand what will be required of them in an online class, and help them assess their ability to be successful before they begin.

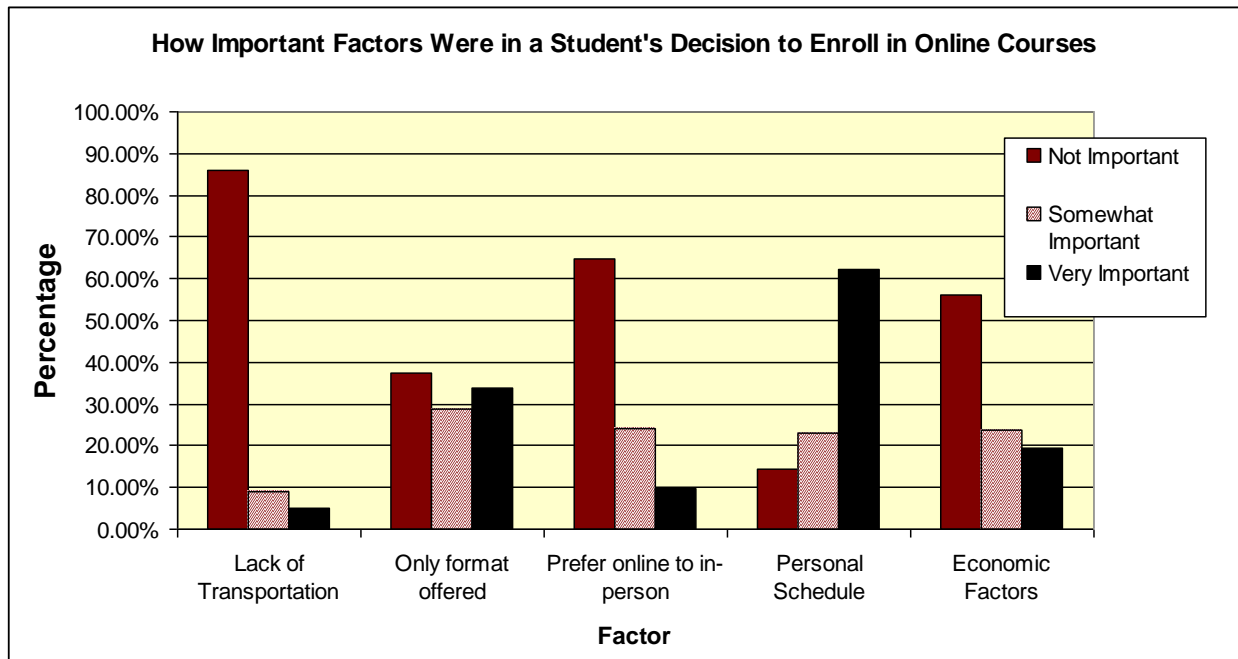
### 3. How can online education help USM meet the needs of its adult student population?

Our research results show that online education can help USM meet the needs of its adult student population in a number of ways, including: improving access for working adults and other students who are unable to come to campus, improving retention rates, and increasing progression towards degree and degree completion rates.

#### **Access**

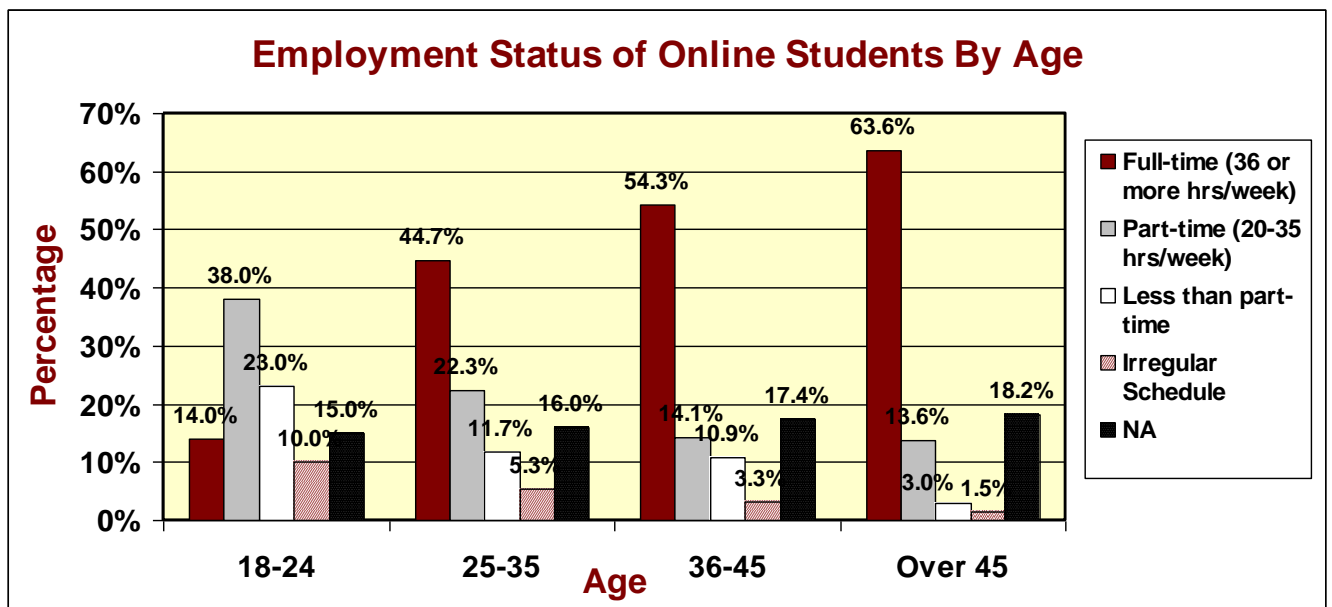
One of the most talked about benefits of online education is its ability to increase access for students. Our survey results confirm this. A number of students noted that due to their working schedule, they were simply unable to take courses during the day. In fact, the number one reasons that survey respondents chose to take an online course was due to personal schedule (see Table 8). When asked to rate factors by how important they were in a student’s decision to enroll in online courses, “personal schedule” was the only factor rated as very important by students across all age groups.

**Table 8**



And although all students rated personal schedule as a large reason to enroll in online courses, our survey results show that it is mainly adults who are working full-time. Table 9 shows how much more likely it is for adult learners to be working full-time than their younger counterparts. This is important to note, because USM should provide people who cannot quit their jobs to come back to school with an option for increasing their education while remaining employed full-time. Online education is one critical way USM can provide this access.

**Table 9**



## **Retention**

The issue of retention in online education is in many ways a double-edged sword. Online classes can increase retention rates because they allow students to stay enrolled who normally would not have been able to do so due to various life circumstances. Take these students for example:

*“Online classes or the lack of them at this point will determine if I am able to continue taking classes at USM. I am concerned with budget cuts as they offer fewer and fewer classes in my program, I will not be able to complete my program if they do not offer online options for me.”*

*“[Online] has been a huge factor for me. My husband is in the Marines so I spend half my time in North Carolina and half in Maine. Without it I would not be able to take any classes and I am really trying to finish my degree before he gets out of the military. I wish there were more offered!”*

*“As a working professional & mother of two young children, it was very appealing to me to be able to take online graduate courses. If it weren't for such offerings, I would likely not choose USM courses to pursue my continuing education.”*

*“Online education allowed me to continue my pursuit of a degree while I was being treated for cancer.”*

For these reasons, and others, online courses clearly help retain some students who otherwise would have been forced to leave school due to life circumstances. Retention in online courses, however, is also a serious issue that must be addressed within the realm of distance education. Historically, dropout rates among distance education students have been disproportionately high when compared to traditional F2F courses (Richard & Ridley, 1997; Bolliger & Martindale, 2004). One recent study compared online and F2F cohorts from the same degree programs and the same institution. The study's results showed that online MBA (Master's of Business Administration) students were six times more likely to drop out than campus MBA students, and online CSDI (Master's in Communication Sciences and Disorders) students were seven times more likely to drop out than campus CSDI students (Patterson & McFadden, 2009). While this may sound like only one school's experience with online coursework, the research shows that this is not an anomaly, but is instead a trend shown in distance education around the country. Thus, colleges and universities must figure out why online students tend to dropout at higher rates, and address those issues head on. If this can be done, online courses could be a legitimate mechanism for increasing retention at USM.

## **Progression towards degree/degree completion**

USM newest strategic plan clearly identifies one of USM's largest problems with meeting the needs of adult students. “Student progress towards degree may be impeded unintentionally through unresponsive institutional and bureaucratic practices...As a 21<sup>st</sup> century university, USM must improve access for students through a strategic combination of traditional classrooms and online learning that serves the

academic needs of place-bound, busy students.” This sentiment was confirmed over and over again by students responding to our survey.

*“I took at least 9 credit hours per semester during pursuit of my BS, but will be taking the MA program a bit slower. That may change if more courses are offered online because it would make it easier for me to fit the time into my schedule if the time frame were more flexible. I vote for offering more on-line classes in the MA program!”*

*“Online was an option for me while my mom was sick. It gave me the flexibility to take a full course load.”*

*“I would not be able to complete my degree at USM if it were not for the online class option!”*

*“Taking an online course during Winter session was critical to me in moving through my degree program at USM at the pace I wanted to. I would not have been able to take a Winter session course in person, but the online format was perfect for my schedule.”*

*“I think what USM needs to realize is that many graduate students who work on their degree part-time (which takes longer to accomplish than full time student) get pulled away from Maine or the classroom for different reasons: travel for work, birth of a child, family changes, etc. Online courses are a great way for students to continue their work and involvement with their individual programs. Had USM had online courses when I left two years ago, I would be that much closer to graduation, which would have been great for me and USM.”*

This benefit of online education cannot be understated. When compared with its peers, USM has a relatively low degree completion rate (around 35%). This number can and must improve. One way to do that is through offering online courses. Students, such as though whose comments are outlined above, will have more options for staying enrolled and finishing their degrees if they can take courses that fit within their busy lives.

### **Meeting special needs of adult learners**

Online courses can also help adult learners who may be anxious about coming back to school after some time away. These courses help alleviate fears and anxieties that might be present if an adult had to walk in to a class full of traditional-aged students.

This respondent explains the situation for some adult learners:

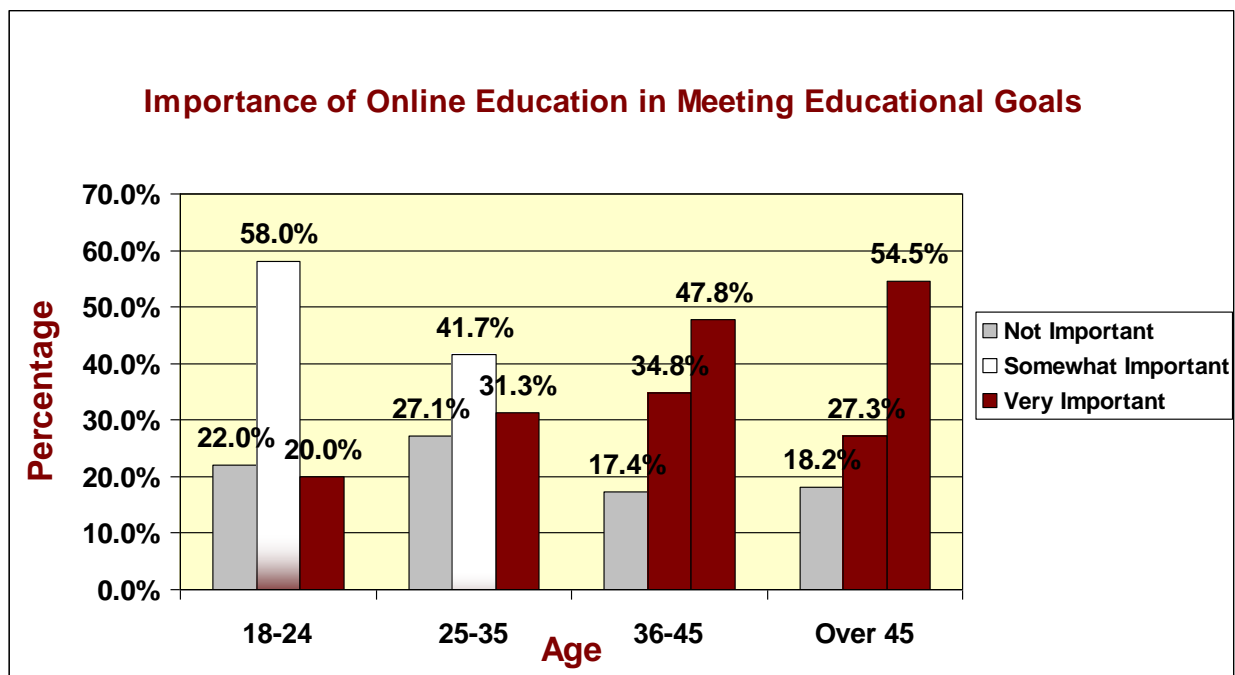
*“As a non traditional student online courses have served me well. I have been able to appreciate the perceived “anonymity” that these online courses have afforded me. I have been able to voice my opinions free from snickers, sneers, etc. I also enjoy being able to take the time I need to gather my thoughts prior to posting them.”*

While perhaps more common among adult learners, these fears and anxieties are not unique to those 25 and over, but can also exist for traditional aged student. As this

traditional student notes, “I learned more online because I was required to participate in discussions; I don't always feel comfortable talking in class.”

Our results also showed that overall, adult learners were more likely to say that online education was important to them in meeting their educational goals. Table 9 outlines this information in more detail. It shows that the majority (58.0%) of those 18-24 years of age said that online learning was only “somewhat important” in helping them meet their educational goals. The majority of those 25 years of age and older, however, said that online learning was “very important” in helping them achieve their educational goals. And this number gets larger as a person’s age increases. Of those 25-35 years of age, 31.3% said online education was very important; for those 36-45, 47.8% said online was very important; and for those 45 and older, 54.5% said online education was very important. Of those 18-24 years of age, this number shrinks to 20%.

**Table 9**



## **Discussion and Recommendations**

Online education is not for every professor or for every student. The reality is not all faculty members want or need to learn the process of teaching a high quality course online, and similarly, not all students are suited for the online environment. Success in an online course requires motivation, self-discipline, good time-management skills, and the ability to communicate well through electronic means. Not all students will want or be able to do this. That being said, research clearly shows that online education is critical for adult student access and success. It is USM's obligation to meet the current demand for online courses, and to ensure all students, adult and traditional alike, have

the opportunity to succeed. To reach these goals, I recommend USM take the following actions.

### **1. Provide complete, high quality services for online students.**

Student services are critical. As Pusser et. al state, “Few factors influence adult learner’s success more than student/institutional planning and counseling” (2007). The most important thing USM can do to help meet the needs of adult students is to focus on advising and student services for this student population. As one of our respondents points out, “*On-Line education needs a better advising system, especially for the general questions.*” This student is completely right. The research confirms this point over and over again. According to one author, “Experience provides clear evidence that high-quality, comprehensive student support services are critical to enrollment and retention for online degree programs... services for online learners must provide the vital link that produces affinity between the student and the academic campus. For today’s learners, especially adults, this means the expectation for responsiveness to their individual needs” (Rhoda, 2005.) And students need more than online advising. They need an entire realm of student services conveniently available to them. Rhoda goes on to suggest the need for a centralized structure for online student services. She says that “within that centralized structure, technical support and training for faculty, comprehensive student services, and network/server infrastructure must be integrated into an effective entity” (Rhoda, 2005). USM’s online and adult students would greatly benefit from such a centralized structure for online service and support.

### **2. Provide *complete* degree programs online, and ensure that online courses and online instruction are of the highest quality possible.**

Online students do not want one or two courses here and there. Adult students need to be able to complete a degree program through at least a combination of night, weekend and online courses. And ideally, some programs should be offered completely online for those students not able to attend campus at all. Those online courses that are offered must be of excellent quality. The common denominator across our research was the fact that at the end of the day, what students care most about is the quality of their online course and the quality of their online instructor. One bad online experience can have devastating impacts on a student’s perception of all online coursework, particularly if that bad experience was a student’s first encounter online. While the university understandably wants to deliver as many courses as possible, we must keep in mind that for many students, *no* online course is better than a *poor* online course. USM must invest in its Center for Technology Enhanced Learning (CTEL) to promote faculty and course development. Individuals departments also must have high, maybe even higher, quality expectations for their online courses. Assessment must occur in a meaningful way to ensure that these expectations are being met.

### **3. Provide readiness assessments for online students to help with retention and degree completion.**

Online education may not be for everyone, but USM can certainly help students prepare for the world of online learning and ensure that students know what will be required of them before they undertake an online class or program. “Readiness” software is

available to help colleges and universities do just that. Whether through purchasing an outside software system, or through creating a system of their own, USM should ensure that online students are prepared when they begin an online class. They should have the technological skills required, or be given the opportunity to develop them, and they should understand the level of self-direction required to be successful. These measures would greatly improve retention and degree completion rates.

#### **4. Assessment is critical.**

The evaluation of online coursework and instruction must be done, and it must MEAN something. Our survey results show that students want to provide feedback, but that they also want to know their feedback is being heard and valued. Also, for online courses, students should be able to evaluate the technological components of their course. The current USM survey instrument does not allow students to do this. A new instrument or new procedure for evaluating online courses should be developed that could accommodate these needs.



## References

- Allen, I. & Seaman, J. (2006). Making the Grade, Online Education in the United State. The Sloan Consortium. Available online at:  
[http://www.sloan-c.org/publications/survey/pdf/making\\_the\\_grade.pdf](http://www.sloan-c.org/publications/survey/pdf/making_the_grade.pdf)
- Allen, I. & Seaman, K. (2007). Online Nation: Five Years of Growth in Online Learning. The Sloan Consortium. Available online at:  
[http://www.sloan-c.org/publications/survey/pdf/online\\_nation.pdf](http://www.sloan-c.org/publications/survey/pdf/online_nation.pdf)
- Bolliger, D., & Martindale, T. (2004). Key Factors for Determining Student Satisfaction in Online Courses. *International Journal of E-Learning*, 3(1), 61-67.
- Brooker, Q. & Rebman, C. (2005). E-Student Retention: Factors Affecting Customer Loyalty for Online Program Success. *Issues in Information Systems*, 6(1), 183-189.
- Chenug, D. (1998). Developing a student evaluation instrument of distance teaching. *Distance Education*, 19(1).
- Grunau, S. (2005). Adult Learner Advising: The Vital Link. From *Best Practices in Adult Education*, 65-82. Edited by Lee Bash, Anker Publishing Company, Inc. Bolton, Mass.
- Hess, M. (2005). From the Learners' Eyes: Student Evaluation of Online Instruction. Paper presented at the National Educational Computing Conference, Philadelphia, PA.
- Harrington, C., & Reasons, S. (2005). Online Student Evaluation of Teaching for Distance Education: A Perfect Match? *The Journal of Educators Online*, 2(1), 1-12.
- Kelsen, I., & Lesick, L. (2005). Recruiting and Admitting Adult Learners: They're Not Just Older—They're Different. From *Best Practices in Adult Education*, 49-64. Edited by Lee Bash, Anker Publishing Company, Inc. Bolton, Mass.
- Knowles, M., Holton, E., III, & Swanson, R. A. (2005). The adult learner: The definitive classic in adult education and human resource development (6th ed.). Burlington, MA: Elsevier.
- Levine, A., & Sun, J. (2002). Barriers to Distance Education. Available online at:  
<http://www.educause.edu/Resources/BarrierstoDistanceEducation/160436>
- Light, R. (2001). *Making the most of college: Students speak their minds*. Cambridge, MA: Harvard University Press.
- Mancuso, S. (2001). Adult-Centered Practices: Benchmarking Study in Higher Education. *Innovative Higher Education*, 25(3), 165-181.

Mbilinyi, L. (2006) Degrees of Opportunity: Adults' views on the value and feasibility of returning to school. Available online at: [www.degreesofopportunity.org](http://www.degreesofopportunity.org)

McCormack, C. (2005). Reconceptualizing student evaluation of teaching: an ethical framework for changing times. *Assessment & Evaluation in Higher Education*, 30(5), 463-476.

Muilenburg, L., & Berge, Z. (2005). Student Barriers to Online Learning: A factor analytic study. *Distance Education*, 26(1), 29-48.

National Center for Educational Statistics. (1999). *The Condition of Education*. Available at: <http://nces.ed.gov/pubs99/condition99/pdf/1999022.pdf>

National Center for Educational Statistics. (2002). *Findings from the Condition of Education 2002: Nontraditional Undergraduates*. Available online at: <http://nces.ed.gov/pubs2002/2002012.pdf>

Naretto, J. (1995). Adult Student Retention: The influence of internal and external communities. *NASPA Journal*, 32(2), 90-97.

Nasseh, B. (1999). Internet-Generation & Adult Learners: Higher Education Institutions in the 21<sup>st</sup> Century. Ball State University.

Online Learning as a Strategic Asset: A Survey of Presidents and Chancellors. (2007). Prepared by NASULGC-Sloan National Commission on Online Learning. Available online at: <http://www.aplu.org/NetCommunity/Document.Doc?id=443>

Preparing USM for the Future, 2009-2014. Available online at: [http://usm.maine.edu/spp/Preparing\\_USM\\_for\\_the\\_Future\\_June\\_11\\_09.pdf](http://usm.maine.edu/spp/Preparing_USM_for_the_Future_June_11_09.pdf)

Patterson, B., & McFadden, C. (2009). Attrition in Online and Campus Degree Programs. *Online Journal of Distance Learning Administration*, 12(2).

Polson, C. (1994). O'Banion's Advising Model and the Adult Student. *NACADA Journal*, 14(2), 96-103.

Pusser, B., Breneman, D., Gansneder, B., Kohl, K., Levin, J., Milam, J., & Turner, S. (2007). Returning to Learning: Adults' Success in College is Key to America's Future. *Lumina Foundation for Education New Agenda Series*. Available online at: <http://www.luminafoundation.org/publications/ReturntolearningApril2007.pdf>

Report of the Task Force: New Challenges, New Directions. Draft of June 23, 2009. Available online at: <http://www.maine.edu/pdf/UMSTaskForceDraftReportJune232009.pdf>

Richards, C., & Ridley, D. (1997). Factors affecting college students' persistence in online computer-managed instruction. *College Student Journal*, 31(1), 490-495.

Rhoda, K. (2005). The Role of Distance Education in Enhancing Accessibility for Adult Learners. From *Best Practices in Adult Learning*, 149-172. Edited by Lee Bash, Anker Publishing Company, Inc. Bolton, Mass.

Shields, N. (1994). Retention, academic success, and progress among adults, returning students: A Comparison of the effects of institutional and external factors. *NACADA Journal*, 14(1),13-24.

Skorupa, K. (2002). Adult Learners as Consumers. *Academic Advising News*, 25(3). Available online at:  
<http://www.nacada.ksu.edu/Clearinghouse/advisingIssues/adultlearners.htm#over>

Theall, M., & Franklin, J. (2000). Creating Responsive Student Rating Systems to Improve Evaluation Practice. *New Directions for Teaching and Learning*, 83(2), 95-107.

Voorhees, R., & Lingenfelter, P. (2003.) Adult Learners and State Policy. Available at:  
<http://www.cael.org/alfi/PDF%20files/Sheeo%20Paper.pdf>

Weigel, V. (2002). Deep Learning for a digital era: Technology's untapped potential to enrich higher education. p127. San Francisco, CA: Jossey-Bass.

Wonacott, M. (2001). Adult Students: Recruitment and Retention. Available online at:  
<http://www.ericacve.org/fulltext.asp>

## Appendix A: Survey Instrument

### Survey of USM's Online Student Community

*This survey is being conducted to determine how USM can better serve students who enroll in online coursework. We are gathering data on who enrolls in online courses at USM, why they enroll, what they value about online education, and how they want to evaluate their online experience. The information will be collected, analyzed, and shared with those currently or potentially involved with developing online initiatives at USM. Your participation in this survey is entirely voluntary. You may discontinue participating in the survey at any point, and none of the information will be collected or included in the study. Please note that you must be 18 years of age or older to participate in the survey.*

#### **Section 1: The first section of this questionnaire will help us understand why students enroll in online courses at USM.**

1. What types of courses have you enrolled in at USM? Please check all that apply.

- Traditional Classroom courses, with less than 50% of the sessions held online
- Course(s) offered *partly* online, with 50% or more of the sessions online (Hybrid/Blended)
- Course(s) offered fully online, with no live class sessions and with work completed asynchronously (you may log on at your convenience during the week to complete assignments)
- Course(s) offered fully online, with some of all classes held synchronously (you must log on at a specific time during the week and participate in real-time with instructor and classmates.)

*(If respondent checks any box except the first one, they will skip to Question #3.)*

2. If you have never taken an online course, what is the *primary* reason that you have decided not to enroll in an online class at USM?

- USM does not offer the courses I need online
- I prefer to take classes in the traditional in-class format
- I do not feel comfortable enough with the technology required to take an online class
- I do not feel like I learn as much in an online course (as opposed to traditional in-class course)
- I want the face-to-face interaction with both students and faculty that you get in the traditional classroom but not online
- Other: \_\_\_\_\_

*(If respondent only checked Traditional Classroom in Question #1, they will be directed to skip to Section #3 at this point.)*

3. How many totally, or partially, web-based courses have you taken at USM?

- Currently enrolled in my first online course at USM.
- I have previously enrolled in 1 or 2 online courses.
- I have previously enrolled in 3 or more online courses.

4. Please rate the importance of online learning in helping you meet your educational goals.

- Not Important
- Somewhat Important
- Very Important

5. Please rate the following factors by how important they were in your decision to enroll in online coursework at USM.

|                              | <b>Not Important</b> | <b>Somewhat Important</b> | <b>Very Important</b> |
|------------------------------|----------------------|---------------------------|-----------------------|
| Commuting Distance to Campus |                      |                           |                       |
| Lack of Transportation       |                      |                           |                       |
| Only format offered          |                      |                           |                       |
| Prefer online to in-person   |                      |                           |                       |
| Personal Schedule            |                      |                           |                       |
| Economic factors             |                      |                           |                       |

6. Which of the following best describes your perception of the over-all **quality** of online coursework at USM compared to that of the traditional classroom format?

- I have never taken a class in the tradition classroom format at USM.
- There is no difference between the two.
- Traditional classroom education is of higher quality than online education.
- Online education is of higher quality than traditional classroom education.

7. Which of the following best describes your perception of the over-all **workload** of online coursework at USM compared to that of the traditional classroom format?

- I have never taken a class in the tradition classroom format at USM.
- There is no difference between the two.
- Classes in the traditional classroom format typically require a heavier workload than online courses.
- Online courses typically require a heavier workload than those in the traditional classroom format.

8. Please indicate your preference for enrolling in a course if it were offered in the following format:

| <b>FORMAT</b>   | <b>Would not consider this format</b> | <b>Would consider this format</b> | <b>Prefer this format</b> |
|---|---------------------------------------|-----------------------------------|---------------------------|
| In-Person On Campus   |                                       |                                   |                           |
| Hybrid/Blended (mix of online and in-person during the semester)  |                                       |                                   |                           |
| Online Asynchronous (log on at your convenience during the week to complete assignments.)                                   |                                       |                                   |                           |
| Online Synchronous (log on at a specific time during the week and participate in real-time with instructor and classmates.) |                                       |                                   |                           |

9. The distance between my home and the closest USM campus influences my choice of online coursework in the following way:

- Distance is not a factor in choosing online coursework.
- Distance is one of the reasons I choose online.
- Distance is the main reason for choosing online coursework.

10. What is the primary source of tuition funding for your online coursework? Please check all that apply.

- Personal Resources
- Employer/Sponsor paid or reimbursed without conditions
- Employer/Sponsor paid or reimbursed based upon meeting certain conditions
- Financial Aid (including scholarships and/or grants)
- VA Benefits

11. Please rate the importance of each of the following factors in how much they motivated you to enroll in online coursework at USM?

|   | <b>Not an Important Factor</b> | <b>A Somewhat Important Factor</b> | <b>Not a Very Important Factor</b> |
|---|--------------------------------|------------------------------------|------------------------------------|
| Advancement in current employment           |                                |                                    |                                    |
| Career Change outside of current employment |                                |                                    |                                    |

|   |  |  |  |
|---|--|--|--|
| To meet professional requirements/recertification                 |  |  |  |
| Returning to school to complete degree                            |  |  |  |
| Earn degree/certificate more quickly than it would take in-person |  |  |  |
| To Fulfill requirements for a degree at USM                       |  |  |  |
| To fulfill requirements for degree at another university          |  |  |  |

12. What else should we know about your choice of online education?

**Section 2: In this section we would like to know about your overall experience with online coursework at USM.**

13. Please check any program(s) in which you have enrolled in an online class at USM.

- Business
- Communication/Media Studies
- Music
- Muskie
- Nursing
- Psychology

14. We are interested in learning more about which factors you believe contribute to a high quality online learning environment. In addition, we would like to hear how well your experience meshed with your views about the importance of each online learning factor listed. If you have had more than one online course, think about your overall experience.

| <b>Aspect of online learning</b>         | <b>Please rate the importance of each online learning factor to high quality online education using this scale:<br/>0 = not important, 1 = somewhat important, 2 = very important</b> | <b>Please tell us how satisfied you were with your online course(s) in each of the following online learning areas.<br/>0 = not at all satisfied, 1 = somewhat satisfied, 2 = very satisfied</b> |
|--|---|--|
| Knowledge gained about course subject    |   |  |
| Quality of communication with instructor |   |  |
| Quality of interaction                   |   |  |

|                                  |  |  |
|----------------------------------|--|--|
| with your online classmates      |  |  |
| Level of work load               |  |  |
| Types of learning materials used |  |  |
| The quality of USM Tech Support  |  |  |
| Availability of tech support     |  |  |
| Quality of tech support          |  |  |
| Quality of course instruction    |  |  |

15. Do you think that online courses should be evaluated differently than those courses offered in the traditional in-class format?

- No
- Yes
- Undecided

16. How valuable do you think a mid-semester evaluation would be for online courses?

- Not Valuable
- Somewhat Valuable
- Very Valuable

17. Are there any other areas in which you would like to evaluate online coursework at USM? If yes, what are they?

(Use this space to tell us anything else you would like us to know about evaluating online courses at USM.)

18. How difficult/easy were the following tasks related to your online coursework at USM?

|   | <b>Very Difficult</b> | <b>Difficult</b> | <b>N/A</b> | <b>Easy</b> | <b>Very Easy</b> |
|---|-----------------------|------------------|------------|-------------|------------------|
| Learning about the availability of online courses |                       |                  |            |             |                  |
| Registering for online courses                    |                       |                  |            |             |                  |
| Accessing the internet                            |                       |                  |            |             |                  |
| Logging on to Blackboard                          |                       |                  |            |             |                  |
| Getting technical support when needed             |                       |                  |            |             |                  |
| Downloading documents                             |                       |                  |            |             |                  |



|  |  |  |  |  |  |
|--|--|--|--|--|--|
| Posting assignments/papers to blackboard     |  |  |  |  |  |
| Evaluating the course at the end of semester |  |  |  |  |  |

19. If offered in the future, what types of online courses would you be likely to enroll in?

| <b>USM Course Type</b>   | <b>Not Likely to enroll</b> | <b>Somewhat Likely to enroll</b> | <b>Very Likely to enroll</b> |
|--------------------------|-----------------------------|----------------------------------|------------------------------|
| Non-Degree Courses       |                             |                                  |                              |
| Core Required Courses    |                             |                                  |                              |
| Degree Required Courses  |                             |                                  |                              |
| Electives towards degree |                             |                                  |                              |
| Summer Session           |                             |                                  |                              |
| Winter Session           |                             |                                  |                              |

20. How do you access your online coursework and materials?

|  | <b>Do not Use</b> | <b>Use Sometimes</b> | <b>Use Frequently</b> |
|--|-------------------|----------------------|-----------------------|
| Personal Computer at Home                        |                   |                      |                       |
| Personal Computer at Public Wi-Fi location       |                   |                      |                       |
| At work  |                   |                      |                       |
| USM Computer                                     |                   |                      |                       |
| Computer at another university or public library |                   |                      |                       |
| Other  |                   |                      |                       |

21. If you work from a home computer, what type of internet connection do you use?

- High Speed (Cable, DSL, Broadband, Satellite)
- Slower Access (Dial-Up, Shared Network)

22. Is there anything else you would like to tell us about your experiences with online education at USM?

**Article I. Section 3: Personal Information**

*In this last section, we would like to collect some demographic information about you to see how different types of people feel about online education at USM.*

23. What type of coursework are you enrolled in?

- Undergraduate
- Graduate
- Certificate
- Non-Degree
- Other

24. What type of student are you?

- Matriculated at USM
- Matriculated at another university or college
- Non-Matriculated Student

25. How many credit hours do you typically enroll in per semester at USM (for both online and in-class courses combined)?

- 0-5
- 6-8
- 9-12
- More than 12

26. What is your GPA?

- 3.5 – 4.0
- 3.0 – 3.4
- 2.5 – 2.9
- 2.0 – 2.4
- Below 2.0

27. Please rate your level of proficiency using the following computer technologies:

|   | <b>Beginner</b> | <b>Intermediate</b> | <b>Advanced</b> |
|---|-----------------|---------------------|-----------------|
| Word Processing (e.g. Microsoft Word)   |                 |                     |                 |
| Spread Sheets (e.g. Excel)  |                 |                     |                 |
| Presentation (e.g. Power Point)   |                 |                     |                 |
| Email   |                 |                     |                 |
| Instant messaging/chat  |                 |                     |                 |
| Navigating the Internet   |                 |                     |                 |
| Managing files (e.g. saving files, renaming files, navigating folders for file storage) |                 |                     |                 |

28. Approximately how many miles do you live from a USM campus?

- 0-30
- 31-60
- Over 60

29. What is your gender?

- Male
- Female

30. What is your age?

- 18 – 24
- 25 – 35
- 36 – 45
- Over 45

31. Which of the following most accurately describes your marital status?

- Married, civil union, or similar
- Separated or Divorced
- Single

32. If you are a wage-earner, which of the following best describes your employment status?

- Full-time (over 36 hours per week)
- Part-time (20-35 hours per week)
- Less than part-time
- Irregular schedule
- N/A

33. If you are a wage-earner, which of the following best describes your work schedule?

- Day shift (approximately 8 am to 5 pm)
- Night shift (approximately 6 pm to 7 am)
- 3<sup>rd</sup> shift (approximately 11 p.m. to 8 am)
- Other
- N/A

34. How many children, under the age of 18, are living in your home at least part of the time?

- None
- 1-2
- 3 or more

Thank you for your participation in this survey. Your assistance will help USM further design and improve student focused online educational programs. If you wish to view the results of this survey, please log onto [www.usm.maine.edu/grad/onlinesurvey](http://www.usm.maine.edu/grad/onlinesurvey)

Appendix B: USM's Student Input for Teaching evaluation instrument:

ED06 NCS Trans-Optic E 10-10500-4039

**USE PENCIL ONLY**  
**LEAVE INAPPROPRIATE ITEMS BLANK**

**STUDENT INPUT FOR TEACHING USM**

|   |  |   |                                 |  |                                  |
|---|--|---|---------------------------------|--|----------------------------------|
| COURSE NO. _____<br>DIV. _____  |  | <b>USE PENCIL ONLY</b><br><b>LEAVE INAPPROPRIATE ITEMS BLANK</b>  |                                 | <b>STUDENT INPUT FOR TEACHING USM</b>  |                                  |
| MAJOR<br>YOUR   | FINE ARTS <input type="radio"/>  | BUS ADMIN <input type="radio"/>   | EDUCATION <input type="radio"/> | HUMANITIES <input type="radio"/>   | SOCIAL SCI <input type="radio"/> |
|   | ENG SCI MAJ <input type="radio"/>  | NURSING <input type="radio"/>   | GRADUATE <input type="radio"/>  | INFO SCI <input type="radio"/>   | OTHER <input type="radio"/>      |
|   | <b>ARE YOU A MAJOR IN THE DEPT. GIVING THIS COURSE</b><br>YES <input type="radio"/> NO <input type="radio"/> |   |                                 |  |                                  |
|   | <b>REASON FOR TAKING THIS COURSE</b><br>REQUIRED <input type="radio"/> INTEREST ONLY <input type="radio"/>   |   |                                 |  |                                  |
| <b>SEX</b><br>FEMALE <input type="radio"/> MALE <input type="radio"/>   |  | <b>EXPECTED GRADE IN THIS COURSE</b><br>P/F <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E <input type="radio"/> |                                 | <b>CUMULATIVE GPA</b><br>NONE <input type="radio"/> 0.00 <input type="radio"/> 2.00 <input type="radio"/> 2.50 <input type="radio"/> 3.00 <input type="radio"/> 3.50 <input type="radio"/> |                                  |
| <b>YEAR IN SCHOOL</b><br>OTHER <input type="radio"/> FR <input type="radio"/> SO <input type="radio"/> JR <input type="radio"/> SR <input type="radio"/> GRAD <input type="radio"/> |  | YET <input type="radio"/> 1.99 <input type="radio"/> 2.49 <input type="radio"/> 2.99 <input type="radio"/> 3.49 <input type="radio"/> 4.00 <input type="radio"/>                          |                                 |  |                                  |

**COMPARING THIS COURSE TO OTHERS YOU HAVE HAD AT USM, please answer the following questions.**

| THE INSTRUCTOR   |  |  | THE COURSE   |   |  |
|--|--|--|--|---|--|
| WELL PREPARED <input type="radio"/> <input type="radio"/> <input type="radio"/>  | OFTEN UNPREPARED <input type="radio"/> <input type="radio"/> | 1. How prepared was the instructor for class?                                      | NOT USUALLY <input type="radio"/> <input type="radio"/> <input type="radio"/>      | ALWAYS <input type="radio"/>                              | 14. Were class meetings profitable and worth attending?                                |
| UNCLEAR <input type="radio"/> <input type="radio"/> <input type="radio"/>        | VERY CLEAR <input type="radio"/> <input type="radio"/>       | 2. How clearly were the objectives of the course presented?                        | VERY INTERESTING <input type="radio"/> <input type="radio"/> <input type="radio"/> | UNINTERESTING <input type="radio"/> <input type="radio"/> | 15. How would you rate the subject matter of this course?                              |
| VERY LITTLE <input type="radio"/> <input type="radio"/> <input type="radio"/>    | VERY MUCH <input type="radio"/> <input type="radio"/>        | 3. How enthusiastic was the instructor about the subject?                          | VERY MUCH <input type="radio"/> <input type="radio"/> <input type="radio"/>        | VERY LITTLE <input type="radio"/> <input type="radio"/>   | 16. Did you develop significant skills in the field as a result of taking this course? |
| VERY CLEAR <input type="radio"/> <input type="radio"/> <input type="radio"/>     | OFTEN UNCLEAR <input type="radio"/> <input type="radio"/>    | 4. How clearly did the instructor present ideas and theories?                      | TOO SLOW <input type="radio"/> <input type="radio"/> <input type="radio"/>         | TOO FAST <input type="radio"/> <input type="radio"/>      | 17. How was the pace at which the material in the course was covered?                  |
| VERY MUCH <input type="radio"/> <input type="radio"/> <input type="radio"/>      | VERY LITTLE <input type="radio"/> <input type="radio"/>      | 5. How much were students encouraged to think for themselves?                      | POOR <input type="radio"/> <input type="radio"/> <input type="radio"/>             | EXCELLENT <input type="radio"/> <input type="radio"/>     | 18. What is your overall rating of the primary textbook(s)?                            |
| UNCONCERNED <input type="radio"/> <input type="radio"/> <input type="radio"/>    | VERY CONCERNED <input type="radio"/> <input type="radio"/>   | 6. How concerned was the instructor for the quality of his or her teaching?        | VERY MUCH <input type="radio"/> <input type="radio"/> <input type="radio"/>        | VERY LITTLE <input type="radio"/> <input type="radio"/>   | 19. Were students required to apply concepts to demonstrate understanding?             |
| NOT AT ALL <input type="radio"/> <input type="radio"/> <input type="radio"/>     | VERY MUCH <input type="radio"/> <input type="radio"/>        | 7. How orderly and logical were the instructor's presentations of the material?    | LIGHTER <input type="radio"/> <input type="radio"/> <input type="radio"/>          | MUCH HEAVIER <input type="radio"/> <input type="radio"/>  | 20. How did the work load for this course compare to that of others of equal credit?   |
| OFTEN CLOSED <input type="radio"/> <input type="radio"/> <input type="radio"/>   | VERY OPEN <input type="radio"/> <input type="radio"/>        | 8. How open was the instructor to other viewpoints?                                | VERY LITTLE <input type="radio"/> <input type="radio"/> <input type="radio"/>      | VERY MUCH <input type="radio"/> <input type="radio"/>     | 21. How much intellectual discipline was required in this course?                      |
| ALWAYS <input type="radio"/> <input type="radio"/> <input type="radio"/>         | RARELY <input type="radio"/> <input type="radio"/>           | 9. Did the instructor show respect for the questions and opinions of the students? | EXCELLENT <input type="radio"/> <input type="radio"/> <input type="radio"/>        | POOR <input type="radio"/> <input type="radio"/>          | 22. What is your overall rating of this course?  |
| RARELY <input type="radio"/> <input type="radio"/> <input type="radio"/>         | VERY OFTEN <input type="radio"/> <input type="radio"/>       | 10. How often were examples used in class?   | <b>EXAMINATIONS</b>  |   |  |
| LITTLE <input type="radio"/> <input type="radio"/> <input type="radio"/>         | VERY MUCH <input type="radio"/> <input type="radio"/>        | 11. Did the instructor inspire confidence in his or her knowledge of the subject?  | VERY PROMPT <input type="radio"/> <input type="radio"/> <input type="radio"/>      | TOO SLOW <input type="radio"/> <input type="radio"/>      | 23. How promptly were assignments and tests returned?                                  |
| VERY CONCERNED <input type="radio"/> <input type="radio"/> <input type="radio"/> | UNCONCERNED <input type="radio"/> <input type="radio"/>      | 12. How genuinely concerned was the instructor with students' progress?            | RARELY <input type="radio"/> <input type="radio"/> <input type="radio"/>           | ALWAYS <input type="radio"/>                              | 24. Could tests be completed in the allotted time?                                     |
| EXCELLENT <input type="radio"/> <input type="radio"/> <input type="radio"/>      | BELOW AVERAGE <input type="radio"/> <input type="radio"/>    | 13. Overall, how would you rate the instructor?                                    | VERY CLEARLY <input type="radio"/> <input type="radio"/> <input type="radio"/>     | NOT CLEAR <input type="radio"/> <input type="radio"/>     | 25. Did the instructor let you know what he or she expected on tests and assignments?  |
| <b>COMMENTS</b>  |  |  | VERY LITTLE <input type="radio"/> <input type="radio"/> <input type="radio"/>      | VERY MUCH <input type="radio"/> <input type="radio"/>     | 26. Did exams reflect the important aspects of the course?                             |
|  |  |  | UNCLEAR <input type="radio"/> <input type="radio"/> <input type="radio"/>          | VERY CLEAR <input type="radio"/> <input type="radio"/>    | 27. How clear were examination questions?  |
|  |  |  | COMPLETELY <input type="radio"/> <input type="radio"/> <input type="radio"/>       | UNFAIR <input type="radio"/> <input type="radio"/>        | 28. How fair were the grading procedures?  |
|  |  |  | EXCELLENT <input type="radio"/> <input type="radio"/> <input type="radio"/>        | POOR <input type="radio"/> <input type="radio"/>          | 29. Overall, how would you rate the examination procedure?                             |

|   |   |  |  |
|---|---|--|--|
| <b>LABORATORY ITEMS — if applicable</b>                 |   | <b>ADDITIONAL QUESTIONS PROVIDED BY INSTRUCTOR</b> |  |
| L1 How well were the labs integrated with the lectures? | VERY WELL <input type="radio"/> <input type="radio"/> <input type="radio"/> | NOT AT ALL <input type="radio"/>                   | 1. <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| L2 Did the labs provide a learning experience?          | VERY MUCH <input type="radio"/> <input type="radio"/> <input type="radio"/> | VERY LITTLE <input type="radio"/>                  | 2. <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| L3 How helpful was the lab instructor?                  | VERY MUCH <input type="radio"/> <input type="radio"/> <input type="radio"/> | VERY LITTLE <input type="radio"/>                  | 3. <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| L4 What is your overall rating of the laboratories?     | EXCELLENT <input type="radio"/> <input type="radio"/> <input type="radio"/> | POOR <input type="radio"/>                         | 4. <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
|   |   |  | 5. <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
|   |   |  | 6. <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
|   |   |  | 7. <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |