TIMOTHY D. JEWELL

Student Reactions to a Self-Paced Library Skills Workbook Program: Survey Evidence

This study compares student reactions to a media-assisted library skills lecture tour and a self-paced workbook covering similar material, traces their reactions during the development of a workbook program, and analyzes associations between student reactions and other variables. Workbook instruction was more favorably received by the students than lectures, their reactions improved as the workbook program developed, and assessments of course instructor support were more strongly associated with student reactions than was academic status of the students.

INTRODUCTION

Many recent articles have pointed out that the "bibliographic instruction" movement within the library profession continues to exert a substantial influence on the aims librarians set for themselves and their services. As a consequence, instruction librarians must persist in exploring and evaluating the most promising and cost-effective means of providing users with what users need to know in order to exploit library resources efficiently and effectively.

One such means of providing library user education is through self-paced workbooks or study guides, which have been in use at a number of colleges and universities for several years.[1] There are strong and convincing library or institutional arguments in favor of this kind of self-paced instruction, such as apparent effectiveness[2] and low cost,[3] but important questions remain about student reactions to it.

There are sound reasons for investigating student attitudes. For example, it is often held that positive attitudes lead to improved

Timothy D. Jewell is chair, Information Services, Bowling Green State University, Bowling Green, Ohio.

learning,[4] so devising palatable instructional approaches may be viewed as a way of enhancing attainment of educational objectives. Because library user education programs have been seen as "vulnerable" for their "insufficient endorsement outside of the library community,"[5] studies of user views of the worth of their instruction may further legitimate the objectives of library education or suggest that they need to be reassessed.

And finally, it has been noted that there are frequently explicit or implicit attitudinal objectives in instruction programs.[6] Among such hoped-for outcomes are better user attitudes toward libraries and librarians, with the implied goal of furthering independent, scholarly work. It seems quite unlikely that such goals can be attained through instructional programs that users perceive as unpleasant or burdensome.

Although these considerations suggest a need for attitude surveys, a recent review noted their relative absence in the literature.[7] Several years ago Lubans provided some data on students' views of the need for instruction in library use and showed that these views were more positive among doctoral students than freshmen.[8] In this study he pointed to professors as important influences

on students' use of the library and views of library instruction, but did not actually demonstrate that connection.

Hardesty showed some very positive student responses to an instructional program for freshmen at DePauw University and that some small but positive attitude change toward the library had been accomplished through the program,[9] but did not offer any evidence regarding factors fostering or retarding the growth of positive attitudes. Person showed a very positive long-term pattern of response to a one-credit elective course in library use at Southern Illinois University, and indicated that students seemed to appreciate the instruction more as time went on.[10] It should be noted that because of the elective nature of the course in question, part of the positive response pattern could be attributed to an "interest" or self-selection bias, and therefore not indicative of a generally held student opinion about bibliographic instruction.

Two studies that specifically dealt with self-paced products were by Olevnik, who found students rating a workbook "generally lower" in usefulness than a media presentation,[11] and Phipps and Dickstein, who reported that questionnaire responses were generally "very positive" to a workbook program at Arizona.[12] The latter authors' unpublished data indicate that between 77 and 92 percent of students taking workbook instruction felt that the experience had helped orient them to the library buildings and would help them make better use of the library.[13] Many students with initial reservations about the workbook approach also seemed to change their minds upon completing it, and students completing the workbook preferred it to a less-time-consuming class lecture, although actual student reactions to lecture presentations were not measured.

These studies have neglected or skirted some interesting questions that the present research seeks to explore: (1) whether student reactions to a workbook program compare favorably with reactions to the common alternative teaching method—media-assisted oral presentation; (2) whether student reactions to instructional programs may be improved as a program progresses; and (3) whether there are specific factors that facilitate the growth of positive attitudes toward a self-paced program.

This study followed Lubans' lead and singled out the students' academic status and the behavior of the faculty as important influences on student attitudes. Concerning academic status, it was strongly suspected that freshmen and sophomores would be more receptive to the instruction than would upper-division students. This was suspected because of the likelihood that, during the progression from freshmen to seniors, students develop "survival skills" of one kind or another based on such things as trial-and-error learning, "peer tutoring" of an informal kind, or other methods.

In expecting student assessments of course-instructor support for instruction to be positively associated with student attitudes toward the instruction, the present study conformed to the near-universal "faculty influence" theory of library use instruction. In essence, the theory holds that without the active support and encouragement of faculty members, students will not actively use the library or pay very serious attention to library use instruction.

BACKGROUND AND METHODS

The research to explore these questions was done at Bowling Green State University in Ohio, as part of its development of instruction and orientation programs. Development of a self-paced workbook program at Bowling Green began in 1978. The book was intended to replace a separate one-credit course in library research techniques that demanded a great deal of time and reached relatively few students, and one-time lectures given to various classes, both of which, according to the librarians, were poorly received by some students and frequently ineffective. More sophisticated subject-related instruction continued, and in order to increase student motivation for this instruction, the workbook was established as an assignment in English 112, the university's required composition course in which students are expected to research and write a term paper. The initial version of the workbook was ready for testing in these classes in the winter term of 1978–79.

The workbook itself was modeled closely after those in use at UCLA and Penn State,

although the chapters themselves and the exercises were all written by librarians at BGSU, creating differences in emphasis, coverage, and style. Questions were designed in a multiple-choice format, and the primary attempt to convey "strategy," or show students how to apply the information to their term paper projects, consisted of suggestions placed at the bottom of each assignment sheet.

The initial version included seven chapters on the following subjects: encyclopedias and their use, author-title approaches to the card catalog, subject approaches, locating books in the library, periodicals and periodical indexes, and microforms. Subsequent versions were expanded to include material on almanacs and statistical sources, biographical sources and book-review sources, and most recently, a section pertaining to government publications. Various editorial changes have also been made over the last two years in order to improve clarity and accuracy.

Because it was intended to compare reactions to the workbook and to traditional lecture approaches, parallel forms of an attitudinal questionnaire were developed for administration to students who received instruction through one or the other method. These questionnaires sought information regarding students' academic status (freshman, sophomore, etc.); the amount of time required to complete the library assignment; and reactions to attitudinal statements on various facets of the instruction using a five-point Likert-type response format ranging from "strongly agree" to "strongly disagree."

For purposes of comparison during the pilot run of the workbook, all sections of English 112 for the winter quarter were assigned to either a "workbook" or "lecture/exercise" condition. Because each English instructor was responsible for two sections, one of each instructor's sections was assigned to each condition, and the same librarian met with each of the instructors' sections. In the "workbook" sections this was done in order to introduce the librarians as potential resource persons, to distribute workbooks, discuss the program's rationale and procedures, answer questions, and to give a brief tour of the reference and microform/periodical areas that the students would be using.

In the "lecture" sections, librarians used a combination of slide and printed materials to cover the same general content found in the first seven workbook chapters mentioned previously. Because this approach had been used for some time prior to the experiment, all participating librarians were experienced in making the presentations. The students were also given brief tours of the reference and microform/periodical areas. They were then given an open-ended assignment aimed directly at helping them use the lecture content to locate sources for their term paper projects. The librarians later received and corrected these assignments, and provided additional guidance on sources to consult for particular topics. Toward the end of the term, questionnaires were distributed to students in all sections of English 112. In general, cooperation was good, as indicated by the 71 percent response rate in "workbook" sections and 78 percent in "lecture" sections.

Following this pilot project, the workbook was expanded, and additional questionnaires were distributed in May and October of 1979 and May of 1980 in order to measure any change in student responses over time. Response rates were 70 percent in May 1979, 65 percent in October 1979, and declined to only 32 percent in May 1980 because of less vigorous attempts to secure cooperation and a high return rate. The number of usable questionnaires during this last period was still in excess of 450.

In general, the procedures surrounding the workbook program remained the same throughout this time: librarians continued to meet with English 112 classes early in the term, students were provided with copies of the workbook and given two or three weeks to complete the project and hand in computer grading sheets with their answers on them. Grades and corrected answer sheets were sent to the English instructors by the librarian coordinating the program, along with guidance on minimum standards for successful completion of the assignment.

GENERAL FINDINGS

The questionnaire responses shown in table 1 indicate that, in general, students held favorable opinions about the library instruction they received. Between 63 and 85 percent found it "clear and understandable," although relatively few (between 9 and 21

Question	Feb. 1979 Lecture	Feb. 1979 Workbook	May 1979 Workbook	Oct. 1979 Workbook	May 1980 Workbook
The workbook (lecture) was "clear and understandable."	63.2%	74.8%	79.5%	79.1%	85.6%
I did not learn anything new from the workbook (etc.).	25.6	23.6	14.8	15.6	8.4
The workbook (etc.) was interesting and stimulating.	9.3	14.0	16.4	11.9	20.7
I already knew how to use a library—I didn't need any library instruction.	30.4	28.8	21.8	20.3	13.7
My English instructor seemed to feel that the workbook (etc.) was important.	56.1	31.8	57.7	54.8	61.6
The workbook (etc.) helped me feel more confident in using the library.	43.6	48.0	57.3	53.0	70.0
The workbook (etc.) was more trouble than it was worth.	29.6	34.8	32.4	29.0	18.9
The workbook (etc.) helped me identify sources for my English paper.	41.1	32.8	35.2	34.3	50.0
The library staff was helpful.	73.1	69.8	80.5	77.5	70.4
The workbook (etc.) should have been more relevant to my English 112 term paper topic.	15.2	26.4	24.9	26.4	18.0
Overall, the workbook (etc.) was a useful assignment.	49.1	49.0	54.2	53.6	67.2
I would have preferred a 1-hour lecture and a different kind of exercise (etc.).	25.6	21.3	17.4	24.1	10.1
	(N = 203)	(N = 250)	(N = 743)	(N = 263)	(N = 460)

Note: Percentages indicate the proportion of respondents indicating that they "agreed" or "strongly agreed" with the statement in the left-hand column. The questionnaire used with the lecture group varied slightly from the one used with the workbook groups in order to reflect the kind of instruction they received.

percent) found that instruction to be "interesting and stimulating." Large proportions of students also felt that the library staff had been helpful to them during the course of their assignments (between 70 and 80 percent responded in this fashion).

More general reactions to the instruction were somewhat less positive than these, but still encouraging. The proportion of students agreeing with the "negatively" worded statements, "I didn't learn anything new," and "I didn't need instruction," was in most cases, one-fourth or less. The proportion agreeing that the instruction was "more trouble than it was worth" was somewhat higher than this, however. Roughly half the students expressed the feeling that their instruction helped them feel "more confident" in using the library, and that their instruction and exercises had been "useful" assignments.

Some interesting differences emerged both between responses of "lecture" and "workbook" students, and between those groups receiving the workbook assignment during different terms. For example, students in the "lecture" sections were less likely than those in "workbook" sections to feel that their lectures and assignments were "interesting and stimulating," and substantially less apt to find their instruction "clear and understandable." (These differences in proportions ranged from a low of 11.6 to a high of 22.4 percent.) Responses of "workbook" students to these questions grew more positive during the course of the study, and may reflect some refinements in the workbook that were gradually introduced. On the other hand, these students were more likely to feel that their assignments should have been more relevant to their term paper topics, and generally less likely to say that their instruction had helped them identify sources for their term papers.

One intriguing finding was that students who had the workbook assigned to them during the trial run in February of 1979 were substantially less likely than students in any other category to believe that their English instructors felt the instruction to be important. Because each instructor had one section receiving "lecture" instruction and one

"workbook" instruction, it seems likely that the students were reacting to their instructors' expressed reservations about the *method* of instruction, rather than about the content or worth of library instruction as such. It is also interesting to speculate that once the English instructors had become familiar with the program, they passed more positive signals along to their students, with potentially important implications for the students' own attitudes.

Students receiving "lecture" instruction were also more likely to say that they had not "learned anything new" from the experience and to agree that they "didn't need" any library instruction. Interestingly, the proportions of students expressing these negative views declined steadily over the course of the study. This may be explained by the fact that more, and probably less familiar, material was being presented to the students, suggesting something to them about the true scope of their "library knowledge." There was also a clear decline in the proportion of students agreeing that their instruction had been "more trouble than it was worth," although there was still a sizable contingent of nearly 20 percent who felt this way. The proportion of students agreeing that their instruction had helped them "feel more confident in using the library," and that "overall" their as-

signment had been useful, increased steadily to more than two-thirds. The proportions disagreeing with these two statements also declined to 8.2 and 12.1 percent, respectively.

THE INFLUENCE OF ACADEMIC STATUS

To gauge the influence of academic status on attitudes toward the workbook program, "lecture" respondents were ignored, and juniors and seniors were treated as one group. As expected, the response patterns and gamma statistics[14] shown in table 2 point toward academic status as an important, if not strong, influence on student attitudes. On several questions regarding specific details of the program such as the clarity of the workbook itself, whether it was interesting and stimulating, and whether students perceived the library staff as helpful, freshmen and sophomores were somewhat more likely to have given a positive response. An interesting exception to this general pattern was found with respect to students' perceptions of instructor support for the program. Here sophomores perceived less support than either the freshman or junior/senior group, and the juniors and seniors perceived the *most* support. Rather than being another manifestation of a general attitude toward the pro-

TABLE 2

RELATIONSHIPS BETWEEN ACADEMIC STATUS AND
ATTITUDES TOWARD LIBRARY SKILLS WORKBOOK PROGRAM

| Question | Academic Status | | | |
	Freshman	Sophomore	Junior/Senior	Gamma
The workbook was clear and understandable.	81.2%	78.6%	80.0%	−.07
I did not learn anything new from the workbook.	12.0	17.7	29.4	.24
The workbook was interesting and stimulating.	17.4	14.4	15.3	−.08
I already knew how to use a library—I didn't need any library instruction.	17.0	23.6	48.2	.26
My English 112 instructor seemed to feel that the workbook was important.	56.3	49.0	58.3	−.08
The workbook helped me feel more confident in using the library.	62.3	54.4	40.0	−.19
The workbook was more trouble than it was worth.	26.4	33.3	31.8	.13
The workbook helped me identify sources for my English 112 term paper.	40.7	35.2	30.6	−.08
The library staff was helpful.	76.2	74.3	77.4	−.03
The workbook should have been more relevant to my English 112 term paper topic.	23.2	24.7	23.5	.04
Overall, the workbook was a useful assignment.	59.0	52.8	52.9	−.12
I would have preferred a 1-hour lecture and a different kind of exercise.	14.6	22.9	16.5	.19
	(N = 1155)	(N = 451)	(N = 85)	

Note: Percentages indicate the proportion of respondents indicating that they "agreed" or "strongly agreed" with the statement in the left-hand column.

gram, in other words, this variable may be an accurate reflection of the instructors' views.

The group differences on more general questions about the program were more pronounced. For example, 41 percent of the freshmen agreed that the library instruction helped them locate sources for their term papers, while 35 percent of the sophomores and 31 percent of the juniors and seniors did so. More dramatically, while 62 percent of the freshmen and 54 percent of the sophomores felt that their library instruction helped them to feel more confident in using the library, only 40 percent of the juniors and seniors agreed. Similarly, juniors and seniors were more likely than the others to say that they did not learn anything new from the assignment.

This same response pattern was strongest with respect to the statement, "I already knew how to use a library—I didn't need any instruction." Where only 17 percent of the freshmen agreed with this assertion, 24 percent of the sophomores and 48 percent of the juniors and seniors did so. Because no data on the actual performance of these three groups were gathered, it is difficult to judge how accurately the upper-division students assessed their knowledge of library use. Interestingly enough, this group reported taking only slightly less time to complete the assignment than the freshmen and sophomores, which would seem to contradict their opinions of their own expertise.

Somewhat smaller group differences were also found on the two "summary" attitude questions. Where 26 percent of the freshmen agreed that the workbook was "more trouble than it was worth," 33 percent of the sophomores and 32 percent of the upper-division students did so. Although more than half the students in each group agreed that "overall, it was a useful assignment," the proportions declined from 59 percent among the freshmen to 53 percent among the sophomores and 51 percent among the juniors and seniors.

THE INFLUENCE OF PERCEIVED INSTRUCTOR SUPPORT

In order to judge the impact of perceived instructor support on student attitudes, the associations between responses to the statement, "My English 112 instructor seemed to feel that the workbook was important" and responses to the other attitude statements were examined. Although responses to this statement could be influenced by a general attitude toward the workbook project as a whole, it will be recalled that academic status did *not* seem to be an influence on responses to this question, which should have been the case if judgments of "instructor support" were the reflection of other attitudes, and hence of academic status. These student judgments also paralleled many of the librarians' judgments of the support they received from specific instructors, so it seems that they were not purely subjective.

A casual comparison of tables 2 and 3 will immediately suggest that perceived instructor support was an important influence on student attitudes. Using the gamma statistics as a point of reference, it is apparent that with only two exceptions the associations between "perceived instructor support" and responses to other attitude statements were stronger than the associations between academic status and responses to those same statements.

On some of the "detail" questions where academic status seemed not to have much effect, such as the clarity of the book, whether it was perceived as interesting and stimulating, and whether the library staff was helpful, variations in perceived instructor support clearly made a substantial difference. This was also true of responses to the question of whether the workbook helped students locate sources for their term papers. An interesting question here is whether some instructors showed their students how the information in the book could be used to locate materials for term papers and thereby demonstrated their view of the project's importance, or whether students found good uses for the material by themselves after some general notes of encouragement from their instructors.

Strong associations between perceived instructor support and the more general "summary" questions were also found. The weakest of these involved the question of whether students knew how to use the library and "didn't need" instruction. Students agreeing that their instructor felt the program to be important were far more inclined to say that

TABLE 3

RELATIONSHIPS BETWEEN STUDENTS' PERCEPTIONS OF
INSTRUCTOR SUPPORT AND AGREEMENT WITH OTHER WORKBOOK
PROGRAM ATTITUDE STATEMENTS

Question	Perception of Support*			Gamma
	Disagree	Neutral	Agree	
The workbook was clear and understandable.	65.0%	78.2%	84.5%	.28
I did not learn anything new from the workbook.	25.8	16.8	11.1	-.28
The workbook was interesting and stimulating.	11.0	11.4	20.9	.31
I already knew how to use a library—I didn't need any library instruction.	33.3	21.2	17.5	-.16
The workbook helped me feel more comfortable in using the library.	36.2	54.0	66.2	.33
The workbook was more trouble than it was worth.	48.8	34.0	21.6	-.26
The workbook helped me identify sources for my English 112 term paper.	20.9	36.9	42.9	.19
The library staff was helpful.	60.9	72.8	80.0	.26
The workbook should have been more relevant to my term paper topic.	32.5	26.2	20.4	-.16
Overall, the workbook was a useful assignment.	34.4	49.9	65.3	.35
I would have preferred a 1-hour lecture and a different kind of exercise.	25.2	18.7	14.6	-.17
	$(N = 162)$	$(N = 604)$	$(N = 920)$	

*Responses to the statement: "My English 112 instructor seemed to feel that the workbook was important."

Note: Percentages indicate the proportion of respondents indicating that they "agreed" or "strongly agreed" with the statement in the left-hand column. A similar procedure was used with responses to the "instructor support" variable.

the project helped them feel more confident in using the library than those who did not see their instructors as supportive (66.2 versus 36.2 percent), and were far less likely to agree that the workbook was "more trouble than it was worth" (21.6 versus 48.8 percent). The strongest association found involved the support variable and judgments on the usefulness of the assignment; where 65.3 percent of the "agreeing" group found it useful, only 34.4 percent of those "disagreeing" did so.

SUMMARY AND DISCUSSION

This study has shown that responses to the workbook program were generally favorable during the time period studied. Responses consistently improved as revisions were made and the English instructors became accustomed to the program. The responses to the various editions of the workbook were more favorable than responses to the lectures and related assignments given for comparison purposes during the developmental term in 1979. This study has also shown that student academic status and the students' perceptions of instructor support for the program are associated to a significant degree with student attitudes toward the program.

Although it is heartening to see both the positive nature and generally upward direction of the responses to the program, it is still somewhat disturbing to note that, during the last term studied in May 1980 (that in which student responses were the most favorable), nearly one-third of the students were at least skeptical or undecided, if not negative, about the overall usefulness of the workbook assignment. This should probably be viewed in the context of what may be similar student reactions to other required courses and assignments in college, and may also be partially attributable to the disinclination of some students to engage in scholarly activities. Nevertheless, this cautionary finding suggests the need to pursue further means of gaining positive reactions to this kind of library use instruction.

One apparent way to improve the general level of reaction, or to prevent negative reactions, would be to restrict participation in such a program to freshmen and sophomores. More promising, perhaps, would be the active pursuit of strong support for library use education by course instructors.

In the case of the program studied, this means several things: continued, frequent, and persuasive communication with instructors regarding the importance of the program, encouragement of "positive" communication from them to students about the program, and active work with instructors to

demonstrate how the workbook content may be integrated into class discussion. The proportion of students who find the workbook helpful in locating material for term papers might also be increased by indicating how the workbook content may be applied to their topics, and also by examining the guidelines English instructors are using for acceptance of term paper topics.

Several questions might be addressed by future research. While the present study has shown the connection between student perceptions of instructor support and student attitudes toward various facets of the program,

no other link was established between these student perceptions and the attitudes or behavior of the instructors. Similarly, no relationship was demonstrated between student perceptions or instructor attitudes and behavior and actual long- or short-term performance, either on the workbook tasks or in collecting information for a term paper. Also of interest would be longitudinal studies of the type done at Southern Illinois,[15] which would examine student reactions to self-paced instruction over the course of a college career.

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12. Phipps and Dickstein, "The Library Skills Program," p.214.

13. Shelley Phipps, unpublished material received with personal letter, June 16, 1981.

14. Gamma is a descriptive measure of the strength and direction of association for ordinal variables which does not require such restrictive assumptions as the "normality" of the underlying distribution that are required by the more familiar Pearson's r. Gamma may take values between -1.0 and $+1.0$. A positive value indicates that "when we observe a relatively high value on one of the variables we will probably also observe a relatively high value on the other," whereas a negative value indicates that, in general, "a high value on one variable will tend to occur with a low value of the other." (See Theodore R. Anderson and Morris Zelditch, Jr., *A Basic Course in Statistics with Sociological Examples* (2d ed.; New York: Holt, 1968), p.142; see also Robert H. Somers, "Statistics, Descriptive: Association," in William H. Kruskal and Judith M. Tanur, eds., *International Encyclopedia of Statistics* (New York: Free Press, 1978), p.1109–18.)

15. Person, "Long-term Evaluation."