The study reported here evaluated the usefulness of interactive videodisc technology and materials to teach second languages at the elementary and middle school levels, particularly in a context in which teachers lack expertise in the target language. A 3-year project used videodiscs to teach Spanish, French, and Japanese. The report presents, in question-and-answer form, the evaluation results and additional findings concerning design of appropriate lessons, the teachers' experience in using the materials and technology, student response, problems encountered, and lessons learned. It is concluded that use of videodiscs by teachers not skilled in the target language is a viable means of teaching the rudiments of the language. Since the intent of the materials is to teach basic vocabulary, sensitize children to differences in culture, and motivate them to learn more about other lands and peoples, it is possible to use videodiscs to create vicarious contact. It was also found that the teacher's attitudes are crucial in producing this kind of learning. (MSE)
The Evaluation of interactive videodiscs for foreign language learning: Three journeys

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The Evaluation of interactive videodiscs for foreign language learning: Three journeys -- by Nick Eastmond and Catherine Elwell

Abstract:

The learning of a foreign language constitutes the most direct and reliable point of access for a deep understanding of any foreign culture. In fact, one can argue that an outsider does not really understand a foreign culture until the language has been mastered, at least to some extent. Thus, the ability to learn a foreign language can be seen as a key step to entering a new culture.

A major difficulty encountered in learning another language in most regions of the United States is the lack of contact with native speakers of the foreign language. A related problem is a lack of teachers with the language expertise necessary to teach foreign languages, particularly at the elementary school level, where virtually all the experts believe that foreign language learning should begin.

This paper reports upon the evaluation of a three-year project using videodisc technology to teach students three languages at the elementary school level: Spanish, French, and Japanese. This paper reports on the experience of conducting these evaluations, to include discussion of the design of appropriate lesson materials and the evaluation of their effectiveness with teachers and students.

The findings to date suggest that the use of videodisc by teachers not skilled in the language being taught is indeed a viable means of learning the rudiments of the language. Since the intent of these materials is to teach basic vocabulary, to sensitize youngsters to differences of culture and to motivate students to learn more about other lands and peoples, it is possible to use videodisc technology to bring about vicarious contact. Our findings indicate that the teacher's attitudes are crucial in helping this kind of learning to occur. While our evaluation has examined the implementation of these lessons in actual classrooms, we are not in a position to suggest that students working through these programs go anything beyond the "Novice" level of foreign language learning. Because the programs are relatively new, we have no results that can be reported longitudinally, i.e. that because of this program, a greater number of
students were willing to sign up for foreign language study at a later time. What we can state, however, is that the program is viable at both elementary and middle school levels, and that teachers untrained in language teaching or with any prior ability to speak the language are functioning as teachers for elementary school children and are enjoying it. We are also able to note certain features of a formative nature that may guide future videodisc lesson development.

**Introduction:**

Early exposure to foreign language learning has been recognized as a key to learning a language without an accent. Students who can learn a foreign language in the elementary school years (usually prior to and including age 12) can absorb the language quickly and seem to have a kind of fluidity of intelligence that aids in the acquisition of language.

Unfortunately, in the United States as well as many other countries, the opportunities for learning a foreign language at an early age are generally limited. Exposure to people with native fluency in the language is generally limited, and in most cases, this instruction waits until the secondary level where students are organized to move from class to class throughout the day, the foreign language classroom being one of the optional stops along the way.

The approach to language teaching advocated in this paper represents a technological solution to the lack of trained elementary teachers and provides exposure to authentic foreign language for students. The approach relies heavily upon a videodisc, produced as much as possible to replicate conditions in the country of the target language, accompanied by detailed teacher instructions, student exercises and the like. The resulting program is intended to be taught over an extended period of time, using these materials for presentations of language and culture of 20-25 minutes duration. The videodisc provides the "comprehensible input" for student learners; the teacher assumes the role of facilitator for learning, relying upon the videodisc to model correct language usage, to include pronunciation and grammar. The intent is to produce foreign language learners at the "novice" level, capable of handling simple transactions in the foreign language but sensitized to cultural differences and excited about the prospects for further language study.
This approach was developed and pilot tested under the auspices of the Utah Videodisc Consortium, an alliance of school districts headquartered in Central Utah. The main proponents of this approach have been Dr. Larre Gale at the Brigham Young University, Mr. Art Burnah at Provo High School, and Mr. Karl Barksdale, previously with the Provo School District but currently working for Word Perfect Corporation. In a joint proposal with the Utah State Office of Education to the U.S. Department of Education in April 1992, the Consortium was able to obtain federal funding to extend the initial work in Spanish and French (recently marketed to a private corporation for distribution) to the oriental languages of Japanese, Chinese and Korean. The total funding for this project is in excess of $300,000, with a match between federal and local funding. This study reports the findings of an evaluation conducted by the firm of Worldwide Education and Research Institute with assistance from students from Utah State University's Department of Instructional Technology. Portions of the evaluation were taken on by teams of students as a class project for a class in instructional product evaluation.

This paper looks first at the major findings from the first videodisc implementation in Spanish and French, entitled Hablar et Parler. It then examines preliminary findings from the Japanese videodisc, Konnichi-Wa!. In both cases, the materials were evaluated by teams of students, looking at issues of instructional design. Then, after implementation in actual schools, members of the evaluation team travelled in site visit teams to conduct extensive examinations of the actual videodisc usage. On each site, the following sources of data were used: (1) interviews with teachers and administrators; (2) observations of classroom use; and (3) focus groups with randomly selected groups of students. The findings from the evaluation are given in relation to the research questions asked. The reader should be made aware that the Japanese videodisc is currently being implemented in the State of Utah, but that preliminary results on implementation were obtained from Clark County, Nevada, where teaching with the videodisc has been occurring since fall 1993.

Results

Evaluation Questions: Hablar et Parler:

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-- How can the program be made more effective in improving both learner efficiency and attitudes?

Overall, teachers and principals unanimously felt the Hablar et Parler program was very effective or somewhat effective in aiding student learning, and most agreed it is an excellent teaching tool. Students enjoyed the program, learned some basic language vocabulary, and became familiar with cultural differences due to the native speakers and in-country video footage on the videodisc. On the other hand, teachers suggested that the equipment is sometimes distracting to students, and more reliable equipment and better teacher training in equipment use was needed. Also, teachers who were confident in their own ability to teach the material, despite not knowing the language, rated the effectiveness of the materials more highly. Half of the teachers reported that they did not use the program to its maximum potential, but advised that including supplementary materials and ties to other curricular areas could further improve learner efficiency and attitudes.

-- What specific teaching strategies do successful teachers use?

Successful teachers use the manual to guide instruction (only a teacher manual is available, no additional manual for students), use these materials as the main teaching instrument rather than as supplementary materials, and present the materials with enthusiasm to small groups in short lessons.

-- What specific and general learning strategies do successful learners use?

Many learning strategies were mentioned for successful learners including repetition, mnemonics, games and other activities, worksheets and teacher interaction. Interestingly, lower ability students seemed to perform higher in language learning with these materials than higher ability students, and the lessons maintained their interest better.

-- To what extent can the needs of different types of learners (auditory and visual learners, minority students, males and females) be accommodated?
Again, lower ability students seemed to learn more and maintain interest better than higher ability students. Although no number were available on differences in learning between other groups, the short lessons incorporating vocabulary learning, cultural information, worksheets, games, conversation, and small group interaction would accommodate the needs of different learners.

**-- What approaches to inservice training facilitate the use of this program?**

Eighty-eight percent of the respondents who attended agreed that a half-day group inservice was useful. In many cases, the inservice participants returned home to provide in-service training on these materials to others within their schools. Those teachers who received training in this manner supported it as a successful method for learning how to implement the materials and use the technology.

**-- How can the program be designed to minimize the amount of teacher time required for preparation?**

In general, teachers spent from 10 minutes to four hours preparing for each lesson. However, most teachers comfortably and successfully implemented the lessons with a minimum amount of preparation (20 minutes or less), especially if they intended to use the lessons with only one class. One media specialist without a teaching certificate who taught the same lessons to many different classes spent many hours preparing her own additional materials to support lesson content. She intended to use these materials in successive years. However, teachers recommended including additional supplementary materials to reduce preparation time and facilitate lesson implementation including pronunciation guides, answer sheets, tests, charts, calendars, visuals, posters, and instruction on lessons using the computer with the laserdisc player.

**-- How can technical difficulties be minimized?**

Many teachers expressed frequent difficulties with the equipment, particularly the bar code reader. They cited additional use to increase their technical ability, a higher quality bar code reader, and computer driven access to the laserdisc rather than bar codes as ways to improve the technical difficulties. Few of the teachers had used a laserdisc player prior to teaching with these materials, but most agreed that the technology facilitated teaching this content, and that the content of the laserdisc was effective in improving both
learner efficiency and attitudes in ways that might be difficult and
time intensive to implement otherwise.

Results with the Japanese Videodisc, Konnichi-Wa!: To date,
the field trials of this material were performed in Clark County,
Nevada, dealing with a different kind of school setting than that
originally envisioned. The Japanese videodisc, Konnichi-Wa!, is
being used at the middle school level and taught by foreign language
teachers who have been teaching in another language (Spanish,
French or German).

The results of the two team visits to four classes in two separate
schools indicate that the videodisc has several advantages. The
main one is that it provides a rich language learning environment,
complete with visual messages, nonverbal cues, and authentic
speech. Observers report that the videodisc program holds intrinsic
interest to these youngsters, at least for the 15-20 minutes of a
lesson. Teachers use the video as the model for authentic speech
and can play and replay the segments many times to provide the
correct pronunciation.

Just the sense that these are real people with personalities, likes and
dislikes, is valuable. Students had their favorite and least favorite
characters on the videodisc, often based upon how clearly they
spoke their lines or whether they were dressed in a uniform that
indicated their sport or hobby preference (e.g. the boy who likes
baseball is dressed in a uniform and throws the ball).

In a more general sense, students respond favorably to this form of
instruction. Several students identified this language class as their
favorite in their present schedule; entire focus groups responded
with enthusiasm to the idea of actually visiting Japan in person.

The disadvantages of using the videodisc are not so apparent, but
are real, nonetheless. The exposure to the language is necessarily
limited to the number of scenarios and dialogs that could be
included in 55 minutes of video, and, without the ingenuity of a
skilled teacher, may be somewhat limited. Since the previous
condition in these schools could be assumed to be little or no
exposure to the second language, this would seem to be a minor
limitation.
A more serious concern is that use of the videodisc may be helpful in giving teachers confidence in the beginning, but may hold back their progress after using the material for some time. With Japanese videodisc, teachers used only English feedback (praise, reinforcement) in talking with their classes. While the teacher materials suggested that certain reinforcement language (praise, validation, etc.) could be given, the videodisc did not model that verbal behavior for teachers. It seemed that even after teaching the material for three or more times, teachers were not comfortable using the Japanese words for this. Under these circumstances, language immersion is virtually impossible.

Discussion

Technology: Positive or negative? The barcode reader difficulty, etc.

In the Hablar et Parler evaluation, the technical difficulties associated with the barcode reader were considerable. In the time between the implementation of Hablar et Parler and the Japanese videodisc, Konnichi-Wa!, a new kind of barcode reader, called the "megawand" or "superwand" (Pioneer 108 or 109 models). While this unit is more expensive (over $200 US rather than just over $100), it seems to eliminate some of the difficulties with reliability encountered previously.

-- To what degree are students learning about the culture of the countries under consideration?

With the Japanese videodisc, at the pilot project at the middle school level, it is safe to say that students are learning a lot. Seeing authentic video involves much more than just language. They see youth their age playing and having fun. They watching social situations to pick up on differences in clothing, housing, shopping, etc. The whole realm of nonverbal communication -- how hands are used, the posture and tone of voice -- these are all communicated through the videodisc in ways that would be difficult if not impossible in other instructional settings.

-- How important is it that the video footage be taken in-country? (Or alternatively: Are there cultural miscues evident when video footage from the U.S. is included?)
Some cultural miscues do occur. In the Hablar et Parler videodisc, there was footage showing a baseball diamond, a church, American homes, etc. in part of the Spanish segments. Some children, when questioned, told how Mexican children played games very similar to Americans (presumably on playing fields much alike). The scenes, actually shot in America, showed higher living standards than typical of Mexico or Latin America.

Because the Japanese videodisc was recorded almost entirely in-country, the potential for mistakes is minor. We had one viewer of the material from Hong Kong who, based upon visual clues, noted that at least one street scene was shot in Taiwan, not Japan. However, the likelihood of a student noticing that or it making any difference is rather remote.

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What follow-up is needed beyond elementary school to ensure that language and cultural understandings are nurtured beyond initial exposure?

At present, we have no means of assessing that. However, we know that these skills will fade without practice. At present, there is little evidence that the school districts have given any thought to continuing the instruction beyond the early stages. Even though high school classes in Japanese are still few in our region, the use of Japanese will be of growing interest in the USA (especially the "Pacific Rim" states.)

What are the options for different teachers in adapting these materials to their classrooms? How does the use of the program differ by teacher’s interest in languages? in technology?

Different class formats lend themselves to different teaching approaches. The teacher dealing with a single class will spend less time in preparation than one dealing with multiple classes and who handles the entire teaching process differently.

Our experience with the Japanese videodisc has been limited to observing two committed foreign language teachers who each have two class periods per day devoted to teaching Japanese. Given the wealth of material now available, both from the Utah team and the Clark County project, there appears to be much to draw from.
Teachers working with their own class can learn along with the class and thus assume a co-learner role. Such a process promotes more responsibility in students, since they have to help facilitate the learning.

**Conclusions**

Our experience to date with the videodisc evaluation of French, Spanish, and Japanese programs indicate that the approach to using elementary teachers willing to learn along with their classes is viable. Videodisc technology can provide students with opportunities to learn basic foreign language vocabulary from native speakers in authentic situations. Additionally, the videodisc can provide cultural cues important to an understanding of the foreign culture. The ability to repeat segments, the ease of access to different segments, the attractiveness of the video all combine to produce a useful product.

Our study thus far has been only in the early stages of implementation. We see the need for additional evaluation and research of a long term, longitudinal nature to see what the results will be. Intuitively, however, there is reason for optimism for early language instruction, if it changes attitudes and opens youngsters minds for the need for respect for the diverse cultures of our complex world.

**The full reports:**


(The full evaluation report for the Konnichi-Wa! evaluation is still in press)