Multimodal Instructional Theory: Narration/Images

The video also integrates several attributes of visual/verbal multimodal instructional rhetorical theory, including integration of narration and image consecutively and in conjunction with each other to reinforce each other (Kress, 2003; and Mayer, 2001). Generally, the narration Steve includes is easy to follow as he manipulates his avatar and cursor controls. However, in some places, the narration is too fast to follow well. This can violate the design principle of balancing text and graphic information on a page, limiting the amount of information one must absorb, as well as the audience-oriented principle regarding expectations to limit the amount of narrative and visual information one must balance in their own working memory. The viewer has to absorb too much information at one time in these instances.

For example, Steve describes how to effect flying, while showing his avatar about to fly. Also, in another portion of the video, Steve calls attention to the way that users can navigate within an island and between islands, again, using the combination of narration and the image shown in Figures 7-9. Users are able to access a map of the *SL* world by clicking on the map label in the lower menu. In Figure 7, Steve has moved the cursor around the screen, encouraging the viewer to follow it, to the tab on the lower menu.





Then, Steve moves the cursor to the landmark tab in the subsequent screen, showing where on the screen to locate it (Figure 8).

Figure 8



Finally, Steve moves the cursor to the particular island listed as landmarked to which he wants to teleport (Figure 9).

Figure 9



With each move of the cursor, Steve describes his keystrokes in the narrative. The cursor provides a visual guide drawing the viewers' attention to specific parts of the screen. Steve uses the cursor, also, to show the viewer where to locate the camera controls, as shown in Figure 5 above. The cursor is positioned on one of the controls that he is describing in the narrative.

Steve's decision to narrate instruction regarding how to use the keyboard to effect actions means that he must speak relatively quickly. This can negatively affect the viewer's learning experience by overloading the auditory channel. It also means that he needs to leave out some information. According to Mayer, multimodal presentation is most effective when learners with little or no previous experience with or knowledge about a task and/or those who have the ability to process spatial information quickly are involved (p. 161). Mayer acknowledges the importance of presenting both images and words in conjunction with each other. Such presentation helps the learner "to hold mental representations of both in working memory" (p. 96). According to Baddeley's (1986) model of working memory there is a phonological (auditory) channel and a 'visuo-spatial' (visual) channel associated with short-term memory. Schnotz (2005) suggests that when a visual image is presented to a reader, the reader can create a visual model as he/she listens to a narrative about the picture (pp. 54-55). By facilitating use of both channels, people can better process information than they can when too much of one system is used. In the narration associated with Figure 4 in the previous section (Click on <u>Video 1</u> to view segment), Steve describes some capabilities that island owners can build into their space. This information, transcribed below, is articulated in approximately 10 seconds:

Objects created by island owners can do a lot of things, from the simple, such as displaying information, to the complex, such as teleporting you to an entirely different area of Second Life. Some will even give you free things.

While it represents information not required for the viewer to learn how to navigate or use controls, it is presented more quickly than most viewers may be able to listen to and retain the information. This is similar to the page design dynamic of including too much text on a single page or PowerPoint slide.

Also, in the narration accompanying Figures 7-9 above (Click on <u>Video 2</u> to view segment) Steve describes how to use the menus to teleport to another island. It includes the information that I have transcribed below, articulated in approximately 18 seconds:

Using the map I can select islands I've marked as favorites. They've been landmarked, and travel there instantly.

[3 second pause during which he opens the landmarked islands menu]

I'll visit another island I've already landmarked, which is IBM's.

[9 second pause, during which he clicks on the selected island and then moves the cursor to "teleport' and clicks on it, then is teleported to the selected island] And here we are.

While the narration occurs at an appropriate rate for the viewer to follow, Steve does not acknowledge the step to click on "teleport" after selecting the landmarked island, though he acts on it in the video. Steve may perceive this to be an appropriate balancing of the visual with the narration, assimilating criteria associated with balancing integration of a graphic and appropriate textual discussion of the information in the graphic.

Further, Steve leaves out some information about accessing *SL*, because he assumes the viewer will have an understanding of how to load and log in to the software. He moves from his real life video to the machinima portion without showing the viewer how to get into the *SL* application. Also, Steve does not describe the keyboard and directional keys that the viewer will need to know how to use; students will likely have a good idea of the layout of a computer keyboard, and students who have used gaming devices will likely understand basic attributes of navigation and using directional keys to move a figure. Amerine and Bilmes (1990) state that instructions may assume a certain embodied knowledge possessed by the user; while information may not be explicitly represented textually or graphically, some attributes of the procedure may be implied (p. 327).

As mentioned above, Mayer also argues that using auditory as well as visual channels helps learners manage the information better (p. 134). It also reinforces what Arnheim (1969) observes about the power of the visual. Van Emden and Becker (2004) acknowledge that when one speaks too quickly it, "leaves your audience frustrated as they probably haven't caught everything you've said and they've not had time to understand it fully, never mind consider how it fits with their own knowledge and experience, so they are likely simply to give up the effort of listening" (p. 1). A revision of this text would include slowing down the narration so viewers can follow the narration and the visual images shown on the screen better.