

## The Comparative Effectiveness of a Slide/Tape Show and a Library Tour

*This study shows that a slide-tape program does not necessarily produce better immediate recall of bibliographic instruction than the traditional library tour. These findings contradict Frank F. Kuo's conclusion that a slide-tape program is superior to the lecture tour. The disparity between the two studies indicates the need for further research into the effectiveness of this and the other kinds of media presentations now used by academic libraries.*

V IDEOTAPES, slide/tape presentations, tape recordings for individual use—increasingly these are the means by which students are taught how to use academic libraries.<sup>1</sup> Their popularity is due largely to the practical advantages they offer. They are convenient. They help avoid disruption in the library, eliminate scheduling problems for the library staff responsible for bibliographic instruction, and reduce the amount of staff time involved in preparing and giving lecture tours.

But do patrons learn from these media presentations as well as they do from the traditional lecture tour? Or do they learn better? These questions need to be answered if academic libraries are to be confident about the effectiveness of their bibliographic instruction programs.<sup>2</sup>

This article takes a step toward meeting this need, at least in reference to slide/tape programs. It offers findings and conclusions based on testing done on 151 students in a freshman-level business report-writing course. The specific hypothesis tested is whether a slide/tape presentation produces

better immediate recall of basic library information than a conventional library lecture tour.

### TEST PROCEDURE

The student sample was randomly divided by having those in sections #2, 4, 6, and 8 (tour group) take walking tours and those in sections #1, 3, 5, and 7 (slide/tape group) see the slide/tape show. This division gave us two almost perfectly even groupings (seventy-five in the tour group and seventy-six in the slide/tape).

Since it was important that the sections in both groups receive the same information, the lecture tours were conducted from an outline of the slide/tape script. The tours were led by the authors of the script, who also prepared the test used in the study. The information presented concerned those bibliographical guides and library resources useful to students doing research in the areas of business and public affairs.

The tours and slide/tape presentations were given as part of normally scheduled class activities. Since students in the course write reports based on library research, library orientation is a regular part of the curriculum and had previously been handled by having them take conventional lecture tours. The fact that they were par-

---

*Julia F. Baldwin is documents librarian and Robert S. Rudolph is associate professor of English, University of Toledo, Toledo, Ohio.*

ticipating in a study and that they would be tested on what they remembered was not indicated to them until after the presentations had been completed.

The slide/tape show (involving seventy slides and twenty minutes of tape-recorded text) was viewed by each class of the slide/tape group without interruption from start to finish. Neither the teacher of the section nor the authors reinforced any of the points made in the presentation.

When the tours and slide presentations were over, the students were immediately given a twenty-item test. (See the appendix for the actual test questions and frequencies of correct and incorrect answers for each group.) In all but the two sections of the slide/tape group that were not monitored by the authors of this article, students were told just before taking the test that it was part of an experiment to determine the relative effectiveness of tours as compared to slide/tape presentations. In the unmonitored sections, they were told that the test score would count as part of their final grade.

#### FINDINGS

The main question we wanted to answer was whether a slide/tape presentation conveys information for immediate recall better than a tour. It apparently does not. The tour group scored a bit higher overall than the slide/tape group with respective mean scores of 15.35 and 13.75 (a 1.60 difference in favor of the tour group). With a *t*-value of  $-2.96$ , we could not at the .01 level of significance reject the possibility that a slide presentation is only as effective as or even less effective in conveying information than a lecture tour.

In addition, there was no type of question on which the slide/tape group had a superior mean score. The tour group scored higher on the average on questions about locations of guides and library facilities as well as on questions that did not concern locations (such as questions about the content and organization of various guides and library resources like the card catalogs).

For the location questions, the difference in mean scores is .82 in favor of the tour group (a mean score of 7.33 as compared to 6.51 for the slide/tape group). For the other questions, the difference is .77 in favor of

the tour group (a mean score of 8.01 as compared to 7.24 for the slide/tape group).

#### DISCUSSION

It is not surprising to us that the tour group did well on questions about locations, for we had anticipated that walking to various parts of the library would make a stronger impression about their location than seeing slides. However, that this advantage can be eliminated or diminished by proper reinforcement is perhaps indicated by the superiority of the slide/tape group's score on question 7 about the location of the government documents collection. Sixty-five slide/tape students answered that question correctly as compared to fifty-six in the tour group.

This is the largest difference in scores favoring the slide/tape people for any question in the test. The superiority of their recall may be due to the fact that the location of government documents is mentioned five times in the script and presented on two slides. On the other hand, the location was only mentioned once to the tour group sections, and they did not actually visit it since doing so would have entailed an awkward move from one floor of the library to another.

We are surprised that the tour group's mean score was higher than the slide/tape group's on questions not involving locations. We had supposed that close-ups of materials would contribute to greater understanding and recall than the tour method of holding up reference tools, where the details of the page layout are visible only to a few "front-row" people. But with a *t*-value of  $-2.70$ , we could not at the .01 level of significance reject the possibility that a slide presentation is only as effective as, or even less effective than, a tour in conveying this kind of information.

#### CONCLUSIONS

Our testing of 151 students in a freshman-level business report-writing course gives us no basis for rejecting the possibility that a lecture tour is just as good a means of conveying information about library resources and facilities as a slide/tape show, or even better. This conclusion indicates the need for further research into the effectiveness of media presentations.

On the basis of his research, Kuo reached the opposite conclusion.<sup>3</sup> He found that the slide/tape method was more effective than the lecture tour at the .01 level of significance. Is this difference in results due to the relatively small sample size used in his research (approximately thirty in each group)<sup>4</sup> compared to our somewhat larger sample of seventy-five and seventy-six in the control and experimental groups? Were our tours better prepared or conducted, or

was his slide/tape program more effectively done than ours?

Pending further research, these questions—like so many others relating to the effectiveness of media presentations—must remain unanswered. Commenting on the scarcity of research into specific problems relating to the effectiveness of integrated library instruction, Henning wrote, "Continuing research is absolutely necessary."<sup>5</sup> The same can be said about media programs.

## REFERENCES

1. Thus, Barbara H. Phipps, commenting on the problems of providing bibliographic instruction to large numbers of students, says, "The most promising future [appears] to lie in the area of programmed instruction and audiovisual aids to teaching" ("Library Instruction for the Undergraduate," *College & Research Libraries* 29:411 [Sept. 1968]). See also appendix IV, "Outstanding Features of Instructional Programs and Future Plans Noted in Reports from 76 Colleges," in Verna V. Melum, "1971 Survey of Library Orientation and Instruction Programs," *Drexel Library Quarterly*, 7:225-53 (July and Oct. 1971).
2. That relatively little research has been done evaluating media productions used in library instruction is evident from a perusal of *Library Literature* to date, Hannelore B. Rader's annual reviews of literature on library orientation and instruction (in the January/
- March issues of *Reference Services Review*, 1974, 1975, and 1977, and in the October/December 1976 issue), her "Selective Bibliography on the Evaluation of Library Instruction" (mimeographed; distributed at the Sixth Annual Conference on Library Orientation for Academic Libraries, May 13 and 14, 1976, at Eastern Michigan University, Ypsilanti, Michigan), and Maureen Krier's "Bibliographic Instruction: A Checklist of the Literature, 1931-1975," *Reference Services Review* 4:7-31 (Jan./March 1976).
3. Frank F. Kuo, "A Comparison of Six Versions of Science Library Instruction," *College & Research Libraries* 34:289 (July 1973).
4. *Ibid.*, p. 287.
5. Patricia A. Henning, "Research on Integrated Library Instruction," *Drexel Library Quarterly* 7:341 (July and Oct. 1971).

## APPENDIX

The following are the questions that were asked of students in the slide/tape (ST; N = 76) and the tour (T; N = 75) groups, and the number of responses to each answer choice. (Discrepancies in the totals under various questions indicate that some students did not answer those questions.) The correct answer choice is indicated by an asterisk in the right margin. All questions are multiple-choice except for #20, which is true/false.

1. Into what sections is the Author/Title catalog of The University of Toledo library divided?

	ST	T
a. Fiction and non-fiction	2	0
b. Different subjects	1	0
c. Reference and circulating books	0	0
d. Dewey and Library of Congress classifications	72	75*
e. Books and periodicals	1	0
2. What reference guide should you use to locate material in the Government Documents collection?		
a. Central Serials Record	16	6
b. <i>Monthly Catalog</i>	49	52*
c. <i>Business Periodicals Index</i>	4	3
d. Author/Title Catalog	3	6
e. <i>Readers' Guide</i>	1	8

	ST	T
3. What kind of information would you NOT be able to find in the Central Serials Record [the library's list of periodicals received]?		
a. A particular issue is being used by someone.	70	73*
b. A periodical is on microfilm.	0	0
c. A periodical has been bound.	2	0
d. A particular issue has been received.	1	1
e. The library subscribes to a particular periodical.	3	1
4. What reference guide will help you use the Subject Card Catalog most efficiently?		
a. Author/Title Card Catalog	30	15
b. <i>Public Affairs Information Service</i>	2	1
c. <i>Library of Congress Subject Headings</i>	41	54*
d. A newspaper index	0	2
e. A magazine index	0	0
5. Which reference guide would NOT be a likely source for a letter of transmittal audience [the simulated audience for the student's business report]?		
a. <i>Dun and Bradstreet Middle Market Directory</i>	1	1
b. <i>Government Organization Manual</i>	3	1
c. <i>Encyclopedia of Associations</i>	5	3
d. <i>Standard and Poor's Stock Reports</i>	9	14
e. <i>Readers' Guide</i>	56	54*
6. Where is the Microfilm Room located?		
a. Basement	74	73*
b. First Floor	1	0
c. Second Floor	0	1
d. Third Floor	0	0
e. Fourth Floor	0	1
7. Where is the Government Documents collection located?		
a. Basement	0	0
b. First Floor	1	8
c. Second Floor	5	7
d. Third Floor	65	56*
e. Fourth Floor	4	3
8. Where are the unbound periodicals kept?		
a. Basement	51	63*
b. First Floor	9	4
c. Second Floor	2	4
d. Third Floor	11	3
e. Fourth Floor	1	1
9. Where are the bound periodicals kept?		
a. Basement	2	1
b. First Floor	6	2
c. Second Floor	48	61*
d. Third Floor	12	8
e. Fourth Floor	5	3
10. Where are the Library of Congress circulating books shelved?		
a. Basement	1	0
b. First Floor	11	7
c. Second Floor	7	7
d. Third Floor	12	17
e. Fourth Floor	43	42*
11. Which index would you use to find articles published in <i>Personnel</i> , <i>Journal of Accountancy</i> , and <i>Journal of Finance</i> ?		
a. <i>The Wall Street Journal Index</i>	14	15
b. <i>Business Periodicals Index</i>	57	56*
c. <i>Readers' Guide</i>	4	4
d. <i>The New York Times Index</i>	0	0
e. <i>The Christian Science Monitor Index</i>	0	0

	ST	T
12. Which index is divided into corporate and general news sections?		
a. <i>The Christian Science Monitor Index</i>	3	0
b. <i>The Wall Street Journal Index</i>	55	63*
c. <i>Public Affairs Information Service</i>	4	3
d. <i>The New York Times Index</i>	7	4
e. None of the above	3	2
13. Which index gives a running synopsis of articles published throughout the year on a given topic?		
a. <i>The Christian Science Monitor Index</i>	17	15
b. <i>The Wall Street Journal Index</i>	7	3
c. <i>Public Affairs Information Service</i>	11	10
d. <i>The New York Times Index</i>	31	45*
e. None of the above	10	0
14. In which index would articles from the <i>Toledo Blade</i> be listed?		
a. <i>The Christian Science Monitor Index</i>	1	0
b. <i>The Wall Street Journal Index</i>	0	1
c. <i>Public Affairs Information Service</i>	13	8
d. <i>The New York Times Index</i>	0	1
e. None of the above	62	64*
15. Where in The University of Toledo library can <i>Business Periodicals Index</i> be found?		
a. Recent Periodicals Room	13	7
b. Information/Reference Desk	7	8
c. Government Documents Collection	0	0
d. Business Services Area	54	60*
e. None of the above	1	0
16. Where in The University of Toledo library can the <i>Encyclopedia of Associations</i> be found?		
a. Recent Periodicals Room	5	4
b. Information/Reference Desk	46	50*
c. Government Documents Collection	6	3
d. Business Services Area	16	14
e. None of the above	1	4
17. Where in The University of Toledo library can the <i>Congressional Directory</i> be found?		
a. Recent Periodicals Room	1	4
b. Information/Reference Desk	34	41*
c. Government Documents Collection	36	26
d. Business Services Area	2	1
e. None of the above	1	3
18. Where in The University of Toledo library can the <i>Bulletin of the U.S. Bureau of Mines</i> be found?		
a. Recent Periodicals Room	9	8
b. Information/Reference Desk	3	5
c. Government Documents Collection	51	51*
d. Business Services Area	1	5
e. None of the above	8	4
19. Where in The University of Toledo library can the <i>Wall Street Journal Index</i> be found?		
a. Recent Periodicals Room	20	7
b. Information/Reference Desk	16	11
c. Government Documents Collection	1	1
d. Business Services Area	29	53*
e. None of the above	6	3
20. This is a Library of Congress call number:		
	HV	
	6653	
	.C3	
a. True	57	65*
b. False	18	9