



Live and Learn

A Learning and Performance Newsletter
Published by effectPerformance, Inc.

Volume 2, Number 1

Winter, 2005

Audio Narration in E-Learning

What works, what doesn't

By Gus Prestera, PhD, CPT – President, effectPerformance, Inc.

I was recently on an *e-Learning Guild* discussion board and a participant named Christine posted the following:

“We are currently working with our e-learning group to develop e-learning. The e-learning group always develops their courses by adding audio to the course. The audio is a recorded voice that seems to mimic the information that is visually on the screen.... Due to this fact, I am not sold on the use of audio within e-learning.... What are your thoughts?”

Although I've been designing e-learning courses for years, audio usage remains one of the most challenging issues I face. So I thought that this would be a good forum to share with you the lessons I've learned from designing countless hours of e-learning courseware.

When incorporating audio into e-learning courses, instructional designers have four basic options with a host of individual variations:

In this issue:

- ▣ **Featuring:** Audio narration in e-learning (p.1)
- ▣ **Doc Talk:** Training lessons from a newborn (p.2)
- ▣ **Inside:** Simulations as assessments (p.3)
- ▣ **Design Tips:** ARCS Model (p.3)



* **Verbatim Narration** – The words spoken by the narrator are exactly the same as those appearing on the screen.

* **Paraphrasing Narration** – The words spoken by the narrator paraphrase the text on the screen, so the audio has fewer words than the text.

* **Elaborative Narration** – The words spoken by the narrator cover the on-screen text but then provide additional insight, so the audio is longer than the text. An example of this would be narration of short bulleted text.

* **Descriptive Narration** – The words spoken by the narrator are used to describe visual elements on the screen, such as narration describing an interface, narration describing a graphic, or dialog between fictitious characters.

So which is *your* preference?

If only the choice were *that* simple.

Key Considerations - There are several factors that will influence your decision.

Learner Attention – Even a good narrator cannot hold the learner's attention indefinitely. From conducting many pilot sessions over the years, I've found that audio clips should last no more than 20 seconds, on average. Having longer audio clips means losing the learner's attention, regardless of the audio approach you take. Here lies the problem: on a typical screen, there are 30 to 90 seconds-worth of text on a screen. This means that if you use the verbatim or elaborating approaches to narration, the audio

continued on page 2



Doc Talk

By Gus Pretera, PhD, CPT

At 11 p.m. on December 13th, Mary Katherine Pretera takes her first breaths. It's been 5 years since I had a newborn to raise, so my fatherly instincts *should* be a little rusty. Will I remember how to support my daughter's wobbly head, how to change her diapers without making a mess, and how to hold her so I get that loud, satisfying burp? Of course, I will. I had a great teacher... my son.

When he was a newborn, E.J. clearly communicated his needs (by crying), gave me a chance to perform, and gave me immediate feedback (sleeping, crying, burping, or smiling). Through this process, a Daddy was trained.

There is no training that is as effective as multiple experiences coupled with clear expectations, and immediate feedback. This is a fundamental principle of performance-based instructional design.

files will have a tendency to get too long.

Bandwidth Constraints – Unless you are delivering your course via CD-ROM or DVD, you will likely need to contend with bandwidth constraints on audio files. Here again, you will need to keep your audio files to 20 seconds or less. Longer audio files will slow down the performance of the course. This means that lengthy verbatim, elaborative, or descriptive narration will be less effective in an online environment.

Content Redundancy – While paraphrasing narration is starting to look attractive because it helps to keep audio files short, there is a significant downside to using it. A common concern is that if the learner reads the text but does not listen to the audio, or if the learner listens to the audio but does not read the text, then the learner will miss important points if the audio and text do not match. This concern makes it difficult to employ the paraphrasing and elaborative approaches and explains why verbatim is often the preferred approach.

Learner Control – When audio narration is included in a course, the learner should always have the ability to experience the course without audio. For one thing, they may not always have speakers, audio cards, the right plug-in, or a high-speed connection, so learners may not always be able to experience audio. Some learners may have hearing problems. Moreover, some learners simply do not enjoy learning through audio and view audio narration as a nuisance. So, if some learners are going to experience the course without audio, it's impor-

tant to make sure that text and audio content are redundant. This is another reason why verbatim audio is so commonly used.

Distractions – Just as you are starting to think that verbatim is the way to go, I ask you to consider the learner's experience. When the learner is trying to read text on the screen, having verbatim audio playing simultaneously can be distracting. Even more distracting is trying to read text and having paraphrased audio playing, that is, audio that does not match up with what you are reading. It creates a sense that I need to read every word *and* listen to every word, so that I don't miss anything. From this perspective, the ideal approaches from the learner's standpoint are elaborative and descriptive narration.

"...some learners simply do not enjoy learning through audio...."

The choice is clear, isn't it? *Clear as mud*, my friend Roy likes to say. Hopefully, now you can appreciate why this is such a difficult question to answer and why the

answer is different for every course I design.

Why audio? The choice of narration approach often comes down to understanding why we are using audio in the first place.

Learners like it – My clients commonly tell me that they want to use audio because learners like it. If that were true, then you would expect learner satisfaction to be higher with audio-based courses. They're not. My experience is that learners generally do not particularly like audio. In pilot sessions, about half of learners will disable the audio within the first few minutes. This is particularly true with verbatim narration. Recommendation: do not use audio if your only reason is that you think learners will like your course more.

continued on page 4

Simulations...

Not Just For Learning Anymore

By **Stacie Comolli, M.Ed.**

effectPerformance Instructional Design Consultant

Proven time and time again, is the fact that the most effective way to learn a new skill, and impact performance, is to learn by doing. Simulation is a valuable learning strategy used by instructional designers when learning on the job is too risky or cost prohibitive.

Recently, simulation has broadened by definition and increased in value through its proven diagnostic applications. In the analysis phase of a project, computer-based simulations can help capture valuable performance data from an infinite number of end users. The data is collected in a controlled and consistent format, and analyzed electroni-

cally. A computer-based simulation assessment can enhance validity and reliability by mirroring the realities and nuances of the performance environment. Analysis is the key to success when creating an assessment simulation, as the performance measures must directly correlate with job tasks, and all noise must be eliminated. The skills of an Industrial Psychologist are critical when high stakes decisions will be made based on assessment scores.

The definition of simulation, and its use in the field of performance improvement, will continue to broaden over time as the development process becomes more cost effective.

"...simulation assessments can enhance validity and reliability...."



The ARCS Model

Dr. John Keller's ARCS Model suggests that there are 4 factors that need to be addressed in any training program in order to create a motivating environment for learning:

Attention – Arouse attention by asking provocative questions, peaking the learner's curiosity, stimulating the learner's senses, offering variety, and/or creating a sense of urgency

Relevance – Learners, especially adult learners, want to learn about things that are relevant to their situations, their problems, and their needs... so satisfy this natural inclination by establishing the relevance of the learning experience

Confidence – Learners, especially adult learners, enjoy feeling competent and in control of their situations, so build-up the learner's confidence early and then raise the difficulty level as the learner's self-efficacy increases

Satisfaction – Learners want to feel good about themselves, so help them develop a sense of accomplishment by giving them relevant and meaningful tasks to perform



International Board of Standards for Training, Performance and Instruction (ibstpi)

For many years ibstpi's competency sets have been regarded as the benchmark standards for those in the training and performance field. The Board develops, globally validates, and publishes competencies and performance statements for Instructors, Instructional Designers, and Training Managers. Each of these sets of standards has been

updated in the past five years, and excellent handbooks have been published to provide practitioners with insight on how to use the ID and Training Manager competencies to greatest effect. The Instructor competencies have recently been revised to include online instruction, as well as standards for those in classroom settings. Several of the competencies have been translated into other languages.

The competencies are available on the ibstpi website (www.ibstpi.org).
By Marguerite Foxon

Reduces reading load – Another frequently-cited reason to use audio is that having audio reduces the amount of effort the learner needs to expend reading text. This can be true with descriptive and elaborative approaches, but it is not the case with verbatim and paraphrasing approaches. Learners often find that it is faster, easier, and most effective for them to read the text rather than wait for the slow narrator.

Recommendation: if you want to reduce reading load, place emphasis on descriptive and elaborative narration.

Multi-modal learning (redundancy) – A more academic reason

for using audio is that it can complement the visual components of the course and take advantage of the learner's multiple modes of learning. Again, this does not apply to the verbatim approach. There is no empirical evidence to support the notion that we learn better by having redundant text and audio. Conversely, using audio to describe graphics or to elaborate on the text can create synergistic effects.

Keeping it real – Though not often cited as a reason, I find audio helpful in communicating the real-world nuances of dialog. For example, when teaching sales reps how to interact with customers, I like to model proper communication through dialog between fictitious sales reps and customers. Having testimonials and war stories presented by real or fictitious characters is another effective use. Lastly, audio narration enables me to communicate with the learner in a more casual and engaging way than text. With screen text, it is important to maintain a certain “professional” tone. With audio, my narrator is able to use contractions, idioms, and other elements that make the narration

more conversational.

Key Success Factors – So despite the complexities, you want to use audio in your course. Here are my top three success factors:

Narrator – Get yourself the best narrator you can find. It goes without saying (but I’ll say it anyway) that you will use a professional audio engineer and sound recording studio, so don’t get stingy on the voice-over talent. An experienced narrator can make even the most poorly written narration

“...designers tend to be better at writing good screen text but less so at writing good audio....”

come to life and can engage the learner.

Engaging Script – Even though a top-shelf narrator can make you seem like a good scriptwriter, you want to start with the best possible script. Instructional designers tend to be better at writing good screen text but less so at writing good audio and video scripts. My own approach is to storyboard the course by writing all of the text as if it will be recorded as audio. I even do this for courses that have *no* audio. Writing for audio causes me to write in a more conversational, and succinct style. It also encourages me to use visuals more

effectively, rather than placing all of the emphasis on the screen text. Since most learners tend to be visual learners, this approach pays dividends.

Short Clips – For goodness sake, keep the audio clips short. Strive to keep your audio clips down to 20 seconds or less. When using verbatim audio, this means breaking up your screen text into much smaller chunks than usual and possibly spreading out your content over a larger number of screens.

I hope you find these lessons learned helpful in making your own decisions about audio usage. I hope you’ll share some of *your* lessons learned.

Parting Shot

Gus will be co-presenting with *Softassist's* Ty Johnson at ASTD's TechKnowledge 2005 in Las Vegas on February 3rd. Their presentation deals with improving e-learning design processes.

Be there or be square!



effectPerformance

1513 Fairview Avenue
Havertown, PA 19083-4235

LIVE & LEARN Newsletter