

Quality Matters™ Accessibility Survey:
Institutional Practices and Policies for Online Courses

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Abstract

Quality Matters (QM) is a professional organization that offers a faculty-centered, peer review process to certify the quality of online and blended courses. The purpose of this white paper is to share the results of a Quality Matters accessibility benchmarking study administered to 84 subscriber institutions. The primary goal of the survey was to identify the policies, practices, and processes used by Quality Matters institutions to create courses that are accessible for students with vision, hearing, or motor limitations. Based on the results, respondents note two key recommendations as a starting point to developing more accessible online programs. First, most institutions need a comprehensive disability policy specifically for online courses and programs. The second recommendation is to provide an inclusive training program that encompasses the needs of faculty course developers and the higher-level needs of the technology support staff.

Introduction

Online education continues to grow at unprecedented rate throughout the United States. The Alfred P. Sloan Foundation report "[Class Difference in Online Education in the United States in 2010](#)," noted that 29% or over 5.6 million higher education students were taking at least one course in an online format. From 2009 to 2010, there was a 21% growth rate in online education students, which far exceeded the 2% growth in the overall higher education student population. The Americans with Disabilities Act of 1990 and other state and federal legislation require that institutions make these online course materials accessible to students with disabilities. Quality Matters (qualitymatters.org), a non-profit organization that promotes quality in online learning, identifies Web accessibility as a key requirement for online courses. While the exact accommodations required in online courses are as unique and varied as university students, there are general practices and policies that can be applied to all Web-based course materials. In December 2010, Quality Matters (QM) administered a subscriber survey to determine the best practices and policies used to assure accessibility in online learning. The purpose of this document is to share the results of the survey respondents and propose recommendations for making online courses in higher education accessible to all students.

The ability of students with vision, hearing, and motor limitations to access their online courses has come to the attention of many institutions in recent months. Imagine a blind person reviewing online content that cannot be read with the use of technology to assist him or her. Or, consider the frustration a deaf person encounters when trying to review a video that does

not have captioning or a transcript to read. In November 2010, the National Federation of the Blind filed a complaint against Pennsylvania State University for discriminating against blind students and professors with inaccessible computer technology, including the university course management system ("Penn State accused of discriminating against blind students," 2010). This well-publicized complaint emphasizes that the civil rights of students are being violated and has generated heightened institutional interest in Web accessibility issues.

Background

Quality Matters (QM) is a professional organization that offers a faculty-centered, peer review process to certify the quality of online and blended courses. The peer review process is based on the following eight essential standards that courses must meet in order to receive certification: (1) Course Overview, (2) Learning Objectives, (3) Assessment, (4) Resources and Materials, (5) Learner Interaction, (6) Course Technology, (7) Learner Support, and (8) Accessibility. Approximately 410 institutions of higher education subscribe to QM services. Of the eight standards, Web accessibility is especially challenging to incorporate into the course development process. Therefore, a benchmarking survey was administered to determine the best practices and policies used by the member institutions to develop accessible courses.

Methodology

Online courses provide both an opportunity and a challenge for students with disabilities. The flexibility of anytime and anyplace learning is empowering, but the ability to access digital materials can be challenging for students with vision, hearing, and motor limitations. This benchmarking study explores accessibility in college and university online programs.

Research Purpose

QM-subscriber institutions are global leaders in online education and research. Their policies and practices are of particular interest and value to stakeholders in other distance education programs. Following are the goals of this benchmarking survey:

- To identify the policies, practices, and processes used by QM institutions to create courses that are accessible for students with vision, hearing, or motor limitations.
- To integrate best practices in the design of accessible course material into the QM rubric.
- To determine the professional development needs for faculty/staff who develop online courses.

Survey Instrument

The primary means of data collection for this study was a 40-item Web-based survey administered in Zoomerang (see Appendix A). The survey, consisting of both closed and open-ended questions, was based on higher education literature on accessibility of online course materials and QM subscriber-institution questions, comments, and concerns collected in QM training sessions on accessibility. On average, respondents took about 15-20 minutes to complete the survey. The categories of the survey included institution/institutional representative information, institution accessibility policies, costs associated with producing accessible courses, technology used to create accessible materials, and faculty and staff training.

Through an email link, the QM Director of Communication sent the Zoomerang survey to the institutional representative (IR) of 410 QM subscribers in the December 2010 newsletter. If the IR was not the appropriate representative to complete the survey about accessibility, email instructions encouraged the IR to direct the survey link to the appropriate person. A reminder email was sent to the IR of each institution in mid-December. Due to the holiday break, the survey was available to institutions for one month. Of the 410 institutions that received the newsletter, 84 or 20% of the IRs completed the survey.

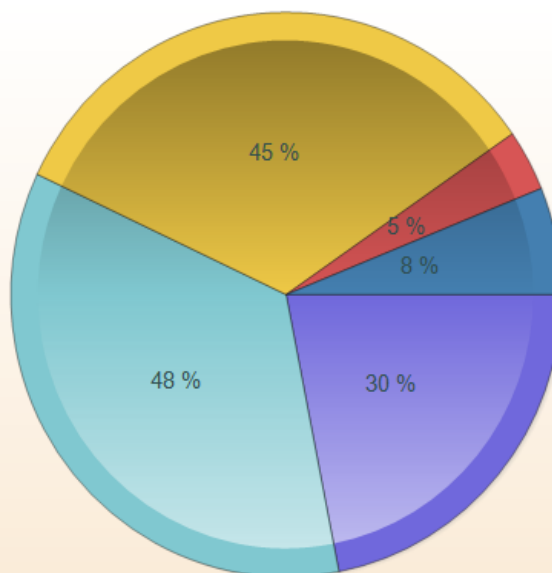
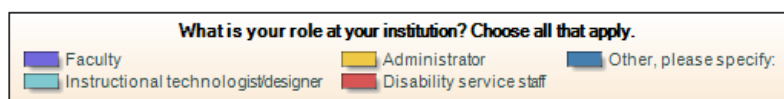
Results

Results from the survey showed that colleges and universities have a broad range of policies and practices. Some institutions have a clear understanding of their legal and ethical responsibility to provide accessible online materials, but the majority are still exploring the most appropriate policy, practice, budget, and training guidelines for their schools.

Participant Information

As depicted in Figure 1.1 Participant Information, of the survey respondents 34% were faculty, 48% were instructional designers/instructional technologists, 45% were administrators, and 5% were disability services staff members. The overlap in percentages is due to the dual roles of some respondents.

Figure 1.1 Participant Information



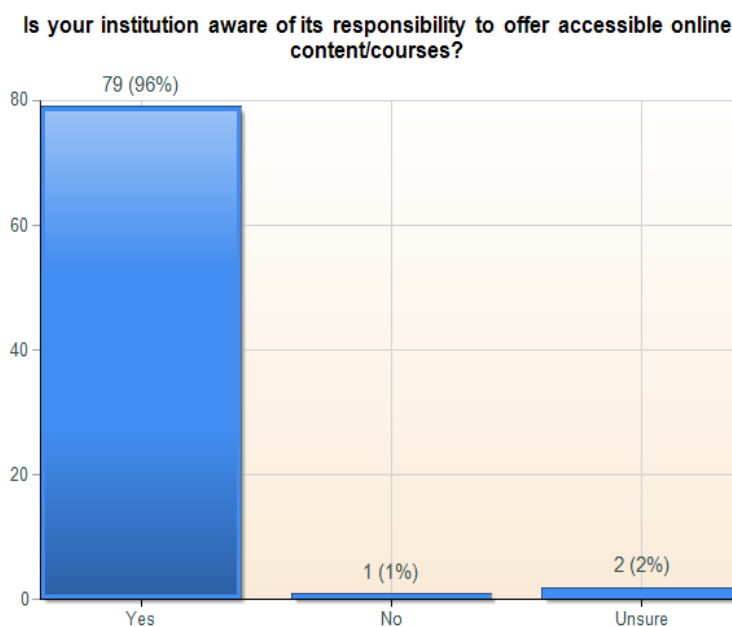
The amount of teaching experience reported by the respondents was 54% with less than 10 years, 31% had 11-20 years, and 17% indicated that they had more than 20 years of experience. Specifically within online education, 31% reported 5 years or less, 46% reported 6-11 years, and 23% reported 12 years or more experience working in online programs.

The types of institutions represented in the survey data was evenly split between two year (48%) and four-year (49%) schools. The majority (44%) were public with 19% private non-profit and 1% private for-profit institutions. There was a broad range of sizes from small colleges to large universities. Institutional enrollments began with 37% that reported less than 5000 students, 15% reported 5001-10,000, 33% reported 10,001-20,000, 8% reported 20,001-30,000, and 6% had an enrollment of over 30,000 students.

Disability Policies

Disability policies have been prominent in higher education environments for several decades. Overwhelmingly, as depicted in Figure 1.2, 96% of the IRs reported that their school was aware of the responsibility to offer accessible online courses. Most institutions (98%) had a disability policy and 82% included the policy on course syllabi, but only 13% indicated that they had a specific disability policy for online courses and programs.

Figure 1.2 Institution Awareness



Priority of Accessibility Responsibility

The broad spectrum of priorities for creating online courses ranged from 4% non-existent, 29% low, 39% medium, and 24% of institutions reporting accessibility as a high priority. Despite the awareness that accessibility was an institutional responsibility, the majority (75%) of schools did not have a budget for creating accessible course content. Twenty-one institutions (25%) reported a budget for developing accessible content; however, most of these schools did not have a specific budget amount. Three institutions

reported budgets of \$30-\$150 per course. Five institutions reported that accommodations were made on an individual, as-needed basis.

The responsibility to create accessible course materials may include several members of the development team. Most institutions indicated that more than one person is responsible for course accessibility – 93% indicated that faculty were responsible, 61% indicated instructional designers/instructional technologists, 21% indicated production staff or course builders, and 10% indicated administrators were responsible.

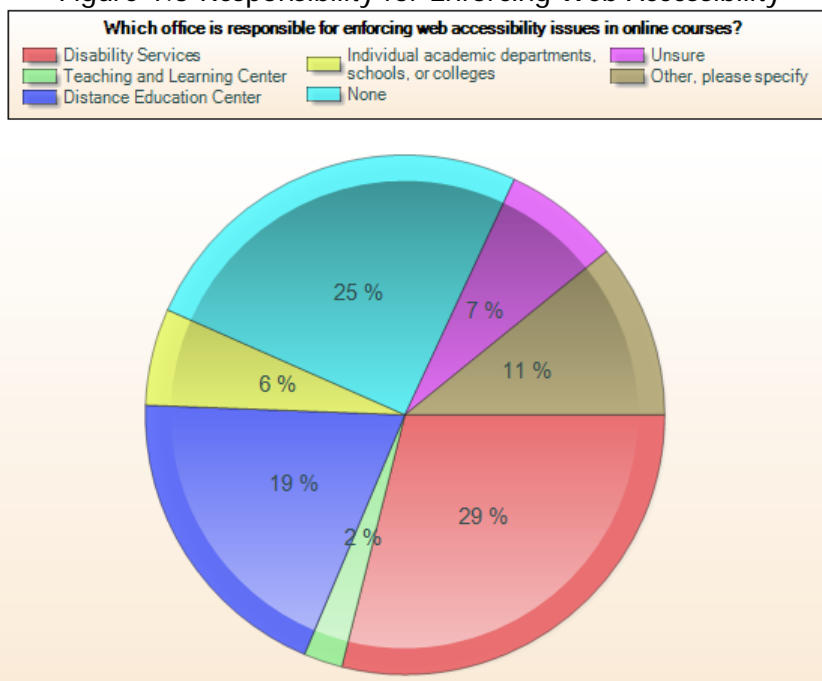
Quality Reviews

Given that QM is an organization that promotes quality in online courses, it was not surprising that most institutions reported that they reviewed courses for quality – 47% reported that they always review for quality and 37% reported that they sometimes review for quality. Surprisingly, only 12% of these reviews always included accessibility as a specific criteria for review and 36% sometimes included accessibility in their quality reviews. In general, the responsibility for reviewing courses fell with several roles. Most respondents (73%) indicated the primary responsibility for quality review fell with the faculty, 62% reported the instructional designer/instructional technologist, 49% reported the administrator, and 11% reported the production staff members were the responsible parties.

Twenty-five percent of the responding institutions did not have a specific office or center that was responsible for enforcing Web accessibility in online courses. Within the institutions that had a primary office or center for enforcing accessibility, some IRs reported the responsibility most often fell with the Disability Services Office (29%) or the Distance Education Center (19%) as indicated in Figure 1.3.

It was less common for the Academic Department (6%) or the Teaching and Learning Center (2%) to enforce accessibility. One institution reported that

Figure 1.3 Responsibility for Enforcing Web Accessibility



they could not mandated compliance with accessibility standards due to the faculty bargaining contract.

Technology Used to Create Materials

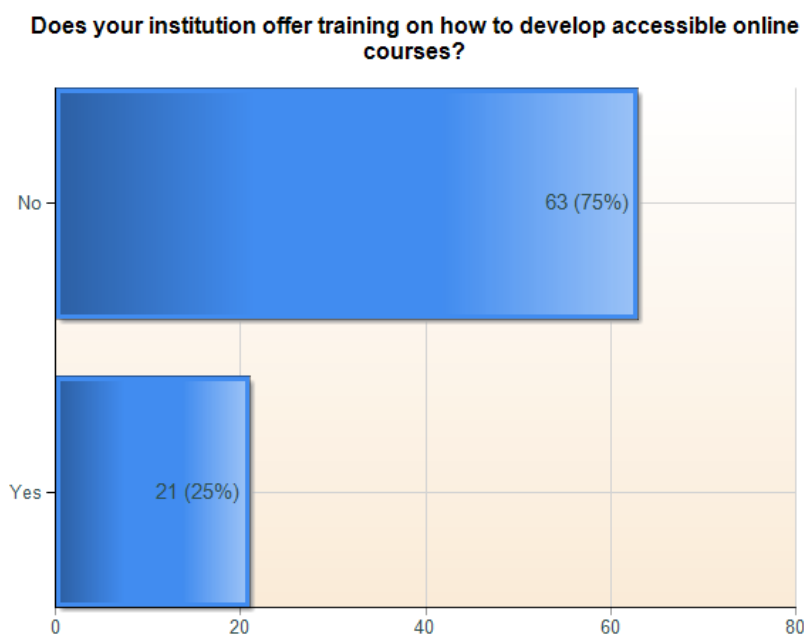
Today's ever changing world of technology brings new opportunities to enhance the students' learning experiences. Interestingly, even though the majority (75%) of survey respondents indicated that there is not a budget for creating accessible materials, a considerable percentage (56%) indicated there are technology resources available for them to do so. Some of the technologies used for creating course materials are the same resources that can be used to incorporate accessibility. For example, the 56% of survey participants (47 respondents) who indicated they have technology resources available for accessibility identified that they use Microsoft Office (85%), Adobe Acrobat Professional (67%), Adobe Captivate (41%), Dragon Naturally Speaking (24%), Adobe Soundbooth (4%), and Magpie (7%). Some other types of software they listed include SoftChalk (2 respondents), Panopto, Horizon Wimba, Adobe Presenter (2 respondents), LecShare, Articulate, and Adobe Premiere.

Even though the resources are available at some institutions, the use of the technology to create accessible material may not always be utilized. Of the 47 respondents who use technology resources to create accessible material, 13% indicated that they always include transcripts for audio and video content and 68% indicated they sometimes include transcripts for audio and +video content. Respondents were also surveyed to determine if video components were captioned for the hearing impaired. Those who used technology to create accessible content revealed that 74% of online courses do not have closed captioning for video content. The following closed captioning methods were used in the respondents' institutions: in-house support staff (58%), faculty developer (50%), and fee-based service (56%).

Accessibility Training

As illustrated by Figure 1.4, most IRs (75%) reported that their institution did not conduct training on how to develop accessible online courses. Of the 25% of the institutions that did offer training, 33% reported the training was offered by the teaching and learning center, 57% offered

Figure 1.4 Institutions Offering Accessibility Training



training through the distance education or online learning center, and 5% offered training through the disability service office. Thirteen percent of the institutions required accessibility training and 87% did not require accessibility training prior to developing an online course.

The target audience for training consisted of one or more of the following groups: 95% targeted faculty, 48% targeted course developers, 29% targeted instructional designers/instructional technologists, 10% targeted administrators, and 10% targeted disability services staff. The types of training programs included a broad range of mentoring programs (14%), internal courses/workshops (90%), external courses/workshops (14%), online resources (67%) and Webinars (29%).

One-Ended Questions

In the open-ended questions, respondents identified the following topics as potentially being the most helpful to them: training guidelines (13), best practices (7), policy statements (6), and budget guidelines (4). As expected, the challenges or barriers to creating accessible courses were time, trained faculty and staff, and funds.

Discussion

The survey data reflected both two-year and four-year institutions and enrollments ranging from less than 5000 to over 50,000 students. The online programs ranged from less than 100 courses to over 500 courses. Overall, most institutions recognized their responsibility to offer courses that are accessible to all students and had a institutional disability statement for traditional face-to-face courses included on syllabi. Far fewer schools recognized the need for a disability policy specifically for online courses and Web-based materials. Despite their awareness of accessibility issues, about one-third of the respondents indicated creating accessible courses was a low or non-existent priority at their institution. The low priority is evident by the lack of funding – only one-fourth of the responding institutions had a budget for creating accessible course materials.

Decentralized academic services may be an issue with monitoring the accessibility of online course materials because no single unit in the college or university is held accountable. In the survey, most reporting institutions considered accessibility to be the responsibility of more than one person in the development process. As QM subscribers, all institutional representatives were aware of the quality review standards for online courses. And most institutions implemented a quality review process, but few had specific accessibility criteria included in their review process. Disability services or distance education were the offices most often reported

as being responsible for enforcing accessibility, but some IRs reported they were unsure who was responsible.

Within the responding higher education institutions, there seems to be numerous opportunities to advance the accessibility knowledge and skills of course developers through training. Three-quarters of the institutions that responded to the survey do not currently offer any accessibility training. In institutions that offer internal training, it is most likely coordinated by the teaching and learning center or the distance education office. With the broad range of available training formats from online Webinars and resources to external courses and conferences, the cost of a training program can be flexible to the needs and budget of the institution. In the report "[A Needs Assessment of the Accessibility of Distance Education in the California Community College System](#)," there is a detailed table that outlines the course item to be made accessible (e.g., Table, images, video), the recommended institutional personnel to perform the task, and the cost and time required to revise the item. This may be a helpful starting point for other institutions.

The ultimate goal for online programs should be to maximize accessibility and minimize the need for accommodations. Practices are underway to develop and deliver accessible content using technology resources, but these practices are not always consistently implemented. Developing accessible content takes time and human resources who have the knowledge and skills. Creating an awareness of accessibility needs and identifying what steps can be taken with technological resources is a growing concern among many institutions in higher education, especially when assistive technologies are often one step behind the latest and greatest technology used at many institutions (Inside Higher Ed, n.d.). Integrating accessibility approaches with familiar technologies such as Microsoft Office and Adobe Professional may be a starting point for institutions to address the needs of persons with visual, hearing, or motor impairments.

Recommendations

Based on the results of the survey, institutions may consider two key recommendations as a starting point to developing more accessible online courses and programs. First, most institutions are in need of a comprehensive disability policy specifically for online courses and programs. A structured policy with specific roles and responsibilities will increase the accountability for developing more accessible courses (Coombs, 2010). For example, some institutions require students to register 4 to 8 weeks in advance to allow time for course modifications, outline a disability documentation process for students requesting extended time to complete

online exams, or refer faculty to the World Wide Web Consortium's Web Content Accessibility Guidelines 2.0 for high priority practices.

A policy can also assure that Web accessibility is addressed from the beginning of the course development process, rather than retrofitted at the end of the development process. At the end of the project, "it costs more and is burdensome and frustrating" (Thatcher et al., 2006, p. 20). Several examples of online program disability policies are:

1. [Kansas State University](#)
Notice that this policy includes new courses and materials, plus calls for "retrofitting" of existing courses.
2. [University of North Carolina](#)
This policy differentiates various levels of priority with text-based content being level 1 and multimedia content being level 3. This policy also identifies a clear assessment process.
3. [University of Pittsburgh](#)
This policy for online programs outlines a specific process for documenting and requesting accommodations.

Coombs (2010) recommends a policy-making process that involves a small group of key personnel who are interested in making Web-based courses accessible. The committee should include at least one high-level administrator who has the power and influence to create policy, several faculty members or course developers who create online courses, and staff representatives who provide technology and infrastructure support.

The second recommendation is to provide an inclusive, scaffolded training program that encompasses the needs of faculty course developers and the higher-level needs of the technology support staff. The exact training needs will depend upon the course development model and the learning management system of the institution. In general, instructors and technology staff members have different training needs. Instructors have little input regarding the technology infrastructure – their training should focus on the authoring tools (e.g., Microsoft Word and PowerPoint) that they already use to create online materials (Coombs, 2010). Instructional designers and technologists will likely need more advanced training such as using video captioning tools or speech recognition software to create transcripts.

At the University of Washington (UW), Burgstahler (2005) reported that the offices of Distance Learning and Accessible Technology Services collaborated to provide accessibility training. The program included the following topics: (1) overview of legal accessibility issues, (2) examples of course accessibility barriers faced by students with disabilities, (3) a demonstration of an

application of each of the Section 508 of the Rehabilitation Act Web accessibility standards, (4) a review of the content provided on the UW Web accessibility Website, and (5) resources for support, including the disabled students services office, disability services, UW staff training options, and the Access Technology Lab.

The Internet offers an abundant selection of tutorials, resources, and Webinars as an excellent starting point for learning about Web accessibility. Numerous videos are available to demonstrate how students use assistive technologies to access course materials. See Appendix B for additional resources.

Future Research

Future research on the institutional policies and best practices for developing online courses is critically important. Educators are beyond the need to increase awareness; the next step is for institutions to put specific practices and policies in place. Structured interviews with IRs would be beneficial to review cost-effective approaches that may be transferred to other institutions. Future research may compare technologies to create and deliver accessible products. In addition, accessibility practices and studies need to include students with learning disabilities, as well as vision, hearing, and motor disabilities.

Conclusion

Over the past decade, there has been a dramatic increase in the number of online courses in higher education and the students who enroll in these courses. With the wide range of online course offerings, students with disabilities have numerous opportunities to learn. Federal legislation mandates that courses be designed to be accessible and usable by all students, but many online courses have barriers that prevent students with limitations from navigating, accessing, or understanding the instructional materials. Developing accessible online content has become a legal and ethical priority at most institutions.

While educators are keenly aware of their responsibility to provide accessible materials, they often struggle with the process for developing Web-based courses. Many institutions lack a concrete policy or a budget to guide faculty in creating accessible materials. Another challenge for many programs is that they lack defined practices and technology tools to create accessible course materials. This QM survey revealed that most institutions do not offer faculty or staff training to develop compliant online content. Thus, many higher education institutions have both an opportunity and obligation to develop the policies and practices appropriate for developing Web-based courses that are accessible to all students.

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Appendix A

Quality Matters Accessibility Survey

Goals:

- To summarize policies and processes for QM institutions.
- To identify the strategies used by QM institutions to make their courses accessible.
- To describe the professional development programs offered to faculty/staff who want to develop their skills for creating accessible courses.
- To recommend best practices for developing accessible online courses.
- To develop a list of resources and references used by QM institutions

Instructions: The following survey has been developed for Quality Matters subscribers. The purpose is to identify your institutional policies, procedures, and best practices for creating accessible online courses. For purposes of this survey, online accessibility refers to course Web pages and content that are available to students with vision, hearing, and/or motor impairments. In other words, courses are proactively designed to be accessible and students do not have to wait for accommodations or alternate forms of course material.

A. Personal Information

1. What is your role at your institution?
 - a. Faculty
 - b. Instructional technologist/designer
 - c. Administrator
 - d. Disability service staff
 - e. Other (_____)
2. How many years of higher education teaching experience do you have? Please choose one category.
 - a. 0-5
 - b. 6-10
 - c. 11-15
 - d. 16-20
 - e. 21-25
 - f. 26 or over
3. How many years have you taught online or worked with an online program? Please choose one category.
 - a. 0-2
 - b. 3-5

- c. 6-8
- d. 9-11
- e. 12-14
- f. 15 or over

B. Institution Information

1. Which of the following describes your institution? Select all that apply.
 - a. Two-year
 - b. Four-year
 - c. Technical or trade school
 - d. Public
 - e. Private non-profit
 - f. Private for-profit
2. How many online courses are offered at your institution?
 - a. Less than 100 courses
 - b. 100 – 200
 - c. 200 – 300
 - d. 300 – 500
 - e. Over 500
 - f. Don't know
3. What is your student enrollment?
 - a. under 5000
 - b. 5000 to 10,000
 - c. 10,000 – 20,000
 - d. 20,000 – 30,000
 - e. 30,000 – 50, 000
 - f. over 50,000
4. Is your institution aware of their responsibility to offer accessible online content / courses?
 - a. Yes
 - b. No
 - c. Don't know
5. Does your institution have a disability statement?
 - a. Yes
 - b. No
6. Does your institution have a disability statement specifically for online courses?
 - a. Yes
 - b. No
7. Is the disability statement or policy in the course syllabus?
 - a. Yes
 - b. No
8. (a) Does your institution have a budget for creating accessible materials for online courses?
 - a. Yes
 - b. No

- c. Don't know
 - (b) If so, what is the estimated cost per course for creating accessible materials?
9. What is the level of priority for making online courses accessible to students with disabilities?
- a. High
 - b. Medium
 - c. Low
 - d. Nonexistent
 - e. Don't know
10. Whose responsibility is it to build online courses in your learning management system?
- a. Faculty
 - b. Instructional technologist/designer
 - c. Administrator
 - d. Production staff
 - e. Course builder
 - f. Other (_____)
11. Does your institution review courses for quality?
- a. Yes
 - b. No
 - c. Sometimes
 - d. Don't know
12. Who is responsible for enforcing Web accessibility in online courses?
- a. Faculty
 - b. Instructional technologist/designer
 - c. Administrator
 - d. Production staff
 - e. Other (_____)
 - f. Don't know
13. Does your institution review courses for accessibility?
- a. Yes
 - b. No
 - c. Sometimes
 - d. Don't know
14. Who is responsible for reviewing courses?
- a. Faculty
 - b. Instructional technologist/designer
 - c. Administrator
 - d. Production staff
 - e. Other (_____)
15. What office is responsible for enforcing Web accessibility issues in online courses?
- a. Disability Services
 - b. Teaching and Learning Center
 - c. Distance Education Center
 - d. Individual academic departments, schools, or colleges

- e. None
- f. Don't know
- g. Other (_____)

C. Technology Information

1. (a) Do your online course have transcripts for audio or video components?
 - a. Yes
 - b. No
 - c. Don't know
 (b) If so, what percentage of your online courses have transcripts for audio or video components?
 - a. 80 – 100%
 - b. 60 – 80%
 - c. 40 – 60%
 - d. 20 – 40%
 - e. 1 – 19%
 - f. Don't Know
 - g. None
2. (a) Do online courses have closed captioning for video?
 - a. Yes
 - b. No
 - c. Don't know
 (b) If so, what percentage of your online courses have closed captioning?
 - a. 80 – 100%
 - b. 60 – 80%
 - c. 40 – 60%
 - d. 20 – 40%
 - e. 1 – 19%
 - f. Don't know
 - g. None
3. How is your closed captioning created?
 - a. By faculty developer
 - b. By "in house" support staff
 - c. By fee-based captioning service
 - d. Other (_____)
 - e. Don't know
4. At your institution, which of the following software programs are used to create captioning?
 - a. Camtasia
 - b. Adobe Soundbooth
 - c. Dragon Naturally Speaking
 - d. MAGPie
 - e. Other (_____)
 - f. Not sure

D. Training Information

1. (a) Does your institution offer accessibility training on how to develop accessible online courses?
 - a. Yes
 - b. No
 - c. Don't know
- (b) If your institution offers internal training, what office or center at the institution coordinates the training?
 - a. Teaching and learning center
 - b. Online learning center
 - c. Disability services center
 - d. Other (_____)
- (c) If your institution offers accessibility training, who is the target audience? Select all that apply.
 - a. faculty
 - b. course developers
 - c. instructional designers/technologies
 - d. instructional technologists
 - e. administrators
 - f. disability services staff
 - g. Other (_____--)
- (d) If training is offered, what types of accessibility training are available?
 - a. Mentoring program
 - b. Internal course or workshop
 - c. External course or workshop
 - d. Online resources
 - e. Webinars
 - f. Other (_____)
2. Is accessibility training required to develop an online course?
 - a. Yes
 - b. No
 - c. Don't know

E. Quality Matters Rubric

What changes do you recommend for Standard 8 in the next version of the Quality Matters rubric?

QM Standard	Comment or Recommended Change
Standard 8	
Standard 8.1	
Standard 8.2	
Standard 8.3	
Standard 8.4	

F. Open Ended

1. What policies or practices have helped (or may help) your institution to develop accessible online courses?
2. What are your biggest challenges in creating accessible course materials?
3. What resources for creating accessible online courses do you use or recommend to others?
4. What can Quality Matters do to support you in developing accessible online course material?
5. Please share any additional comments regarding accessibility in online courses.

Appendix B

Accessibility Resources

- 1. Adobe:** Adobe is an industry leader in accessibility. This Web site contains product information, case studies, examples, tutorials, and other resources on accessibility. Adobe has several products to address Web accessibility, including Adobe® Acrobat Professional, Soundbooth, Premiere Pro, Flash, and more. <http://www.adobe.com/accessibility/index.html>
- 2. American Foundation for the Blind (AFB):** This organization is committed to assisting the visually impaired and has many resources on its Web site regarding accessibility and assistive technologies. <http://www.afb.org/>
- 3. Assistive Technology Industry Association (ATIA):** This organization serves as the collective voice of the assistive technology industry so that the best products and services are delivered to people with disabilities. The ATIA holds conferences on accessibility and assistive technologies. <http://www.atia.org/>
- 4. Equal Access to Software and Information (EASI):** This organization is a provider of online training on accessible information technology for persons with disabilities. The Web site contains informational resources, Webinars, and other learning opportunities. <http://www.easi.cc/>
- 5. Georgia Tech Research on Accessible Distance Education (GRADE):** GRADE is a research project at the Georgia Tech Center for Assistive Technology and Environmental Access (CATEA). Through GRADE, an online tutorial (accesslearning) was developed on accessibility. It includes 10 modules with tips and assistance to faculty members seeking to make Word, Excel, Flash, and other file types accessible to people with disabilities. <http://www.accesslearning.net/>
- 6. National Center for Accessible Media (NCAM):** This organization is dedicated to achieving media access equality for people with disabilities. NCAM has created the MAGpie (Media Access Generator) tool for adding

captions to multimedia content. You can download the software for free from the Web site. <http://ncam.wgbh.org/index.html>

- 7. Microsoft Corporation Accessibility Resources:** The Microsoft Corporation has developed many products with accessibility in mind. Product accessibility information is available on the Web site. <http://www.microsoft.com/enable/default.aspx>
- 8. University of Wisconsin – Madison:** The Division of Information Technology (DoIT) at the University of Wisconsin-Madison has developed resources for learning about accessibility and applying tools and techniques to content on the Web. There are also videos describing the experiences of persons with disabilities. In one video, a blind individual discusses how he uses a screen reader to access Web content. <http://www.doit.wisc.edu/accessibility/>
- 9. Virtual508.com:** This Web site has an Accessible Web Publishing Wizard for Office 2007. This wizard is not free, but you can download a trial version. There is also a best practices section for creating accessible Word and PowerPoint documents. <http://www.virtual508.com>
- 10. Web Accessibility In Mind (WebAIM):** WebAIM is an initiative from Utah State University. This organization's Web site has great information about Web accessibility, including a tutorial. Also, this is the organization that created WAVE (Web Accessibility Evaluation tool). You can use this Web-based tool to determine whether your Web site is accessible. <http://webaim.org>
- 11. World Wide Web Consortium (W3C):** This is an international organization that leads the development of Web standards. The World Wide Web Consortium (W3C) Web Accessibility Initiative (WAI) was launched to promote Web functionality for people with disabilities. <http://www.w3.org>