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# Closed Captioned TV: A Resource for ESL Literacy Education. ERIC Digest.

It has been four years since the publication of "Closed Captioned Television for Adult ESL Literacy Learners" (Spanos & Smith, 1990). Since that time, interest in the subject has been growing among teachers, students, and researchers. What is new in closed captioned television (CCTV)? Recent technological, pedagogical, and regulatory developments have heightened awareness and appreciation of the medium's educational potential. This digest reports on new captioning legislation that increases access to captioned programs and on new research, technology, and uses of closed captions in the field of adult ESL.

# INCREASED ACCESS TO CAPTIONED PROGRAMMING

In 1990, Congress passed the "Television Decoder Circuitry Act" mandating that all new TV sets 13 inches or larger manufactured for sale in the United States have a built-in computer chip that decodes captions. This eliminates the necessity of buying a separate decoder (about \$150) for this purpose. Sets with the built-in decoder offer a menu with a "caption option." When this is selected, a written version of a program's audiotrack is displayed at the bottom of the TV screen. The law went into effect in July 1993, and the National Captioning Institute (NCI) estimates that by the end of 1994, 40 million households will have these new "caption-ready" sets, that will provide free access to the educational benefits of captioned TV and video ("National Captioning Institute," 1993).

#### MORE CAPTIONED PROGRAMMING

Educators and learners now have many captioned programs from which to choose. More than 800 hours of captioned programming per week (up from 400 in 1990) are broadcast by the major networks, both public and commercial, and by the cable networks ("National Captioning Institute," 1993). Almost all primetime TV programming--news, dramas, documentaries, situation comedies, children's fare, sports events, movies, commercials, and special reports--is captioned. In addition, thousands of video programs for home and school viewing are being captioned every year. The level of language used, age appropriateness, sophistication, and overall quality of these programs vary widely. The captioning also varies in pacing and in the degree of correspondence with the spoken text, from verbatim to paraphrased. Like a new wing in a library, closed captioning provides a new body of reading material that offers teachers a rich resource and new options for instruction.

# RESEARCH RESULTS

The latest research studies on the benefits of using CCTV with second language learners of all ages continue to confirm the findings of earlier years (Bean & Wilson, 1989; Goldman & Goldman, 1988). Students using captioned materials show significant improvement in reading comprehension, listening comprehension, vocabulary acquisition, word recognition, decoding skills, and overall motivation to read.

Thomas Garza (1991) used verbatim captioning with adult ESL learners and adult Russian language learners to explore the language learning benefits of merging spoken and printed text in one medium. He chose short (2-4 minutes), verbatim, captioned segments from actual Russian and American TV programs which provided a kind of visual glossary for difficult vocabulary. When, over time, he tested students' ability to use specific vocabulary from the segments in retellings of their content, he found significant increases in comprehension of the segments, as well as recall of the language used in them.

In a study commissioned by the National Captioning Institute, Neuman and Koskinen (1992) found that using captioned science materials from the television program "3-2-1 Contact" with Asian and Hispanic seventh and eighth grade ESL students resulted in higher scores on tests of word knowledge and recall of science information. These results support the theory that multisensory processing of the audio, video, and print components of captioned TV enhances language learning and content.

# **ESL CLASSROOM APPLICATIONS**

Several technological advances have made the use of captioned materials a less time-consuming activity for teachers and a rich experience for students. It is now possible to capture the captions, i.e., transfer them directly to a printer or computer as they appear on the TV screen. The Scriber system (Pacific Lotus Technologies, PL100 hardware and software packet) enables the viewer to either print out the captions as they appear on the screen or save them on the computer in a word processing program where classroom activities such as the following can be developed: accessing key words, generating cloze exercises, changing the font and spacing, and converting upper case letters to lower case (all captioning is done in capital letters).

For example, Tim Rees (1993) at the International Language Institute of Massachusetts reports success with Chinese and Japanese students of ESL using CCTV news programs and situation comedies to expand vocabulary, improve listening comprehension, increase knowledge of current affairs and U.S. culture, and stimulate class discussions. Rees transcribes the captions on a word processor and uses the printed-out script of programs students have viewed in class for classroom and homework reading. He also designs cloze and other vocabulary activities from TV programs the students view together in class.

Todd Ellsworth (1992), teaching at the Benjamin Franklin Institute in the Mexican state of Yucatan, where students have little exposure to real English, uses captioned TV programs received via satellite from the United States. He divides his classes into three groups to view the same program: The first views the program without captions; the second with captions; and the third with audio only (without video or captions). From issues arising during full-class discussions after the group viewings, Ellsworth designs lessons on grammar and vocabulary, including idioms and slang; on U.S. cultural expectations and social etiquette; and on the effects of emotion on stress patterns and pronunciation. He finds the in-class study of closed captioned programs motivates the learners to use their second language, English, with greater ease and confidence.

Salvatore Parlato, who works with deaf and hearing ESL students in Rochester, NY, uses in-class captioned TV viewing as a group activity that provides a common frame of reference or talking point from which to build vocabulary and concepts (Parlato, 1986). He focuses the students' attention on the job of the captioner, who often paraphrases and simplifies what is being spoken to make captions short and slow enough for easy readability. His students view programs, looking for differences between captions and dialogue, and discuss these differences after the viewing. Parlato turns the volume off during a second viewing and either he or a student reads the captions aloud while the rest of the class reads along silently. This activity helps develop reading fluency and metalinguistic knowledge about how language can be used and manipulated.

Webb, Vanderplank, and Parks (1994) suggest using certain closed captioned children's programs, such as "Sesame Street," "Reading Rainbow," and "3-2-1 Contact," with adult ESL learners. The content, speed of captioning, and vocabulary make these programs suitable for use in the adult ESL classroom and many adult activities can be designed around them. (See Smallwood, 1992 for a discussion of ways to use children's literature with adults.) "Rescue 911" and "NOVA" are two adult programs that are also suitable for the ESL classroom.

# **CONCLUSION**

Through training in the use of CCTV and sharing of experiences with each other, educators will continue to discover ways in which captioning can transform the medium of television into a powerful and effective literacy and language learning tool for all ESL students, including adult learners.

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# **RESOURCES**

The Caption Center, 125 Western Avenue, Boston, MA 02134 (617) 492-9225. (For information on how to make your own captions)

The National Captioning Institute, Inc., 1900 Gallows Road, Vienna, VA 22182. (703) 917-7600. (For information about decoders and research studies)

Pacific Lotus Technologies, 1 Bellevue Center, 411, 108th Avenue NE, Suite 1970, Bellevue, Washington, 98004. (206) 454-7374. (For information about decoders and computer software for transcribing)

#### BACKGROUND INFORMATION WHAT IS CLOSED CAPTIONING?

The symbols (registered trademarks of the National Captioning Institute and of the Caption Center) and "CC" identify, in TV program listings, television programs and videotapes that are closed captioned. These programs have captions, or printed text, at the bottom of the screen, which can be accessed with a decoder. The captions are synchronized with the dialogue or narration of the program's audiotrack.

# WHAT KIND OF EQUIPMENT IS NEEDED TO SEE THE CAPTIONS ON A REGULAR TELEVISION SET?

When a captioned program is broadcast on TV or played on a VCR, the captions are visible on sets that have a separate or built-in "caption decoder."

# **HOW ARE THE CAPTIONS ADDED TO A VIDEOTAPE?**

Captioners, somewhat like court stenographers, spend many hours at specialized computer work stations watching and listening to programs and typing a transcript of the words being spoken. These words are then encoded on the videotape as closed captions. They cannot be read until they are decoded.

# HOW FAST DO THE CAPTIONS MOVE ACROSS THE SCREEN?

Programs are captioned at different speeds depending on the sophistication and speed of delivery of the language of the spoken text. "Sesame Street," for example, is captioned at 60 words per minute, "Reading Rainbow" at 120 wpm, and the "ABC Evening News" at up to 250 wpm.

# DO THE CAPTIONS MATCH THE SOUNDTRACK EXACTLY?

Some programs are captioned almost verbatim; others are paraphrased for ease of readability.