



THE GMarie GROUP
Performance Improvement Specialists

Developing Online Training for Visually Impaired Audiences

June 2009

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Developing Online Training for Visually Impaired Audiences

As technology advances, one trend in online learning is to include Flash-based technology, gaming, interactive graphics, video and other advanced multimedia. While these components help engage most audiences, they create significant challenges in terms of accessibility, particularly for learners with visual impairments.



As a result, organizations that offer widely-accessible training struggle to develop instructionally sound solutions that not only meet accessibility needs but also enhance employee and organizational performance. Through this white paper, your organization can identify instructional strategies, assistive technologies, and assessment and evaluation techniques that yield effective training for your visually impaired training audiences.

Types of Visual Impairment

The severity and type of visual impairment varies from person to person. Four classifications of visual impairment include total blindness, legal blindness, partially sighted and low vision. The first three classifications relate to the severity of one's loss of sight. Learners with low vision, however, may have a variety of vision problems (e.g. Leber's congenital amaurosis, age-related macular degeneration) that cannot be corrected with glasses and that limit ability to perform everyday activities.



Because visual impairment varies, consider conducting an assessment to gauge the unique accessibility challenges of your learning audience prior to selecting instructional strategies and assistive technologies to support your learning program.

Instructional Strategies

While some traditional online learning methods may not be suitable, the following strategies — when developed and implemented effectively — can provide valuable training experiences for visually impaired audiences:

- Accessible Web portals
- Audio-based learning programs
- ADA-compliant Web-based training
- On-the-job performance support tools in accessible formats

Accessible Web Portals

The Americans with Disabilities Act (ADA) is a civil rights law that prohibits discrimination based on disability. Specifically, [Section 508](#) outlines requirements to ensure electronic information is accessible to people with disabilities. While private organizations are not required to comply with all standards outlined in Section 508, many adhere to at least some of the requirements.

By following Web development standards outlined in Section 508, your organization can offer an accessible Web site that links to a variety of learning and performance improvement materials. This site can be used by all training audiences, including those with visual impairments. The Web portal may include links to podcasts, PDF job aids, Web-based training courses, online coaching and feedback services.

Audio-Based Learning Programs

To engage visually impaired audiences, consider offering an audio-based learning program. Podcasts are convenient, quick and cost effective to develop and maintain, and enable employees to learn on their own schedules at a location of their choice.



As part of an audio-based learning program, consider:

- Incorporating a variety of audio styles such as [storytelling](#), informational lecture, mnemonic devices, instructional music, etc.
- Using multiple voice talent to keep learners engaged and, if applicable, to help learners differentiate contrasting points of view.
- Offering the audio files via computers, hand-held devices (e.g. iPod, MP3 players) or electronic book players.

ADA-Compliant Web-based Training

To ensure accessibility, develop Web-based training courses in accordance with technical standards outlined in [Section 508](#). The standards establish a minimum level of accessibility, based on technology type (e.g. software, WBT, video, telecommunications). To view an ADA-compliant WBT developed for the State of New York, click [here](#).

Note: Based on the needs of your audience, you may need to offer a prerequisite course to help visually impaired learners improve their typing skills.

On-the-Job Performance Support Tools



Performance support tools, such as job aids and coaching guides, help learners integrate what they learned during training into their daily work. These tools can be developed in accessible formats for visually impaired audiences. Consider offering large print, Braille, podcast and PDF versions of these tools.

Assistive Technologies

In addition to developing instructionally sound learning programs, offer visually impaired learners assistive technologies that meet their needs. Depending on the learning program implemented, some learners may benefit from screen readers like [Job Access With Speech](#)® (JAWS) and Apple's [VoiceOver](#)® while others may need external or software-based computer screen magnifiers.

Assessment & Evaluation Techniques

To evaluate the effectiveness of your learning program, use Kirkpatrick's "Four Levels of Evaluation" to develop tools and scoring mechanisms to measure participant reactions to learning, mastery of objectives, transfer of skills to the job and return-on-objectives.

To ensure your evaluation program effectively captures the accessibility of your program:

- Evaluate and test program materials using the most current access technology, such as screen reading, screen magnification programs and Braille displays.
- Develop a detailed assessment that identifies learners' assistive technology needs (to be completed by learners, as needed)
- Provide accessible (e.g. Braille) end-of-training evaluations and assessments
- Allow additional time, breaks or alternate locations for assessments
- Monitor program accessibility and make periodic updates, as needed
- Provide training to course designers to ensure that they develop instructionally sound and accessible learning solutions



Conclusion

As online learning trends lean toward visually appealing strategies, organizations like yours may struggle to offer accessible training to learners with disabilities, particularly the visually impaired. By incorporating the instructional strategies, assistive technologies, and assessment and evaluation techniques outlined in this white paper, your organization can offer instructionally sound training that is not only accessible but also yields employee and organizational performance improvement.

The GMarie Group

For over 20 years, The GMarie Group has provided nationwide clients with custom learning and performance improvement solutions. To do so, we apply the ADDIE Model, a systematic process for:

Analyzing Performance and Training Needs

The GMarie Group recommends initiating a project through rigorous analysis, which is the key to obtaining valid results and ensuring that a significant cross-section of the organization has a stake in the process. We can conduct training needs and performance analysis to determine learning solutions to address identified performance gaps.

Designing and Developing Effective Solutions

We design and develop online (Web-based) training, virtual Webcasts, podcasts, instructor-led training, performance support tools, learning portals and much more! Our team can author your custom product using any industry-standard authoring tool (e.g. Flash, Lectora, Flypaper and Captivate).

Implementing Products and Programs

We also provide training program planning and coordination, train-the-trainer, training delivery and facilitation for all types of subject matter. We can also help integrate Web-based solutions into your LMS or LCMS.

Evaluating Reactions, Learning, Skills Transfer and Returns

Using Kirkpatrick's "Four Levels of Evaluation," we develop tools and scoring mechanisms to measure participant reactions to learning, mastery of objectives, transfer of skills to the job and return-on-objectives.

How may we help YOU?

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