An experiment was performed on the use of telelecture, amplified voice telephone, in a class of the Graduate School of Library and Information Science at the University of Missouri-Columbia. The telelecture was successful in that it exposed the students to another academic library administrator, and it appeared to be a successful learning experience, though there is no statistical evidence available to substantiate this conclusion. Some changes regarding the technical details of telelecture are suggested to improve the use of this new instructional media technique which the author feels is applicable to library science education. (SJ)
Samuel Baskin has indicated that "used in an intelligent and sensitive balance, the new media and technology can offer a great deal towards an integrated instructional process in higher education." Having just completed some study and research on the use and importance of various media forms in college and university teaching, I received the opportunity to implement Baskin's observation through teaching a course in the Graduate School of Library and Information Science at the University of Missouri-Columbia during the summer of 1972.

One of my objectives as the instructor in Library Science 443, Academic Library, was to expose the students to another academic library administrator, preferably one also involved with many facets of the library world. It would be difficult and expensive to bring the administrator to the classroom on the Columbia campus. Baskin's observation prompted me to consider the use of the "telelecture", one of the developments of technology that provides education with a new form of learning media. Brown described the telelecture (amplified voice telephone) as a variation of the in-person forum-lecture teaching format, wherein the college avails itself of the instructional contributions of guests who cannot come to the campus, but who are willing to devote time to a telephone dialogue with a remote class.

I wondered if telelecture had been used in Library School instruction. My resulting literature search, although uncovering a number of exhortations concerning the use of new media in the teaching of library science as well as several discussions on the use of specific media, failed to uncover any
evidence that indicated telelecture had been used in the teaching of library science. Thus, I resolved to try telelecture. My experience with this media form as a teaching technique is the substance of this paper.

One of the earliest recognitions of the possibilities of the use of media for teaching library science was that of Stone in 1961. He stated "the shape of the future in educational media holds some important implications for the professional education of librarians." He was optimistic about various forms of media in library education stating "as we have learned the importance of newer media and their roles in education, we have begun to adopt some new methods of teaching." The new methods listed did not include telelecture. Several years later Goldstein reported that attendees at a workshop agreed that for a course in Introduction to Librarianship "the telelecture will probably be used increasingly to utilize off-campus specialists." It wasn't until some years later that Lieberman listed telelectures as a specific technique along with other media useful in the teaching of library science.

Did Library School instruction utilize this "new media?" Apparently not, although such articles as Allen's concerning the use of slides and Penland's involving programmed instruction indicated that other new approaches to learning were being utilized in Library School instruction. Even Totten's survey, which was designed to furnish data on the use of educational media in the teaching of library science although covering educational television, teaching machines, programmed learning materials, recordings, opaques, slides, filmstrips, transparencies, and motion picture, did not include telelecture.

One might ask why this apparent lack of interest in telelecture? Could it be that library educators are more interested in educational theory than in
practical implementation of this theory? Lowrey made a strong plea for library education to institute creative and innovative reform. But she was mainly talking about software and techniques rather than the utilization of innovative hardware. Could it be that telelecture is too new for the library science education? This doesn't seem possible since it has been utilized by other segments of the educational community since the late 1950's.

Perhaps library science educators believe telelecture is not an effective technique. Yet Rookey reported that students taught by telephone did as well as others and though they were disturbed by the fact that they could not see the instructor, they felt this disadvantage was offset by other factors. Yet Burkhart, in what was probably the earliest study of telelecture, reported that "the potentialities of this new media are great."

However, he cautioned:

Classroom interviews are not self-operating. The teacher must be thoroughly familiar with the topic or area of discussion, must know something about the background of the interviewee, and be prepared to direct the discussion along profitable lines, preventing it from becoming just another "bull session." To do this requires knowledge and skill on the part of the instructor. Associated with the larger and more difficult role played by the instructor is his personal involvement in the interview. Frequently the intellectual excitement is so great that the teacher is literally worn out at the end of the class session.

Stephens College in Columbia was one of the earliest experimenters with telelecture. The University of Missouri with its four campuses has used telelecture mainly for extension classes. Since the University of Missouri had used the technique in other areas and had the mechanical aspects of the technique mastered, it was not difficult to adopt the technique to Library Science. With the daily class period during the summer school two and one-half hours long it was possible to use the telelecture with full utilization as a learning aid.
Having the approval of the Library School administration, the first step was to find a librarian who met the objectives stated earlier and who would be willing to spend time not only in talking to the class but also to do the preparation necessary. Happily, Albert P. Marshall, then Librarian at Eastern Michigan University and second vice-president of ALA, now Dean of Academic Services at Eastern, was gracious enough to take time from his busy schedule to participate in this experiment.

It soon became evident that Burkhart's comment about classroom interviews not being self-operating was valid. Even though the technical details of the telelecture session were left to the Instructional Services Staff of the University, many tasks remained for the instructor in order to facilitate an effective learning environment. The stated objectives of the particular class session were formulated and sent to Mr. Marshall. The broad discussion areas for Mr. Marshall were defined by the members of the class. Applying principles of adult group participation and a modified version of the Delphi Technique, the class members ranked areas dealing with the academic libraries according to their interest. The top ranked four subjects were the ones sent to Mr. Marshall to serve as a basis for his presentation.

The telelecture session was planned for the middle of the semester. This, coupled with the fact that the majority of class members had library work experience, made it easier to involve the class members in the decision process. Several class sessions before the day to decide upon the areas to be covered by Mr. Marshall, the class was told of the coming experiment and made aware in a general way of some of the current trends and problems in academic libraries. At this time, a biography of Mr. Marshall was distributed to the group. Conversely, a class roll with brief comments about each student's background, particularly as related to library activity, was sent to Mr. Marshall.
To help make his telelecture more understandable, Mr. Marshall prepared and sent transparencies and related material to be used during the telelecture session. Accompanying these materials were a set of ten slides showing Mr. Marshall in his own library work environment. This was done at the suggestion of one of the members of the Extension Department at UM-C and proved to be a sound procedure. During the telelecture, the use of these slides and the other materials overcame the handicap cited earlier by Rookey.

As further preparation and to give the session as broad a base of participation as possible, each member of the class was asked to prepare one question for Mr. Marshall's consideration during a question and answer period following the prepared presentation. This preparation apparently did not interfere with the other daily learning experiences of the class, and the members looked forward to the telelecture.

The appointed day and time having arrived, the class met in a room in Whitten Hall where the Division of Educational Resources and Services of the University maintained the required equipment. In addition to the telelecture apparatus itself, the room contained a screen, a slide projector, and two multi-directional microphones. As the time for the telelecture approached, the instructor again handed out copies of Mr. Marshall's biography, reviewed the format of the session, encouraged the class to ask questions, and projected an image of the speaker on the screen.

It had previously been suggested to Mr. Marshall that he use a desk unit supplied by the phone company to hold the telephone during the telelecture. However, the initial reception was very unsatisfactory and upon the suggestion of the technician from Educational Resources and Services, Mr. Marshall was
asked to use his telephone in the usual manner. This proved to be somewhat uncomfortable for the guest speaker but provided excellent reception. Later discussion with the technician disclosed that apparently the desk holder for the telephone first used very rarely proves to be satisfactory.

With his picture on the screen, Mr. Marshall was introduced to the class by the instructor. From the information previously sent to Mr. Marshall, he gave his presentation as the instructor projected various transparencies as requested. After the presentation, the question and answer period began. The class was seated in alphabetical order around the table in order to assist the guest speaker in identifying the class members. At the beginning of the question period, I happened to call upon Miss A. What then developed was that each person in turn asked exactly one question before releasing the floor to the next class member. After reaching Miss Z and upon some slight prodding on my part, various class members asked additional questions of the lecturer. Since the telelecture session, I have wondered as to the degree of correlation between the seating arrangement and my instructions to prepare one question. Perhaps this contributed to the unevenness in class participation during the question and answer period.

At the conclusion of this period, since some time remained, the instructor asked additional questions that he felt would be of interest to the class as well as those questions that were originally suggested by the class, but had too low a rank in the class rating to be used as the basis for emphasis during the presentation. Throughout the session the instructor would periodically change the picture of Mr. Marshall appearing on the screen.

Afterward, certain followup procedures endeavored to evaluate the telelecture as a learning experience. At the next class session, discussion was
held concerning some of the observations made by Mr. Marshall. This proved to be a lively session with much interaction between the class members. The two most hotly debated subjects were those of maxi-mini reference service and the salesmanship approach of the professional staff to the students. In response to comments during the telelecture, Mr. Marshall subsequently sent various materials and other information pertaining to his library. These were distributed to the class when they arrived without a great deal of comment. At the conclusion of all activities relating to the telelecture session, each class member was asked to give his or her evaluation of the telelecture.

Was the telelecture successful? In that it achieved the stated objective of exposing the class members to another academic library administrator, it was. Although written and verbal comments of the students showing the re-occurrence of theories and philosophies expressed during the telelecture were expressed during the rest of the semester, thus leading me to believe that the session was successful as a learning experience, I have no statistical evidence available to validate my conclusion.

My evaluation of the telelecture indicated several modifications would improve the learning environment and overcome some of the difficulties cited by Rookey. If it is true that the telephone desk holder is not effective, the elimination of this device should be made immediately if transmission problems occur. The difficulty in not so doing is pointed out by the student who commented: "The early part of the conversation was impossible to understand. By the time the static was cleared, I could not join in the conversation." The sending of a picture or pictures of the class to the guest speaker would improve the communication process.
Since there was no back charge to the Library School by the Division of Educational Resources and Services, the University Watts line was used for transmission, and the guest speaker generously participated in the experiment without fee, the telelecture added no costs to the Library Science instructional program. Thus Carpenter's contention that in spite of fashions and fads in educational facilities, the most economical equipment that will satisfactorily do the defined and required instructional functions should be used, was validated.  

The condition of the physical surroundings, while workable, certainly bore out the contention of Knirk that form should follow function. The facilities in Whitten Hall were not specifically designed for media assisted instruction, and certainly made student, technician, and instructor participation in the learning process more difficult. While I suspect that the Hawthorne effect showed to some extent as in one student comment "This is the first time I have been involved in a telephone lecture of this kind. Perhaps one reason I liked it was because of the novelty of the situation. It also had a freer and more open and spontaneous atmosphere than I had anticipated," I believe this was minimal. Generally, it appeared that the better students were more positive in their reactions, as evidenced by the following: "The opportunity to ask questions and to have responses back and forth was invaluable. It was so much more enlightening than reading a dry textbook and listening to a straight lecture. It seems to me to be a tremendous way to reinforce and to supplement the knowledge gained from any course."

While most students indicated by such comments as "I hope that other professors will follow your idea with a similar program for their classes" and "We should take advantage of the facilities offered by the University of Missouri and contact similar individuals" that they favored telelecture for other
courses, such comments as "...his ideas and personality came through very well on the telephone hookup after the technical problems were solved," point up the importance in selecting a guest who has a "telephone" personality.

I believe that this experience does prove that with imagination, energy, help, and planning (back to Burkhart again) instructors of library science can utilize "new" media in various learning situations, just as effectively as other disciplines in higher education. As Gagne' has stated: "The arrangement of instructional conditions is still the key to effective instruction regardless of the medium or media employed." ¹⁴

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