

Chapter VI

Interactivity and Navigation

Interactivity is a key issue in the designing of educational software. Critics of computer-based education often claim that these courses lack the necessary face-to-face interaction required for learning. In this chapter we address two distinct types of interactivity: student-to-student and teacher- and student-to-media. In practice, computer-based courses vary greatly in the amount of interactivity incorporated in the programs. In terms of student-to-media interactivity, some computer-based training is simply a slide show with interactivity only available to the students through their role of clicking on an arrow to move to the next slide. Other software programs have very large amounts of interaction, giving users control through simulations, communication with other students and the instructor, and even structuring the environment through simple computer programming. In fact, anecdotally, distance learning faculty and students consistently report that there is more interaction in this latter group than in face-to-face courses. In relation to human interactivity (student-to-student and student-to-teacher), some computer-based courses incorporate no interaction and only use faculty to evaluate and grade student work, while other distance learning courses have extensive human interaction. For software designers, there are very important questions about interactivity. First, how much interactivity should be used or encouraged? Second, how is interactivity different using various media? Third, what are the differences and similarities of interactivity in computer-based educational environments as

opposed to the traditional classroom? Fourth, what does media theory tell us about interactivity and effects on users that is particularly relevant to education?

The 2001 survey showed that students felt the quality of interaction in distance learning courses between the instructor and students was comparable to that found in face-to-face courses, with 74.6% of the respondents from computer-based courses strongly agreeing and agreeing with the statement, “The quality of the interaction with the instructor was the same or better as in traditional face-to-face courses” (Figure 12).

Note that the videotape format courses fared much worse in this student evaluation, with only 33.8% of the respondents strongly agreeing or agreeing with the statement.

In terms of student-to-student interaction, the 2001 survey found that there was slightly higher disagreement (55.9% for computer-based courses; 82.5% for videotape) with the statement, “The quality of the interaction with other students in the course was the same or better as in a traditional face-to-face course” (Figure 13).

Figure 12: Quality of Interaction with Instructor by Delivery Format (Questions 1 & 3)

Delivery format * The quality of the interaction with the instructor was the same or better as in a traditional face-to-face course. Crosstabulation

			The quality of the interaction with the instructor was the same or better as in a traditional face-to-face course.				Total
			strongly agree	agree	disagree	strongly disagree	
Delivery format	computer-based	Count	21	23	12	3	59
		% within Delivery format	35.6%	39.0%	20.3%	5.1%	100.0%
	videotape	Count	3	18	27	14	62
		% within Delivery format	4.8%	29.0%	43.5%	22.6%	100.0%
	correspondence	Count	2		2	1	5
		% within Delivery format	40.0%		40.0%	20.0%	100.0%
	other	Count	1				1
		% within Delivery format	100.0%				100.0%
Total		Count	27	41	41	18	127
		% within Delivery format	21.3%	32.3%	32.3%	14.2%	100.0%

Figure 13: Quality of Interaction with Students by Delivery Format (Questions 1 & 4)

delivery format * The quality of the interaction with other students in the course was the same or better as in a traditional face-to-face course. Crosstabulation

			The quality of the interaction with other students in the course was the same or better as in a traditional face-to-face course.				Total
			strongly agree	agree	disagree	strongly disagree	
Delivery format	computer-based	Count	6	20	22	11	59
		% within Delivery format	10.2%	33.9%	37.3%	18.6%	100.0%
	videotape	Count	1	9	27	20	57
		% within Delivery format	1.8%	15.8%	47.4%	35.1%	100.0%
	correspondence	Count	1	1	2	1	5
		% within Delivery format	20.0%	20.0%	40.0%	20.0%	100.0%
	other	Count		1			1
		% within Delivery format		100.0%			100.0%
Total	Count	8	31	51	32	122	
	% within Delivery format	6.6%	25.4%	41.8%	26.2%	100.0%	

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