

A Quality Matters Event

QM Research
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Active/Applied Research on Online Learning and Quality Assurance

February 9, 2021 | Online

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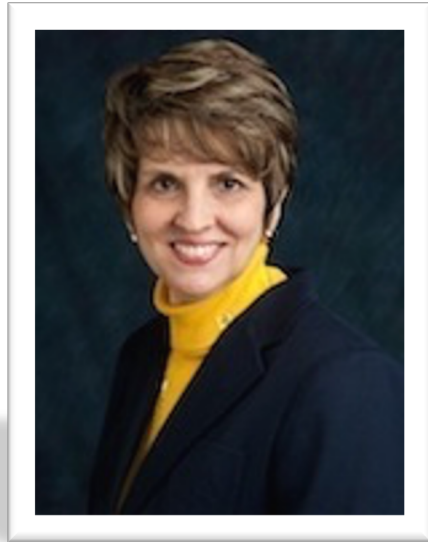
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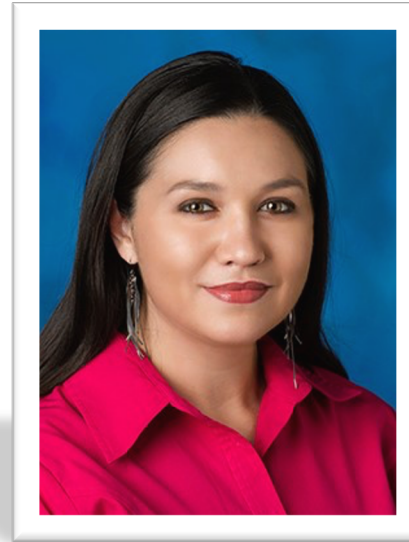
Enhancing Accessibility of Online Courses: Course Development Practices and Tools

Dr. Rae Mancilla and Dr. Barbara Frey

Presenters



Barbara Frey
Assistant Professor



Rae Mancilla
Senior Instructional Designer

Session Goals

- Develop exemplary course development practices that promote digital accessibility.
- Identify tools for creating inclusive online materials and reviewing their accessibility compliance.
- Recognize advances in digital accessibility in the past decade by QM member institutions.
- Assess next steps for QM member institutions in enhancing the digital accessibility of their online courses.

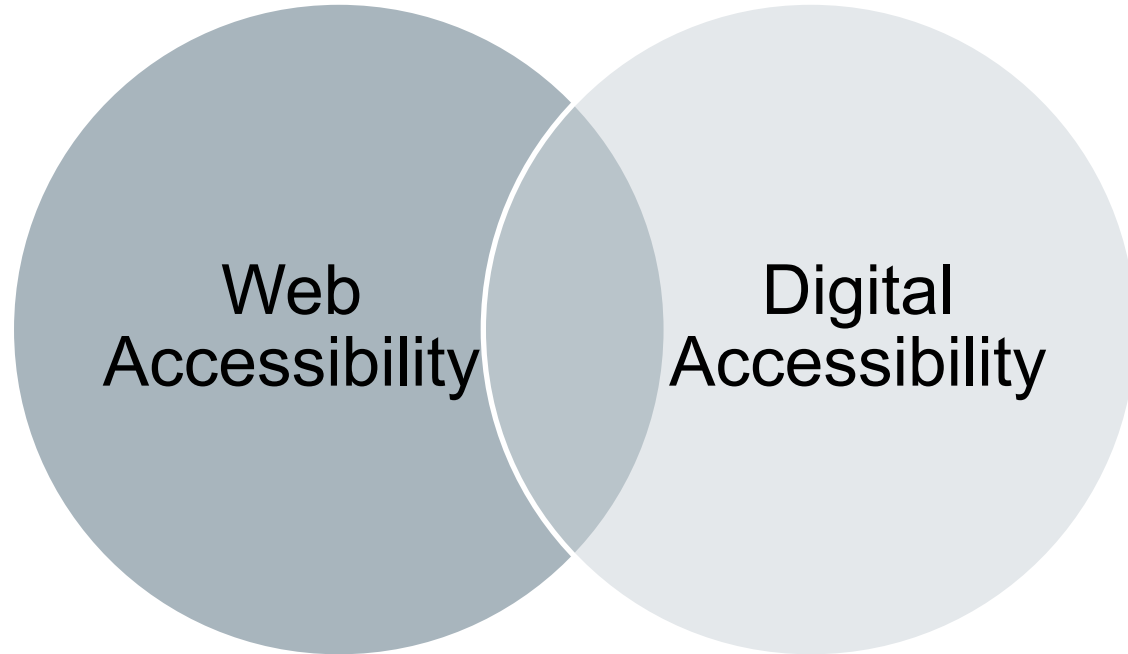
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Background

Key Terms



The Numbers

6,359,121

- Students taking at least one online course

31.6%

- Percent of online higher education enrollments

650 million

- People with a disability in the world

61 million

- People with a disability in the US

19%

- Percent of undergraduates report a disability

Benefits of Online Learning

- Less stressful
- More flexible pace
- Flexible location (personal needs)
- Academically inclusive
- Socially inclusive
- Privacy for self-disclosure

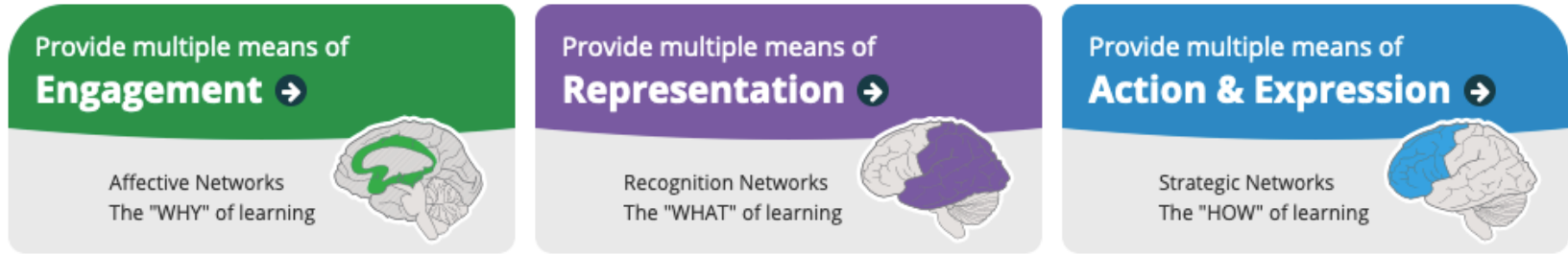
Rao & Tanners, 2011; Verdinelli & Kutner, 2016

Quality Matters and Accessibility

- Standard 7: Learner Support
- Standard 8: Accessibility and Usability



Universal Design for Learning (UDL)



- Proactive inclusive design
- Minimizes accommodations
- Reduces wait time
- Increases satisfaction
- Improves retention rates
- Benefits all students

McGowan, 2019; Tobin, 2014

Course Development Practices

Disability Type	Example Development Practice
Visual	Alternative text for screen reader accessibility
Hearing	Captioning for multimedia files
Motor	Document design for keyboard accessibility (headings and tags)

Tools for Creating Accessible Content

- Few benchmarking studies
- Frey & King (2010)
 - Tools
 - Microsoft Office, 85%
 - Adobe Acrobat Pro, 67%
 - Captioning Methods
 - Dragon Naturally Speaking, 24%
 - In-House staff, 58%
 - Faculty developers, 50%
 - Fee-based services, 56%

Significance of Present Research

- Replication to re-examine accessibility landscape a decade later
- Identify current course development practices and tools
- Recent updates to the QM rubric, 6th edition
- QM leadership in the field of accessibility of online courses



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Methods

Research Goals



Determine the *course development practices* that guide accessibility in online courses.



Determine the *technology tools* used to create accessible online courses.

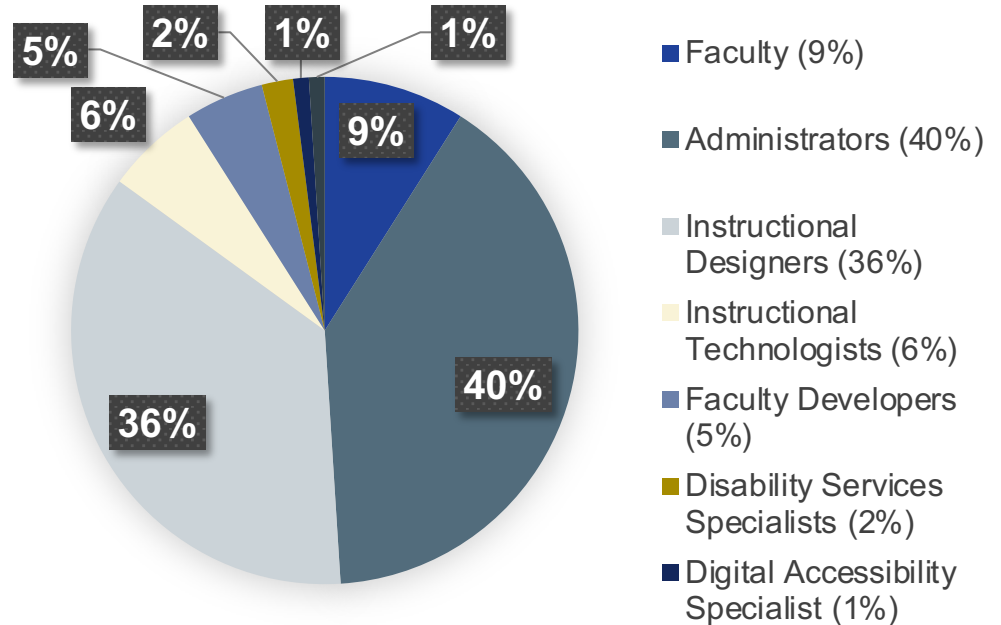
Procedure

- Participants identified through database of QM Coordinators
- Voluntarily completion of a brief survey
- Survey consisted for 30 qualitative and quantitative questions

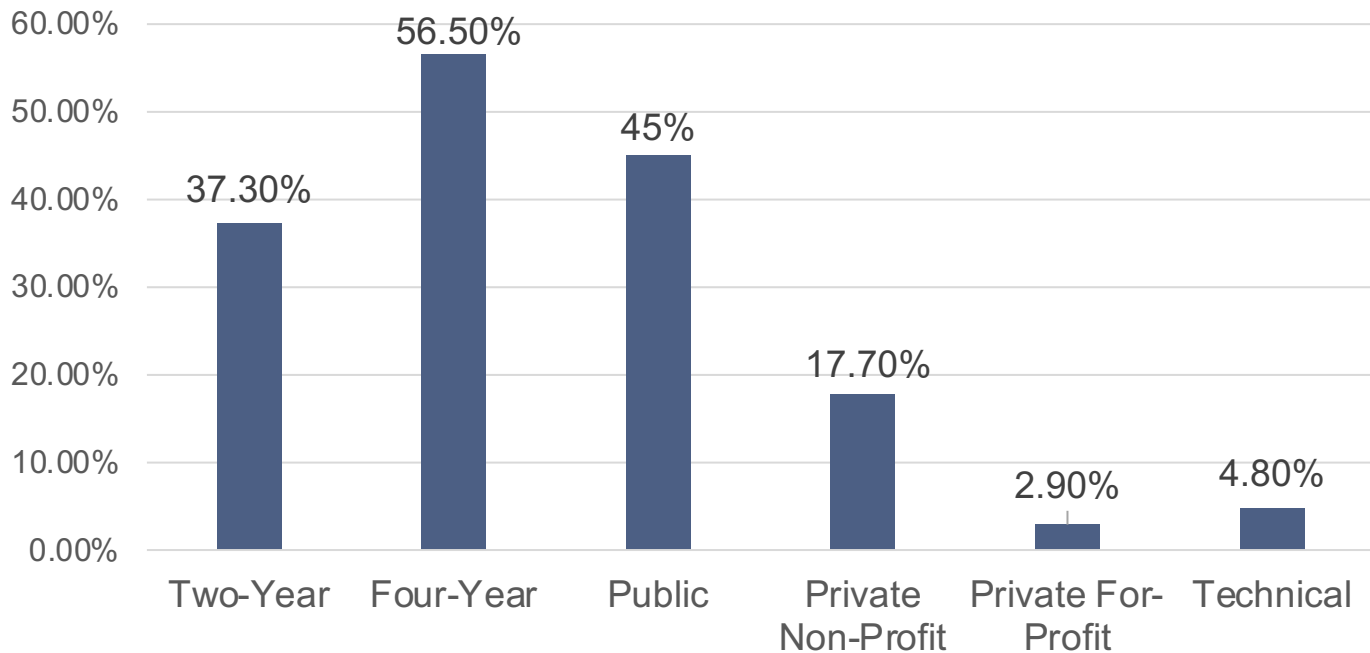
Category	Survey Item
Demographics	Indicate the number of online/hybrid courses offered at your institution.
Technological Tools	Which technologies have you used to create accessible online course materials?
Course Development Practices	How frequently is online video closed captioned?

Participants

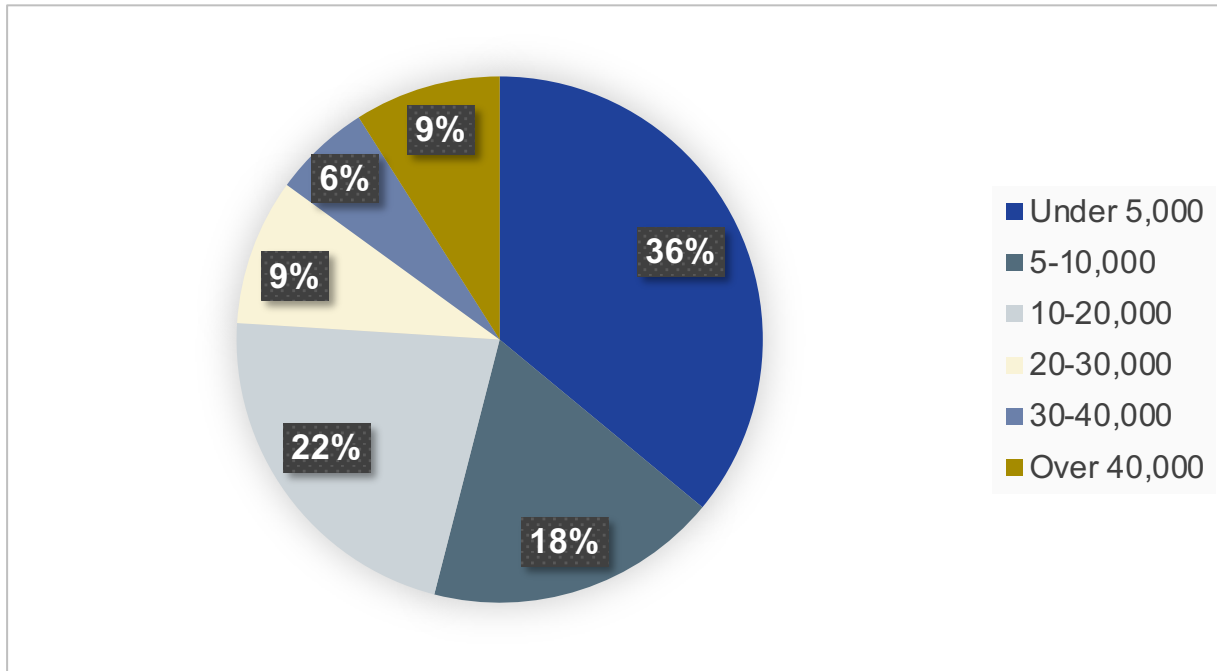
- 1,721 QM institutions were surveyed
- 16% response rate, 273 surveys
- After data cleaning, 209 participants



Institutional Control



Institutional Size



Data Analysis

Quantitative analysis with SPSS

- Descriptive statistics
- Chi-square tests

Qualitative analysis

- Inductive and deductive coding
- Two independent reviewers
- Compared results
- Identified themes

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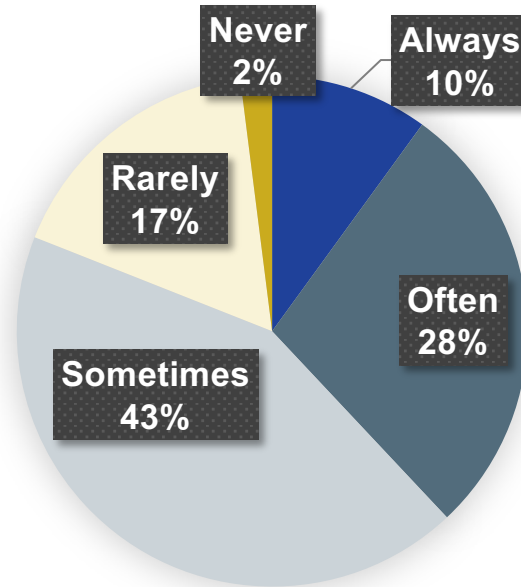
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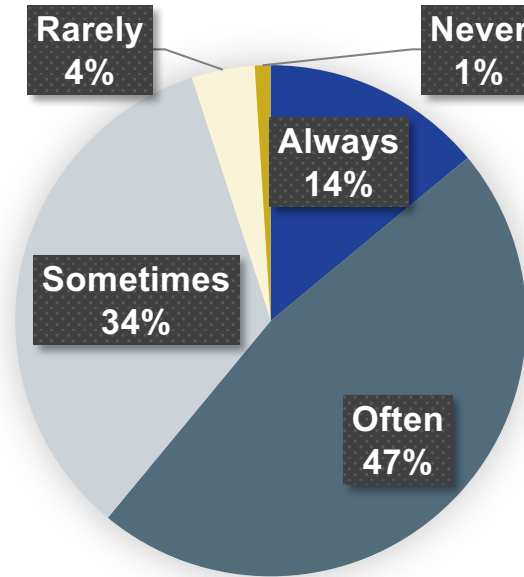
Results

What *course development practices* are used by QM institutions to create accessible online courses for students with disabilities?

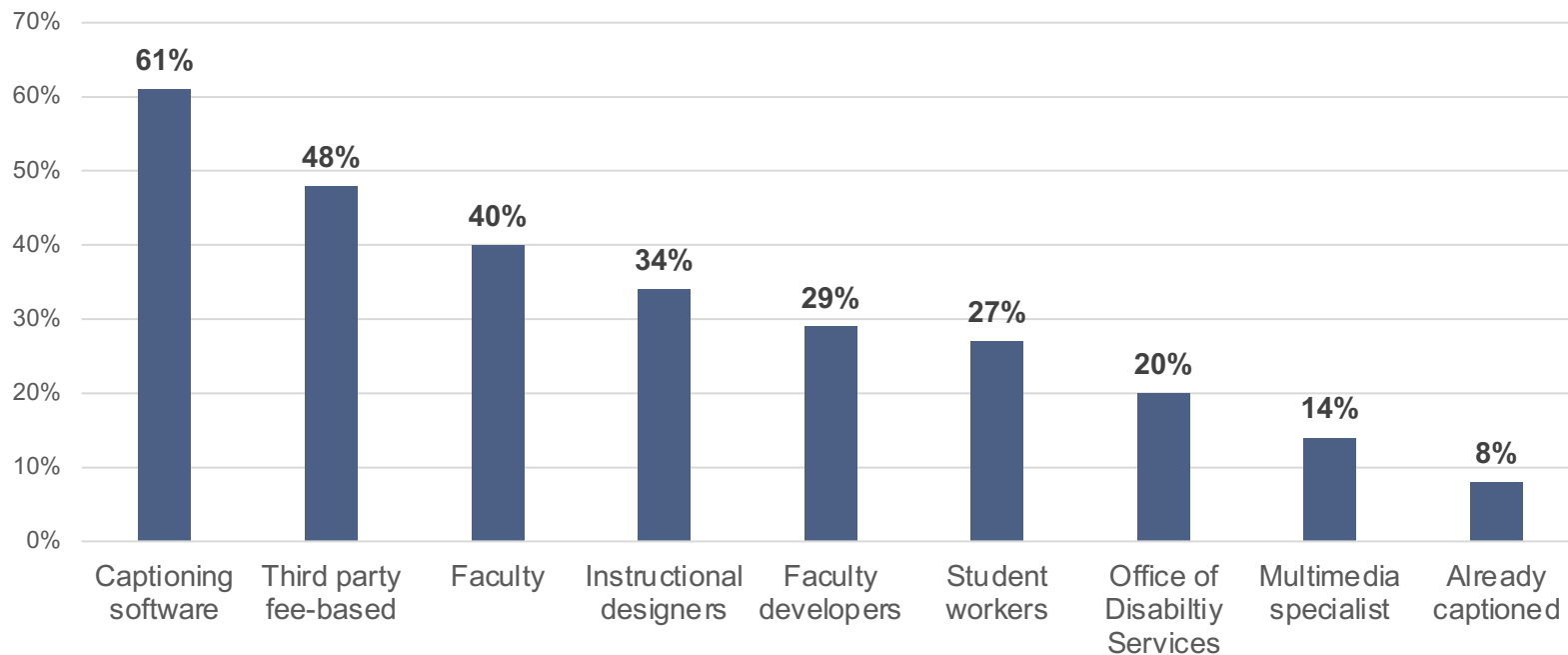
Transcript Usage



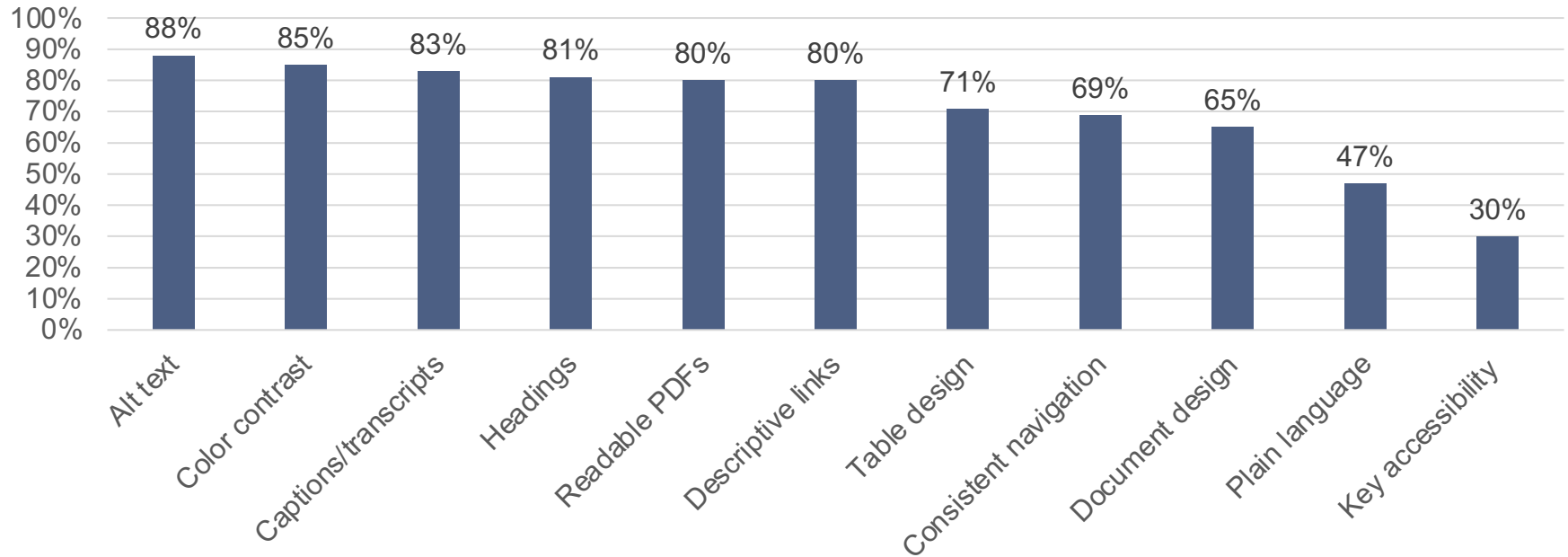
Caption Usage



Captioning Methods



Course Development Practices



Effort Ratings

Low	Medium	High
Descriptive links	Plain language	Alternative formats
Headings	Alt text	Captioning/transcripts
Consistent navigation	Readable PDFs	
Colors/fonts/contrasts	Table design	
	Document design	
	Keyboard accessibility	

What *technology tools* are used by QM institutions to ensure that online courses are accessible?



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Technology Tools

Creating

- Microsoft Office
- Adobe
- LMS (Ally)
- YouTube

Reviewing

- Microsoft Office
- Adobe
- LMS (Ally)
- WebAim

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Implications

Take-Aways

Administrators	Course Developers	Faculty
Establish recognition system	Implement train-the-trainer model	Self-assess areas for personal growth
Allocate fiscal & human resources	Educate campus partners on specialized practices	Participate in peer reviews
Offer ongoing professional development		Mentor other colleagues in department

Next Steps

What are the next steps at your institution?



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Conclusion

Questions?

Please type your questions in the Q & A box.



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References

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