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## Evaluation of Adobe® Presenter as a Teaching Tool

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**Abstract:** Adobe® Presenter software provides educators with a tool to create narrated distance learning presentations. This article describes Adobe® Presenter's many features and explains which most strongly affect learning. Six Adobe® Presenter trainings were presented to 62 volunteers preparing to provide information at a public outreach event. One month after the event, volunteers were surveyed about their ability to learn from the online training and to apply the information in their volunteer work. Although all features of the Adobe® Presenter software were highly rated, questions embedded within the presentation and the voice-recorded narration were rated as particularly important to learning.

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Adobe® Presenter (Adobe Macromedia Software LCC, 2008), part of the Adobe® Connect™ Enterprise Server Program, is useful software for creating prerecorded narrated Microsoft PowerPoint (Microsoft Corporation, 2003) presentations that can be viewed through any Web browser or from a compact disc. This tool allows Extension educators to make information widely available without the time and travel costs associated with a live presentation. Like most software, Adobe® Presenter offers a variety of features. The questions arise: which features enhance the learning experience?; which distract?; and which add little educational value to the training while taking up the educator's time?

In any Extension presentation, live or prerecorded, the most important outcome is for students to understand, retain, and be able to use new information. In *e-Learning and the Science of Instruction*, Colvin Clark & Mayer (2003) support using the knowledge construction theory of learning when creating e-trainings. This theory states that learning is optimized when students use both visual and audio channels to take in new information and are then provided an opportunity to integrate new information with existing knowledge. Adobe® Presenter provides several features that allow educators to create trainings following these guidelines.

### Objectives

- Create an online training with Adobe® Presenter that follows knowledge construction theory.
- Evaluate the effectiveness of Adobe® Presenter as a teaching tool.

- Determine which features facilitated learning in order to better focus educator's efforts.

## Adobe® Presenter Features

Adobe® Presenter has several features that educators may elect to use. Operating within PowerPoint, educators may use written phrases, photos, and other graphics within each slide. All animation features of PowerPoint can be used within Adobe® Presenter. In addition, narration can be added with the script appearing in a sidebar. The Quiz Manager feature allows the educator to create question slides within the presentation in a variety of formats, including true or false, multiple choice, and matching.

## Design of the Online Training

An advanced training consisting of six online Adobe® Presenter training modules was created for Master Gardener volunteers based on the knowledge construction theory. An example can be viewed at <https://umconnect.umn.edu/p45914053/>.

James J. Luby (personal communication, January 13, 2008) found that students had a limited attention span for recorded trainings. Trainings beyond 40 minutes reduced learning. In addition, Colvin Clark, and Mayer argue that any feature not directly contributing to the learning point detracts from learning by over loading the student with unnecessary information. To avoid these problems, the following rules were used in creating the online trainings.

- Modules were designed to be no longer than 30 minutes in length.
- Backgrounds were simple; no distracting background images or extraneous decorations were used.
- Written phrases were limited to one line.
- Written phrases, photos, and graphics were included only if they supported the learning point.
- Animation was used only to emphasize the point being made (e.g., arrow appears to point out a feature in a photo).
- All animations were "fade in" or "fly in"; distracting motions like swirls, flashing, and zig zag were avoided.
- Narration was scripted prior to recording to maintain focus on the learning point.

In order to internalize new information, learners must be able to place the information within the context of existing knowledge. The online trainings were designed to promote knowledge integration in several ways.

- Photos and graphics were combined with text or narration to facilitate connecting images and ideas.

- Required questions were embedded within the presentations to allow learners to practice using new information.
- Questions were designed as simple case scenarios where learners could apply their new knowledge in life like situations, rather than simply recite new facts out of context.

## Methods

The online trainings were presented to 62 Master Gardener volunteers preparing to provide information and answer questions at a public outreach event. One month after the event, volunteers were surveyed about their ability to learn from the online training and to apply the information in their volunteer work.

## Findings

Volunteers found the trainings to be an acceptable length (Table 1). All features in Adobe® Presenter evaluated were well rated (Tables 2-8). The embedded questions were rated well above the other features (Table 8), with 97.5% of volunteers reporting that the questions improved their understanding of and confidence in the subject matter. The voice recorded narration was the second best rated feature (Table 3) with 90% of volunteers reporting that the narration improved their learning over a read only presentation.

**Table1.**  
Length of Training (N=40)

Presentation Title	Length (min.)	Far Too Short	A Little Too Short	Acceptable Length	A Little Too Long	Far Too Long
Remembering the Basics	15	2.5%	7.5%	85%	5%	0%
Vegetable Diseases	21	2.5%	5%	87.5%	5%	2.5%
Tomato Diseases	23	0%	5%	87.5%	5%	2.5%
Leaf Spots on Trees	20	2.5%	5%	90%	2.5%	0%
Cankers & Galls	20	0%	7.5%	87.5%	5%	0%
Wilt Diseases of Trees	25	2.5%	2.5%	87.5%	7.5%	0%

**Table 2.**  
Voice Recorded Narration (N=40)

	<b>Always</b>	<b>Most of the Time</b>	<b>Some of the Time</b>	<b>Never</b>
The narration of the presentation was loud enough to hear	95%	5%	0%	0%
The narration of the presentation was clearly spoken and easy to understand	95%	5%	0%	0%

**Table 3.**  
The Effect of Voice Recorded Narration on Learning (N=40)

<b>I felt the voice recorded narration...</b>	
increased my learning over a 'read only' presentation	90%
was acceptable but it did not increase my learning over a 'read only' presentation	10%
I found the audio recordings to be distracting and felt that it decreased my learning compared to a 'read only' presentation	0%

**Table 4.**  
Written Text (N=40)

	<b>Far Too Brief</b>	<b>A Little Brief</b>	<b>Acceptable Length</b>	<b>A Little Long</b>	<b>Far Too Long</b>
The written phrases were	0%	5%	95%	0%	0%

**Table 5.**  
The Effect of Written Text on Learning (N=40)

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
The written phrases aided in my understanding of the material	7.5%	0%	30%	62.5%
The photos and diagrams aided in my understanding of the material	15%	0%	17.5%	67.5%

**Table 6.**  
The Effect of Animation on Learning (N=40)

<b>The text animation ...</b>	

Helped me focus my attention on the point being made & increased my learning	67.5%
Was acceptable but it did not improve my learning beyond still text presentations	32.5%
Was distracting to me. It took away from the learning experience.	0%
<b>The animation of photos and diagrams...</b>	
Helped me focus my attention on the point being made & increased my learning	70%
Was acceptable but it did not improve my learning beyond still text presentations	30%
Was distracting to me. It took away from the learning experience	0%

**Table 7.**  
Quiz Manager Created Question Slides (N=40)

<b>The questions in the presentation were...</b>	
Too easy	2.5%
Challenging but answerable	95%
Too difficult	2.5%

**Table 8.**  
Impact of Quiz Manager Question Slides on Learning (N=40)

<b>I felt the questions embedded in the presentation...</b>	
Improved my understanding of the lesson	97.5%
Did not improve my understanding of the lesson	2.5%
<b>I felt the questions embedded in the presentation...</b>	
Improved my confidence in the subject area	97.5%
Did not improve my confidence in the subject area	2.5%

Although a majority of volunteers reported increased learning from use and animation of photos, diagrams, and written phrases (Tables 5 & 6), this percentage was less than those who reported increased learning from the voice narration or embedded questions. This indicates that these features were less important to learners.

Use of the material learned in the Adobe® Presenter trainings was high (Table 9). Some of the trainings were more highly used than others, depending on the topic covered.

**Table 9.**  
Utilization of Learned Information (N=40)

<b>I have used/am using information from the following presentations in my Master Gardener volunteer work</b>	
Remembering the Basics	75.7%
Managing Diseases in the Vegetable Garden	64.9%
Tomato Diseases	78.4%
Leaf Spot Diseases of Trees	70.3%
Cankers and Galls	43.2%
Wilt Diseases of Trees	51.4%

## Conclusions

Adobe® Presenter is a useful tool in creating online trainings. Based in PowerPoint, a program that many educators are already familiar with, it should be easy to learn. In addition to facilitating creation of new trainings, Adobe® Presenter offers educators a powerful tool in converting existing PowerPoint presentations to voice-recorded online trainings that can be widely distributed and easily accessed by a large audience. This can greatly increase the impact of any one educational program.

This study shows that the Quiz Manager feature and the voice-recorded narration are particularly important to learning and should be used in creating online trainings.

These interactive features allow students to feel connected to their instructor, which several studies have shown to increase the efficacy of distance learning (Dooley, Van Laanen, & Fletcher, 1999; Hackman & Walker, 1990).

Although text, graphics, and animation were not rated as highly as other features, the majority of students felt that these features contributed to their learning experience. In a 2009 study, Fox, Herbert, Martin, and Bairnsfather showed that only 7.3% of volunteers preferred audio only training, indicating that text and graphics play an important role in learning.

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