



ACCESSed
P R O J E C T

**Thesis/Project and Dissertation
Accessibility Protocol**

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INTRODUCTION

The Occupational Therapy Department at the University of Wisconsin-Milwaukee supports the creation of accessible documents. It requires that all theses, projects and dissertations meet basic accessibility standards by

- A. provision of an electronic copy, and
- B. provision of equivalent text descriptions for all images.

It further recommends

- C. creation of electronic links.
- D. use of the “styles” feature of your word processing software to format your document, and

This document is one of two files provided to assist graduate students in understanding the rationale and processes to meet these standards and guidelines. The other electronic file is the *UWM graduate school format requirements template* created by graduate students in the R₂D₂ Center. It provides the UWM graduate school format requirements and integrates many of the strategies taught by the UWM graduate school in their thesis/dissertation preparation course. Its format includes the basic accessibility requirements of the OT program.

Features of the sample template (electronic document) that are specific to UWM graduate school requirements include:

- Margins set to graduate school requirements
- Title page, Approval page and Abstract page are formatted to meet graduate school requirements
- Page numbers and sections are formatted to meet graduate school requirements
- Commonly used chapter headings are included

- Use of “heading” feature to allow for easy creation of Table of Contents, List of Figures, and List of Tables
- Table of Contents links to text
- Example text descriptions

The purpose of this protocol is to outline the rationale and need for accessible documents, as well as to provide an outline and resources for incorporating universal design (UD) strategies to create accessible documents.

All students should obtain a handbook from their graduate school that contains the thesis and dissertation format requirements. It is also highly recommended that, if offered, all students attend graduate school thesis and dissertation preparation courses which are offered to learn more about formatting requirements of the graduate school.

ACCESSIBILITY FOR M.S. THESIS, M.S. PROJECT AND PH.D. DISSERTATION DOCUMENTS

Potential readers of theses, projects, and dissertations may have disabilities (e.g. they may be blind or have an impairment that prevents them from managing printed pages). Without accessible documents, these individuals will not have access or will need substantial assistance and/or extra time to read the documents. It is critical to have accessible versions available. By incorporating aspects of UD into the document, it becomes accessible to those with disabilities and its usability is increased for those without disabilities.

DOCUMENT ACCESSIBILITY FEATURES

A. Electronic Copy

Rationale. An electronic copy provides a fully accessible version of the completed document. Individuals who do not experience equal access to printed information benefit from a version that, once displayed on the computer, is able to provide the content in the preferred mode of the user. Examples include increasing font size for individuals with low vision, or reading with a screen-reader for an audible option to the printed text. Readers with perceptual difficulties may print figures side-by-side with the text descriptions for increased clarity.

Protocol. An electronic version of the thesis is copied onto a compact disk to accompany **each** printed thesis copy. Each disk must be labeled with name, degree, graduation date, thesis title, and university name for identification purposes. The discs must be secured in an envelope or case. Include a concise written description of the disc contents.



Figure 1: Sample of CD label

B. Equivalent Text Descriptions

Rationale. Not all individuals have equal ability to access information in a non-text format. Non-text information displays are inaccessible if they cannot be viewed or accurately interpreted by the user. The ACCESS-ed Project uses the term “Equivalent Text Descriptions” (EqTDs) to refer to the written text that describes the content of graphic items. The concept was first used in web-based programming and referred to as “alt-text”. EqTD’s are essential to allow access of non-text information, providing meaning and clarity to inaccessible information. They supply the user with an alternative and supplemental form of access.

Protocol. EqTDs contain three distinct levels for clarity and depth of information for the user:

- 1. Brief Description-** Short statement including type and purpose of multimedia information (approximately 10 words or less).

2. **Essential Description-** Concise description that explains meaning and core content of multimedia information in the context of its use. What does the creator want the audience to understand? (Approximately 1 – 2 paragraphs.)
3. **Detailed Description-** Visual description of image with significant pictorial aspects in the context of its use; may include lay-out, colors, logos, designs, etc. (May be one or several paragraphs.)

C. Providing Links within the Document

1) Linked Table of Contents (TOC)

Rationale. Linking the TOC within a document, allows the user to easily and efficiently navigate throughout the electronic document with minimal mouse clicks, mouse movement, and/or keyboard strokes. This is particularly helpful for blind readers. A document that contains a linked TOC allows users of all ability levels equal access and use of the document.

Protocol. The following steps are specific for the PC version of Microsoft Office Word 2003. However, while the procedures are similar to those of Office on a Macintosh, other versions of Microsoft Office, or Open Office check the help files for the specifics*. This will only work if you use the “styles” & “heading” capability of the software that you create your document in. This is set up for you according to UWM thesis and dissertation standards in the template used in conjunction with this document.

1. Have your cursor in the location that you want to place the TOC.
2. On the toolbar select ‘insert’ → ‘reference’ → ‘Index and Tables...’
[* e.g. Mac Word 2003 uses ‘insert’ ->”index & tables’ -> ‘TOC’]
3. In the dialogue box locate and select the tab labeled ‘Table of Contents’.
4. Press ‘OK’ at the bottom of the dialogue box.

2) Hyperlinks within the Document

Rationale. Electronic links within your document also serve the reader with easy and efficient navigation. Specific to the accessibility requirement of providing text descriptions for all non-text elements, hyperlinks take the reader directly to the EqTD and then back to the place in the document where the hyperlink originated.

Protocol. Again, the following steps are specific for pc Microsoft Office Word 2003. However, while procedures are similar to those of Office on a Macintosh, other versions of Microsoft Office, or Open Office, again, check the help files.

1. In your word document select where you want your link to go
2. On the toolbar select 'insert' → 'bookmark'
3. Give your bookmark an original title (something unique to its location within the document and you will remember) and select 'add'
4. Select where you want the link
5. On the toolbar select 'insert' → 'Hyperlink'
6. On the left side of the dialogue box you will see several options under 'link to:' select the option labeled 'Place in this document'. The dialogue box will change and you will see your bookmark that you made earlier. Select the bookmark you created and your link will be complete.

D. Using Styles for Formatting

Rationale. By creating documents that incorporate the use of styles for headings and formatting, versus manually formatted headings, documents become accessible. If you manually format your document by using indents, bold, different fonts, etc. only sighted readers have access to this visual organization. An individual using a screen reader will only hear the text and have no clue as to the logical organization of your document. Click your cursor on one of the headings in this document, or any 'bolded' text and you will see the styles feature that is being used in the appropriate place on your toolbar. To make text bold, 'strong' is used. To italicize text, 'emphasis' is used. If you do not know how a screen reader works there is an excellent 6-minute video about

screen readers by an individual who uses them at

<http://www.doit.wisc.edu/accessibility/video> (TRACE Center, University of Wisconsin-Madison). Go watch it now.

Furthermore, using “styles” for headings and other formatting allows a document to be easily reformatted or incorporated into an existing template.

Protocol. All of the styles formatting you need for your UWM thesis/project is already built into the template that accompanies this document. However, you will undoubtedly be more successful with the processes (e.g. fewer headaches for you) if you learn a bit about the basics of how to use “styles” before you start. There are several very good on-line tutorials for learning to use styles if you don’t have someone to help you to learn the method. Make sure that you use a tutorial that matches your machine (e.g. PC or Mac) and the version of the software you are using. We offer 2 sources here.

1. The Center on Education and Work at the University of Wisconsin-Madison offers several choices. A short but excellent overview text tutorial, *Creating Accessible Microsoft Word & Word Perfect Documents by Using Markup* is found at <http://www.cew.wisc.edu/accessibility/tutorials/structuralmarkuptutorial.htm>. It explains the importance of using styles and formatting for electronic document accessibility. “Markup” is the word that is commonly used for this process when working with HTML documents.

They also offer *Office Documents Video Tutorial*, (1 hour, 12 minutes, requires Windows Media Player to view), from a link reached on the following page: <http://www.cew.wisc.edu/accessibility/tutorials/default.htm>. This tutorial explains the importance of accessibility crossing multiple electronic media, from Web Pages, to Word documents, to PDF documents, and to Multimedia (PowerPoint Presentations & videos). It also discusses some of the accessibility features within the fore mentioned programs, such as the importance of equivalent text descriptions (the ACCESS-ed terminology for what started out as “ALT-text” in the web world).

2. Or check out Microsoft's training on styles at

<http://office.microsoft.com/training/training.aspx?AssetID=RP011039281033&CTT=6&Origin=RC011039261033>

or at <http://www.addbalance.com/usersguide/styles.htm>. This one is a law office's tutorial that is copyrighted by Microsoft, but there must be a good reason why they felt they needed to create their own version.

ADDITIONAL RESOURCES TO CHECK OUT

A. Institutional Resources

1. Occupational Therapy Department specific thesis template

Refer to latest version available from the OT department.

2. UWM thesis/dissertation formatting

For more information on the formatting of the document, refer to the guidelines provided by the UWM graduate school:

http://www.uwm.edu/Dept/Grad_Sch/Publications/thesis_dissertation_format.html

B. Other "How-to" Resources

ACCESS-ed EqTD documents

Anson, D., Hirschman, A., & Smith, R. O. (2008). *Writing equivalent text descriptions (version 1.2) posterette*. Retrieved May 6, 2008, from http://access-ed.r2d2.uwm.edu/Tools_Resources/Tips_Posterettes/

Anson, D., Rust, K. L., & Smith, R. O. (2008). *Equivalent Text Descriptions - Why and Where*. Retrieved May 15, 2008, from http://access-ed.r2d2.uwm.edu/Tools_Resources/Strategies_Protocols/

Anson, D., Rust, K. L., & Smith, R. O. (2008). *In-line equivalent text (EqTD) AUDIT (version 1.3)*. Retrieved July 7, 2008, from http://access-ed.r2d2.uwm.edu/Tools_Resources/AUDITs/

Anson, D., Hirschman, A., & Smith, R. O. (2008). *Writing EqTD's Posterette*. Retrieved May 20, 2008, from <http://access->

ed.r2d2.uwm.edu/Tools_Resources/Tips_Posterettes/

Maggard, K. R., Smith, R. O., & Rust, K. L. (2008). *Equivalent text description (EqTD) tutorial for graphics*. Retrieved August 18, 2008, from http://access-ed.r2d2.uwm.edu/Tools_Resources/Strategies_Protocols/

R2D2 Center at UW-Milwaukee. (2008). *No manual formatting --> Use "styles" posterette*. Retrieved September 1, 2008, from http://access-ed.r2d2.uwm.edu/Tools_Resources/Tips_Posterettes/

Smith, R. O., Anson, D., Maggard, K. R., & Rust, K. L. (2008). *Equivalent text description (EqTD) AUDIT version 1.3*. Retrieved August 4, 2008, from http://access-ed.r2d2.uwm.edu/Tools_Resources/AUDITs/

Other equivalent text discussions

<http://www.unc.edu/webaccess/textdesc.html>

http://www.udeducation.org/how2submit/writing_descriptions.asp

Software Resources

As mentioned earlier, specific examples in this document are based on the PC version of Microsoft Word 2003 implementation "styles". Use the Internet to find the tutorial that is appropriate for the type of machine and version of software that you use to create your document.

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APPENDIX A: EQUIVALENT TEXT DESCRIPTIONS – THREE EXAMPLES

NOTE: the hyperlinks in these appendix pages are not active. They are examples of where the links should go and what they should say.

Example 1: EqTD for an Illustration

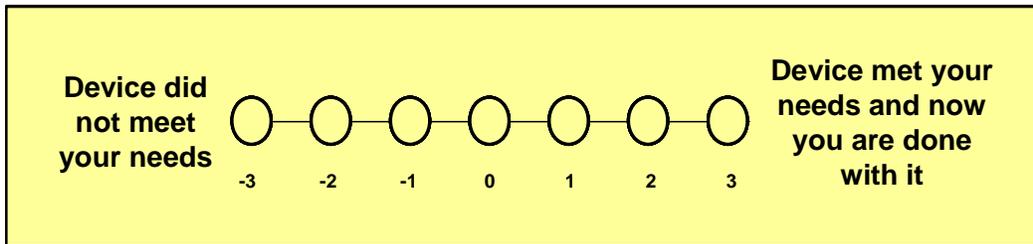


Figure A: PN Scale, how device met needs

[link to EqTD](#)

Equivalent Text Description

Brief Description: Figure A: PN Scale, how device met needs

Essential Description: This figure displays a seven point Positive-Negative (PN) Scale, which ranges from -3 to 3. It is a subjective scale that measures how well a device meets an individual’s needs. It ranges from “Device did not meet your needs” to “Device met your needs and now you are done with it”.

[Continue to Detailed Description or return to content](#)

Detailed Description: A yellow rectangle frames a seven point horizontal Likert-like scale. On the left side of the seven point Likert scale is the label “Device did not meet your needs”. Seven circles are in a horizontal line leading to the other right anchor, “Device met your needs and now you are done with it”. Each circle is connected with a solid line. From left to right, below each circle are the numbers: -3, -2, -1, 0, 1, 2, and 3.

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Example 2: EqTD for a Photograph



Figure B: Example of Accommodation

[link to EqTD](#)

Equivalent Text Description

Brief Description: Figure B: Photographic example of accommodation

Essential Description: Photograph of someone holding open a door for a person in a wheelchair who identified herself as needing help, thereby providing accommodation for the person in the wheelchair.

[Continue to Detailed Description or return to content](#)

Detailed Description: A main entrance to a brick building shows glass doors that open outward. Two women are entering. The woman on the right side of the door is smiling and holding a door open for the woman in a wheelchair on the left so she can enter. There are large windows on both sides of the doors, with five rows of bricks beneath the windows.

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Example 3: EqTD for a Table

Question	Group A			Group B		
	Agree	Neutral	Disagree	Agree	Neutral	Disagree
I find writing easy	73%	19.2%	7.8%	61.9%	33.3%	4.8%
I enjoy writing	57.7%	30.8%	11.5%	57.1%	28.6%	14.3%
I enjoy reading	61.6%	19.2%	19.2%	76.2%	23.8%	0%
I have written a description before today	58.3%	20.8%	20.9%	47.8%	8.7%	43.5%
I have read a text description before today	83.4%	8.3%	8.3%	78.3%	13%	8.7%
I am familiar with UD concepts	34.7%	30.6%	34.7%	82.6%	8.7%	8.7%
I am familiar with web accessibility concepts	47.9%	34.8%	17.3%	73.9%	26.1%	0%
I am knowledgeable in the area of disability	56.5%	26.1%	17.4%	82.6%	17.4%	0%

Table 1: Questionnaire responses divided by question with percent responses for each group

[link to EqTD](#)

Equivalent Text Description

Brief Description: Table 1: A table depicting questionnaire responses divided by question with percent responses reported for each Group.

Essential Description: The table provides a more detailed outline of the responses made by each Group for each question. Data reported in the text is represented as total percentages for both groups A and B. The table separates Group A and B responses giving a more detailed look at the data.

[Continue to Detailed Description or return to content](#)

Detailed Description: The eight rows of the table depict the eight questions of the survey. Six of the seven columns are the possible responses for each question, repeated for Group A and Group B. A thick black line separates the columns that contain the responses for Group A and the columns that contain the responses for Group B. Each cell contains numbers that reflect the percent response within each group for each question. The three possible responses are agree, neutral and disagree. The percent responses add up to 100 within each group.

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APPENDIX B: WRITE YOUR OWN EQTD

Did you notice that Figure 1 in this document does not have an EQTD written for it? Write it now. After you write the EqTD, share your descriptions with peers.

If you feel really brave, try inserting hyperlinks in the electronic version of this document so that figure 1 links to this page.

Brief Description:

Essential Description:

[Continue to Detailed Description or return to content](#) [Not active, replace with an active hyperlink.]

Detailed Description:

[Return to content](#) [Not active, replace with an active hyperlink.]