Closed captioned television:

A perceived means to self-help in second language learning

by

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INTRODUCTION

Television as a Valuable Tool for Language Learning

Television has been touted by many to be beneficial for second language learners for several reasons: (1) it allows the learner to receive aural and visual clues; (2) it enables cultural awareness and sociolinguistic language knowledge; (3) it allows the viewer to observe the second language in an almost real-life communicative situation; (4) with no fear of forced production as in the classroom, there is less anxiety, which should allow for lowering of the affective filter, thus allowing for comprehensible input (Krashen, 1985).

The Innovation in Closed Captioning

As of July 1, 1993, yet another aspect of this medium is now readily available. To comply with a federal law, all television sets over thirteen inches in size that are sold in the United States, whether imported or locally manufactured, must contain the necessary device for decoding closed captioned programs. Originally closed captioning was developed for the hearing-impaired, but for a number of years it has been used in the United States as an aid for teaching English reading to hearing students. Presently closed captioned programs are transmitted over eight hundred hours per week, showing a doubling in the amount of time since 1990 (Parks, 1994).

Need for This Study

As indicated incidentally by international students

During my casual conversation with international students on the Iowa State University campus, frequent mention was made of their using closed captioned television in their dorm rooms or apartments. They also informed me that many international students entering intensive English programs here in the United States for the purpose of working toward second language proficiency are aware of closed captioned television, and they have indicated that they are taking advantage of closed captioning because they perceive it as a

means of acquiring English which they can use on their own, as a form of entertainment, at their own pace, and in the format of a television program that interests them.

As indicated through an initial survey

Because students indicated that they were using this technology independent of any classwork they were doing in their intensive English program, I became interested in closed captioned television (CCTV) as a self-help for gaining English proficiency. Through an initial survey I confirmed that some students who are enrolled in an intensive English program were making use of commercial CCTV programs of their own volition. [See Appendix I for sample survey.] The survey was given to a class of intermediate learners and to a class of advanced learners, both groups being enrolled in the Intensive English and Orientation Program (IEOP) at Iowa State University. Results indicated that just under 50% of the intermediate learners (nine out of nineteen) and 67% of the advanced learners (eight out of twelve) watched closed captioned television programs. Those results sparked my desire to find out more about international students' personal use of CCTV.

As indicated by lack of previous investigations

As will be indicated in the literature review to follow, much investigation has been done about possible advantages and disadvantages of using CCTV in the classroom. Many of those studies indicate that it can be an effective learning tool when employed by a knowledgeable teacher. Other studies have been done on its use in developing both reading and listening skills. In reports of two 1988 studies, merely incidental mention was made of some families with children needing remedial reading (Goldman & Goldman) or immigrant families (Mehler) buying captioning decoders to be used in their homes, but by and large, research has been done only with the focus of using captioning within the formal classroom situation.

The technology as a classroom tool has also been argued to have the advantageous feature of allowing a greater amount of comprehensible input. This refers to Krashen's theory

(1985) that if the second language learner is challenged with language input at a level that is just slightly higher than his/her own (known as $i + 1$), then it is more likely that the input (new language) will be comprehensible and so allow for possible intake (addition of that new language to the learner's pool of language knowledge with the hopes of using that new language in production at some future time).

In spite of the numerous studies that have been done with closed captioning in the classroom, it seems that we know very little about this technology as it is being used by second language learners on their own. If, as indicated in my initial survey, a number of our language learners are using closed captioning, then it would seem advantageous for us to know something about their involvement with it, and the processes they are employing as they make use of it.

Research Questions

As I considered these aspects, several questions came to mind:

1) Who uses closed captioned television (CCTV) at home?

  - In regard to level of English proficiency

  - In regard to nationality, age, length of time in the U.S.

2) If a learner chooses not to use it, what are her/his reasons?

3) How much is it used?

4) What types of programs are preferred when using CCTV?

5) What attitudes do learners hold towards CCTV?

  - In regard to what they think they can learn by using the technology

  - In regard to the caption format itself

6) What are some of the metacognitive, cognitive, or social strategies (O'Malley & Chamot, 1990) employed by the self-learners when using the technology as indicated by their overt behavior?

  - Use of social strategies, such as asking another person to explain

- Use of repetition by video taping

- Use of resources, such as various types of books

- Use of writing, such as note-taking

In themselves, the questions seem quite straight forward; however, because at present we have so little information about the use of CCTV as a self-chosen aid for language learning, we must start at the beginning. Therefore, this study is one that will concentrate on the above questions, with data gathered by means of a questionnaire that was distributed to all international students who were enrolled in any of Iowa State University's English classes held in the 1996 spring term specifically for second language learners.

LITERATURE REVIEW

There have been many comments and discussions on the benefits of using television for teaching language. In fact, it has been said that "[c]losed captioned television just might be the most underrated technology of the past decade" (Rickelman, Henk, & Layton, 1991, p. 599). Gillespie (1981) points out its many positive aspects: It allows the listener to hear a variety of voices, all of whom are native speakers. It involves real listening within the visual context. It presents facial closeups and other nonverbal elements of communication, such as context, kinesics, culture. Swanson (1984) focuses on the details of active listening to the physical aspects that Gillespie mentions; he suggests that students can concentrate on the visual messages given by overt behavior: the eye movements and blink rate, the facial response, body shifts and vocalics of the speaker. In addition to this aspect of nonverbal communication which both Swanson and Gillespie address, Gillespie continues that TV can act as a model for native speaker pronunciation. It also exemplifies the many functions that language can have within different situations (which would involve the contextual and sociolinguistic language competencies).

Closed captioning is not a new technology, but is one that has often come under scrutiny as a form of language presentation. The first captioned television program was that of Julia Child's "The French Chef" in 1971 on PBS; however, it was an open captioned program in which it was not possible for the viewer to make a choice of using the captions. It was not until late in the 1970s that PBS began to develop the closed captioning technology, which then gave the viewer the option of using captions or not (Thompsen, 1992). In the last decade, the possibility of using CCTV as an educational aid has been explored by many. Those research areas that I have investigated which hold relevance for the present study come under several focuses:

1) Closed captions and reading

2) Closed captions and listening

3) Learners' perceptions of the media as a learning tool

4) Closed captions as a form of comprehensible input

5) Closed captioning as a form of interactional modification

6) Limitations to closed captioning as a medium for comprehensible input

7) Closed captions as a self-help instrument

8) Closed captions and possible learning strategies

Closed Captions and Reading

Initially, closed captioning was seen as a tool to aid in the teaching of reading. That position could be held partially because, in 1985, a favorable report was given in a study performed by Koskinen, Wilson, and Jensema for the National Captioning Institute (one of the largest such agencies); in its initial findings the researchers revealed that CCTV held positive indications as a means of teaching reading comprehension, vocabulary and oral fluency to remedial reading students with normal hearing. In the following year, the same group reported positive results when they were teaching reading to deaf students; the viewers of closed captioning showed improvement in sight vocabulary retention, student motivation, and reading comprehension. Students who are deaf have been studied by Second Language Acquisition (SLA) researchers because they are considered learners of English as a second language since their first language is that of sign rather than English in the spoken form. Yet another study made use of a captioned program (without sound) to improve reading skills for remedial readers, with added coincidental effects of noted reduced absenteeism or tardiness and more motivation as demonstrated by students voluntarily organizing a Closed-Caption Club (Goldman & Goldman, 1988).

Closed Captions and Listening

Later, closed captioning was considered in relation to listening comprehension. "Commercial television is a readily available source for learning to listen while seeing"

(Taylor, 1981, p. 42). Donald Huffman (1986) made suggestions for use of the media by keying in on the TV soap operas for presentation to an EFL class. He stated that such "material will probably improve listening comprehension ... [when] used with vocabulary and idiom lists" (p. 4). Empirical evidence was presented in 1989 when Paul Markham reported his study on captioned television videotapes and their effects on listening comprehension by ESL students of beginning, intermediate, and advanced proficiencies. All groups of students were exposed to two texts of varying levels; presenting the material with or without captioning was decided by random order, but each group saw one text with captioning and the other without captioning. The results were as predicted: the captions had a positive affect on the listening comprehension, and that was slightly stronger with the more difficult text. In addition, advanced students were seen to benefit as much as any other group, and the "beginners clearly performed at a higher level..." (p. 39).

TV has been seen by SLA researchers to be a good source of listening material. Gillespie (1981) states that it holds advantages because it is more like listening in the real world since it contains a visual context; therefore facial closeups allow the nonverbal element of communication (including context, kinesics, and culture) to aid interpretation of the message. She also maintains those same closeups give clues to proper pronunciation; and in addition the medium provides a variety of voices, the great majority of whom are native speakers. Huffman (1986) expresses agreement when he points out that soap opera conversations are natural sounding in realistic situations, have many varieties of English, and contain messages that are reinforced through body language. Danahy (1985) cites justification for use of TV videos since they fulfill Krashen's idea of exposure to natural language that provides the opportunity for the $i + 1$ principle to be activated (meaning the input from TV is just one level above the learner's proficiency level), and the medium also provides redundancy of that input. (It should be cautioned that for some beginning language learners the opportunity for $i + 1$ may not be possible through TV because their personal level of

proficiency is such that the input from television is greater than just one level above their present English knowledge; however, for others with more proficiency, theoretically the $i + 1$ principle could be activated.) Smith (1990) agrees with Danahy and Gillespie in their attitudes about television and language learning when she states that "television is about as close to a simulation of real-life English speaking as I could provide in the classroom, closer than rehearsed dialogues or role plays, closer than listening to the teacher read a story" (p. 7). However, she carries her ideas into the realm of closed captioning when she says that it also allows the students to "see the words as they [hear] them, and have the experience repeated as often as they [like]" (p. 7). James (1984) lists films and television programs as one of four top choices for good listening material, the others being the teacher, other native speakers, and radio music.

Kellerman (1990) clearly explains the advantages of listening through the medium of television over those of a tape recorder in that it is more of the real-life situation in which communication takes place on the visual as well as the auditory level. Lems (1983) supports this when he notes that "[s]ome of the best strategies for understanding spoken English [seem] to reside in visual cues given by the speaker and the environment" (p. v). Kellerman's discussion points to the fact that, except in the case of telephone conversations, listening to the radio, or loudspeaker announcements, we are not blind when we listen and we receive many messages by using our visual sense.

Learners' Perceptions of the Media as a Learning Tool

Of equal importance is the fact that the learners view television as an important source of input when they are learning a second language. As Danahy (1985) puts it, "The chief pedagogical, as opposed to technical, advantage of using video cassettes must inevitably lie in student responses to them" (p. 55). In a survey done by Christison and Krahnke (1986) students ranked TV and radio as second in a list of out-of-class experiences that contributed most to their language improvement, social contacts with native speakers being the only

source of input that they considered more important. Celona (1983) had data from surveys of twenty-five international students which indicated television was frequently mentioned by them as an aid to second language acquisition. Beentjes (1987) makes mention that "perceived self-efficacy ... and the role that viewers may play in the intake of information is underrated" (p. 1). After a comparative study of Dutch and American students' attitudes towards learning from television, he is of the opinion that when viewers have the positive attitude of being able to learn from the medium, it causes them to invest more mental effort and thereby receive more gain, which he points out is related to Salomon's model of learning (Beentjes, 1987).

Additionally, language teachers feel that television is an important source for students while learning language; James (1984) indicated it to be one of his top five sources of material for listening. Gillespie (1981) and Goldman (1988) agree that TV is highly motivating. It fits easily within the area of Krashen's non-threatening input that allows the affective filter to be lowered (1985). The affective filter is a concept that Krashen states is part of each language learner's psychological makeup; if it is low, then there is little anxiety and pressure (such as there would be if the learner knew s/he was expected to produce language after the listening process), and therefore the language input has a greater opportunity of being processed. Since the inception of Krashen's theory of comprehensible input, many researchers in the SLA field have focused upon it and in numerous instances have used it as background for the particular area of research that they dealt with. In the case of television, Krashen (1985) notes a study by Nelson (1973) which found that there was a negative correlation between acquisition and the amount of time a first language learner watched television. However, he goes on to argue that "[w]hile Nelson's data shows that television did not help first-language acquisition, the Input Hypothesis makes the plausible prediction that television can be helpful if it is comprehensible" (p. 34).

Closed Captions as a Form of Comprehensible Input

Krashen sees comprehensible input as "the essential ingredient for second language acquisition. All other factors work only when they contribute to comprehensible input and/or a low affective filter" (1985, p. 4). His term "comprehensible input" refers to the learners understanding the message that they receive. When that input is a challenge by being one level above present language knowledge ($i + 1$), learners can use context, extralinguistic information, world knowledge, and previously acquired linguistic competencies to advance to the next level of language knowledge (1985, p. 2). By the same token, if language learners find they are not able to comprehend the meaning of the message even after employing all those linguistic and extralinguistic competencies they presently have, then they must conclude that the message is at a level of English higher than their own personal $i + 1$ level.

In her discussion of self-study activities for listening, Joan Morley points out that Krashen expands on his idea of optimal input by stating that it must contain six descriptors:

1) Comprehensible

2) Interesting and/or relevant to the student

3) Not grammatically sequenced

4) Supplied in great amounts

5) Presented in such a way that it will not put the student on the defensive

6) Providing beginning and intermediate students with tools that will enable them to obtain additional input outside the classroom (p. 17).

In conjunction with number five above, if the affective filter is lowered, the learners are not so concerned with the possibility of failure, and they consider themselves to be a potential member of the group speaking the target language (Krashen, 1985, p. 2). According to Van Patten (1984),

[i]f the learning strategy is what allows for eventual development of the acquired system, and if affective variables are important for successful SLA

[second language acquisition], then it would seem that the learning strategy is governed by affective variables. Supposing that the learner had a low affective filter and was highly motivated, then the information processing system would make more use of the learning strategy than would the system in a learner where the affective filter was high. (p. 95-96)

Listening to a television program in a casual environment would seem to allow for that affective filter to be lowered, since there would be little or no fear of failure. In connection with the idea of a lower affective filter, it has been suggested that television as a means of exposure to the target language is similar to eavesdropping (Smith, 1990) because the learner can listen without the pressure of being involved in production. Contrary to actual eavesdropping, however, there are no socially unacceptable contexts for using television in this manner. There might be in the case of eavesdropping in respect to violation of personal privacy.

Krashen's statement that "the Input Hypothesis makes the plausible prediction that television can be helpful if it is comprehensible" (1985, p. 34) seems to be supported by Neuman and Koskinen (1991), who studied the affects of captioning in comparison to other media (television only, audio tapes with written text, and written text only) and found that ESL learners made significant gains in vocabulary knowledge without any formal instruction (p. 20). It also falls in line with Taylor's statement (1981) that students need "a lot of target language to listen to in a digestible, palatable, yet challenging form" (p. 50). Television as input should generally motivate learners to be focused on the meaning rather than the form, and to activate their world knowledge and use all areas of their communicative competencies to make that input comprehensible.

Closed Captioning as a Form of Interactional Modification

Although Krashen (1985) states that "The Input Hypothesis predicts that actual two-way interaction with native speakers is not necessary for acquisition"(p. 33), he "implies

that two-way interactions [with their confirmation checks and clarifications] contain more negotiation of meaning and thus more comprehensible input" (p. 34). One of the known means of making input comprehensible is by interactional modification (Long, 1983; Pica et al., 1990). "It appears that interactional adjustments such as comprehension and confirmation checks and clarification requests may be the means by which input is repeated or reworded until understanding is reached" (Pica et al., 1990).

We know that listening is an active, conscious process (O'Malley, Chamot, & Kupper, 1989, p. 418). Even though there are those who might consider viewing television as a passive one-way interaction, as we have discovered about listening in general, viewing television requires the learner to be active by "raising of both effort and consciousness in following the language used in sound and in captions" (Vanderplank, 1993, p. 13). The viewer/listener must become involved in order to process the input. In the case of closed captioned TV (CCTV), the captions can act as a repetition, a comprehension check, or an answer to a clarification request. They are available for the learner who has a television with the closed caption decoder. [All televisions sold in the U.S. after July, 1993, must by law contain such a decoder.] These captions can be read to reaffirm what the learner thought s/he heard/saw or to clarify what was not understood in the spoken or visual form. It should be noted that in the captioning there are times when these modifications are missing: the spoken is not also written; there are other instances when the spoken is not verbatim, but paraphrased in some form. Such cases may cause problems of comprehension for some learners; however, it can also be argued that they may present the possibility of interactional modification through the use of social strategies if the program is watched with others, and therefore there are even more opportunities for input to become comprehensible. (Using other viewers as a social learning strategy is one of the questions in the survey which will be addressed later in the analysis section of this research.)

Additionally, spoken input from television programs is certainly not simplified and therefore can allow exposure to all forms of linguistic input. (However, it should be noted that at times the captions are simplified when compared to the spoken words.) Oversimplification has been a criticism of some language programs that are so involved in simplification and sequencing that the communicative aspects of language learning are negated. When input is extensively simplified, the learner may not be able to relate it to real-world communication, but with exposure to input that is not oversimplified (through the means of television for example), it has the potential of serving as comprehensible input. That possibility is surmised to be even greater through the use of interactional modifications, such as those described above in CCTV programs or possibly through those presented by social interaction while watching such programs.

Limitations of Closed Captioning as a Medium for Comprehensible Input

Of course, as is the case with any mode of exposure to the target language, we must acknowledge that use of CCTV has its limitations: (1) typographical errors, (2) inexact transcript, (3) variance in placement and length, (4) variation in the speeds of the spoken and written words have all been investigated in regard to captions.

Typographical errors and impreciseness

The two limitations that Huffman (1986) points out concern typographical errors and preciseness of the transcript. In response one might answer that the use of a language, due to its human factor, by nature involves some imperfection in the spoken or written modes. When the language learner is exposed to target language in real-world situations, s/he must be aware that there will be errors in the most sophisticated of native speech and that s/he must develop the capability of overlooking those incidental errors so as to concentrate on the communicative message.

Placement, variance, and length

It has also been argued that caption placement, variance, and length are causes for problems in making the input comprehensible (Lieberman in Goldman & Goldman, 1988). Both Rivers (1971) and Kellerman (1990) discussed bimodality (use of the aural and the visual), but saw them as generally being complementary. Not in total disagreement, but indicating a need for caution, Deterline (1989) feels that the visual and the aural must be focused so the two are presented together for the best processing. Previous researchers have found that caption placement or variance (over important visual aspects of the picture or in different unexpected positions on the screen) and length (being too long to allow reading the caption before the next action) can cause problems in processing the linguistic information. Likewise Jim Selitzki (telephone interview, March, 1994) of Caption America cautions that problems can develop if producers of programs hire inexperienced captioners to perform their work at the post-production phase. He points out that this is possible because the computer technology necessary for captioning, involving an IBM compatible 486 SX and software (Mehler, 1988), is now easily available to the inexperienced layman. He also adds, however, that those professionals in the captioning business [e.g., National Captioning Institute, Falls Church, Va.; The Caption Center, WGBH-Boston; Captions America, Pittsburgh, Pa.] are hoping to maintain high standards and regulate the industry from within so as to provide the most intelligible captions within the particular program format.

Speed of captions vs. spoken words

Yet a fourth problematic area is that of the speed of the captions compared with the spoken word. The average programs run captions at 100 to 120 words per minute (Rickelman, Henk, & Layton, 1991), " a standard 120 words per minute" (Mehler, 1988, p. 15), whereas average spoken dialogue runs at 180 words per minute (Conrad, 1989). The wide variance in captioning can be seen through a report from the National Clearinghouse for ESL Literacy Education that states "Sesame Street" averages 60 words per minute, "Reading

Rainbow" 120 wpm, and "ABC Evening News" 250 wpm (July,1994). The possible

incompatibility of these two audio-visual factors (spoken word and written caption) has been

previously noted by researchers. While focusing upon the reading factor, findings have

supported the theoretical notion that CCTV could be a positive factor in language learning:

that the audio portion does not interfere with second language learners' processing of captions

(Koskinen, Wilson, Gambrell, & Jensema, 1986). Dodd reported that vision is a

complementary source of the audio information as evidenced by an experiment in which a

speaker one time only mouthed the word, another time could only be heard and not seen, and

a third time could be both heard and seen. "The visual was used as an aid when speech was

difficult to hear or where there was a discrepancy between the auditory and visual

information: both inputs provided significantly more information than either alone" (Dodd in

Kellerman, 1990, p. 276). From the standpoint of using closed captions, the process would be

one of listening with the captions serving as an added interactional modification: available, for

the individual who chooses to use them, to make clear what was spoken. "The materials must

appeal to both visual and auditory perception when they are intended to develop listening

comprehension. The visual component is seen as an extra support to aid the learner in

decoding the spoken message" (Hebert, 1991, p. 11). Vanderplank (1993) also agrees with

this view, and he expresses it in the title of his article: "A Very Verbal Medium: Language

Learning Through Closed Captions" and also through its introductory statements in the initial

caption: "Most television programmes actually contain their messages in words, not in

images. News programmes are still *spoken reports supported by pictures, not vice versa*" (p.

10). [Italics added for emphasis.]

Closed Captioning as a Self-help Instrument

Advantages of self-study

Self-study is an area that researchers have only recently begun to explore. McCafferty

states that "'[s]elf-access' is the local, friendly travel agent" as opposed to "'the prescribed

syllabus' approach [that] tends to force learners along a single, narrow and often unsuitable road to where they do not particularly want to go" (Dickinson, 1987, p.49-50). This idea of self-direction in regards to the use of television seems to be repeated by Gene Jankowski, President of CBS:

> People make viewing choices freely and independently. There is no compulsion. [It] takes place during leisure time, and ... meets very different needs ....Television, by design, is not an instrument of teaching. Yet based on how it is used, the medium has much to offer in educational value. (1986, p. 5)

> In respect to this research, consideration needs to be given to aspects of self-directed learning: control is in the hands of the learner, and it occurs "in settings not expressly intended for educational activities" (Spear & Mocker, 1984, p. 1). Oftentimes the self-directed learners "use a single resource that is available within their environment" (p. 3). This would be the case with use of CCTV alone; however, we must keep in mind that the subjects who completed the questionnaire for this research are using CCTV as a supplemental self-help, since they are also involved in a formal instructional ESL setting.

> Spear and Mocker (1984) suggest that self-learning projects are episodic because they are the personal choice of the learner at that particular time, but they also perceived through qualitative interviews that one self-directed project often "contained within it the seeds required for the next" (p. 7). Other insights these researchers have regarding self-directed learning include: (1) it occurs in a natural environment, and (2) motivation is not a problem since the learner has made a free choice and is self-motivated -- otherwise s/he would not embark on a plan of self-learning. (3) S/he visualizes an outcome through her/his efforts. (4) Often the impetus to become involved in a self-learning situation involves a change in the life circumstances [such as moving from one's native country to a college community in the States]. This description seems to apply to the subjects of this study who answered that they used CCTV on their own.

Autonomous self-study as opposed to programs of self-instruction

Mention must be given to Leslie Dickinson's theory of self-instruction and language

learning (1987, 1993). He states that the autonomous learner can decide what is important,

can formulate objectives, can select strategies to reach them, can evaluate and "ditch" those

that aren't working, and can self-assess. In comparing Dickinson's theory of self-instruction

with Spear and Mocker's, one would have to say they do not entirely complement each other.

Spear and Mocker were dealing with all forms of self-directed learning, and Dickinson deals

with *programs* of self-instruction, but ones that are structured again by the pedagogues who

have knowledge of the field being learned. [The latter would be similar to the series of closed

captioned programs that Harvard developed in 1985 for Japanese at-home-learners of English

as a foreign language (in Mehler, 1988).] It is easy to understand that self-instruction does

not have the same meaning in each case. While Dickinson has done work regarding education

and language learning and would seem to be a somewhat more appropriate source, the setting

of a freer, informal environment places the area I am addressing more into the framework of

Spear and Mocker's theories regarding self-directed learning: that is, the students would have

no suggested program formulated for them and no expert suggestions given to them in

regards to their viewing of CCTV.

There are those who would hold reservations about this idea of autonomous

self-learning by use of CCTV. Murphy (1985) feels that "ESL students need to be guided" (p.

39), while fifty-six out of eighty-eight of Parkinson's (1991) students answered that they

would not want listening activities to be done at home because "they needed the teacher's

help" (p. 17). Audrey Mehler (1988) strongly suggests use of closed captioned programs

within an ESL program but also states that "at-home viewing is not recommended as a sole

application of captions. The learners need teacher support and feedback." However, in that

same discussion, she points out that "[v]iewing of captioned programming at home could be

used as a supplement for those enrolled in classes and its usefulness investigated in that context" (p. 17).

Joan Morley (1984) has set up a list of objectives for self-study activities for listening comprehension; in itself it falls within the Dickinson classification of self-study programs. However, it is noteworthy to point out that while she does not particularly address the use of CCTV by individual students as a means to the desired end of improving listening, she does give a series of objectives for developing materials, and it would seem that closed captioning in the environment of total individual control could fulfill many of them: It is an active process; it is focused on listening to language to acquire information and to become aware of notional and functional features; it provides learners with verification of comprehension; it encourages guessing [predicting]; it requires selective listening -- learning to live with less than total understanding; it allows self-involvement, self-access, and self-regulation; it is non-threatening -- permits lower anxiety levels [because production is not required and there is no follow-up test on the information presented]; it integrates auditory and visual language; it encourages students to challenge themselves; it has a focus on language building; the language samples convey meaning from the beginning (p.25-27).

These characteristics would lend themselves to the present idea of using CCTV as a self-help. Unlike all the studies that have thus far been cited, the focus of the present study is *outside* the classroom. All evidence so far substantiated by research has been in the arena of the classroom under control of a teacher who has training in pedagogy and background in the target language. Within such a context the lesson is presented in a formulated manner of pre-viewing exercises, viewing/listening with a focus on some particular aspect of the language, and then follow-up exercises that make salient the knowledge being focused upon. There have been guidelines suggested for using CCTV (Koskinen, Wilson, Jensema, 1985): (1) select high interest TV programs; (2) preview; (3) introduce; (4) use scripts if available (p. 5-6). Of those four mentioned, only the first would be available to the subject in a self-help

situation, unless one were to classify the captions as loosely fitting the definition of tapescript. In any case, the environment for allowing possible language acquisition would be entirely different. The situation as described thus gives credence to the necessity for my investigation.

In addition the lessons presented in some of the empirical studies have been relatively short -- 2 1/2 to 4 1/2 minutes in the Markham study (1989), three minutes in the study by Bean and Wilson (1989), five to eight minutes for the Goldman study (1988); "shown in installment, ... [or] slightly modified" (Gillespie, 1981, p.11); used with a preview of the tapescript (Hebert, 1991; Gillespie, 1981). While all of these serve a purpose of facilitating second language acquisition within the realm of the formal classroom, the questions still remain as to the use(s) of CCTV when the individual student sees it as a supplementary means of input to further her/his personal growth in the second language.

Thus, it can be seen that while closed captioning as a form of input has been investigated, the aspect of its being used as a supplemental self-help with no outside guidance to assist language acquisition has not been explored.

Closed Captioning and Possible Learning Strategies

Having established a need for this investigation, I also realized that it was necessary to explore not just the fact of the subjects' using or not using CCTV, but also the strategies which students are implementing because they perceive them to be of importance in making good use of captioning as a self-help. "Strategies are the tools for active, self-directed involvement needed for developing L2 communicative ability" (O'Malley & Chamot, 1990, as reported in Oxford, 1994). It is important to stress that for a strategy to be used, it must be a *conscious* effort on the part of the learner to employ that particular action with the thought that it will facilitate his/her learning process.

There have been reported a multiplicity of studies which have to do with learning strategies that students may intentionally use in an effort to enhance their learning; many of these studies focus on the classifications which O'Malley and Chamot have developed over a

period of many years as a result of research, both their own and others', with some of that research dating back to the 1970s. Those three classifications are metacognitive, cognitive, and social or affective strategies (O'Malley & Chamot, 1990). These categorizations are based on the reasons for which they are used: metacognitive strategies have to do with planning, monitoring, and evaluating; cognitive strategies are used to manipulate input (so it can be remembered) through rehearsal, organization and summarizing; social/affective strategies have to do with interacting with other people or self-talk (p. 44-45). Oxford (1989) further explains the differences in the three categories by stating that the cognitive strategies are direct in that they "directly involve the target language and ... directly enhance language-learning" (p. 449), while the other two groups are indirect because "those behaviors do not directly involve the target language but ... are nevertheless *essential* for effective language learning" (p. 450). It should be noted too, as Oxford and Cohen (1992) did, that there is an overlap of the strategy classifications which might cause some confusion. Logically one can see that often a metacognitive (planning) process would occur which would immediately or almost simultaneously result in a cognitive strategy being employed. For example, while watching a closed captioned program and seeing a word go across the screen, a learner might think, " I need to write that down" (which would be planning), then get the paper and pencil and actually do it (which would be the cognitive strategy employed).

> Learning strategies can help students transform comprehensible input (what the
> teacher provides) into comprehensible intake (what the student actually takes
> in and stores in a manner that allows for retrieval of the learned information in
> future situations). The strategies learners choose and apply to foreign or
> second language learning depends on the interaction of situational variables
> with a host of learner variables such as age, sex, years of language learning,
> ethnicity, national origin, and general learning style. (Nykios & Oxford, 1993,
>
> p. 19)

For the purpose of this study, the above quote would have to be re-phrased: removing "what the teacher provides" and replacing it with "what CCTV programs provide" since the learners are self-directed, using the technological tool of closed captioning. Oxford and Cohen referred to the need for studies such as this one:

> So far, it is impossible to discern appropriate language learning strategy classifications for natural settings or technology-assisted instruction. Few studies have been done with language learning strategies in natural settings outside of the formal classroom ... Much more information is required on the use of strategies for gaining language skills in non-classroom environments (Oxford & Crookall, 1989) ... Researchers should take up the challenge of gathering language learning strategy data in informal settings. (1992, p. 27)

As far back as 1986, Zimmerman and Pons made a similar statement:

> Although extensive research has been conducted on the use of self-regulated learning processes in laboratory situations (e.g. Bandura & Shunk, 1981; Mischel & Mischel, 1983), few efforts have been made to measure the role of self-regulated learning processes in naturalistic settings, particularly in nonclassroom contexts. (p. 615-16)

Later in that same study they re-emphasize: "To date, relatively little attention has been devoted to student use of learning strategies in naturalistic context, particularly outside the classroom. The present data suggest that further study of these issues is worthwhile" (p. 625).

The purpose of this paper is to initially explore this area of CCTV as it is being used by international students: as a supplemental self-help. The need for such a study has been well established. In examining the responses that international students gave through a written survey, it is hoped that we can come to some awareness of who is using the technology and how they are using it.

MATERIALS AND METHODS

In this section I will address the question of who was approached to participate in this study and the particular reasoning behind the development of the survey instrument, as well as the process of data collection.

Students

Through a preliminary survey it was established that students who are enrolled in an intensive English program make use of commercial closed caption television programs (CCTV) on their own. [See Appendix 1 for sample preliminary survey.] The survey was given to a class of intermediate learners and to a class of advanced learners; both groups were enrolled in the Intensive English and Orientation Program (IEOP) at Iowa State University. Results indicated that just under 50% of the intermediate learners (nine out of nineteen) and 67% of the advanced learners (eight out of twelve) watched CCTV programs at home.

One question about students and their use of CCTV is proficiency level. Some Second Language Acquisition (SLA) researchers suggest that CCTV may not be comprehensible input for beginning language learners, while others hold that advanced learners do not feel the need for the assistance from captions. Neuman and Koskinen (1991) indicate that subjects of lower proficiency will not be able to use closed captioning on their own; "without direct teacher intervention, input alone is not sufficient for those who are below a threshold of linguistic competence in their new language. In this respect the input hypothesis appears in need of developing specific instructional strategies sensitive to differing levels and types of bilingualism" (p. 28). Following their own closed captioning research, Smith (1990) suggested using only "fairly advanced students" while Hebert (1991) worked only with intermediate students. On the other hand, Markham (1989) used CCTV with beginning, intermediate, and advanced ESL levels although the viewing was limited to very short

segments of 2.5 and 4.5 minutes. Initially Markham thought that closed captioning "might not be as important for the advanced students ... However, the advanced students in this study benefited as much from captions as any other group ... [and] beginners clearly performed at a higher level when exposed to the captioned treatment" (p. 39). In contrast, Weasenforth (1994) found advanced levels less likely to use the technology, and Neuman and Koskinen's 1992 study indicated a similar finding with their advanced subjects in that they seemed to "rely less and less on captions" (p. 14). Vanderplank (1988) found a similar reaction among his more proficient students as well; they reported that they thought it was more beneficial to try to understand on their own. All of the above studies have focused on the use of captioning within the classroom atmosphere with the exception of Vanderplank's work, which had both an in-class and a "self-study in a self-access lab" focus (1993, p. 13). However, his out-of-class focus was directed by the teacher in that he gave suggestions for tasks to complete while watching.

In general, research done to date with CCTV and language learning has reflected a positive light upon the technology. Yet, we have a paucity of information on just what our ESL students are doing on their own with no outside direction. Therefore, in this study I wished to focus on the use of closed captioning by subjects at all levels of English proficiency as assessed and placed within the previously mentioned IEOP program at Iowa State as well as our international students who are proficient enough to be accepted into their academic majors (minimum TOEFL 500, possibly 550 for some majors), but who still need some special assistance in developing and honing their English skills. After academic acceptance (as measured by the appropriate TOEFL score), through writing placement tests they would have been placed into English classes for international students; these courses allow them to earn credit for their work in English while they are taking regular academic courses as well. In addition, I wanted to include any spouses of members of the above groups; since their English acquisition circumstances would be different, they would perhaps have a different perspective

regarding CCTV. By including all of these students and their spouses, the broadest spectrum

of proficiency levels could be sampled for information about the use of closed captioning at

home.

Materials

Preliminary survey

One of the materials used in this research was an initial survey, which, as previously

mentioned, was administered to two IEOP classes to determine if students were using closed

captioning as a means of supplemental self-help or if those who had reported it were only a

very small portion of our ESL population. Before undertaking a larger population sample, the

initial survey had a two-fold purpose:

a) to give a general indication of how widely CCTV is presently used at

home by ESL learners, and

b) to get a feel for the overall range of programs that are watched by asking what

their three favorite programs were.

[A copy of this initial survey can be seen in Appendix 1.]

Development of the instrument: Questionnaire

The choice of using a questionnaire as the instrument to gather data was made

primarily because it gave me the opportunity to have a large population respond to all of the

general questions that I felt needed to be covered so we could have some idea of what our

students are attempting to do in terms of closed captioning and using it as a supplementary

self-help for their language acquisition. In addition, previous studies which had focused on

closed captioning as used in the classroom had often used questionnaires or taped interview

questions to obtain data. Some of those studies that relied on surveys or interview questions

include Kirschner, 1980; Gillespie, 1981; Celona, 1983; Murphy, 1985; Koskinen, Wilson,

Jensema, 1986; Lynch, 1988; Parkinson, Dawson, Makin, Mulphin, 1991; Bacon, 1992;

Fortune, 1992; Weasenforth, 1994.

The process of developing the questionnaire took a period of time in which information was obtained from various journal articles regarding aspects of closed captioning and second language learning. I felt that those areas which were repeatedly stressed in previous literature needed to be covered in this research since it involves closed captioning but in the light of self-access. In this section, I will present the logic involved in the choice of the various items within the final questionnaire as it was given to the three hundred students.

General background

In order to obtain initial background on each subject, the first series of questions asked about:

1. the class the subject was in when receiving the questionnaire,

2. the subject's nationality,

3. gender,

4. age group [a choice of four levels: 1) 18-20, 2) 21-23, 3) 24-26, 4) over 26],

5. length of time in the U.S. [a choice of four spans: 1) 1-2 months, 2) 3-6 months, 3) 7-12 months, 4) over 1 year],

6. most recent TOEFL score.

The second series of questions asked about the ISU English classes for international students which the subjects had taken or were taking at the time of filling out the survey. In addition, I attempted to discover if they had been exposed to CCTV within any of those classes.

CCTV or not

The next question was a key one to this study: asking if they watched CCTV at home. If the subject answered no, an open-ended question was asked as to why s/he chose not to use it, in hopes of ascertaining the general problems that were perceived in using CCTV.

TV time and CCTV time

Having thereby acquired the background on the subject, the next page of the survey began with a categorical question on how much TV was watched daily (ranging from none to 5 hours or more); and then a question asked what percentage of that TV time was used to watch captioned television programs. Through these three questions, it was hoped to discover just how many of our students on average are using closed captioning as a self-help tool at home, and what percentage of their TV time is focused on captioned programs.

Programs

From that point, I felt it important to ask what types of programs are being watched in general and then compare that to what types of programs are watched with captions. Previous studies had indicated possible classroom use of various types of programs: commercials (Parks, 1986; Smith, 1990; Laviosa, 1991; Rubin & Thompson, 1992); weather reports (Smith, 1990); news (Laviosa, 1991; Rubin & Thompson, 1992); documentaries (Markham, 1989; Parks, 1986, 1994; Vanderplank, 1990; Weasenforth, 1994); sitcoms (Smith, 1990; Hebert, 1991; Parks, 1986); drama (Smith, 1990; Rubin & Thompson, 1992); movies (Taylor, 1981; James, 1984; Rubin & Thompson, 1992); soap operas (Huffman, 1986); interviews (Rubin & Thompson, 1992). Having given consideration to the programs previous researchers had used, it was necessary to look at the preliminary survey given to our ISU students. Through it, indications were given of watching the above, but some students were also watching science fiction, talk shows, and sports programs, using closed captioning while doing so. Therefore I chose to make seven possible categories for programs: news, sitcoms, films, science fiction, documentaries, talk shows, and sports. It was hoped that thereby all possible areas of programming could be included. The question was asked as to what types of TV programs the subject watched regularly, and then secondarily what types of programs the subject watched with closed captioning. This might indicate which programs

were viewed as "better" to watch with closed captioning, and it might also indicate which other programs were watched but not deemed to be as easy to watch with captioning.

TV, CCTV, and learning English

Two questions were then written with Likert scale answers regarding the subjects' perceptions of the merits first of watching TV as a means of learning English and then of watching CCTV as a means of learning English. All respondents were asked to reply, whether they were able to take advantage of either medium or not. It was hoped that these two would give an overall measure of attitude regarding the efficacy of TV/CCTV and language learning.

Perceptions about CCTV and language learning

There was one additional section which was asked of all respondents, whether they made use of CCTV or not. Subjects were prompted to check off from a list of ten areas of language learning which ones they thought might be improved by making use of CCTV. The decision to include nine of the listed categories was based upon areas of emphasis given by previous research. The tenth was chosen because I knew all subjects were in formal ESL classes, as well as perhaps academic classes, and therefore had need of learning to understand their teachers. Table 1 shows the ten areas followed by studies which have focused on possible progress being made in each through use of television and/or captions, and therefore served as the reasoning for these being included in the survey.

Because the sections that followed could be answered only by those who regularly watch closed captioned programs, directions were given that if the subject did not regularly watch CCTV at home, the rest of the questionnaire did not need to be answered. Those who did take advantage of closed captioning at home would have had enough experience with the medium so they could proceed to answer questions about their attitudes toward the caption format itself and then about some possible strategies that they might employ while watching so as to enhance their language learning.

Table 1. Categories of perceived areas of language acquisition through the use of CCTV, answered by all who completed the questionnaire, whether they used the medium or not

Category on survey	Reasoning for its use due to previous research studies
1. New words	James, 1984; Murphy, 1985; Huffman, 1986; Koskinen, Wilson, Jensema, 1986; Parks, 1986; Goldman & Goldman, 1988; Bean & Wilson, 1989; Tudor & Hafiz, 1989; Smith, 1990; Hebert, 1991; Long, 1991; Neuman & Koskinen, 1991; Parkinson et al., 1991; Bacon, 1992; Weasenforth, 1994
2. Idioms/slang	Celona, 1983; James, 1984; Huffman, 1986; Hebert, 1991
3. Listening to Americans	Taylor, 1981; Gillespie, 1981; Lems, 1983; Huffman, 1986; Markham, 1989; Kellerman, 1990; Parkinson et al., 1991; Weasenforth, 1994
4. Writing	Gillespie, 1981; Goldman & Goldman, 1988; Tudor & Hafiz, 1989; Smith, 1990
5. Reading	Koskinen & Wilson, 1985; Koskinen, Wilson, & Jensema, 1986; Parks, 1986; Goldman & Goldman, 1988; Bean & Wilson, 1989; Rickelman, Henk, & Layton, 1991
6. Pronunciation	Gillespie, 1981; Taylor, 1981; James, 1984; Murphy, 1985; Huffman, 1986; Parks, 1986; Sheerin, 1987; Smith, 1990; Hebert, 1991; Parkinson et al., 1991; Bacon, 1992; Weasenforth, 1994
7. Grammar	Gillespie, 1981; Parkinson et al., 1991
8. Speaking in English class	Parkinson et al., 1991
9. Speaking with Americans	Gillespie, 1981; Parkinson et al., 1991

Table 1. continued

Category on survey	Reasoning for its use due to previous research studies
10. Understanding teacher	Not in any previous study, but chosen because subjects were using CCTV as a supplemental self-help concomitantly with formal ESL and perhaps academic training

Attitudes about the caption form

Initially there were those in the language learning field who held reservations about the presentation of the caption format, and there are still some researchers who express concern about it, particularly in the area of form. Weasenforth's 1994 study dealt specifically with intermediate and advanced students' attitudes toward closed captioning when used in the classroom. As mentioned in the literature review, there are general areas that researchers have seen as potentially problematic: readability, speed, multimodal stimuli, access to the meaning through details and through the global presentation of the main idea. In making the decision as to what types of items were most important to include in the questionnaire, once again I looked at the previously reported research. Table 2 indicates those six areas regarding the caption format that seemed to appear repeatedly in the research, and they were also ones which I had heard from some students when engaging them in casual conversation. Mention should be made that naturally there are those who hold very positive opinions regarding these different factors, while others take a negative stand when asked about some of them.

Strategies possibly employed

Having thereby probed the subjects for particular attitudes about the captioning format, the final step had to involve asking them just what they do while they are watching a

closed captioned program. Initially, I felt it advantageous to ask an open-ended question so the subjects could freely state what they perceived they did to enhance their use of the material as presented in the captioned program. Thereafter, pointed questions were asked to determine if they made use of specific social or cognitive strategies that had been suggested in previously reported research.

Table 2. Items regarding perceptions of the closed caption format, answered only by those subjects who regularly watch CCTV at home

Item on survey	Reasoning for its use due to previous research studies
1. The captions are easy to read.	Smith, 1990; Weasenforth, 1994
2. The captions move at the right speed with the story.	Parks, 1986; Vanderplank, 1990; Bacon, 1992b; Flagg, Carozza, Fenton, & Jenkins, 1980 as reported in Weasenforth, 1994
3. The captions are detailed enough to follow the story.	Chaudron, 1983; Murphy, 1985; Huffman, 1986; Jaben, 1986; Goldman & Goldman,1988; Hebert, 1991; Long, 1991; Bacon, 1992b; Weasenforth, 1994
4. The captions help me to understand what the people are saying.	Morley, 1984; Markham, 1989; Smith, 1990
5. The captions help me to understand the main idea of the story.	Matthews, 1982; Chaudron, 1983; Murphy, 1985; Huffman, 1986; Jaben, 1986: Sheerin, 1987; Goldman & Goldman, 1988; Hebert, 1991; Laviosa, 1991; Bacon, 1992b; Rubin & Thompson, 1992; Weasenforth, 1994
6. The captions cause me to become confused by trying to read and listen at the same time.	Rivers, 1971; Cohen, 1987; Deterline, 1989; Kellerman, 1990; Smith, 1990; Vanderplank, 1990; Williams & Snipper, 1990 as reported in Weasenforth, 1994; Weasenforth, 1994

Both language learners and teachers have suggested a number of possibly advantageous strategies that could be consciously applied in watching closed captioning. Some of these strategies are considered to be generally good ones to use in any learning circumstances, and therefore may need to be specifically tuned to use with closed captioning. For instance, using social strategies is considered advantageous for obtaining clarification; however, in relation to CCTV watching, I felt it necessary to discover when that clarification would take place: at the moment the question came up, later during a commercial break, after the program, or even later yet in English class. This procedure took the general learning strategy of social interaction but specified it to the circumstances of CCTV. Such was also the case with the strategy of repetition; it was specified in the questionnaire through the reference to videotaping. In the case of resourcing (as defined by O'Malley & Chamot, 1990) through the use of a dictionary, grammar book, or special subject books, no CCTV strategy specification was necessary. However, with the strategy of taking notes or writing something down, again I felt the need to discover when the subject would actually perform that cognitive strategy as well as to ask an open-ended question about what s/he chose to write.

Table 3 is a presentation of the logic that surrounded the choices of types of strategies which would be specifically probed for; it is presented in much the same manner as the previous tables dealing with the other areas of the questionnaire.

Having concluded with the explanation for the choice of the items which were included in the questionnaire, I can now detail the data collection process.

Collection of the data

In February, 1996, three hundred surveys were distributed to international students while they were in their English classes on the Iowa State campus. These classes were twenty-two in number and in five categories:

Table 3. Items regarding strategies employed while watching closed captioned programs on a regular basis at home

Item on survey	Reasoning for its use due to previous research studies

Use of Social Strategies

1.Most of the time do you watch closed captioned TV by yourself, with non-American friends, with American friends, or someone else--(name them)?	Huffman, 1986 (Americans); Zimmerman & Pons, 1986; Nykios & Oxford, 1993
2. If you watch with other people, do you talk or ask about the program, or keep quiet so you can hear and see what will happen?	Huffman, 1986 ; Smith, 1990; Laviosa, 1991; Bacon, 1992b
3. If you talk or ask about the program, do you do it during the program, during a commercial break, after the program is over, or when you go to English class?	Huffman, 1986 (during commercials, after program)

Using the cognitive strategy of repetition

1. Do you videotape any closed captioned program so you can watch it again?	Danahy, 1985; Koskinen & Wilson, 1985; Huffman, 1986 (if only the audio portion); Parks, 1986; Long, 1991; Parkinson et al., 1991; Wardrop & Anderson, 1992
2. When you re-watch it, do you use closed captions?	Danahy, 1985; Koskinen & Wilson, 1985; Parks, 1986; Smith, 1990; Bacon, 1992b

Table 3. continued

Item on survey	Reasoning for its use due to previous research studies
3. If you re-watch it with closed captions, do you turn the sound down so you can concentrate on only the printed words?	Danahy, 1985 (without); Koskinen & Wilson, 1985 (without); Parks, 1986 (says do it both ways: with and without captions); National Captioning Institute suggests without (as reported in Parks, 1986); Goldman & Goldman, 1988 (without)

Using the cognitive strategy of resourcing (as defined by O'Malley & Chamot, 1990)

Does watching closed captioning ever cause you to refer to 1. a dictionary? 2. a grammar book? 3. a book about a special subject?	None of the specific research that had to do with CCTV made mention of using this strategy; however, it is a general strategy which is widely used by language learners. Therefore I felt it important to include.

Using the cognitive strategy of taking notes

1. Does watching closed captions cause you to write down something?	Gillespie, 1981; Huffman, 1986; Smith, 1990; Long, 1991; Parkinson et al., 1991; Nykios & Oxford, 1993
2. What do you write?	Gillespie, 1981 (notes); Huffman, 1986 (outline, vocabulary, expressions); Smith, 1990 (words), Parkinson et al., 1991 (notes); Nykios & Oxford, 1993 (notes)
3. When do you write?	Gillespie, 1981 (during); Huffman, 1986 (during); Parkinson et al., 1991 (during, but was a problem)

- IEOP (one class at each of five levels Intermediate A, Intermediate B, Intermediate C, High, and Advanced),

- two classes of 101B (grammar and composition for international students accepted into an academic program),

- six classes of 101C (composition for undergraduate international students beyond the 101B level),

- five classes of 101D (composition for graduate international students beyond the 101B level), and

- four classes of 180 (classes in preparation for international graduate teaching assistants).

Logistically it was planned so subjects would not have to take time from their English classes to answer the survey, but also so the questionnaire could be returned as expediently as their English class schedules permitted. When the students were approached about providing data regarding their personal use of CCTV, they were given a brief oral explanation. Prior to going to the classrooms, I detailed those items which I felt it necessary to cover at the time of handing a survey to each student. Below is a summary of the details of my oral explanation given in each classroom while passing out the questionnaire; it involved:

- eliciting the meaning of closed captioning, by asking the class and having a student who was knowledgeable define it, followed by repetition from me;

- explaining that I was interested in use of closed captioning at home, NOT in the classroom;

- asking for their help by answering the survey which I would give to all of them, but making them aware that they were not obliged to fill it out and that it had nothing to do with their English class;

- asking that they take ten to fifteen minutes at home to fill it out rather than using their class time;

- explaining that I would return on the next day that they held class to pick up the questionnaires;

- explaining that the top page of the survey basically repeated what I had verbally told them;

- pointing out that there was a space on that first page for their name and class, which was only to allow me to cross-check and make certain that no one person had filled it out twice because s/he was approached in two different English classes, and thereafter the top page with their name would be pulled from their answers before I ever looked at their responses;

- finally, students were also asked if any of them had a husband or wife who was living in Ames with them, but not presently taking any of our English classes. If any answered yes to that question, s/he was asked to take an additional survey for the spouse.

Depending on the subjects' English class schedules, one of two different pick-up times were used. For those students who were in the intensive English program, I picked up the surveys the next day. For those who were accepted into their academic program at the university, I picked up their completed surveys two days later.

Subsequently, I did have to return to some classes more than once in order to pick up all the completed surveys, particularly the intensive English classes. In addition, because one of the English 180 classes for international teaching assistants met only once a week, some of those graduate students took advantage of the campus mail system by using a self-addressed envelope which I gave them when I distributed the surveys to their class. However, all of the surveys that were used were returned within a week of their having been distributed.

RESULTS AND DISCUSSION

Description of the Respondents

Students in ESL classrooms

Recall that a total of three hundred questionnaires were distributed to elicit data from members of nine groups of English classes held specifically for international students. The first set of five groups involved those in the Intensive English and Orientation Program (IEOP); that, of course, meant these students at the time of this investigation were not involved in any academic classes because they were not yet engaged in their proposed academic program due to their TOEFL scores not being at a level acceptable for academic work. The last four groups were from classes which are held for those students who are accepted into their academic programs; these may be graduate or undergraduate students as indicated beneath the named classes. The return total from all groups was 217, which indicates a 72.33% return. Those usable surveys totaled 210. The number of respondents is indicated in Table 4, the list being from less to more proficient levels.

Others outside the ESL classroom

I also attempted to gain some data about husbands or wives of our students who were not themselves in one of the above classes; however, only six of these questionnaires were returned. Due to the small sample size, this group was eliminated from the pool when all analyses were calculated. This "husband/wife" group also accounts for six out of the seven returns which were discarded; therefore, (due to very late return) only one of the completed questionnaires from the final group was not included in the data.

Demographics

Of those 210 usable responses, 110 or 52.4% were from males, and 99 or 47.1% were from females. (There is a discrepancy because one respondent did not answer this question.) As would be expected, these students came from a great number of nationalities and language

Table 4. ISU English classes surveyed and the number of respondents in each group

Class [Description] [Student level if in academic area]	Number of students
Intensive English and Orientation Program (IEOP)	
Intermediate A	10
Intermediate B	9
Intermediate C	13
High	9
Advanced	10
TOTAL IEOP Students	51
English Classes for Academic Credit	
English 101-B Intermediate-level Grammar Review and Composition Undergraduates and Graduates both	21
English 101-C Advanced-level Composition Undergraduates	73
English 101-D Advanced-level Composition Graduates	47
English 180 Communication Skills for International Teaching Assistants Graduates	18
TOTAL International Students in Academic Programs	159

backgrounds. Their homes were located in various parts of Asia, Europe, South America, and Africa, with a total of twenty-nine different nationalities being reported. Of those, there were seventeen countries represented by a single student, and five other countries that were represented by four or fewer students each. In addition, nine of the respondents chose not to answer this item. However, the heaviest populations were from eastern Asia, which accounted for 76.2% of the total; those six countries accounting for that figure are indicated in Table 5.

Table 5. Nationalities containing large population numbers in relation to the overall sample, number of respondents with that nationality, and percentage that nationality represents within the total sample population

Nationality	Number of Respondents	% of Overall Responses
China/PR China	45	21.4
Korea	43	20.5
Malaysia	35	16.7
Indonesia	16	7.6
Taiwan	11	5.2
Japan	10	4.8
TOTAL[a]	160	76.2

[a] n =210

The age of the respondents was more evenly distributed than their nationalities were. The age group titled "over 26 years" with 63 respondents had the greatest percentage (30.0%); the second largest group of respondents (54) were in the "21 to 23 years" group and accounted for 25.7% of the total. The third largest group of 49 were in the "18 to 20 years"

category and accounted for 23.3% of the total, while the smallest group was in an age group of "24 to 26 years", where n = 44 and accounted for 21.0%.

The survey was distributed during the week of February nineteenth, which was the sixth week of the spring, 1996, semester. According to the responses, 35.2% (74 of the 210 respondents) had been in the U.S. between one and two months at that time, which would indicate that they had come to the U.S. (and directly to ISU) at the beginning of the spring semester, while 21.4% (45) had been here in the U.S. between three and six months. That accounts for 56.7% of the respondents, while the remaining subjects had been here between seven and twelve months (47 = 22.4%) or over one year (44 = 21%).

When asked about their most recent TOEFL score, thirty-seven respondents did not answer. (A few of those did say that they could not remember; many who did not answer -- 21 out of the 37 -- were in the IEOP program, which would indicate that their scores would likely be under the 500 or 550 mark necessary to enter an academic program.) Of those 173 who did answer, the range of scores was wide: from 400 to 650. This could be interpreted to indicate that the levels of English proficiency within the entire group of respondents were very broad. For the purpose of this study, that would be seen as a benefit, since it was hoped that we could view a broad spectrum of the international student population to try to determine the question of who is using CCTV as a perceived supplemental self-help.

Who Uses CCTV at Home?

Probably one of the most significant findings that has resulted from this survey is that of the percentage of our students who answered yes to the question, "When you are at home in your apartment or dorm, do you watch television with closed captions (the spoken words are printed at the bottom of the television screen)?" In the international student population who answered this question, 97 out of 209 gave a positive response; 112 answered no; and one survey had no response. That is a mean of .4641 (46%), which gives a strong indication that many of our students are both aware of closed captioning and have been using it to some

extent as a supplemental self-help. Table 6 indicates the positive responses from the sampled

classes as well as the rank each group has when compared with the other classes.

It is interesting to note that, when considering the classes of each of the major levels,

the 101D class, which is comprised of graduate students, has the greatest percentage of

CCTV users while 101C, whose population is at the undergraduate level but considered to be

of approximately the same proficiency in English in regard to their academic work, has the

lowest mean. At the same time, the group in English 180, whose students are at the graduate

Table 6. Responses, mean, and rank of the various classes to the question of using CCTV at home

Class	Positive Answers	n	Mean	Rank for five groups	Rank with IEOP as individual classes	Rank for IEOP only
101B	11	21	.5238	2	3	
101C	29	73	.3973	5	7	
101D	26	47	.5532	1	2	
180	9	18	.5000	3	4	
All IEOP	22	51	.4314	4	NA	
Breakdown of Individual IEOP Classes						
Advanced	6	10	.6000		1	1
High	4	9	.4444		6	3
Interm. C	6	13	.4615		5	2
Interm. B	3	9	.3333		8	4
Interm. A	3	10	.3000		9	5

level, ranks third, which places that group's mean (of .5000) as the median of these particular figures. In consideration of these figures, it seems that the previous findings that Weasenforth (1994) discussed regarding more proficient students not liking to use captions does not hold true for these students when considered as a whole. It must be noted, however, that in the case of answers to open-ended questions on the survey, there were six students who commented that they had earlier used closed captions, but no longer felt they were an advantage for them. These students came from various groups: two from the 101D group, one from the 180 group, and one each from the IEOP Advanced and Intermediate C groups. Each of them indicated they used captions when first in the United States, but subsequently either felt they had improved enough not to need them or wanted to concentrate on just listening instead.

These six responses perhaps give some credence to Neuman and Koskinen's comment that students "rely less and less on the captions" (reported in Weasenforth, 1994, p. 14), but it must also be recalled that six out of 210 respondents is not a great amount. To further confirm this thought, a cross tabulation technique in the SAS statistical package was run on the variable of watching closed captioning at home with the factors of age, length of time in the U.S., and TOEFL scores. In this population of students these factors might possibly relate to and give some indications of the comments in previous studies regarding more proficient students using captioning to a lesser extent; however, in the case of each of the three variables' relationship to use of CCTV, the probability factor was well above the acceptable level of .05, and therefore no relationship could be drawn. Not being able to point out a statistical relationship between these factors perhaps instead gives additional weight to the fact that in this population only six reported having used, but now not using CCTV. Because of the low percentage of such responses and also because of no relationship being found with these variables that might indicate proficiency, it can be stated that results in this study do not support previous research regarding more proficient ESL learners not using CCTV as much as

less proficient ones. Further, the evidence of CCTV usage represented by the percentage (55.32%) of international graduate students, and that holding the first place in the ranking of the various groups, certainly does not fall in line with statements made in previous research that more proficiency leads to less CCTV viewing. (However, we will return to this discussion in the future question of specific attitudes which students hold regarding learning with CCTV.)

On the opposite end of the proficiency scale would lie the intensive English students (termed IEOP in all tables). According to earlier reports, using closed captions with less proficient listeners can be problematic. Smith (1990) suggested the students should be "fairly advanced" while Hebert (1991) worked with only intermediate level students. Neuman and Koskinen (1991) stated that "without direct teacher intervention, input alone is not sufficient for those who are below a threshold of linguistic competence in their new language" (p.28). Yet, in looking at Table 6, it can be seen that the IEOP Advanced group has the highest overall mean of any group's indicated use of CCTV.

One point that does seem to bear out previous findings is the ranking of the IEOP individual class means by themselves. They seem to somewhat support the suggestion that some measure of proficiency is necessary in order to take advantage of the technology. Note that Intermediate A class (the lowest level of proficiency) has the lowest mean usage of CCTV while the Advanced group (the highest level of proficiency in the intensive English program) has the highest mean usage. Also, with the exception of Intermediate C and the High group, whose means are relatively close, the various IEOP groups fall nearly in order within the rank of usage in relation to the rank of proficiency. This seems to bear up the statements made regarding the need for the learner to be at a certain level before being able to take advantage of the input CCTV presents, as well as the need for that input to be just one level above that of the learner's competence in order to allow for language growth.

Taking all of the above into consideration and with an added cautionary note of the IEOP individual groups' smaller numbers, it would seem that within the lower levels of proficiency, it is easier to make a general statement regarding CCTV usage. However, in consideration of higher levels (as indicated by those informants who have a proficiency that allows them to enter academic study at a U.S. university), it is more difficult to state exactly who may consider using closed captioning. Perhaps even more important is the finding that a large percentage of this international student population (an average of 46.4%) do use closed captioning on their own.

Why Is a Choice Sometimes Made not to Use CCTV?

The other side of the coin in the question "Who uses closed captioned television at home?" was to consider who does not use the technology and to also try to discover why they do not use it. In response to an open-ended question regarding why closed captioning was not used, there were sixty-five responses. Of these, sixteen subjects said they did not watch closed captions because their TV did not have the capability or because they did not have a TV. Four made comments about the caption format: that it was too slow for the pictures/action (two respondents), that it covered the picture, or that all capital letters were difficult to read. (All closed captioning is done in full capitalization.) However, by far the largest number who answered this question gave an indication that they preferred to "only listen" so they could improve their hearing. Many of these twenty-nine respondents indicated they felt when they got caught up with reading the captions that they did not use their ears as much as their eyes: "I just use closed captions sometimes because it makes me not to listen the TV but read the closed captions so that I can't improve my listening." [See Appendix 3 for a full list of these sixty-five comments.] Bimodality (receiving simultaneous stimuli that need to be processed by more than one sense, such as hearing and vision) has been an area of concern as expressed by SLA researchers; however, studies (Rivers, 1971; Cohen, 1987; Kellerman, 1990) have indicated that the question of confusion because of the multimodal

aspect in general is not a problem, but multiple stimuli serve to complement each other. It may be the case that these particular students who have used the multimodal technology do not hold the same view as most, but consideration must be given for these 29 students (n = 210) who volunteered such similar comments in answer to an open-ended question. Since they are 13.8% of the total sample population, and since their reasoning of the negative aspects on listening skills accounted for 44.6% of the all reasons given for choosing not to use the technology, it would seem the perceptions they hold do not match the findings of previous studies.

In consideration of their perceptions, a comment must be made regarding their background with closed captioning. One of the questions on the survey had the purpose of discovering if these students were being exposed to closed captioning in the classroom and therefore carrying it over into their homelife because they had seen their teacher use it during an ESL class. If that were the case, then certainly their perceptions, attitudes, and probably use would have been influenced by what was being done in their classroom. Regrettably, the majority of the students misunderstood the directions to this question and used the yes/no spaces to state whether they were in the class instead of placing a check mark before the name of the class and then using the yes/no spaces to answer if they had used closed captioning in the class. [See Appendix 1, Section I, Question 5.] Of those who did follow the directions, none indicated that CCTV had been used in their classrooms. While the overall data were not usable, there was an indication that the students had not been exposed to closed captioning in the classroom, and therefore whatever choices they made about how they were using it had to be on their own or influenced by someone outside the formal classroom. This factor (of not having seen it used in the classroom) may have played a role in the negative perceptions of the 29 respondents who stated that they chose not to use CCTV because of its interference with the listening process; their feelings might have been positively influenced by a teacher modeling use of the technology and explaining its positive aspects.

How Much Is CCTV Employed by Those Who Do Choose to Use It?

In answering this, two related questions were posed; the respondents were asked to place their average daily TV time within one of five possible levels and then to estimate a level of the percentage of that time which they use in watching closed captioned programs. Using the SAS statistical package, a frequency of distribution was run in regards to both answers. Table 7 points out the fact that by far the greatest number of students (57.2% of the 207 responding) watch television on average between half an hour and one and a half hours daily. In addition, a sum of all students who watch some television daily totals 182 out of 208 responding, which means that 87.5% of the sample population watch television daily for a minimum of a half an hour. In itself this is probably not a surprising statistic since television is so much a part of American life in general. However, the additional information from Table 8 regarding the amount of that television time in which closed captioning technology is employed places a different light on those figures in regard to this study.

Table 7. Frequency distribution for the number of daily TV hours

Daily average # of hours watching television	# of subjects	Percentage of total
0	26	12.5
1/2 to 1 1/2	119	57.2
2 to 3	44	21.2
3 to 4 1/2	11	5.3
5 or more	8	3.8

In answering this question about the percentage of daily TV time that they watch with closed captions, there is a discrepancy with the straight-forward yes/no question of watching closed captions at home (discussed earlier) and the information presented in Table 6. In answering the yes/no question, 112 (out of 209) or a total of 53.6% responded no, they did not watch closed captioning at home. It was then expected that a similar number would answer that they use closed captioning 0% of the time when watching television; instead the sum was 98 out of 207 responding which would indicate 47.3% of the international students do not watch CCTV. Perhaps that is because the initial yes/no question asked if they watched at home, and maybe the larger number who indicated that they did watch CCTV a certain percentage of time were referring to times when they were watching "not at home" but at a place other than their own home. If this later question is the more accurate, that would mean over 50% of the student population do watch some television daily with closed captioning. The figures in Table 8 indicate that 109 out of the 207 subjects acknowledged watching closed captioning anywhere from 25 to 100% of the time while watching television.

An additional point that should be made is that two students had written comments beside these two questions of how much daily TV time and what percent of it was CCTV time. They stated that their viewing habits varied on the weekend from habits through the week. Most likely that would be influenced by their schedules for formal classwork. However, note should be taken that while the questions were written to require an average, some students felt it necessary to indicate the differences they saw within their own viewing. Perhaps a question on weekly total number of hours followed by the percentage of that time using closed captioning would elicit more accurate data regarding this aspect.

With the data as presented in this survey, however, it cannot be denied that a great many international students self-report that they do choose to take advantage of closed captioning at least part of the time during their daily viewing.

Table 8. Frequency distribution for the percentage of daily TV hours that are used with closed captioning

Percentage of daily TV hours watching CCTV	# of subjects	Percentage of total
0	98	47.3
25	35	16.9
50	30	14.5
75	25	12.1
90 to 100	19	9.2

What Types of Television Programs Are Preferred?

By asking the students what television programs they watch regularly (Section I, Question 9) and also what closed captioned programs they watch regularly (Question 10), it was hoped that it could be determined if some programs presented their captioning in such a manner that it was more palatable, indicating it was perceived as easier to follow with some genres more so than others. In this discussion it should be noted that Tables 9, 10, and 11 contain the same data (from the survey's Section I, Questions 9 and 10); the tables differ according to the ranking of items within each category (e.g., "# and % who don't watch," "# and % who watch with TV only," "# and % who watch with CCTV.") Those programs that were never watched (and therefore not marked in either the TV-only mode, as specified in Question 9, or the CCTV mode in Question 10) would give indication that something about them did not peak the interest of international students. In this respect, it is of interest that documentaries (which were preferred by Markham, 1989; Parks, 1986, 1994; Vanderplank, 1990; Weasenforth, 1994) are least watched. [In results here, 179 said they *never watch* them,

neither in the TV-only mode (Section I, Question 9), nor the CCTV mode (Question 10).] Of

those who gave positive answers, documentaries are least watched by those who do use

closed captioning (8 students), and they are sixth in choice, as indicated by the number of

students (9) who watch them in the TV-only mode. Science fiction had similar reports,

although not as extreme. (See Table 9.)

Table 9. Ranking of genre of programs that are NOT watched

Category of the program	# and % who don't watch		# and % who watch with TV only		# and % who watch with CCTV		# of non responses
Documentaries	179	91.3	9	4.6	8	4.1	14
Science Fiction	176	90.7	10	5.2	8	4.1	16
Sitcoms	172	90.5	8	4.2	10	5.3	0
Sports	141	80.1	26	14.8	9	5.1	34
Talk Shows	138	78.0	20	11.3	19	10.7	33
News	90	56.6	25	15.7	44	27.7	51
Films	62	40.8	28	18.4	62	40.8	58

Another example regarding student genre preference which runs counter to classroom

research reports is the news. As previously mentioned in the literature review, the news is

sometimes difficult to follow for several reasons: 1) because it is heavy subject matter, 2)

because the words are often delayed since it is captioned live, and 3) because the visual speed

of the captions is increased as a result of the increased oral speed. In textual answers given by

some students, comments were made about the captions "being too slow" for what was

happening, which would indicate their agreement with previous research. However, in spite

of that, news is the second most watched program in both the TV-only mode (Question 9), as well as the CCTV mode (Question 10), as indicated in Tables 10 and 11 respectively.

Films by far hold the most esteem in the rankings. They were voted number one in both the area of TV-only (Question 9) and closed captioning (Question 10), as demonstrated in Tables 10 and 11 where the sums show most students marked them to indicate that they watched films regularly in both modes. They also received the lowest ranking among those genres never watched. In the case of films, it is important to note that 62 did not mark that they watched films in any mode, 28 marked that they watched them in the TV-only mode, but 62 (40.8%) indicated that they did regularly watch films with closed captioning.

The category of news held some surprises because of comments made by previous researchers. This international population at Iowa State does not seem to be greatly bothered by the fact of the speed or delay in the captioning when watching the news. In the CCTV mode, it ranked second only to films, with 44 students stating that they regularly watched it with captioning. It should be noted too that it ranked third in numbers of students who watch it in the TV-only mode. Perhaps the content of the news is highly valued; even if it presents minor difficulties in comprehension, the choice would be to watch it anyhow. Or perhaps students view the news as a challenge, but they feel it is indicative of American language in general, as well as teacher talk in their academic classes, which is rapid. That question cannot be answered here, but these statistics do indicate that the students do not avoid listening to the news and that most prefer the closed captioned mode.

The rankings for sports programs are more within expectations. Many students (141) do not watch any sports, which places it fourth in rank of programs never watched; however those who do watch much prefer not to use closed captioning (26 students compared to 9 who use CCTV). This would bear out what Rubin and Thompson (1992) said about sports programs being problematic when viewing with captions. The action of the game is such that

Table 10. Ranking of the most watched TV-only mode programs
(without closed captions)

Category of the program	# and % who watch with TV only		# and % who don't watch		# and % who watch with CCTV		# of non responses
Films	28	18.4	62	40.8	62	40.8	58
Sports	26	14.8	141	80.1	9	5.1	34
News	25	15.7	90	56.6	44	27.7	51
Talk Shows	20	11.3	138	78.0	19	10.7	33
Science Fiction	10	5.2	176	90.7	8	4.1	16
Documentaries	9	4.6	179	91.3	8	4.1	14
Sitcoms	8	4.2	172	90.5	10	5.3	0

Table 11. Ranking of the most watched CCTV programs
(using closed captioning)

Category of the program	# and % who watch with CCTV		# and % who don't watch		# and % who watch with TV only		# of non responses
Films	62	40.8	62	40.8	28	18.4	58
News	44	27.7	90	56.6	25	15.7	51
Talk Shows	19	10.7	138	78.0	20	11.3	33
Sitcoms	10	5.3	172	90.5	8	4.2	0
Sports	9	5.1	141	80.1	26	14.8	34
Science Fiction	8	4.1	176	90.7	10	5.2	16
Documentaries	8	4.1	179	91.3	9	4.6	14

the captions are probably not needed, and again most sports programs are captioned live, so the captions tend to lag behind the action and the sportscaster's spoken words.

One possible problem in this study with the choice of genres is that of the sitcom category. A total of 172 students did not mark this as a type of program which they regularly watch. I tend to question the reliability of this because of my conversations with students and because of the pilot survey which asked students to name their three favorite programs. In both cases, names of sitcoms often came up. Therefore, I now question whether all of the students who participated in this study understood the meaning of the word "sitcom", and so did not mark it as one that they watched either in the TV-only or CCTV mode. In addition, this is a genre that has often been used in the classroom because of its being a half hour in length as well as its having high interest and presenting the cultural aspects of America. One might possibly assume that those factors would be reasons for students choosing to watch some of the many sitcoms that are on TV daily while they are at home. If this study were to be repeated, some examples of each genre might clarify the meanings and thereby eliminate the question that remains in the case of the answers for this student population regarding sitcoms.

An important point in summation of the types of programs that are most frequently chosen is that films and news are number one and number two in ranking both with regular TV and with CCTV, but in both cases more people watch with closed captioning than with TV-only (as indicated by comparing answers in Question 10 with Question 9). Talk shows, sitcoms, science fiction, and documentaries have about an equal number who choose to watch with the TV-only mode or with the closed captioned mode. Sports is the only genre in which the students show a real preference for watching the program without captioning.

What Perceptions/Attitudes Do International Students Have towards CCTV?

Learning English through the TV only mode and through the CCTV mode

Two questions, using a five-point Likert scale, asked about learning English by watching television and about learning English by watching television with closed captions. A look at these results, as presented in Table 12, reveals that there were no reports of strongly disagreeing that CCTV can aid learning; however, there were two who strongly disagreed with the idea that TV-only can aid English acquisition. The mean of the 208 who answered the question about TV is 4.24, while the mean of the 201 who answered the question about CCTV was 3.82. These results are similar to those which were reported by Weasenforth (1994) when he asked his students if they liked watching TV in the classroom and if they liked watching CCTV. Similar to the results in this research, more students (97%) stated that they liked watching TV, while for CCTV "responses were more moderate": 92% said they liked CCTV as a classroom tool (p. 8). In the case of the ISU international student population, they too expressed a somewhat stronger mean in their perception of English learning through watching television alone (4.24 as compared to 3.82 for CCTV); however,

Table 12. Likert scale ratings regarding learning English through use of TV or CCTV

	# and % TV as a means to learn English[a]		# and % CCTV as a means to learn English[a]	
Strongly disagree	2	1.0	0	0.0
Disagree	1	0.5	12	6.0
Neutral	18	8.7	58	28.9
Agree	112	53.8	86	42.8
Strongly agree	75	36.1	45	22.4

[a]TV: n=208 (2 no response), CCTV: n=201 (9 no response)

the 3.82 mean for their perception of learning English through CCTV was well above the neutral level (3.0), and closer to the level of agreement (4.0). It should be noted that the percentages of students who expressed a positive reaction to learning (either agreeing or strongly agreeing) was lower in this study than in Weasenforth's, where they only responded yes or no to similar questions. Here 89.9% of the students had positive reactions to learning by using television (either agreeing or strongly agreeing), while 65.2% had positive reactions to CCTV as a means of learning English. Of course, it should also be noted that in the present study, these questions were asked of all respondents (whether using the technology as a supplemental self-help or not), but it was not asking their attitude of CCTV as a tool employed by their classroom teacher. Under those circumstances, the perception of its benefits in learning English will likely depend on the individual student only, rather than the added influence of the teacher who controls the classroom environment as the Weasenforth study.

Perceptions of what areas in English proficiency can be improved

With the responses being more positive than negative regarding learning through CCTV, the question arises as to what areas of English learning would be perceived as being improved through using the technology. Ten categories were presented to the respondents so they could agree (by placing a check mark in the space before the category) or disagree (by leaving the space blank) that it was possible to add to their English knowledge in each of these areas by watching CCTV. In the case of this group of questions, 207 out of the 210 respondents answered. Table 13 presents the information regarding the ten categories of possible learning; they have been ranked from the highest to the lowest as they are perceived by the ISU international students, according to a tabulation of the number of check marks (positive responses) each category received. In the table a cross-reference is made in the last column to the number of previous studies that made mention of possible learning in each particular area. These were previously listed in Table 1. Learning new words and improving

pronunciation from CCTV are areas of possible learning that many researchers have mentioned, and they are also ones that the students themselves feel they can learn through the use of the technology. Learning idioms/slang and how to speak with American friends were not widely mentioned by the researchers; yet these students perceive them to benefit from CCTV.

Table 13. Areas of English that are perceived to improve through use of CCTV

Possible types of learning	# of marked responses	% marked	# of unmarked responses	% unmarked	# of SLA previous studies
new words	172	83.1	35	16.9	15
idioms/slang	166	80.2	41	19.8	4
pronunciation	156	75.4	51	24.6	12
listen to Americans	134	64.7	73	35.3	8
speak with American friends	123	59.4	84	40.6	2
read	71	34.3	136	65.7	6
speak in English class	69	33.3	138	66.7	1
understand the teacher	65	31.4	142	68.6	
write	63	30.4	144	69.6	4
grammar	52	25.1	155	74.9	2

There seems to be a definite belief that CCTV will develop certain areas more; students feel there will be more development in building vocabulary and idioms, improving pronunciation, listening to and speaking with Americans. In those cases between 83 and 59% of the students felt they could benefit, whereas in the case of the last five categories, percentages of those who perceive them to benefit from CCTV drop below 35%. Areas that are overall not perceived to benefit as much seem to be associated with more formal aspects

of academic English: reading, speaking in class, understanding the teacher, writing, grammar. Regarding the area of reading, it is interesting to note that these students do not rank it in a very high position; yet it was for the purpose of reading that closed captioning was initially used. As described in the literature review, some of the earliest studies involved using it as a tool for teaching reading. It seems that perceived benefits from using closed captioning as a supplemental self-help have a wide range, but the majority of students who use it do so to gain general knowledge that will help them first in day-to-day communication.

In order to determine the overall perception of each group towards possible language learning through CCTV, the positive responses of each group for the same ten categories were totaled; then that number was divided by the total number who answered for that category so as to discover a mean of the positive responses within each group. Table 14 indicates the overall positive attitudes each class has towards learning English in that area through closed captioning. Column six indicates a rank of the classes' positive attitudes while considering the segregated levels in IEOP (intensive English), and the last column indicates the rank of the five basic groups (combining the individual levels in IEOP and using "All IEOP" as a one of the basic groups).

As can be seen by comparing column 3 "# who answered" with column 4 "# in class," all respondents except two answered this section of the questionnaire. Because there were ten items (categories of possible areas in English acquisition which could be improved by watching CCTV, as indicated in Table 13), the mean can be compared to a possible 10.00 which would indicate that all who answered this section thought that learning could take place in all ten categories by watching CCTV. An overall mean can be calculated by summing the positive responses (1071) and dividing it by the total number of respondents (208). That figure gives an average of 5.15 of the ten items which received positive responses from all of the international students in these ISU English classes. The results indicate that when considered as a group, the students were selective in what they thought could be learned from

Table 14. Sum of marked responses in perceptions towards learning English through the use of closed captioning

Class	Marked responses (possible 10 marked responses for each subject)	# who answered	# in class	Mean (column 2 divided by column 3) based on 10	Rank with IEOP as individual classes	Rank for five major groups
101B	123	20	21	6.15	1	1
101C	409	73	73	5.60	3	2
101D	214	47	47	4.55	6	4
180	77	17	18	4.53	7	5
All IEOP	248	51	51	4.86	NA	3
All Groups' Total	1071	208		5.15		
Breakdown of Individual IEOP Classes						
Advanced	55	10	10	5.50	4	
High	34	8	9	4.25	8	
Interm. C	53	13	13	4.08	9	
Interm. B	45	9	9	5.00	5	
Interm. A	61	10	10	6.10	2	

CCTV. That bears out the findings through the breakdown of individual items as presented in Table 12.

The ranking for the five major groups as indicated in the last column of Table 14 is of interest when compared with a similar ranking made in Table 6 regarding those who said they used closed captioning at home. The acknowledgment of watching TV with closed captions does not coincide with the groups' perceptions of how much can be learned through such use. The 101D class was first in saying they used CCTV at home; yet they rank fourth in their

perception of benefit for learning English in the various categories presented. In opposition, 101C ranked fifth in their admission of use but second in what they thought they could learn by using the media. However, 101B and IEOP had rankings that would seem more consistent with the two factors' rankings: 101B was second in use and first in perception of learning, while IEOP was fourth in use and third in perception of learning. It appears the relationship between these factors of actually watching CCTV and of perception of learning English through that viewing is not straightforward, but other factors must influence students' choices and perceptions. It may be that perception of the caption format itself may influence what students think they can learn by using the media.

Perceptions of the caption function and format

The analysis of Section IV of the questionnaire reveals that the caption format does hold some problems for many students (e.g., speed, level of detail, matching the spoken with the written). Students were asked to check off statements they agreed with in regard to caption format or function. When the marked responses, which indicate agreement with positive statements about the captioning function and format, are compared with total responses, they do not stand out against the percentage of unmarked responses. In total there were 505 marked responses to the six questions within this section. Because they were to be answered by only those who used closed captioning at home, the number of respondents dropped considerably when compared to the total pool. For each of the six questions, only 84 (once 85,when one person felt strongly about the ease of readability, but did not indicate any other preferences) out of the 210 returned questionnaires had answers. Again this does not coincide with the numbers of those who said they used closed captioning at home; one would assume that some respondents simply chose not to answer this section, perhaps since it occurred later in the questionnaire. Of those who did answer the six individual items, out of the total of 505 items answered, 262 were marked responses, indicating agreement, while 243 were unmarked responses, indicating disagreement. Calculating those in percentage, that

means that 52% of the items were agreed with while 48% were disagreed with. This does

indicate slightly more acceptance of the caption format and function; yet, 48% is a figure that

also indicates these students perceive problems within the presentation of the captions. (See

Table 15.)

Table 15. Perceptions of the caption format as measured by the marked responses within each group and compared to their total number of responses

Class	# of marked responses	Total # of responses	% of responses that were marked	Rank with IEOP as individual classes	Rank among the five groups
101B	39	72	54.2	4	3
101C	71	126	56.3	1	1
101D	66	120	55.0	3	2
180	22	48	45.8	7	5
All IEOP	65	138	47.1	NA	4
Advanced	12	24	50.0	6	
High	10	18	55.6	2	
Interm.C	13	36	36.1	9	
Interm.B	19	36	52.8	5	
Interm.A	11	24	45.8	7	

It can be seen that among the main groups the English 180 class finds the most

problems with the format. (Recall that they are a group of considerable proficiency since they

are graduate students and in that class to become prepared to act as teaching assistants.) This

group is immediately preceded in ranking by the All IEOP group, which would have the least

proficiency, and that could possibly account for their perceiving problems with the format.

Section V asked for open-ended answers in regard to how the students use closed captioning and their feelings about it. It therefore acted as a reinforcement for answers to items in Section IV and shed some light on the reasons for some of the negative results seen in that preceding section. The eight English 180 students who answered this section each gave written comments, three of which were negative. They wrote of being "annoyed" by the captions, of the captions being "delayed" in the news and sports which causes confusion, of the captions being "slower than the speaking." By contrast, of the twelve IEOP students who wrote comments in this section, only one student questioned its help in his/her listening skills development when describing how s/he used it. As seen in Table 15, their reaction to the items in Section IV is somewhat negative compared to other groups; yet they do not express their reasons for the negativism when given an opportunity to do so (through the open-ended question, Section V). [Appendix 3 has these textual comments given verbatim.]

In examining the general group's textual comments from Section V about how they use closed captions, thirteen said they could learn about the words, twelve mentioned understanding the story or the main idea, twelve noted understanding what was said. Other incidental remarks were also made; however, the above fall into the general categories of the items that were presented in respect to the caption function and format. Table 16 gives a breakdown of those six items from the check-off list in Section IV, indicating the students' perceptions of each individual one. For the sake of discussion here, the item that had to do with becoming confused by the captions is reworded, but when presented to the respondents, it was such that a "yes" answer was admission of a negative perception towards the format.

As can be seen, Table 16 bears a similar pattern to the textual comments in that the greatest positive response to the six items had to do with caption function: understanding what is said and understanding the main idea. This also is supported by previous studies (Taylor, 1981; Matthews, 1982; Murphy, 1985; Jaben, 1986) that stressed understanding the message or listening for the main idea as the most important aspect of general listening skills.

Table 16. Student perceptions of aspects of the caption function and format

Aspect	# of and % of positive responses		# of and % of negative response		Total # of respondents
Help understand what is said	68	81.0	16	19.0	84
Help understand main idea	52	61.9	32	38.1	84
Do not confuse me	49	58.3	35	41.7	84
Easy to read	41	48.2	44	51.8	85
Are detailed enough	32	38.1	52	61.9	84
Move at right speed	20	23.8	64	76.2	84

According to the check-off (Section IV), on the opposite end of the scale is the item which has to do with the speed of captions. This is again one which the students wrote about in their textual comments (Section V). There were seven comments that had to do with the speed: four of these gave explanations of the captions being too fast while three mentioned they were too slow. These comments do not contradict each other in the respect that those who mentioned the fast speed were referring to the idea that the captions moved too fast for them to read, while those who wrote they were too slow meant within the context of the other stimuli they were receiving. In that case the caption was lagging behind what they saw and heard; mention has already been given to the fact that this is often the case in the captioning of news or sports programs, which are done live.

It should be noted that three of the items having to do with the students' perceptions of the caption format received more positive response (understanding what is said or the main idea or not being confused by the captions), and those three are important for overall understanding since they deal with the rhetorical aspects of the story line. But at the same

time there were these three other items which received more negative response (ease of reading, detail, or proper speed), and if they were seen to be very problematic, it is understandable that the learner would perhaps choose not to use captioning since s/he is in complete control of this supplemental self-help tool. While no respondent indicated this to be a reason for not using the technology, it is logical that such could be the case under these given circumstances.

What Are Some of the Strategies Employed When Watching CCTV?

Use of social strategies

Watching television with someone else presents an opportunity to engage in social strategies, as defined by O'Malley and Chamot (1990). [A reminder is given that Rubin and Thompson (1992) consider the act of asking other people to fit in the category of resourcing, but in this paper "resourcing" is used in the O'Malley and Chamot sense of searching through books or other types of texts and differs from social strategies which particularly involve interaction with other people.] Huffman (1986) specifically tells his students to seek out Americans and discuss with them things they don't understand about a program; Bacon (1992) referred to students' appeal for help and asking for confirmation. In the light of closed captioning at home, however, opportunities for employing social strategies are not always present. According to the 88 students who answered this question (Section VI, Question 1), 47 of them (53.4%) watch CCTV alone, which gives them no opportunity to take advantage of social strategies during their viewing of a CCTV program. Unless they make the special effort to later ask about some aspect of the program, no social strategies will be used by them in relation to learning English from CCTV. For those who do watch with others, 34 said they watched with non-Americans, only 1 watched with Americans, and 6 stated they watched with "others" (indicating that meant family members).

When asked if they engaged in social strategies (Question 2), 19 said they did talk or ask about what was going on in the CCTV program, while 6 said they both talked and kept

quiet. It is assumed that these six meant that there were times when they did talk, but also there were times when they kept quiet so they could follow the story line. Most of the students (15) talked during the program; perhaps that was because they had an immediate need to know so the rest of the program would make sense. Almost as many (13) said they talked during the commercial break, but fewer yet (5) said they waited until after the program was over, and only one waited until s/he got to English class to ask about something that had occurred. These figures probably seem quite logical since most questions would remain in short term memory and need to be answered on the spot or otherwise would be forgotten. However, the usage of social strategies as reported by the students does not seem to be an outstanding portion of their strategies employed when watching closed captioning at home.

Use of cognitive strategies

Because the majority of the students watched CCTV on their own, perhaps they would be more apt to employ cognitive strategies such as those involving: repetition through 1) videotaping [Section VI, Question 4], 2) replaying the CCTV program [Question 5], or 3) replaying the captioned program with no sound [Question 6]; 4) resourcing by using various books [Question 7]; 5) writing down something significant [Questions 8, 9, 10]. (According to textual comments, that meant words, idioms, or correct spelling). In order to determine the usage of these strategies, a sum of all positive (i.e., "yes") responses relating to the questions was calculated so it could be divided by the total number of responses. The results are presented in Tables 17 and 18; Table 17 shows the positive responses and the total responses given for each of the five cognitive strategies' categories above and then calculates a mean. Then Table 18 uses the mean of all cognitive strategies used (as calculated by the total positive responses against the total responses) and thereby ranks the classes according to their mean cognitive strategy use, much as other rankings have been done in this analysis. [See Table 6 ("Rank in using CCTV at home"), Table 14 ("Rank of positive perceptions in learning English through CCTV"), and Table 15 ("Rank of positive perceptions of caption format").]

Table 17. Positive responses in using cognitive strategies as compared to the total response to the question(s) on a specific strategy and mean of total strategy usage by class

| | Categories of the cognitive strategies reportedly used[a] | | | | | Totals | Mean of strategy usage |
	I	II	III	IV	V		
101B							
Positive resp.	1	0	0	8	3	12	0.1846
Total # resp.	12	9	9	24	11	65	
101C							
Positive resp.	1	10	0	20	5	36	0.2553
Total # resp.	22	18	20	60	21	141	
101D							
Positive resp.	1	9	1	17	3	31	0.2541
Total # resp.	22	15	16	47	22	122	
180							
Positive resp.	0	2	1	5	3	11	0.2500
Total # resp.	8	6	6	16	8	44	
All IEOP							
Positive resp.	9	12	6	22	13	62	0.4460
Total # resp.	24	18	19	56	22	139	

<u>Breakdown of individual IEOP classes</u>

	I	II	III	IV	V	Totals	Mean
Adv							
Positive resp.	2	2	1	5	2	12	0.4286
Total # resp.	5	3	3	12	5	28	
High							
Positive resp.	0	0	0	2	2	4	0.2222
Total # resp.	4	3	3	6	2	18	

Table 17. continued

	Categories of the cognitive strategies reportedly used[a]					Totals	Mean of strategy usage
	I	II	III	IV	V		
IntC							
Positive resp.	4	3	1	7	4	19	0.5429
Total # resp.	5	5	5	15	5	35	
IntB							
Positive resp.	1	3	2	6	4	16	0.5000
Total # resp.	6	3	4	13	6	32	
IntA							
Positive resp.	2	4	2	2	1	11	0.4231
Total # resp.	4	4	4	10	4	26	

[a]   Categories of the cognitive strategies reportedly used: I. Video taping (Question 4), II. Rewatch video tape with CC (Question 5), III. Rewatch with CC and no sound (Question 6), IV. Resourcing (through use of various books) (Question 7), V. Writing something down (Question 8)

According to their self-reports, students are using strategies to some extent, but not as much as they could be. It is particularly interesting to note that the IEOP groups (with the exception of the High level) report using strategies in a greater proportion than do the more proficient groups. Recalling that only students who are using closed captioning at home were to answer this section, IEOP's mean usage of 45% (0.4460) is much greater than second ranked 101C at 26% (0.2553). The 101B class appears in last place in use of strategies while watching CCTV, and yet they ranked second in the class rankings for those who stated they

were using the technology. (See Table 6.) It would seem that if strategy employment is an indication of effort to learn on one's own through use of closed captioning, the IEOP students are making a greater effort to gain in their English skills than the other groups (who have already achieved academic acceptance).

Table 18. Sum of cognitive strategies reported to be used while watching CCTV, mean usage by class, and class rankings

Class	Sum of reported cognitive strategies	Total # of responses	Mean usage by those reportedly using strategies	Rank among the five groups	Rank with IEOP as individual classes
101B	12	65	0.1846	5	9
101C	36	141	0.2553	2	5
101D	31	122	0.2541	3	6
180	11	44	0.2500	4	7
All IEOP	62	139	0.4460	1	NA
Breakdown of individual IEOP classes					
Advanced	12	28	0.4286		3
High	4	18	0.2222		8
Interm. C	19	35	0.5429		1
Interm. B	16	32	0.5000		2
Interm. A	11	26	0.4231		4

CONCLUSIONS

The data elicited through this survey indicate the CCTV habits and perceptions of international students who are either in an intensive English program or in special English classes to further develop their proficiency while they begin their academic program at a Midwestern university. The fact that 46.4% of the 210 respondents acknowledge regularly using CCTV at home indicates that the technology is valued by these students.

The results of a breakdown of who among this general group is using closed captioning does not fall into line with previous studies, which have suggested that more proficient learners prefer not to use captioning. In the case of this study, the more proficient 101D (comprised of graduate students) ranks number one among the main groups in percentage of population who use CCTV; that being 55.32% of their total group (n=47). The question as to why this discrepancy occurred with this study as compared to previous studies is not answerable, but it does seem that in the case of this group the overall rating of CCTV use as compared to proficiency does not fall into the category of highest proficiency = least usage as Vanderplank (1988), Neuman and Koskinen (1992), and Weasenforth (1994) suggest. In relation to less proficient groups, the intensive English groups (when broken into their levels) do bear out what previous research (Smith, 1990; Neuman & Koskinen, 1991) has indicated: that the less proficient students are not able to take advantage of the input from closed captioning, but as they advance within the intensive English levels, they become more able to do so. These results point out that the key is comprehensibility, as indicated in Krashen's statement (1985, p. 34) that television is "helpful if it is comprehensible." The results of less CCTV usage by these less proficient IEOP students and proportionally more CCTV usage by the higher IEOP levels may indicate that the less proficient students' $i + 1$ levels are not yet compatible with the input of CCTV.

For those who choose not to use closed captioning at home, by far the greatest reason given (44.6% of the time) has to do with the perception that listening is an aural skill and does not mean reading captions. This perception on the part of this group of students disagrees with studies by Cohen (1987) and Kellerman (1990) who found that the multimodal aspect of television and CCTV did not interfere with processing. These students evidently have not experienced the results that Cohen and Kellerman describe; perhaps that is because their experiences are outside the classroom and therefore under their own control and without the advantage of a teacher directing them. However, this is an aspect of CCTV as a self-learning tool: the fact that the student as learner is in complete control and not influenced by the teacher in his/her perceptions may have a negative effect in some cases.

With the data that were gleaned from the questionnaire there is a discrepancy as to what percentage of these 210 students do use closed captioning outside the classroom. In answer to the yes/no question (Section I, # 6) about watching CCTV "in your apartment or dorm", the statistics show 46.4% using CCTV, but in answers to a later question (Section I, # 8) having to do with the percentage of TV time they use closed captions, 52.7% indicated that they watched closed captions within their daily TV time. Those 52.7% stated that they used the captions at least 25% of the time and some up to 100% of their TV time; that time might range from a half hour up to over five hours per day. In spite of the discrepancy, which may have had to do with the wording of the two questions in reference to watching CCTV "at home" and to "watching CCTV" [any where], the conclusion can still be made that many of these students are using closed captioning on their own, and that use is perceived as a benefit by them.

In regard to program preferences, films were by far the number one choice both for watching TV either with or without captions. Probably of equal importance is the fact that these students consider the news as a program they really prefer to watch, even though researchers have long indicated problems with this genre due to both oral and visual speed and

lag of captions since these programs are produced live. Another point is that these students on their own do not like to watch documentaries; this is in opposition to the researchers who strongly suggest using them in closed captioned form in the classroom. Sports is the only program which, if watched, is preferred without captions; this is in line with findings by previous researchers. The data about sitcoms are questioned because there were few responses regarding this genre. From informal conversations with some of these students about specifically named programs, I feel that not understanding the definition of "sitcom" caused some not to answer this item. Due to these circumstances, interpretation of this particular item is somewhat problematic and lends credibility to Joy Reid's statement: "Finally, the reliability of an instrument is partly a function of the ability of the individuals who take the test; ...." (1990, p. 331). Its outcome is influenced by their familiarity with survey instruments and their ability to understand. In spite of the question that remains regarding sitcoms, there are some definite program preferences as seen through the students' answers in this research. If those programs provide such high interest to these students, they might be considered in relationship to choices of programs within the classroom as well. Furthermore, classroom discussion about which programs are perceived as easier to follow with their captioning might be of help to some students when they are trying to make choices about their own self-study program.

In addition to student preferences, perceptions of the media are equally important. As in previous studies, watching television without captions received a somewhat higher rating (4.24 out of a possible 5) in respect to ability to learn English through the media, as opposed to CCTV which received 3.82. However, in both cases, the perceptions of learning are quite positive. As to what can be learned through CCTV, it seems that aspects that deal with more general communicative skills are considered more learnable than are the more academic English skills. Anywhere from 59% to 83% agreed that they could learn new words, idioms, pronunciation, how to listen to Americans, or how to speak to Americans. In contrast, 25%

to 34% felt they could learn to read, speak in English class, understand their teacher, write, or use grammar. According to the number of previous studies in which researchers suggested what types of learning might take place, reading (in six studies) and writing (in four studies) might be rated higher than these students placed them, when the total scores were ranked.

When it came to the perception of the caption format, in 48% of the responses these students indicated that they saw some problems in it. The most negative responses had to do with the speed, not being detailed enough, or not being easy to read. In addition some students admit to being confused or not being helped to understand the main idea, as indicated respectively by 41.7% and 38.1% unmarked responses. This negative aspect of captioning as a tool to learning English has been debated for some time, and the reactions by these students indicate that as yet some of these problems seem to be inherent in the media. Of course, as mentioned in the literature review, a certain standard that will allow captioning to be more user-friendly to ESL learners must be maintained in the industry itself, and as yet there are no set regulations. On their own some students seem to have become aware of the fact that the caption format varies from program to program. This too could be discussed within the classroom so as to make the students aware of possible problems and thereby allow better choices of what to watch. In addition, the captioning industry should be yet again reminded of some of these formatting problems so as to alleviate the confusion the captions can cause. The industry touts their captions as such a boon for the English language learner (as particularly indicated in a 1993 FYI brochure put out by the National Captioning Institute); they then need to better regulate from within so the captioning is most advantageous for the purpose they state it may be used.

One additional point should be considered regarding the data on the strategies that these students are presently using. The fact that they do not make a great deal of use of the social strategies is one thing a teacher might suggest that they do more, much as Huffman (1986) did. In addition, the data regarding using strategies less than 50% of the time suggest

that perhaps some of these students are watching with captioning, but are not really making an extreme effort to add to their English language, or do not realize that use of some of these strategies would reinforce the input so it might become intake and later be used in production. Again, this is an instance whereby some class discussion and teacher suggestions might positively influence how students make use of closed captioning as a self-help at home.

It is not suggested that this needs to come under the auspices of teacher control or become a teacher-run program (as it would be if closed captioning were part of a self-access lab and followed by exercises). Instead, the implication that can be made from this study is that because a great number of these international students are using closed captioning on their own and because they generally perceive it as a means to learn English, then we as their ESL teachers do them an injustice if we do not address some of these problems and some of the known beneficial practices so as to make them aware. They can thereby provide themselves with the maximum opportunity for growth in their personally chosen self-help program.

In summary, as a professional responsibility to those ESL students whom we are assisting in their English acquisition, in the classroom we need to:

- discover the number of students who are using CCTV as a self-help at home;
- if at all possible use the technology in the classroom itself occasionally
  - so as to take advantage of a learning tool that is perceived positively by many ESL students, and
  - so as to provide a modeling experience for those who are taking advantage of CCTV on their own;
- discuss the range of genre and the potential problems some programs present, e.g., live captioning of the news and sports;

- discuss the fact that captioning is not well regulated, therefore some programs are more difficult to follow due to caption placement, speed, variability with the spoken and written word, so choice of programs is important for maximum benefit;

- discuss possible learning benefits through use of the technology if it is available to students at home;

- discuss the advantage of using strategies to assist the process of input becoming comprehensible and therefore later possibly being used as output:

  - discuss the advantage of making CCTV watching a social activity, so social strategies can be employed and possibly bring about greater language understanding; and

  - discuss the known fact that greater active involvement/effort (through use of cognitive strategies, such as repetition, resourcing, writing notes) will increase the possibility of language learning benefits from CCTV watching.

Due to the fact that this was an initial study of its kind dealing with CCTV as a supplemental self-help at home, there remains much to answer about international students' use of the technology. It would be of value to run a similar study at other universities in other areas of the country to see if similar results occur. The data were elicited from a broad spectrum of international students who had many levels of proficiency, but until other similar studies are done, results certainly cannot be generalized. An additional variable could possibly be added which would elicit data as to whether subjects had used captioning/subtitles in their home countries and if that had influenced their perceptions and use (or non-use) of CCTV as a self-help here. It would also be of interest to study the group which had to be eliminated from this research: international people other than those who are in intensive English or ESL classes and who perhaps view CCTV as one of their main means of learning English. Because

of the limitations of the survey instrument, interviews with, or diaries kept by, international

CCTV home users would further develop the data we now have regarding their use.

APPENDIX 1

INITIAL SURVEY

Background for a Possible Research Project

Would you please help me with a research study that I am planning?   Thank you.

What are your three favorite television programs?

1._____

2._____

3._____

Answer yes or no
Do you ever watch any of these three programs with closed captions?_____

(Closed caption means the words that are spoken are also written in English at the bottom of the TV screen so you can read them while you watch the program.)

Age:_____years

Nationality: _____

APPENDIX 2

QUESTIONNAIRE

Feb., 1996

To: International Students taking English classes

From: Sarah Zamoon
        Department of English   Office: 104 Landscape Architecture
        206 Ross Hall   Telephone: 294-9917
        Iowa State University   E-mail: srzamoon@iastate.edu

Would you please help with some research that I am doing regarding international students'
personal use of closed captioned television outside the classroom? [Closed captioned
television programs are those with spoken words printed at the bottom of the television
screen. You do so by pushing the closed caption button on the remote control of your TV.]

I feel that this information could be very valuable to English teachers of international students.
I also think it may indicate some methods of learning that would be helpful to incoming
international students.

Following this memo, you will find a survey that I would very much appreciate you
completing. It should take you about ten to fifteen minutes to complete the questions. You
may do it on your own time outside of class. I will return to your English class the next time
that you meet, and at that time you can give me your completed survey.

Please understand that this has nothing to do with the English class that you are taking and
also that you are not obliged to fill out this form.

If you choose to complete the survey, your name will not be used in reporting the data. It is
only necessary to know what your name is so I can be certain that no one person filled out
two forms. After I am certain that each completed form has come from a different person, the
names will be removed from the surveys.

Thank you very much for your assistance with this research. I appreciate your time and help.

Please write your name here: _____

Please write your English Class / Level: _____

Nationality _____

Circle one:

1. (Male)   (Female)

2. Age: (18 to 20)   (21 to 23)   (24 to 26)   (over 26)
3. Length of time you have been in the U.S.:
   (1 to 2 months)   (3 to 6 months)   (7 to 12 months)   (over 1 year)

4. Your most recent TOEFL score is _____.

5. Please **check** (✔) **all** English class(es) you have taken or are presently taking in Ames.
   Did you ever use closed captioning in the class? Circle   Yes or No

IEOP Level:	Closed Captioning in Class?	
_____ (Beginning)-------------------------------	Yes	No
_____ (Intermediate)--------------------------	Yes	No
_____ (High)-----------------------------------	Yes	No
_____ (Advanced)----------------------------	Yes	No
_____ (English 101 B)-----------------------------------	Yes	No
_____ (English 101 C)-----------------------------	Yes	No
_____ (English 101 D)------------------------------	Yes	No
_____ (English 101 E Listening)----------------------	Yes	No
_____ (English 101 E Reading)-----------------------	Yes	No
_____ (English 180)----------------------------------	Yes	No
_____ (English 104)---(at I.S.U.) OR (at DMACC)--	Yes	No
_____ (English from DMACC at Pammel Court)--------	Yes	No
_____ (I am not taking any classes now.)		
_____ (I have never taken any of the classes above.)		

6. When you are at home in your apartment or dorm, do you watch television with closed
captions (the spoken words are printed at the bottom of the television screen)?

        (Yes)   (No)

7. How much TV do you usually watch each day?

   (None)   (1/2 to 1 1/2 hours)   (2 to 3 hours)   (3 to 4 1/2 hours)   (5 hours or more)

8. Approximately what percentage of your daily TV time do you watch with closed captions (the spoken words are printed at the bottom of the TV screen)?

   (0%)   (about 25%)   (about 50%)   (about 75%)   (about 90 to 100%)

9. Circle the types of TV programs which you watch regularly.

   (News) (Sitcoms) (Films) (Science Fiction) (Documentaries) (Talk Shows) (Sports)

10. Circle the types of TV programs that you regularly watch with closed captioning.

   (News) (Sitcoms) (Films) (Science Fiction) (Documentaries) (Talk Shows) (Sports)

11. I think watching TV helps me learn English.

   strongly agree   agree   neutral   disagree   strongly disagree

12. I think watching TV with closed captions helps me learn English.

   strongly agree   agree   neutral   disagree   strongly disagree

SECTION II.

Please circle the answer.
If you have a television in your dorm or apartment and it can show closed captions, do you use the closed captions when you watch TV programs?   **YES   or   NO**

If you circled NO to the question above, would you please explain why you do not use closed captions?

_____

_____

_____

_____

_____

SECTION III. Whether you now watch closed captioned TV or not, please check (✓) all the statements that you *agree* with:

I think by using closed captioned TV I can learn:

1. _____ new words.

2. _____ new idioms and slang phrases.

3. _____ how to listen to Americans.

4. _____ how to write.

5. _____ how to read.

6. _____ how to pronounce words.

7. _____ what is proper grammar.

8. _____ how to speak in English class.

9. _____ how to speak to American friends.

10. _____ how to understand my teacher.

If you watch closed captioned TV regularly outside of class, please go on to the next section.
If you do NOT watch closed captioned TV regularly outside of class, you may stop here. Thank you.

****

SECTION IV. If you watch closed captioned TV programs regularly outside of class, please check (✓) all the statements that you *agree* with:

_____ 1. The captions are easy to read.

_____ 2. The captions move at the right speed with the story.

_____ 3. The captions are detailed enough to follow the story.

_____ 4. The captions help me to understand what the people are saying.

_____ 5. The captions help me to understand the main idea of the story.

_____ 6. The captions cause me to become confused by trying to read and listen at

the same time.

SECTION V. In your own words, explain how you use the closed captions while you watch the program. Also you can write any comment here about the way you feel about closed captions.

_____

_____

_____

_____

_____

SECTION VI. If you watch closed captioned TV outside of class, please answer the following:

Circle one:
1. Most of the time do you watch closed captioned TV
    a). by yourself
    b). with friends who are not American
    c). with American friends
    d) Other _____

2. When you watch closed captioned TV, do you
    a) talk or ask about the program (If you mark this answer, go to question 3.)
    b) keep quiet so you can hear and see what they will say and do next. (If you mark this answer, go to question 4.)
    c) Other _____
             (If you mark this answer, go to question 4.)

3 If you talk or ask about the program, when do you usually do it?
    _____ a) during the program
    _____ b) during a commercial break
    _____ c) right after the program is over
    _____ d) when you go to English class

Please circle Yes or No in answer to the following:

4. When you watch a closed captioned program, do you tape it
   so you can watch it again?------------------------------------ Yes   No

5. If you re-watch a taped closed captioned program, do you turn
   the closed captions on?-------------------------------------- Yes   No

6. If you re-watch a taped closed captioned TV program, do you turn
   the sound down so you can concentrate only on the printed
   captions?-- Yes   No

7. Does watching closed captions cause you to refer to
   a dictionary?-- Yes   No
   an English grammar book?------------------------------------- Yes   No
   a book about a special subject (for example a science book)?- Yes   No

8. Does watching closed captions cause you to write down
   something on paper?-- Yes   No

9. If you answered yes to question 8, what might you write down when watching a closed captioned program?

_____

_____

_____

10. If you write down something, when do you usually do it?
    _____ a) during the program
    _____ b) during a commercial break
    _____ c) right after the program is over
    _____ d) when you go to English class

THANK YOU for your help with my research!

APPENDIX 3

TEXTUAL COMMENTS ON QUESTIONNAIRE

TEXTUAL COMMENTS ON QUESTIONNAIRE

Section II. If you circled that you do not used closed captions even though your television has the capability, explain why you do not use:

101B-3: My TV doesn't have caption.

101B-6: My TV doesn't have closed caption.

101B-9: I just use closed captions sometimes because it makes me not to listen the TV but read the closed captions so that I can't improve my listening.

101B-11: Not always I use captions just in news because sometime read fast.

101B-12: I think it's not helpful to learn English.

101B-15: My television without captions

101B-19: I want to practise my ability in English exactly in listening

101B-20: I want to improve my listening skill and my TV does not have captions.

101C-23: I don't have closed caption TV.

101C-25: I am interested in the contents. Just enjoying the TV picture to relax.

101C-26: I cannot hear TV well when I use the closed captions. It's better for me to only listen to TV without the closed captions. That's why I don't use the closed captions.

101C-29: If I saw sports of Films I won't use the closed captions. But If I saw news or science fiction I will need to used the closed captiond because sometimes the words is difficult to understand. (I don't have close captions TV at home so I never use it.)

101C-30: Disturb watching TV

101C-31: Because I understand everything good enough

101C-34: Actally I can't turn off the closed caption in my TV. Because we lost our original remote.

101C-35: Because If I use closed captions, I will just look at the words. I can not watch TV screen when I look at the words.

101C-39: Another people watch TV too. I can't use it.

101C-53: (No)---> If I just depend on caption, it can be bad at improving my listening skills. (Yes)--->Sometime by using caption, I can pick up new voc or slang stuff.

101C-54: It interpret the seems difficult to pay attention this also

101C-57: I think by using the closed caption, I cann't practice listening part. This particularly true because when we conconcentrated on the wording part we cann't concentrated on the listening part.

101C-64: I don't have it.

101C-68: It helps me learn English. [Text not applicable to question]

101C-81: If there's a closed captions, then I will most intend to read than listen.

101C-87: I will be a good listener without the closed captions and it teach me to understand spoken English better.

101C-90: -Because I can understand the english that being present.

      -Sometime it is not good to use captions because talking english is difficult than english - when you are taking sometime you use [illegible] that might effect when you are doing English in a f [illegible] way.

101C-91: Because some of the actors or actress speak very softly and I can hardly listen to them, with closed captions, I'm will not miss any of the conversation.

101D-96: Sometimes I do not like closed captions because it lagged behind about a few seconds and it disturbs my eyesight. Especially when I am tired, it make me headache.

101D-97: Because my TV has no closed captions

101D-101: As for me, I do not have big problems in reading, but I think that my listening ability is not so enough that I am trying to improve it. In the past, I used closed captions to study English. However, when I watched TV, I always concentrated only on the letters on the bottom, not the sounds. So I decided not to use it. I think that the closed caption is not so helpful to the somewhat advanced English learner.

101D-108: Sometimes I am watching documentaries from other countries maybe Jordan, or other, and I need to use closed captions, but regulary I don't use them.

101D-111: My TV has not closed captions

101D-120: Because closed captions interfer with my listening to the speaker. I find that I could understand less while I used them. But sometime, they can help when the voice is not so clear.

101D-122: At the first time, I used the CC, but I felt my hearing was poor, and even poorer if I used CC. So, I turned off the CC and my hearing is better now.

101D-126: If I turn on the captions, then I just read the printed words instead of trying to listen. I think listening is more important to me. That's why I don't use caption. 11/20/96

101D-127: I can understand most of conversation and want to practice listening for the real classes. About the reading skill, I think just only the reading assignment is enough.

101D-128: Because it usually makes me difficult to concentrate on hearing.

101D-129: Because using closed captions will keep me busy with seeing the words on the screen, thus it is of no help to improving listening capacity.

101D-137: Sometimes it is kind of distracting

101D-139: difficult to follow. voice is enough

101D-140: I can't read fast; because, I can't read capital words fast

101D-141: Because I don't have

180-147: Because I do not have any problem to understant english without closed captions.

180-153: Closed caption is more useful to people having problems understanding english. That's not the case with me.

180-154: It may somehow draw my attention from listening to looking

180-155: Because I can't listen to it when I watch the words on the screen

IE-IntA-167: Because My roommate has TV. She doesn't need captions.

IE-IntB-172: Because it interrupts screen and doesn't help hearing

IE-IntB-176: I'm sorry. I don't have TV. But If I have it, I'll use closed captions.

IE-IntB-178: I don't have TV.

IE-IntC-184: I can't read the captoin and the same timelisten, watching T.V. without caption helps to listen in English.

IE-IntC-185: I like lissen to word and dont redeat because when I readat I can contion the program. Qukly

IE-IntC-186: Because if I use the closed captions I can't hear very well the conversation and it doesn't help me to try to understand or guess

IE-IntC-188: When I came to the U.S., I used closed captions. But I think that most time watched closed captions, if as read some books. If I use some situationes, such as conversation and some kind of exam (TOEFL etc.), I can't match the closed captions, because when that situationes, closed captions is harmful to use (learn) English. It especally use English in the city (shop etc.)

IE-IntC-189: I have no captions on T.V

IE-IntC-190: because it covers the picture!

IE-IntC-191: I think if I watch closed captions I will read the captions instead of hearing it.

IE-Hi-193: because mostly captions appear later than picture

IE-Hi-194: My TV don't have closed captions. But if I purchase a closed captions device, I will sometinies use the closed captions.

IE-Hi-196: I don't want to use captions, because It isn't good for me

IE-Hi-197: I have no closed captions!

IE-Hi-200: Because I have a Televison in my apartment and it can't show closed captions.

IE-Adv-202: I usually use the opened captions when I watch TV programs because it helps me to listen carefully and make sure what he says. Besides, it let me more understanding what person says.

IE-Adv-203: Because without the closed captions, I can just listen to the people talk and don't want to look at the words. I want to practice my listening.

IE-Adv-205: Recently, I can understand movie, news about 35-45% when I come here, captions is very useful for me. But now I can understand more than at the So I try to see the movie with no closed captions to increase my listening ability.

H/W-216: With the TV we want to try to understand without reading. We can read books, newspapers.. The TV can help to listen to the words.

<u>Section V. Page 4.</u>
<u>In your own words, explain how you use the closed captions when you watch the program.</u>

101B-2: I read the close caption and listen what they trying to say. If help me to understand better what the story about because sometimes I can't understand what they said. But not all the programs come with close captions.

101B-5: I think it's quite useful for me especially while I watch news program, but I prefer not to use closed caption while I watch film because I always try to understand the conversation without reading the closed caption.

101B-10: When I watch TV, if I understand 50% of the story, I use captions. I think that captions help to understand the story, but it is not good for listening.

101B-16: When I don't understand, I alway see the caption.

101B-17: It's really help me to know how to pronounce words, to know new words and slang words.

101B-18: Sometimes it helps me to understand the program. But sometimes it is no useful.

101C-24: Whenever I don't understand what the person in TV is talking about, or too fast, then I will look at the close captions. When there are a lot of vocabulary which I don't understand, I will check the close caption.

101C-27: They are very helpful, but sometimes they move too fast to slowly read.

101C-28: I hear the dialog and watching the close caption, it helped me understand better about the story

101C-34: Sometime It bothers me. my eyes keep following closed caption. So I miss the scene.

101C-40: I always watch the closed captions and listen somebody in TV what they are talking about. Thus, it is a little bit hard to watch TV. Some parts maybe missed. Actually, I like to watch the child's program which is easy to understand.

101C-45: Whenever I don't understand what's the person talking about or speak too fast, then I will check close captions. It means I don't always use them unless there are a lot of vocabulary which I don't understand, especially documentary.

101C-47: Sometimes I'm lazy to listen to the speakers, so I prefer reading the closed captions without paying much attention to the speakers. But I often make sure if it's the same what I hear with what I see in the closed captions. I like using closed captions because I don't want to miss any words from my favorite films.

101C-50: Using the closed captions is very helpful, but if I use them too often, I can't improve my hearing.

101C-68: I have to concentrate on watching and listening it.

101C-79: I watched the program & read the caption at the same time. It help me understand the programme better.

101C-81: Listen first and if I don't understand what are going on then I will turn to close captions

101C-86: I will follow the closed captions when I find it is hard to understand the way they speak.

101D-96: It makes me to understand the main idea of the story, especially when the speaker speaks too fast and there are many unfamiliar words.

101D-99: Closed captions help me to understand what the person say. When I watch TV. the closed captions give me helps of how to pronounce some words

101D-100: When I can not understand what they say or can not hear the word very well. I'll watch caption.

101D-105: I likes to turn on the closed captions when the TV program is too difficult for me to understand well.

101D-108: I think is a good Idea. It might help People to understand other languages including english.

101D-109: I often use captions when I see news and some comedy shows escially some jokes or slangs in comedies. Normally I look to the captions when I hear something that I can't understand.

101D-116: When I cannot catch the subject, the caption is very useful for me.

101D-118: 1. Help me to pronounce words correctly.
            2. Help me understand the contents of the films, talk-show, and news.
            3. Sometimes the closed captions changed too quickly so I could not follow
       what were [illegible, maybe "said"].

101D-122: It is good for the English learner. I admit it that I learnt a lot from it. But I don't use it any more because any reading skill is improve, but my hearing skill become poorer.

101D-130: I usually use the closed captions when I watch films. While I was watching and listening, I took my time to read the captions.

101D-133: The closed captions help me to learn English, but it depends on TV Program. For example, when I watch the sports game, I turn off the closed captions, because I am confused to read and watch at the same time.

101D-134: The captions are too slow to go with the speakers.

101D-135: It is important for me to understand what they say using closed captions.

101D-138: While the speaking speed is not to fast for me to follow, I just glance at it to find the few words I missed in listening. Otherwise, for example, in "late show", sometimes I was confused.

180-142: Usually I get some idea from the caption very quickly. Then I listen carefully. I think closed captions helpful. Sometimes, closed captions help me relax and enjoy good movies.

180-144: can't concentrate to listen to try to understand

180-145: I did use caption in the first year I was in United State. Now I turn it off, because it's annoying and I want to really liste to rather than watch the language.

180-148: The closed captions is the same step with what to say in documentaries and film, but much delay inthe news especial in sports that cause much confused when I watched TV, and listened the what the anchor explain.

180-150: Because usually the captions are little slower than speaking, I can catch some new words and key words spoken earlier.

180-151: I usually do not use closed caption to watch TV program. But, when I cannot understand or I heard a word which I did not know, I will use the closed caption. I can only say closed caption is somewhat helpful.

180-152: Pick up the difficult (long, hard-to-pronounce) words, I do not read the whole message.

180-157: It helps me to understand how American communicate.

IE-IntA-168: I hope to understand and learn English a lot of most because my eyes, ears, and my voice when I see TV with caption.

IE-IntB-174: -To improve my listening

-Thats hood

IE-IntC-179: Since Just a few days ago, I have watched the closed caption in TV. But my plans prefer to watch the stable VCR's captioned program and next Headline News etc. If it's possible, I'll record the movie channel and repeat it on caption.

IE-IntC-180: I like the closed captions now. because it help me to understand "what's going on""

IE-IntC-181: If I haven't never used the closed captions, I never understood a lot of English words.

IE-IntC-182: Just use the remote control It's very good system to understand what they are saying.

IE-Hi-195: Normally I used the closed captions to found the meaning of story while the sound (talked) very fast and difficulty to understand.

IE-Hi-198: When I don't understand what they say, I see the "CC".

IE-Adv-204: -It's depend to the movie that I see. If the movie not interesting I will low down the volume as low as possible and just read their conversation from captions to understand the story. If the movie is interesting, I just write the captions when I don't understand the word that their say.

IE-Adv-207: Captions are good for my reading and vocablary but I don't know if it's good for my listening.

IE-Adv-209: While I was listening what they arere saying on TV, I saw the caption at the same time. I try to concentrate myself on listening TV.

IE-Adv-210: I usually try to watch TV without the help of caption's function. I like to record many of TV programs, and then watch again and again. I need only the help of caption while I have missing words.

H/W-215: When I see the movies, it helps me understand the story. When I see, However, the News, it is too fast so I am confused to read and listen at the same time.

The closed captions teaches me how to speak English.

Section VI. Page 4.
If answering yes to the question # 1 of who you watch closed captioned television with, and choosing "other", then filling in the blank of who that "other" was:
101C-27: sister
180-157: family
IE-IntB-174: brother
H/W-215: husband (not American)

If answering yes to the question # 2 of talking or asking questions, keeping quiet, or "other", and choosing "other", then filling in the blank of what the "other" process was:
101C-27: combination of both
101C-40: write down the new words if I've never seen this way
IE-Adv-202: try to read captions

Question 9. Page 5.
If you answered yes to question 8 [about writing something on paper while watching closed captions], what might you write down when watching a closed captioned program?

101B-1: Some word I don't understand.
101B-4: I write some words; I don't the meaning in my language.
101B-10: new words
101C-40: new words, slang
101C-47: I want to know the meaning because the person makes people laugh because of that word, or angry
101C-77: Some words which appear differently in spelling I'm not sure is that the right word.
101C-81: New vocabulary   Sentences that might be useful for conversation
101C-86: When I could not figure out the meaning of some words.
101D-119: Sometimes what the person said on TV is not the same that I saw on TV
              ex: person said: "Are you ok?" Captioned Are you fine?
101D-132: new words
101D-133: If I find a new word, I write down it before forget.
180-145: Generally, I do my best not to read the caption. But when there is a new word or slang, I will quickly glimpse the caption, it is rather difficult to keep listen when you also try to read the caption
180-150: I am interested in how to spell some new and long words.
180-151: I would write down new word or phrases.
IE-IntB-172: a word.
IE-IntC-179: The closed captions in TV are so very fast. I just wrote down simple words; simple adverbs, idiom and known word but which is not sure that meaning
IE-IntC-180: At the same time, it is almost is the vocabulary.
IE-IntC-181: I forget, but I wrote a lot of words.
IE-IntC-183: When I find new word (unknown word) and idiom
IE-Hi-198: vocabulary, idioms

IE-Hi-199: voca, idioms
IE-Adv-204: -vocabulary

Added written comments throughout the questionnaire:

101C-53: [In answering Q. 7, p.2] (None) during the week (1/2 to 1 1/2 hours) during weekend
101C-65: [In answering Q. 6, p.1] Yes, in my friend's dorm. [I watch CCTV]
101C-73: [In referring to CCTV] it would if I had the possibility and time
101D-128: [In answering Q.8, p.2] less than (about 25%)
180-147: [In answering Q.7, p.2] (1/2 to 1 1/2 hours) weekend more
IE-Adv-210: [In answering Sec. IV, p.3]

> #[2. The captions move at the right speed with the story.]   in case of film
> News and sports/live show don't move at the right speed.
>
> #[4. The captions help me to understand what the people are saying.] not always
>
> #[6. The captions cause me to become confused by trying to read and listen at the
> same time.]   sometimes

REFERENCES

Bacon, S. M. (1992a). Authentic listening in Spanish: How learners adjust their strategies to the difficulty of the input. *Hispania, 75,* 398-412.

Bacon, S. M. (1992b). Phases of listening to authentic input in Spanish: a descriptive study. *Foreign language annals, 25,* 317-333.

Bacon, S. M. (1992c). The relationship between gender, comprehension, processing strategies, and cognitive and affective response in foreign language listening. *The modern language journal, 76* (ii), 160-177.

Bailey, K.D. (1978). *Methods of social research.* New York: The Free Press, a division of Macmillan Publishing Co.

Bean, R. M. & Wilson, R. M. (1989). Using closed caption television to teach reading to adults. *Reading research and instruction, 28* (4), 27-37.

Beentjes, H. W. J. (September,1987). *Mental effort and perceptions of TV and books: A Dutch replication study based on Salomon's model of learning.* Paper presented at the European conference for research on learning and instruction, Tubingen, West Germany.

Bianculli, D. (1992). *Teleliteracy, taking television seriously.* New York: Continuum Publishing Co.

Call, M. E. (1985). Auditory short-term memory, listening comprehension, and the input hypothesis. *TESOL quarterly, 19* (4), 765-781.

Celona, J.M. (1983). What does "wicked good" really mean? Students talk about their ESL problems. *MEXTESOL journal, 7* (4), 42-55.

Chamot, A. U. & Kupper, L. of Interstate Research Associates, VA. (1989). Learning strategies in foreign language instruction. *Foreign language annals 22* (1), 13-21.

Chamot, A. U. & O'Malley, J. M. (1987). The cognitive academic language learning approach: A bridge to the mainstream. *TESOL quarterly 21* (2), 227-249.

Chaudron, C. (1983). Simplification of input: topic reinstatements and their effects on L2 learners' recognition and recall. *TESOL quarterly, 17* (3), 437-459.

Christison, M. A. & Krahnke, K. J. (1986) Student perceptions of academic language study. *TESOL quarterly, 20* (1), 69.

Cohen, J. R. (1984). The television generation, television literacy, and television trends. New Kensington, PA: Pennsylvania State University.

Conrad, L. (1989). The effects of time-compressed speech on native and EFL listening comprehension. *Studies in second language acquisition, 11*, 1-16.

Consumer information series: the Caption Center. (March 23, 1994). Boston, MA: The Caption Center, division of the WGBH Educational Foundation.

Danahy, M. (1985). TV or not TV? In Gillespie, J.B. (Ed.), *Studies in language learning: special issue on video and second language learning, 5* (1), (pp. 54-59). Urbana, IL: Publication of the Language Learning Laboratory, University of Illinois at Urbana-Champaign.

Deterline, W. (1989). Information processing. *Performance & instruction, 28* (9), 38-43.

Dickinson, L. (1987). *Self-instruction in language learning.* Avon, U.K.: Cambridge University Press, The Bath Press.

Ehrlich, S., Avery, P., & Yorio, C. (1989). Discourse structure and the negotiation of comprehensible input. *Studies in second language acquisition, 11*, 397-414.

England, D. A. (1982). Television and the classroom -- a critical view and six proposals. *Television and children, 5* (3), 15-21.

English as a second language: a collection of methods and materials for training volunteers. (1984). Fairbanks, AK: Literary Council of Alaska.

Fortune, A. (1992). Self-study grammar practice: learners' views and preferences. *ELT journal, 46* (2), 160-171.

Freed, B.F. (1983). Foreigner talk and conversational interaction. In B. W. Robinett, & J. Schachter (Eds.), *Second language learning: contrastive analysis, error analysis, and related aspects* (pp. 413-427). Ann Arbor, MI: University of Michigan Press.

Gass, S.M. & Selinker, L. (1994). *Second language acquisition: an introductory course.* Hillsdale, NJ: Lawrence Erlbaum Associates.

Geltrich-Ludgate, B. (1984). Suggested strategies for listening comprehension in the foreign language classroom. *Foreign language annals, 17* (4), 339-342.

Gillespie, J. (1981). The role of television as an aid in foreign language teaching. Urbana, IL: University of Illinois at Urbana-Champaign.

Gillespie, J.B. (1985). Copyright guidelines for "Fair Use" of video tapes for education. In J.B. Gillespie (Ed.), *Studies in language learning: special issue on video and second language learning,* 5 (1), (pp. 112 -113). Urbana, IL: Language Learning Laboratory, University of Illinois at Urbana-Champaign.

Goldman, M. & Goldman, S. (1988). Reading with close-captioned TV. *Journal of reading, 31* (5), 458-460.

Hebert, D. (1991). A study of the influence of reading a tapescript to help prepare and develop the acquisition of listening comprehension in English as a second language when using authentic video material with intermediate students at the CEGEP level. Quebec, Canada: International Center for Research on Bilingualism, Laval University.

Hedge, A. (1993). Talking shop: aspects of autonomous learning, an interview with Leslie Dickinson. *ELT journal,* 47 (4), 330-336.

Huffman, D.T. (1986). *Soap operas and captioning in the EFL class.* Paper presented at international conference on language teaching and learning of the Japanese Association of Language Teachers, Hamamatsu, Japan.

Jaben, T. H. (1986). *Implementation of creative listening strategies in the classroom.* Paper presented at the 7th annual meeting of the International Listening Association, San Diego, CA.

James, C. J. (1984). Are you listening? The practical components of listening comprehension. *Foreign language annals, 17* (2), 129-133.

Jankowski, G. F. (1986). Television and teachers: educating each other. Remarks before the Broadcast Education Association annual convention, Dallas, TX.

Kellerman, S. (1990). Lip service; the contribution of the visual modality to speech perception and its relevance to the teaching and testing of foreign language listening comprehension. *Applied linguistics, 11* (3), 272-280.

Kelly, P. (1991). Lexical ignorance: the main obstacle to listening comprehension with advanced foreign language learners. *IRAL, XXIX* (2), 135-149.

Kirschner, C. (1980). Television, degapping, and the ESL student. *Bilingual review / La revista bilingue, VII* (3), 189-194.

Koskinen, P. S. & Wilson, R. M. (1985). Closed-captioned television: A new tool for reading instruction: *Reading world,* 24 (4), 1-7.

Koskinen, P. S., Wilson, R. M. , & Jensema, C. J. (1986). Using closed-captioned television in the teaching of reading to deaf students. *American annals of the deaf, 131* (1), 43-46.

Krashen, S. D. (1985). *The input hypothesis: issues and implications.* New York: Longman Inc.

Larsen-Freeman, D. (1985). State of the art on input in second language acquisition. In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp. 433-444). Rowley, MA: Newberry House Publishers, Inc.

Larsen-Freeman, D. & Long, M. (1991). *An introduction to second language acquisition research.* New York: Longman, Inc.

Laviosa, F. (1991). *An investigation of the listening strategies of advanced learners of Italian as a second language.* Paper presented at the conference on bridging theory and practice in the foreign language classroom, Baltimore, MD.

Lems, K. (1983). *Listening in real-life situations: a set of situation-oriented listening comprehension materials for the ESL classroom.* Unpublished master's thesis, University of Illinois at Urbana-Champaign, Urbana, IL.

Levorato, M. C. & Cacciari, C. (1992). Children's comprehension and production of idioms: the role of context and familiarity. *Journal of children's language, 19* (2), 415-433.

Long, D. R. (1991). Listening processes and authentic texts. In *Acting on priorities: a commitment to excellence. Dimension: Languages '90.* Report of Southern Conference on Language Teaching (pp. 1-25).

Long, M. (1981). Input, interaction, and second-language acquisition. In H. Winitz (Ed.), *Annals of the New York Academy of Sciences, Volume 379, Native language and foreign language acquisition* (pp. 259-278). New York: New York Academy of Science.

Long, M.H. (1983). Native speaker / non-native speaker conversation and the negotiation of comprehensible input. *Applied linguistics, 4* (2), 126-141.

Lynch, A.J. (1988). Speaking up or talking down: foreign learners' reactions to teacher talk. *ELT journal, 42* (2), 109-116.

Markee, N. P. (1994). Toward an ethnomethodological respecification of second-language acquisition studies. In E. Tarone, S. Gass, A.D. Cohen (Eds.), *Research*

methodology in second-language acquisition. (pp. 89-114). Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.

Markham, P.L. (1989). The effects of captioned television videotapes on the listening comprehension of beginning, intermediate, and advanced ESL students. *Educational technology, XXIX* (10), 38-41.

Matthews, D. D. (1982). *Teaching selective listening strategies for comprehension and acquisition.* Paper presented at the 16th annual convention of Teachers of English to Speakers of Other Languages, Honolulu, HI.

Mehler, A. (1988). The potential of captioned television for adult learners. Working papers of Planning and Development Research. Washington, D.C.: Office of Educational Research and Improvement.

Metallinas, N. (1982). *Development and analysis of television grammar: an overall view.* Paper presented at the annual meeting of Canadian Communication Association, Ottawa, Canada.

Mocker, D. W. & Spear, G. E. (1982). Lifelong learning: formal, nonformal, informal, and self-directed. Information series # 241 from the Center for Resource Development in Adult Education. Kansas City, MO: University of Missouri.

Morley, J. (1984). *Listening and language learning in ESL: developing self-study activities for listening comprehension.* Orlando, FL: Harcourt Brace Jovanovich International.

Murphy, J. M. (1985). *An investigation into the listening strategies of ESL college students.* Paper presented at the 19th annual meeting of the Teachers of English to Speakers of Other Languages, New York.

N C I f y i: Information from the National Captioning Institute, Inc. (March 12, 1993). Falls Church, VA: National Captioning Institute.

Neuman, S. G. & Koskinen, P. (1991). Caption television as "Comprehensible Input": effects of incidental word learning from context for language minority students. University of Lowell: Study conducted with the U.S. Department of Education and Center for Field Studies and Services.

Nolen, S. B. et al. (1986). *Development of a scale to assess students' knowledge of utility of learning strategies.* Paper presented at the 67th annual meeting of the American Educational Research Association, San Francisco, CA.

Nykios, M. & Oxford, R. (1993). A factor analytic study of language-learning strategy use: Interpretations from information-processing theory and social psychology. *Modern language journal, 77* (i), 11-22.

O'Malley, J. M. & Chamot, A. U. (1990). *Learning strategies in second language acquisition.* New York: Cambridge University Press.

O'Malley, J. M., Chamot, A. U., & Kupper, L. (1989). Listening comprehension strategies in second language acquisition. *Applied linguistics, 10* (4), 418-437.

O'Malley, J. M., Chamot, A. U., Stewner-Manzanares, G., Kupper, L., & Russo, R. P.: InterAmerica Research Associates, Rosslyn, VA. (1985). Learning strategies used by beginning and intermediate ESL students. *Language learning, 35* (1), 21-46.

Oxford, R. L. (1989). "The best and the worst": An exercise to tap perceptions of language-learning experiences and strategies. *Foreign language annals, 22* (5), 447-454.

Oxford, R., Crookall, D., Cohen, A., Lavine, R., Nyikos, M., & Sutter, W. (1990). Strategy training for language learners: Six situational case studies and a training model. *Foreign language annals, 22* (3), 197-216.

Oxford, R. & Cohen, A. D. (1992). Language learning strategies: Crucial issues of concept and classification. *Applied language learning, 3* (1 & 2), 1-35.

Oxford, R. L. (1993). Research on second language learning strategies. *Annual review of applied linguistics, 13*, 175-187.

Oxford, R., Park-Oh, Y., Ito, S., & Sumrall, M. (1993). Learning a language by satellite television: What influences student achievement? *System, 21* (1), 31-48.

Oxford, R. (1994). Language learning strategies: An update. *ERIC Digest.* Washington, D.C.: ERIC Clearinghouse on Languages and Linguistics.

Parkinson, B. , Dawson, G., Makin, L., & Mulphin, H. (1991). The reaction of learners to tape-based listening comprehension materials in French, Spanish and Italian "Community Classes". *Edinburgh working papers in linguistics,* (2), 14-23.

Parks, C. (1986). A manual for closed captioned television in ESOL instruction. Upper Marlboro, MD: Prince George's County Public Schools.

Parks, C. (1994). Closed captioned TV: A resource for ESL literacy education. *ERIC Digest.* Washington, D. C.: National Clearinghouse for ESL Literacy Education.

Pica, T. et al. (1990). Making input comprehensible: Do interactional modifications help? Washington, D.C.: Revision of paper presented at the Teachers of English to Speakers of Other Languages 1985 Summer Meeting.

Prince George's County Public Schools, Upper Marlboro, MD. (1981). *Evaluating the benefits of closed-captioned TV programming as instructional medium for ESL students. Final Report.* Washington, D. C.: Center for Applied Linguistics.

Prokop, M. (1989). *Learning strategies for second language users: An analytical appraisal with case studies. Mellen studies in education Volume 2.* Lewiston, NY: The Edwin Mellen Press, Ltd.

Reid, J. (1990). The dirty laundry of ESL survey research. *TESOL quarterly, 24* (2), 323-338.

Rickelman, R. J., Henk, W. A., & Layton, K. (1991). Closed-caption television; a viable technology for the reading teacher. *The reading teacher, 44* (8), 598-599.

Rivers, W. (1971). Linguistics and psychological factors in speech perception and implications for teaching materials. In P. Pimsleur & T. Quinn (Eds.), *The psychology of second language learning.* Cambridge, England: Cambridge University Press. (p. 130).

Rubin, J. & Thompson, I. (1992). Materials selection in strategy instruction for Russian listening comprehension (Report No. ED 349 796). Washington, D. C.: Educational Resources Information Center.

Selitzki, J. (March,1994). Telephone interview at Public Relations, Caption America, Pittsburgh, PA.

Sheerin, S. (1987). Listening comprehension: Teaching or testing? *ELT journal, 41* (2), 126-131.

Smith, J. (1990). Closed-caption television and adult students of English as a second language. Action research, George Mason University, Arlington, VA.

Spear, G. E. & Mocker, D. W. (1984). The organizing circumstance: Environmental determinants in self-directed learning. *Adult education quarterly, 35* (1), 1-10.

Swanson, C. H. (March, 1984). *Monitoring student listening techniques: An approach to teaching the foundations of a skill.* Paper presented at the 75th annual meeting of the Eastern Communication Association, Philadelphia, PA.

Taylor, H. M. (1981). Learning to listen to English. *TESOL quarterly*, *15* (1), 41-50.

Thompsen, P. (1992). *Public broadcasting in the new world of digital information services: what's been done, what's being done, and what could be done*. Paper presented to the International Communication Association, Miami, FL.

Tudor, I. & Hafiz, F.M. (1989). From input to intake: the effect of simplified readers in ESL development. *Journal of reading*, *32* (8), 688-693.

Ulmer, G. (1989). *Teletheory, grammatology in the age of video*. New York: Routledge, Chapman, and Hall, Inc.

Van Patten, B. (1984). Communicative values and information processing in L2 acquisition. In Larson, P., Judd, E. L., Messerschmitt, D. S. (Eds.), *On TESOL '84: A brave new world for TESOL*. (pp. 89-99). Washington, D.C.: TESOL Publications.

Vanderplank, R. (1988). The value of teletext sub-titles in language learning. *ELT journal*, *42* (4), 272-281.

Vanderplank, R. (1990). Paying attention to the words: Practical and theoretical problems in watching television programmes with uni-lingual (CEEFAX) sub-titles. *System, 18* (2), 221-234.

Vanderplank, R. (1993). A very verbal medium: Language learning through closed captions. *TESOL journal, 3* (1), 10-14.

Vann, R. J. & Abraham, R. G. (1990). Strategies of unsuccessful language learners. *TESOL quarterly, 24* (2), 177-198.

Wardrop, E. & Anderson, K. (1992). An investigation into learners' reactions to learner training for self-access listening. *Edinburgh working papers in linguistics*, (3) 135-145.

Weasenforth, D. L. (1994). *Closed captioning: Students' responses*. Paper presented at the 28th annual meeting of the Teachers of English to Speakers of Other Languages, Baltimore, MD.

Zimmerman, B. J. & Pons, M. M. (1986). Development of a structured interview for assessing student use of self-regulated learning strategies. *American educational research journal, 23* (4), 614-628.