



Theory-Driven Use of Digital Video in Foreign Language Instruction

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ABSTRACT

This article describes several theoretical bases for using context-dependent authentic video in foreign language instruction. The advantages of using digital video clips organized by communicative functions and linguistic features would enable learners to view raw linguistic data within the context-rich script of the video material. Software templates designed to manipulate discrete portions of digital video offer considerable promise as the most efficient way to display these video clips to learners.

KEYWORDS

Digital Video, Language Acquisition Theories, Cultural Understanding, Communicative Strategies, Information Processing, Authoring Templates

INTRODUCTION

In the last three decades, most approaches to foreign language teaching have emphasized the communicative aspects of foreign language learning. Beginning in the 1970s, the functional-notional syllabus detailed contexts in which linguistic forms are used for interpersonal communication in contrast to the structural syllabus in which language learning is regarded as a building block sequence of discrete-point linguistic structures. In the 1980s and 1990s, task-based and proficiency-oriented approaches emerged which directed students to engage in the negotiation of meaning in a variety of contexts. These latter schools of thought posit that languages possess inherent dynamic resources for the creation of meaning (Nunan, 1989) and view language use and language acquisition as two sides of the same coin (Ellis, 1986). Learners are thought to acquire a given language in the process of using that language in specific contexts (Bialystok, 1990, 1994; Ellis, 1986).

This article elaborates several theoretical bases for using contextually



bound, authentic, and unscripted video footage in foreign language instruction to prompt learners' acquisition of culturally appropriate speaking and listening skills. The authors describe the advantages of transforming analog video into a digital format, which can then be made available on demand to learners and their instructors. The authors also cite, in particular, the advantages of using digital video clips organized around certain communicative functions or linguistic features. This kind of organization would serve to focus learners' attention on the raw linguistic data in the context-rich script of the video. Learners would thus have an opportunity to internalize the myriad social, cognitive, and functional overtones in the linguistic data before attempting to use these data to create meaning.

THEORETICAL UNDERPINNINGS

Hatch and Hawkins (1987) outline a theoretical position in second language acquisition that describes an interactive relationship between learners' mental systems and their mental representations of experience. The approach proposed by the researchers is reiterative and continuous, as learners adjust internal representations of data based on their exposure to external linguistic data. From a cognitive viewpoint, Tomlin and Villa (1994) underscore the role of context in second language acquisition. They state that acquisition of a certain form occurs when learners

- 1) discern some element of linguistic input from exposure to that input;
- 2) perceive a new or unusual characteristic in the event they witness; and
- 3) establish a relationship between the linguistic input and the mental representation of the event.

Hatch and Hawkins's and Tomlin and Villa's approaches are complementary and mutually supportive. Each emphasizes the importance of external data to modify learners' internal representational structures. Hatch and Hawkins presume an interactive and continually evolving internal mental system of language, cognition, and social meanings which surpasses the "trigger" approach held by some proponents of Universal Grammar (Cook, 1985; White, 1989). Both positions refer to learners' reliance on the extensive use of life scripts based on prior experience, which may well be unique life scripts in their native culture. Learners' mental representations of these scripts form the background knowledge upon which new information is then built.

Saville-Troike (1982) stresses the importance of comparing and con-



trusting one's own communicative behavior with that of others to discover how one's (largely unconscious) behavior patterns are culturally unique phenomenon. Halliday (1978) views language as "a linguistic form of social interaction" in which potential meaning is actualized in a context of situation. Halliday (1978) and Halliday and Hasan (1989) conceptualize language as having three components

- 1) the nature of the social action that takes place;
- 2) the nature of the participants; and
- 3) symbolic mode.

Ellis and Roberts (1987) similarly conceptualize the notion of domain in which language represents prototypical situations such as family, church, school, and so on. Each domain is associated with the use of a particular variety of language through which people develop "scripts" for each situation type. These scripts include beliefs and presuppositions shared by the members of a speech community that enable interlocutors to make inferences about each other's speech. Finally, Saville-Troike (1989) discusses the concept of context as having three components

- 1) observable aspects of the setting;
- 2) culturally defined aspects of a communicative event; and
- 3) holistic scripts for the negotiation of meanings.

MENTAL REPRESENTATION

The expression "mental representation" requires some comment, especially when the scripts of the first language differ dramatically from those of the second language. Some second language instructors may believe learners develop the same kind of mental representation of linguistic forms as speakers of the target language community by participating in contextually relevant activities. However, students learning a language in a foreign language environment with little exposure to the culture of that language may well develop a mental representation altogether different from what the instructor might expect. For example, Japanese has borrowed the word 'cafeteria' from English, but the food actually offered in a cafeteria in Japan and the procedure of getting that food are culturally unique. In a Japanese cafeteria, patrons usually look at plastic replicas of menu items in a display case near the entrance to decide which dish to order. They then purchase a meal ticket specifying the exact item before moving to the counter where the food is actually served. If American students who have never seen a Japanese cafeteria engage in role playing activities, they could easily construct quite different communicative responses from those likely to occur in this kind of environment.



Few educators would disagree that language acquisition theory has significant implications for language instruction in a foreign language environment. Language is embedded in the context of specific situations in which linguistic forms carry not only universal meaning but also the linguistic presuppositions and cultural assumptions of the speech community. Language instruction, therefore, should make students aware of these presuppositions and assumptions as well as the linguistic forms themselves. Students' analysis of linguistic data provided by video offers an effective means to enhance students' awareness of the appropriate use of linguistic forms within the context of specific situations.

Although Halliday discusses the context of situation as an abstract representation of an environment rather than an audio-visual record of concrete settings, visual cues in videos can guide students to observe communicative situations and help them develop holistic scripts for the negotiation of meaning and probable communicative events. For example, a video clip showing a bank teller checking a foreign client's passport, counting change, and giving Japanese currency to the client presents the nonverbal components of a holistic script for obtaining money at a bank in Tokyo. Another video clip showing a group of businessmen dressed in formal clothes in a corner of a train station, bowing and waving hands to someone in the bullet train also reveals the nonverbal aspects of a communicative event of seeing a colleague off to a firm's branch office. Yet another video clip at the train station can introduce the hierarchical structure of situations by evoking subcategories relevant to the overall context (e.g., a ticket information table, a ticket counter, a time table, or advertisements in the train) or subcategories with specific functional purposes (e.g., buying a ticket, getting on and off a train, or placing a suitcase on the luggage rack). Observing a video scene in which people purchase train tickets from a vending machine can also help students associate linguistic forms with their semantic referents.

Video clips can serve various purposes; they can help students infer main ideas of communicative events, figure out the meaning of unknown words, organize information extracted from linguistic input, and build schemata for the situational context. Video can also function as an advance organizer for language learning activities (Ausubel, 1968; Altman, 1987; Joiner, 1986; O'Maggio-Hadley, 1993). Students can watch silent videos and discuss similarities and differences between, say, a train ride in their own country and in the target language community. The use of this kind of advance organizer will help to enhance their cultural awareness before they engage in role playing activities such as asking for help at a train station. While viewing silent video clips, the instructor can introduce key vocabulary items that students will hear when the sound is eventually turned on. Finally, silent video clips can provide source material for task-based activities such as narrating a story, solving problems in the



foreign language, and making decisions about behaviors in the target culture. For example, after watching a video introducing an incident on a Japanese road, students in small groups could discuss what the problem is, what kind of accident may happen, and what kind of measures drivers should take to prevent traffic accidents.

BUILDING COMMUNICATIVE STRATEGIES (CSs)

Video clips can be good opportunities to train students to use effective communication strategies (CSs). CSs, that is, learners' attempts to solve communication problems as they negotiate meaning in spontaneous communicative situations, are considered indispensable components in communicative performance. Since learners often encounter difficulty in perceiving intended meanings in communicative situations because of their limited linguistic resources, they resort to CSs in order to maintain communication. Studies on CSs have found that the use of some CSs results in more effective problem solving procedures than others (Fearch & Kasper, 1983; Tarone, 1983) and that the use of CSs contributes directly to variation in the overall effectiveness of learners' communicative performance (Chen, 1990). For example, Reduction Strategies such as "Message Abandonment" can direct learners to avoid solving problems by completely abandoning attempts to understand or convey messages (Tarone, 1983). On the other hand, Achievement Strategies such as Analytic and Holistic strategies can direct learners to work on alternative plans for reaching their original goal, using whatever resources are available (Poullisse, 1987). Silent videos that introduce cultural information should be a useful means to help students to develop effective CSs. While viewing silent video clips, the instructor can encourage students to look for alternative ways of expressing intended meanings by means of tasks such as video narration, problem solving, and decision making.

In addition to silent videos, language-focused video materials like ethnographic interviews with individuals in the target culture can be a good source for developing effective CSs. Ethnographic interviews are also useful for establishing an understanding of presuppositions and assumptions of the speech community. The extemporaneous speech typical of ethnographic interviews reveals much about speakers' beliefs, thoughts, and experiences in real-world communicative situations. Their speech is likewise characterized by a loose syntactic organization because of the spontaneous thinking processes exhibited in such situations. In addition to assisting learners to synthesize content and meaning from loosely structured discourse, this kind of video material provides students with opportunities to practice inferring the general topic of communication and cause and effect relationships.



Ethnographic interviews also contain many examples of speakers' culturally encoded experiences and their attitudes toward these experiences. In order to comprehend speakers' statements, students could be directed to recode the content of the statements in their own words. For example, a particular videotaped ethnographic interview introduces a native speaker's statement that Japanese society should operate in such a way that women should live like women and men should live like men. Asking students to recode this idea in their own culturally meaningful terms facilitates their use of CSs and, at the same time, provides an opportunity to examine the cultural assumptions of the target language society.

SOCIOCULTURAL LEARNING AND ETHNOGRAPHIC TECHNIQUES

Culture is not limited to stable and established phenomena alone but also includes process-oriented social interactions. As pointed out by Kramsch (1993), cultural phenomena vary even within the same target language community according to gender, social class, educational background, regional areas, etc. Traditional language instruction tends to focus on presenting fixed information about a target language community and its members' attitudes. However, advocates of the use of process-oriented cultural phenomena in language instruction argue that learners need to learn the dynamic nature of cultural perceptions (Arries, 1994; Bacon, 1994; Kramsch, 1993). In other words, learners need to know how they perceive themselves, how they perceive people of the target culture, how people of the target culture perceive themselves, and how people of the target culture perceive the learners' culture.

Video clips that present ethnographic interviews in which people of a target culture discuss various issues can be used for teaching process-oriented cultural phenomena. Unlike video materials that show cultural phenomena from the author's point of view (video material which may deliver misconceptions about the target culture or which become quickly outdated), ethnographic interviews illustrate how individual native speakers perceive cultural phenomena in their society from different points of view. Pointing out these different points of view helps learners build appropriate schema for interpreting these phenomena. The instructor can also use various parts of the interviews to prompt student discussion in the classroom and to establish models for students to follow in interviewing people of the target language culture or even in their own culture.



COGNITIVE DIMENSIONS

Cognitive theories of attentional resources also provide justification for the use of video materials. As limited capacity processors of information, humans beings can be easily overwhelmed by the enormous amount of information to which they are constantly exposed. In information processing, short-term memory serves as a gatekeeper for controlling and selecting information and chooses only a limited subset of information for further processing. Robinson (1995) introduces Wicken's concept of multiple pools of attentional resources allocation. According to this view, attentional resource allocation consists of intersecting but independent pools of cognitive processing procedures such as various cognitive activities, analog/spatial activities versus linguistic activities, auditory versus visual perceptual activities, and vocal versus manual responses. This view of information processing proposes that tasks which require the same pool of attentional resources increases learning demands and slows learner performance. On the other hand, tasks which require the simultaneous use of different pools of attentional resources enable learners to integrate these resources and allow them to process information more efficiently.

The use of video clips facilitates learners' integration of multiple attentional resources in comprehension tasks. Consider, for example, a voice over video clip designed to illustrate the Japanese expression *sushi-dume no hito* 'be crowded with people' in the sentence *densha wa sushi-dume no hito da* 'the train is crowded with people.' Students may be able to distinguish word boundaries, recognize vocabulary items, detect key words such as *hito* 'person' and *da* '(copula) be,' and analyze sentence constituents to derive meaning from the syntactic form. However, in real life language use, words appearing in different contexts often carry different meanings, and combinations of existing words create totally new sentence meanings. Viewing video clips of a crowded train while listening to the sentence can elevate students' level of visual perceptual activity and other attentional resources to the task at hand.

THE PILOT STUDY

A pilot study was conducted at San Diego State University using think-aloud protocols with eight students in a third semester Japanese course to examine the effect of visual cues on students' cultural awareness. The students were individually shown a one-minute silent video introducing Japanese roads. They were told to stop at any point they wished while viewing the video and to verbalize what they noticed. The use of think-aloud protocols illustrates the quantity of culturally rich information that students can glean from a short silent video clip. Some of the students'



comments revealed their perception of obvious phenomena such as “cars run on the left side of the street in Japan,” “there is no sidewalk for pedestrians,” and “a narrow alley allows two-way directions for the cars.” Other comments such as “there are very few traffic signals in Japan” and “traffic signals in Japan are less clear than in the US” are perhaps too culturally ingrained to be noticed by people in the target language community. Altman (1989) makes the point that images alone can be a powerful tool for pinpointing and emphasizing cultural differences. He also asserts that this tool may benefit the weaker students because those who are unable to understand the dialogue in an initial viewing may subsequently pay closer attention to images in much the same way as non-native speakers who watch subtitled films in an unfamiliar language.

The results of the San Diego State pilot study demonstrated that silent video enhances students’ discovery processes of culturally unique phenomenon in the target language society. The results also reinforced the idea of making a greater variety of contextually situated video clips available on demand to learners as they prepare for classroom instruction. These digital video clips could be analyzed, categorized by setting, purpose, and participants, and stored in the computer as data introducing instances of situational contexts for language instruction (Ellis and Roberts, 1987). Settings (e.g., stores, streets, stations, and schools) and purposes (e.g., commuting, buying food, and looking after a child) would be thus easily retrievable electronically. The video clips could focus on people in the target culture both as individuals (with particular personal traits, attitude, and preferences) and as representatives of more universal concepts (a store clerk dealing with a customer, a school teacher teaching in a classroom, or a mother picking up children at school). Instructors seeking visual cues related to specific topics could search the video database for information based on this kind of taxonomy.

On-demand distribution of materials would be provided ideally by a digital video server with connections to the smart classrooms and faculty offices. The ability to search through a database of digital video material and to select those instances which illustrate a particular linguistic, cultural, or communicative phenomenon would allow students, as well as instructors, to become researchers in their own right.

CONCLUSIONS AND SUGGESTIONS FOR FUTURE RESEARCH

The preceding discussion offers a variety of theoretical bases for the use of video in language instruction and includes some examples of how video clips can be used in the language classroom. Theoretical and applied linguistics lend strong support for video as a provider of cultural, social, and linguistic data sources in which the importance of context is all pervasive.



These context-rich sources of data permit learners to modify their cognitive structures by accommodating their background knowledge to new data.

The approach to video materials collection and classification described here suggests several kinds of future development efforts. With respect to the format of the video clips, mini-dialogues featuring male and female interlocutors recorded on location would be preferable to postproduction voice overs. Such minialogues would be more effective for incorporating register of speech, distinction between female and male speech patterns, etc. into the video materials. Similarly, the use of participatory prompts in the video inviting students to give their own opinions on issues presented by the speakers would create more interactive language learning opportunities. Including a mechanism to record students' responses to these prompts and store them digitally would make a more complete learning package.

Altman's (1989) "Golden Rule of Video Pedagogy" prescribes that one should not expect, or even seek, full comprehension of authentic materials. The instructor should be aware at all times of the students' level of understanding and then challenge them to understand a little more. Two corollaries to the Golden Rule propose two recommendations that the instructor would be well advised to bear in mind when using authentic video. The first is that students' comprehension abilities are often overestimated and that "reality checks" are valuable for both instructor and students. For the instructor, as a competent speaker of the language, listening to video is like "reading speech" but, for students, it is more like "finding the objects hidden in a drawing of trees" (p. 43). Altman advises checking student comprehension early and often to assure that they divide continuous speech sounds into appropriate words. Building on the comprehension of the words, learners can then construct an image or script of the content of the video material. Altman's second corollary cautions that direct transcriptions of the video script should be avoided since students invariably spend too much time deciphering irrelevant details. The message being sent to students who undertake transcription exercises is that written accuracy is "the only appropriate standard for video comprehension" (p. 43). The authors hasten to add that the exclusion of having students write complete transcriptions does not rule out the possibility of using cloze type partial transcriptions.

Finally, comprehension checks for students watching digital video clips could be provided at appropriate intervals using interactive software templates. To make the digital video interactive, instructors would need to use computer software which provides immediate and precise control over video clips. Several templates exist on the market for this purpose. For the PC, WinCALIS, available from Duke University, has the capability of showing video along with text in virtually any language. Comprehension check-



ing is also possible in several packages. Libra, developed for the Macintosh at Southwest Texas State University, has a number of advanced features permitting instructors to construct learning environments suited to their students' needs and includes a variety of comprehension checks. GALT/MacGALT, created at The Pennsylvania State University and Southwest Texas State University, has the capacity to present simultaneous displays of text and video, and GALT can track learners' progress through the video. Gemini, a template-driven authoring system currently under development for the Macintosh and PC will support sophisticated student interactions, comprehension checking, and student record keeping. The instructor who has time to explore more advanced software packages can find a number of powerful and complex programs on the market such as Authorware by Macromedia and ToolBook by Asymetrix. With the assistance of the digital server as a first step in the systematic organization of large quantities of video materials, the instructor could select the most appropriate video materials for inclusion in the classroom or laboratory setting. Tracking student use of the video material offers considerable research potential. A number of hypotheses about listening could be simultaneously examined with the inconspicuous tracking of learners' activities. Data from these sessions could be used to refine the authoring process for future research and development of interactive digital video programming.

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