Inexpensive Use of the Videodisc for Proficiency: An Attempt to Link Technology and Teachers
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ABSTRACT: This article illustrates an inexpensive use of videodisc technology in the foreign language classroom for proficiency and provides information on foreign language discs. It gives directions for combining disc materials with a given text to produce a proficiency-oriented syllabus. It also shows a simple technique for individualizing videodisc instruction. It concludes with case studies of students who learned German via individualized instruction mediated by videodisc materials.

KEYWORDS: inexpensive videodisc, proficiency-oriented syllabus, traditional classroom, individualized instruction, videodisc player, remote control unit

Introduction
The videodisc offers the high school and college foreign language teacher a simple, inexpensive and effective technology to enhance second language teaching and learning. Videodisc materials can be adapted easily to proficiency-oriented teaching, providing the teacher with additional strategies for improving student performance in the classroom or through individualization.

This article (1) illustrates one application of the medium—the videodisc in the traditional teacher-controlled classroom; (2) gives step-by-step directions to combine videodisc materials with a given text for a proficiency-based syllabus; (3) describes an uncomplicated method of individualizing videodisc instruction; and (4) offers two brief case studies of students with virtually no prior German language background who achieved the rating of Intermediate-Mid and Intermediate-High on an ACTFL Oral Proficiency Interview in German after a single semester of individualized instruction mediated by videodisc materials.

The Videodisc in the Traditional Classroom
Major obstacles to classroom use of the videodisc have been the lack of language discs available to the public at large and the presumption that effective use of such materials also requires a microcomputer (DeBloois, 1982, 30).
Recently, the Linguex Language Center, a private language school specializing in intensive courses for adult travelers and business people, has produced discs in Spanish, French and English for its language courses. These discs have in common an identical storyline about an Italian architect who meets a young woman employed as a photographer. He is on a business trip to her country and has to interact with native-speakers in a hotel, a bank, a restaurant, a bar, a market, an apartment, and a studio. His experiences are shown from his arrival at the airport to the end of his trip.

Linguex employs the disc materials as an audiovisual aid to accelerate classroom learning in its courses by showing how the language is actually used in the respective country. For example, an instructor introduces a verb and then employs the videodisc to illustrate an actual example of its usage in context. Linguex courses generally consist of 120 to 180 classes 45 minutes in length, and the duration of the course is tailored to the student. Class size ranges from individual one-on-one instruction to small groups of three to five.

Other materials in the form of German language discs produced by Brigham Young University CALI Research under contract with the Defense Language Institute (DLI) will become available in the future. These discs, the VELVET series, reflect the basic situations encountered by U.S. servicemen stationed and traveling in the Federal Republic of Germany: hotel, restaurant, greetings, money transactions, train, directions, self-description, car rental and breakdown, shopping, post office, market, apartment, etc.

Currently, DLI is implementing the VELVET discs to enhance its GATEWAY course, a seven-week intensive introduction to German for senior commanders assuming a post in the Federal Republic of Germany.

Moreover, it appears reasonable to assume that increased interest by educators in the videodisc will encourage publishers to include such materials in their array of products to enhance foreign language education.

1. The Videodisc and Its Player

A videodisc is about the same size as a long-playing record. Each disc side is one-half hour in length and contains up to 54,000 frames or still images that can be accessed randomly on an appropriate videodisc playback machine. In addition, a disc side may contain two audio tracks for a total of one hour of audio. With foreign-language discs, one track is generally that spoken by the actors, and the second track contains a narration of the action. Some caution must
be used when selecting equipment since accessing an individual frame requires that the machine have a capability for constant angular velocity (CAV) which allows an individual frame to be viewed in isolation almost instantaneously. In short, a teacher with a CAV player can locate any predetermined segment on the videodisc at will.

In addition, the player should be programmable. A simple program greatly expands the usefulness of the player in the classroom since it enables a teacher to divide the material to be presented into segments and play any of these segments by pushing a number on the remote control unit. A programmable player also has the capacity to store a program in its memory. Consequently, an instructor may only have to enter the program once and it will remain stored in the player’s memory until altered. A sample program for a popular player is included in the Appendix. (It must nevertheless be noted that a programmable capability is more expensive and that less expensive players without this feature can also be used in the classroom.)

The videodisc player should also have a remote control unit so that a teacher can walk freely about the classroom and operate the equipment much as one would change the channel on a remotely-controlled television set. With the remote control unit (and a programmable CAV player), one can immediately play any predetermined segment on the disc. One can also stop or reverse the action as well as select any other segment on command. In essence, the teacher has virtually complete control and instantaneous access to any part or episode of a lesson which can then be played, held on the screen indefinitely, or replayed as often as desired.

The only other hardware requirement for classroom is a television monitor. Most available television sets can be connected with a single cable to the videodisc player. So connected, the player and monitor can be placed on a cart and moved from classroom to classroom.

In terms of practicality, a single player can serve the needs of basic programs in several languages. Teachers need only schedule use of the unit and change discs and frame numbers before taking it to their respective courses.

2. Operation

Using videodiscs with a programmable player is quite simple. First, teachers preview the disc materials and decide how the episodes or parts of a situation are to be presented. Then they determine the start and stop frame numbers which segment each episode (segment numbers) and enter them into the player. Finally, they enter a simple program to access the respective
segments.

These operations are performed using the remote control unit. The following capitalized terms are the names for some of the keys on this unit and their functions. By depressing the SCAN key, one can preview an entire side in just a few minutes. The FAST key plays the contents at three times the normal speed. The PLAY key plays the disc at normal speed. The STEP key displays the corresponding frame numbers on the monitor.

By using the SCAN key, a specific situation like "hotel" can be located quickly. With the PLAY key, one views the content and decides how to divide the material into segments. Frame numbers are displayed with the FRAME key, and the exact frame number is located with the STEP key. Frame numbers for respective segments are entered into the videodisc player's memory by pressing first the SEG and then the ENTER keys.

The Appendix contains a program, which with practice can be entered in about ten minutes. To run this program, one takes the remote control in hand and simply presses the program (PGM) key and the RUN key in sequence. Then one selects any number from 1-9, which will select the corresponding segment or episode desired.

Any situation can be viewed in its entirety, or specific segments thereof, even sentences, words, or individual still frames. Further, the teacher can walk freely about the classroom and play the desired material almost immediately by pushing the corresponding number on the remote control unit (actual access time is dependent on the type of player—an important factor in player selection). The pedagogical opportunities offered by being able to stop or reverse the action at any time become more appreciable after actual experience in the classroom—especially when compared with the more cumbersome and inexact videotapes.

A Proficiency-Oriented Syllabus

The ACTFL Proficiency Guidelines provide descriptions of different levels of language proficiency in the areas of speaking, listening, reading, and writing. They also offer teachers sample behaviors that students must be able to perform in order to demonstrate specific language skills. Consequently, teachers can determine what their students must be able to do and how to enable them to perform correspondingly. In other words, the Guidelines provide an "organizing principle for designing classroom instruction." (Omaggio, 1984, 50) An important step in directing student behavior towards achieving proficiency is the
production of a proficiency-oriented syllabus based on the descriptions contained in the Guidelines. This section shows a step-by-step procedure of adapting videodisc technology to proficiency-oriented instruction and also illustrates how a teacher can combine videodisc materials with a given text to produce an appropriate syllabus.

1. Content questions

One method for adapting the videodisc is to display content questions related to a lesson on a transparency for the overhead projector, simultaneously with materials viewed on a videodisc player. With some care, the questions can be formulated so that the responses they elicit conform to the appropriate proficiency level in terms of content and function. For example, with the content determined by the Intermediate-level survival situation "hotel," the questions can be made to evoke the functions on an Intermediate level of socializing, getting the facts, getting things done, showing emotion, and judging.

The Guidelines also contain accuracy statements for performance within specific levels. For example, content questions can also be constructed so that the responses require use of lexical items and grammar principles, over which the teacher wishes students to have a corresponding degree of control. Within the proficiency level Intermediate in the context of a hotel, students might be expected to construct simple statements with "would like": "Ich möchte ein Enzelzimmer" (I would like a single room), or "Ich möchte die Rechnung" (I would like the bill). They should be able to demonstrate partial control over separable verbs: "Er füllt das Formular aus" (He fills out the form). They should have conceptual control over irregular, reflexive verbs: "Er trägt sich ein" (He signs in).

The answers to questions and the content material on the videodisc give the student sufficient context to generate a dialog in the second language. Communication is enhanced by having the students work in pairs or small groups with each assuming a role: the American checking into a hotel, the German desk clerk, the bellboy, etc.

The videodisc has been used extensively in this mode in the Advanced Basic German Course at the United States Air Force Academy. Based on the results of an end-of-course critique, the course was remarkably successful in terms of student satisfaction. In a written evaluation of the course, the majority of cadets, many of whom had an average of at least three years of high school German, expressed that they had improved their speaking ability more than in any other course previously taken.
2. Producing a Proficiency-Oriented Syllabus and Adapting a Text

The first step in producing a proficiency-oriented syllabus is to determine the length of the course, the level of proficiency a student should demonstrate at the end of the course and the area of skills concentration: speaking, listening, reading, writing. The following describes the production of a syllabus for reaching the Intermediate level of proficiency in speaking. At the end of the course, students were to be able to "satisfy most routine travel and survival needs and some limited social demands, ask and answer questions on very familiar topics and in areas of immediate need, and handle simple transactions at the post office, bank, drugstore, etc." (Provisional German Descriptions-Speaking, Intermediate-Mid). This level was to be achieved in one semester of 42 classroom hours with students meeting with an instructor for a fifty-minute lesson every other day.

The objective of the syllabus was to enable the students to satisfy some survival needs and some limited social demands. It included the following Novice and Intermediate-level situations: describing oneself and family, purchasing a train ticket, dining at a restaurant, obtaining information, handling transactions at a bank, finding a room in a hotel, going shopping, handling transactions at the post office and using the telephone, visiting a German’s home and talking about the weather, going to the gas station, dealing with a traffic accident, complaining about an incorrect bill, and discussing sports and recreation.

Basically, each survival situation was introduced by a series of videodisc episodes and augmented by corresponding cassette tape and written materials. For the first 10 sessions, the students were required to be able to use between 5 and 7 new lexical items embedded in survival situations. Examples of lexical items are "ein Einzelzimmer oder ein Doppelzimmer" (a single or a double room); "mit Mehrwertsteuer" (with added value tax); "das Formular ausfüllen" (to fill out the form). The students were required to manipulate these items creatively: "Would you like a single room?" "No, a double room please"; "Is the price with added value tax?"; "How do I fill out the form?" For lessons 11-40, the students were required to use ten to twelve new items.

Each situation encompassed two or three lessons. Each situation was introduced by a series of videodisc episodes, which enabled the student to visualize the content while receiving comprehensible audiovisual input. Each situation was then expanded by one or two lessons via audio cassettes, which the student listened to at home, while driving, exercising, etc. Additional lexical items were taken from these cassette materials to increase what a student could say about a situation in terms of function and content. After each lesson, the
student incorporated the lexical items into an ever-expanding dialog. Each situation was summarized by a carefully constructed English language dialog, which included all the lexical items of that situation and required the student to produce the appropriate content and functions according to the proficiency level by first writing the dialog in German then using it as a guide for conversational practice with the instructor.

The method described for expanding a situation introduced by the videodisc could be used to adapt such materials to any existing text or cassette tape program. One must only select lexical items from a text, which could be used to increase the content and functions of a situation.

The situational dialogs based on the expanded situations were placed on 5" x 8" cards. During lessons 1-10, randomly selected dialog cards formed the basis for German language practice for 15-20 minutes. During lessons 11-40, each class was begun with 15-20 minutes of free discussion and ended with 14-20 minutes of dialog based conversation.

Generic situations were suggested which would require creative use of the lexical items. The form of these generic situations simulated the cards used during an actual Oral Proficiency Interview. The student was tested on previously covered situations. Following are examples of a practice and a test situation:

Practice: Ask how to get to a hotel. Once there, say what kind of room you'd like (single/double; bath/shower) and how long you'd like to stay. Ask where you have to sign yourself in and which form you have to fill out. Tell the clerk your last and first names. Have him give you a room certificate and a key. Have your luggage brought to your room. Ask what floor the room is on. Say you're disappointed but the room is too noisy and that you'd like another room. Say you'd like to pay for the room and that you'd like to reserve a room for a future date. Tell the clerk how long you'd like to stay as well as your arrival and departure dates. Express your disappointment that the bill has an error. Express your appreciation for the clerk's helpfulness.

Test: You are at a hotel.
   a)Order a room.
   b)Find out the price and where the room is.
   c)Have your luggage brought to the room.
   d)Reserve a room for a future time.
   e)Straighten out a problem with the bill or the room.
Most lessons included a grammar portion as well. Only enough grammar was included to provide the foundation for the content and functions of the situation in question. For example, the conjugation of "would like" was introduced within the context of a restaurant: "Ich mochte die Speisekarte, bitte" (I'd like the menu please). Separable verbs were introduced at the train station: "Wann fahrt der nächste Zug ab? Wann kommt der Zug an?" (When does the next train depart? When does it arrive?). Also, conceptual control was required of the adjective ending tables to illustrate that there was a system for the endings, although the student did not always know exactly why a specific ending was used.

The final writing exercise was a description of a proposed trip to Germany, whereby the students generated logically sequenced dialogs of all the situations they would likely encounter abroad: getting information at a train station, asking for directions to a hotel, finding a hotel room, dining at a restaurant, going shopping, etc. This exercise was written in a notebook that could be carried in a coat pocket. The teacher corrected and returned the exercise—a brief, personalized summary of all the lexical items included in meaningful situations.

The final spoken exercise was an ACTFL Oral Proficiency Interview.

**Individualizing Instruction**

Videodisc instruction can easily be individualized with a syllabus containing proficiency-based content questions for situations. Since these questions in the second language are made to refer to specific episodes of a situation on the disc, one must only include the start/stop frame numbers for the particular episode as a basis to responses for the questions at hand. The same questions that were formerly displayed with a transparency can now be incorporated as pages of an individualized syllabus, which is shown by the following part of a sample page in English:

*At the hotel*

1. (Episode one)
   a. (Question one) How long does he want to stay?
   b. (Question two) What kind of a room does he want?
   c. (Question three) Does he want a room with a bath?
   d. (Question four) What does he have to do?
   e. (Question five) What does she give him?
   f. (Question six) Does he have luggage?
2. (Episode two)
   a. (Question one) How long does she want to stay?
   b. (Question two) Does the hotel have a room available?
   c. (Question three) How much does the room cost?
   d. (Question four) Does she sign (herself) in?
   e. (Question five) Which room does she have?

3. (Episode three) etc.

(beneath the episodes and questions) Kontakte 1, Seite I (disc name, disc side)
1.09007-10452  2. 10464-11707  3. etc.

Instructions for Individual Student Operation
To operate the videodisc, a student need only be provided with instruction for turning the videodisc player on and off, as well as for entering frame numbers and segments. The videodisc player becomes an individualized language laboratory, and the syllabus and disc materials can be adapted to a student’s own learning rate. Attaching a transcript of the foreign language text provides a valuable reference to the student working alone. During individualized study, each episode of a situation can be selected and viewed repeatedly until a particular content question is answered. Additionally, the student is free to stop and review any troublesome portion within an episode.

Case Studies
1. The Students and the Materials
   Long (1986) has presented a rationale for the case study as a means to study behavior in its normal, uncontrolled environment. Toward these ends, two case studies were undertaken at the United States Air Force Academy during Spring Semester 1986. Two beginning students took German as an independent study and used the videodisc in the aforementioned individualized mode. The videodisc materials were from the Kontakte and VELVET programs. These were supplemented by written and audio cassette materials from the HEADSTART program and the GATEWAY program through Module V, all audiolingual introductions to German produced by the Defense Language Institute (DLI) and based on simple survival situations. A proficiency-oriented syllabus described above integrated the videodisc with the corresponding written and audio cassette materials. (Initially, the Kontakte discs were a DLI effort to augment the HEADSTART cassette and written materials. Currently,
Kontake and Headstart have been superseded by VELVET and GATEWAY."

The method of instruction was tutorial, and each student met individually with an instructor for a fifty-minute lesson every other day, a total of 42 lessons.

2. The Students

The two students were Major X and Cadet Z. Major X is in the U.S. Army, 39 years old, and an Assistant Professor of History at the U.S. Air Force Academy. He has an M.A. in History. His Graduate Record Exam (GRE) Total score is 1200. His language background was limited to one year of high school German some twenty years ago. During the first lesson, he could not respond properly to the question in German, "How are you?" nor could he list the colors or name any days of the week. He viewed himself as starting from ground zero. His motivation was to learn sufficient German to perform his mission as a Liaison Officer to the Federal Republic of Germany beginning in July 1986. His wife has a bachelor's degree in German, and they often used the previously described dialog cards as a basis for conversing in German. Major X is somewhat hearing impaired and depends to a degree on lip movement to understand his conversational partner.

Major X spent the following time on these elements of the course for a total of 460 hours of contact:

- videodisc 25 hrs
- instructor lessons 35 hrs
- writing out situations 25 hrs
- grammar 40 hrs
- conversation practice with wife 50 hrs
- HEADSTART cassettes and exercises 110 hrs
- GATEWAY cassettes and exercises 175 hrs

The elements are ranked in the order of usefulness reported by Major X in his learning German. He wrote that the videodisc...

...was the most successful part of my course of instruction. I watched a variety of filmed scenarios and was able to interact at all times with the presentations. Utilizing videodisc technology, which enabled me to replay at will, I studied Germans in their natural environment and then answered specific questions posed around what I had just seen. Hearing Germans in a natural setting exposed me to new situations that I will encounter in Germany as well as to a variety of speaking voices.

Major X thought that the written assignments which incorporated lexical items into dialogs facilitated his learning at a more rapid pace and that their
quick grading enhanced his learning by enabling him to study his successes and avoid mistakes. Major X viewed the grammar, especially a chart on adjective endings, to be extremely valuable since it gave him a quick reference and an explanation for many disparate items.

Concerning the conversation practice with his wife, Major X found that the English language dialogs provided them a basis for conducting conversations without getting into areas where they would be reinforcing each other's mistakes. (Although his wife had a bachelor's degree in German, she was more familiar with the grammar than actually speaking the language.)

As far as the preponderance of time spent on the audio cassettes, Major X recorded meticulously every minute he listened to them while driving to work or during chores around the house. He found the cassettes to be useful but "not on par" with the other portions of the course.

An Oral Proficiency Interview marked the completion of the course. The interviewer was astounded that Major X had only been learning German for sixteen weeks, one hour every other day, and that he had concurrently carried out his duties as a history teacher and officer at the Academy. Still Major X could not be awarded a rating higher than Intermediate-High because of his inability to use the past tense.

Cadet Z is a 23-year-old senior at the Academy with a 3.7 grade point average and a GRE score of 1250. He had no prior German background but had studied four semesters of Spanish during high school and one semester at the Academy, in which he received "B" grades. His motivation for learning was to prepare himself for a possible assignment to Germany as a pilot. Further, he wanted to spend his honeymoon there upon graduation. His fiancee has had four years of high school German, and Cadet Z wanted to communicate as effectively as she with native German speakers in Germany.

Cadet Z recorded the following time on these elements of the course for a total of 170 hours contact.

- Instructor lessons 40
- Videodisc 10
- Cassettes from HEADSTART, GATEWAY 25
- Grammar 20
- Conversation practice with fiancee 20
- Writing situations 25
- Learning vocabulary 20
- Studying for tests 10
As above, these elements are ranked in the order of importance that Cadet Z felt they had in his learning German. He found the instructor lessons valuable because he received instant feedback and was able to build a personalized word list. Also, the practice helped him overcome the fear of speaking and enabled him to "talk around things" for which he lacked vocabulary.

Although he spent minimal time on the videodiscs, Cadet Z found them to be extremely helpful since they provided him images of situations and facilitated his use of the cassette tapes. They also helped him to remember vocabulary. He became accustomed to using visual cues for understanding what was being said. He found the content questions with the videodisc to be a waste of time since he already "knew" when he had understood.

Cadet Z thought the audio cassettes were very useful for repetition and provided an "instinctive feel" for the language. He enjoyed listening to them since he could do so in his car and didn't have to go to the language lab. He only "skimmed over" the associated written materials.

Cadet Z deemed the grammar to be the most important written portion of the course since it wasn't difficult to memorize and enabled him to understand the structure of the language.

He enjoyed practicing the situations with his fiancee since they provided them with something they could both talk about. Towards the end of the course, Cadet Z enjoyed going to a German restaurant and being able to converse more readily with the waiter than could his fiancee, who knew more about the language but couldn't use it.

Cadet Z found writing out the dialogs to be important since they were corrected quickly and showed him how to put together the language properly. They also provided a context for remembering nuances in usage.

Again, an Oral Proficiency Interview marked the completion of the course. Cadet Z was awarded an Intermediate-Mid.

Both Major X and Cadet Z had experienced a similar model of language learning. They found that the visual images of the videodisc enhanced their use of the audio tapes and written dialogs by providing them a concrete and meaningful reference. They thought that their ability to speak was most helped by practice, in which they combined lexical items creatively in order to express themselves. However, they found that this practice had to be structured to avoid areas of too difficult vocabulary and to avoid reinforcing mistakes when conversing with other beginning speakers.
Conclusion

Since instruction in these case studies was tutorial and one-on-one instruction provided major input, one cannot extrapolate their results directly to the typical foreign language classroom. However, the studies provide concrete evidence of the importance attributed by successful language learners to an inexpensive use of videodisc technology with a syllabus based on the ACTFL proficiency guidelines. It must now be determined if these results can be replicated with other adult language learners with a similar program but in different settings. Also, it must be determined if this tutorial approach can be used cost-effectively with small groups of similarly qualified language learners.

Although these case studies were completed with mature, motivated students who received individualized instruction, the results provide useful information for the classroom. Since using the videodisc in the classroom can be done with such ease, it affords a means of providing groups with the same concrete and meaningful visual images in a relatively inexpensive manner.

Notes

1Linguex has reported that students retain visually presented materials 80 percent better than materials presented in the traditional manner and that use of the videodisc increases overall language learning by 30 percent. (Colorado Business, Jan 1986, pg. 14).

2Scott, Albert. 'German Gateway in Retrospect' a presentation given at the CALICO '86 Symposium, 11-15 May 1986, held at the U.S. Naval Academy. Mr. Scott, a civilian employee for DLI, also mentioned that initial results indicated that the use of videodisc materials had significantly increased the learning of German in the GATEWAY course. He expected the final results of the survey to be completed by July 1986.

References


Appendix

With experience, this program can be entered in about 10 minutes. The names of two keys used in this program are abbreviated on the remote control unit: program (PGM) and clear (CLR).

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PGM, ENTER (FUNCTION), INPUT 1-10, ENTER
  2-20, ENTER
  3-30, ENTER
  4-40, ENTER
  5-50, ENTER
  6-60, ENTER
  7-70, ENTER
  8-80, ENTER
  9-90, ENTER

PGM 10, ENTER, PLAY 1, ENTER, GO TO 0, ENTER, CLR
PGM 20, ENTER, PLAY 2, ENTER, GO TO 0, ENTER, CLR
(...and soon to 90.)
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Biodata

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