

The Effectiveness of Video vs. Written Text in English Comprehension and Acquisition of ESL Students

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Abstract

This paper reports an experimental study conducted to compare intermediate-level, English as a Second Language (ESL) students' overall comprehension when using video vs. written text as a learning tool. The ultimate goal of this study is to compare which of the two learning tools (video and written text) can further enhance the ability to comprehend L2 input in ESL students. The use of a book-based movie and the original book was to provide as much similar content as possible for both groups, yet in two different modes. Six Saudi students participated in this experiment where they were divided into two equal-numbered groups. Two phases were conducted due to concern that some individual differences of the participants (e.g., age and memory capacity) might have had a greater impact on the results of either group rather than the actual learning tools. The result of the two different learning tools: video and written text indicated that the use of a video was more effective for language comprehension than the use of a written text. Based on the answers of the given questions, the experimental group members, who viewed the movie segment, demonstrated higher levels of attentiveness than the reading group members.

Keywords: Comprehensive Input, English as a Second Language (ESL), Second Language acquisition, video-based activities.

Introduction

This report reports an experimental study conducted to compare intermediate-level, English as a Second Language (ESL) students' overall comprehension when using video vs. written text as a learning tool. The study is theoretically based on Krashen's (1981, 1985) "Comprehensible Input" theory in which he argued that second language learners must actually *get* sufficient "linguistic input" of the target language in order to "trigger" in their second language learning process. Although there are other crucial internal factors that play important roles in L2 acquisition, like the ability to decode and memorize linguistic particulars, L2 acquisition cannot take place without the L2 input as Krashen argued. Yet, there are many different teaching methods through which L2 input is conveyed. According to Baggett (1984), "it appears that when (audio and visual information are) presented together, each source provides additional and complementary information that retains some of the characteristics of the symbol system of origin." Thus, the study will address the following: Does watching a video enhance ESL learners' English language comprehension more than reading a text?

Two groups of ESL students, three in each, participated in this experiment consisting of two phases. During Phase (1), a segment of a movie was shown to one group while the second group was provided an excerpt from a book upon which the movie was based. Then, content-based questions were given to both groups in order to examine the effectiveness of each learning tool concerning the participants' English comprehension. In Phase (2), a different section of the movie and book were provided to the students, and the two groups exchanged positions; i.e., the viewing group in Phase (1) became the reading group in Phase (2). As in Phase (1), Phase (2) was concluded by presenting a set of content-based questions to each group. Two phases were conducted due to concern that some individual differences of the participants (e.g., age and memory capacity) might have had a greater impact on the results of either group rather than the actual learning tools.

Literature Review

Some studies have examined the benefits of using multimedia tools for teaching English as a second language. They surveyed ESL/EFL learners' individual perspectives on the use of multimedia in their personal learning processes. Generally speaking, ESL/EFL learners support the use of multimedia in their classrooms as many surveys have proven learners' positive attitudes toward the implementation of this kind of learning tool.

In their experimental study, McNulty and Lazarevic (2012) investigated the role of using video to improve L2 learners' pronunciation. The study used videos of different topics in the classroom as a component of ESL students' activities. In this experiment the learners watched a video about Influenza ways to potentially avoid its infection. In a role-playing activity, groups of three students were each assigned one of the avoidance methods and instructed to perform and videotape the procedure for the class to view later. The study found that the recording and viewing of the groups' videos significantly enhanced the participants' English pronunciation. Unfortunately, this study did not include clear evaluation criteria to demonstrate how pronunciation improvement was measured.

In another study, Seferoğlu's (2008) aim was to find the reflections of EFL students on integrating feature films in EFL oral communication classrooms. The students were required watch films and participate in graded activities related to the films. The Likert scale (from *Strongly agree* to *Strongly disagree*) was utilized to collect the participants' opinions followed by a section for descriptive comments to be provided by these participants. Most students

indicated that using films was extremely helpful in improving their oral communication skills in English. In line with this study, Choi & Johnson (2005) also showed similar results as their experiment revealed that learners' had more positive attitude toward video-based lessons over text-based lessons in terms of information retention. The importance of their findings lies in the positive opinions of ESL learners toward the use of movies as a learning tool; however, the paper of Choi & Johnson (2005) also did not reveal any specific language skill(s) that the students considered improved by implementing videos as a learning tool. However, both studies are an opinion-based measurement and the dimension of a specific skill improvement was not empirically assessed.

South, Gabbitas, & Merrill (2008) discussed how video-based dramatic narratives compared to "small talk" (i.e., non-narrative) videos specifically designed for educational ESL settings could assist second language comprehension by increasing the amount of contextualized content to L2 learners. It also presents some potential benefits and areas of concern when implementing this model as a learning tool. Essentially, the study compares L2 learners' reactions to using non-narrative videos vs. narrative videos. Narrative videos were ultimately found to be more engaging than the "small-talk" videos. This study is somewhat different than the experiment to be presented in this paper, however, as the study of South et al., (2008) compares two distinct types of videos while the study presented in the following pages compares use of video vs. written text in improving L2 development.

In a similar study, the aim of Trinder's (2002) was to collect data on students' reactions to the integration of a multimedia CD-ROM into their Business English language program. The participants were 30 undergraduate non-native speakers of English students studying Business Administration in their fourth and final year in Australia. The data collected through reports written by these students on what language tasks they chose when using the program, observation of students' interaction with the program, and questionnaire to determine the end result of the study. During the observation process, some respondents said that they enjoyed working with the CD, but they doubted whether they learned anything new. On the questionnaire, only 50% of participants agreed or strongly agreed that the video sequence was interesting. Unlike the opinion-oriented results of the above study, the experiment presented in the following pages focuses on skill achievement measurement.

Klassen & Milton (1999) also evaluated the usefulness of the use of multi-media in classroom. It was conducted at the City University of Hong Kong where the major component of the project was the development of an interactive multimedia CD-ROM of Business English program. Pre-test and post-test was used with both the experimental and control groups. Results of the experiment indicate that students who completed the syllabus in a multimedia-enhanced mode demonstrated significant improvement in listening skills when compared to students who completed the same syllabus in a traditional classroom mode. Though similarities exist between this study and the one to be presented in this report, there are significant differences. These differences include the educational setting, (i.e., EFL vs. ESL), and the areas to be measured, (i.e., movie vs. text and writing vs. listening).

These studies were conducted, in large part, to collect learners' opinions regarding the use of multi-media tools in the classroom. However, the comparison of overall comprehension acquired specifically after the use of a video vs. the use of a written text has yet to be examined. Rather than measuring speaking or writing skills in particular, this study is intended to reveal which learning tool, written text or film, further enhances English comprehension of nonnative, intermediate level ESL learners.

Research Method

This experiment aimed at measuring ESL learners' English comprehension when a movie vs. a written text is used. A book and a movie based on this book were used in this experiment. Two different 10-minute segments of the movie and their corresponding sections in the book were used to conduct this experiment. Two groups, each consisting of three ESL students, participated in the experiment. The use of a book-based movie and the original book was to provide as much similar content as possible for both groups, yet in two different modes. This is a crucially important aspect of the experiment, as the purpose is to examine *comprehension* from video vs. reading, rather than student' personal preferences.

Participants

Six Saudi Arabian, nonnative speakers of English participated in this experiment: four males and two females. They are all at the intermediate-level of English Proficiency, studying at the Center of English as a Second Language in the University of Arizona. Their ages ranged from 19 to 26 (Ali, 20, Manal, 23, Saeed, 26, Khalid, 25, Abdul, 19, Fatima 21), and their first language is Arabic. They were divided into two groups of three students. Group (H) is the experimental group (video mode), and Group (K) is the control group (reading mode). In Phase (1), Group (H) watched a 10-minute movie segment while Group (H) read the corresponding text in the book. During Phase (2), the groups switched modes.

Since the participants are all at the same level of English proficiency, some actions were taken in order to reduce the effect of different independent variables between the two groups to the greatest possible degree. Among these, as this experiment included only two female learners, each group included one female member. In addition to that, learners of similar age were divided between the two groups.

Materials

The materials used in this experiment include (1) a book titled "*Horton Hears a Who*" and (2) a movie of the same title and premise. As this book was intended primarily for a child audience, the selection of this particular movie and its book was deliberate, considering the level of difficulty and language, as well as the humorous nature of the selection. Clear pronunciation and easily understood content make this choice of movie and book well suited for intermediate, L2 learners of English. The humorous nature of the selection is important because it aids in participant motivation and engagement.

Based on the given content, each participant was given two different types of questions on one sheet. The first type of questions consisted of eight randomly-ordered occurrences from the story, and were then asked to arrange them in the order in which they occurred in the film and/or the book. The second type of questions consisted of six True/False statements based on the given content. Therefore, Each participant received a sheet containing the same 14 questions.

Procedures

This experiment took place over four consecutive days and four separate sessions. Each session lasted roughly 20 minutes each. Reliability and validity of this study were regarded with extreme care and considered highly important. After viewing about 30 seconds of the video by the video group, and reading about 2 lines of the text by the reading group, the participants were asked if they had viewed or read the material prior to this experiment. All participants stated that

they had not. Furthermore, in order to ensure participants did not access the book or movie outside of the experiment sessions, the title of the selection was hidden from participants.

Phase (1): The six participants were divided into two groups; Group (H), the experimental group, and Group (K), the control group. Each group consisted of three participants. Group (H) members were asked to watch the first selected 10-minute segment of the movie while Group (K) participants were provided and asked to read the respective passage from the book. Then, in order to measure comprehension, each participant was given a sheet of 14 questions, which included two types of questions. (See Appendix). Section (1) of the given question sheet consisted of six separate statements representing a different chronological sequence of the events than the actual chronological sequence of events in the watched or read content. The participants, based on their comprehension of the content, had to chronologically reorder these eight statements to correctly reorganize the content events as they were actually represented in both the movie segment and the given text. Section (2) contained eight True/False statements also based on the given content.

Phase (2): In order to ensure the reliability of the experiment, the Phase (1) procedure was repeated, however slightly modified. In this phase, the participants were provided different 10-minute segment of the movie and its corresponding passage of the book. Also different from Phase (1), the two groups switched modes. The experimental group in Phase (1) became the control group in Phase (2) and vice versa. Again, content-based questions were also given to each participant as in Phase (1).

Results

Phase (1) results:

Video Group (H) (Experimental group)	Ali	Manal	Saeed	Mean	Overall Percentage
<i>Number of Correct Answers out of 14</i>	10	10	9	9.6	80%
Reading Group (K) (Control group)	Khalid	Abdul	Fatima	Mean	Overall Percentage
<i>Number of Correct Answers out of 14</i>	8	7	6	7	58.3 %

Phase (2) results:

Video Group (K) (Experimental group)	Fatima	Abdul	Khalid	Mean	Overall Percentage
<i>Number of Correct Answers out of 14</i>	11	10	10	10.3	86.1%
Reading Group (H) (Control group)	Manal	Ali	Saeed	Mean	Overall Percentage
<i>Number of Correct Answers out of 14</i>	8	8	6	7.3	61.1%

In Phase (1) All the three members of group (H), the experimental group, outscored their group (K) counterparts. The data obviously indicates that when the video mode was used, the participants scored more correct points compared to the use of the reading mode. The experimental group's three members scored 10,10,9 correct answers of the total 14, while the

control group's members scored lower, with scores of 8,7,6 correct answers of the same 14 questions.

When comparing the two groups' mean scores, the video group outscored the reading group with 9.7 to 7 with more than 30% gap between these scores. This is a clear indication that the use of videos as a learning tool leads to strengthened language development in L2, Saudi ESL learners. As mentioned earlier, the goal of conducting two phases was to ensure that the results would not be affected by the subjects' individual differences (e.g., age, time spent in the USA, gender, and working memory capacity...etc.). Thus, in Phase (2) each group took the position of the other with different sections of the same materials this time.

Again in Phase (2), the video group's members, Group (K) in this phase, also outscored their counterparts in the reading group, with scores of 11,10,10 compared to those of the control group (8,8,6) scored by the control group. When comparing the scores of the two experimental groups in both phases, it is also noticed that the experimental group members in Phase (2) had better scores than that of the experimental group members in Phase (1). That is, in Phase (2), the experimental group, Group (K), mean score was (10.3) while in Phase (1) the experimental group, Group (H), mean score was (9.7). Also, when comparing the scores of both control groups in the two phases, it is noticed that Group (H) in Phase (2) mean score was (7.3), which is better than that of the control group, Group (K), in Phase (1), which was (7). This might be due to the fact that the participants had already watched or read parts of the content in the first phase and could expect some events or stories of the content. However, this factor did not change the overall results of the study. Regardless of this factor, those who watched the video consistently scored higher than those who read from the book.

Discussion

As the results indicated, the use of a video in a classroom enhanced the overall comprehension of the content compared to the use of a reading text. As for the specific question presented earlier in the report: Does watching a video enhance Saudi ESL learners' English language comprehension more than reading a text?

After looking at the answer sheets in both phases, it was obvious that watching a video was a causative factor that led the experimental group to consistently answer more correct answers than the reading group. Although understanding the accent of English native speakers is generally a major obstacle that most nonnative speakers of English face when verbally interacting with or listening to native speakers, the experimental group members managed to overcome this obstacle. This was due to some factors presented in the following explanation.

In addition to that, the video group members were more engaged with the given content since they were better able to capture specific details than the reading group as Section (2) answers indicated. One reason that might have contributed to this conclusion is the fact that these details presented in Section (2) were mostly taken from the final parts of the given content. Thus, watching the video kept these participants more engaged with the happening events. There is a high probability that the reading group had somewhat disengaged from the content near the end of the passage. These results speak loudly for advocating the use of more visual aids, specifically videos, when teaching English as a second language.

As this experiment shows, there is a consistency of results in both phases toward the use of video as part of L2 classroom. This is due to many different reasons, including:

(1) The Visual Aid Factor

As Paivio's (1986) dual coding theory summarized, the cognitive process of the human brain continues in relation to the processing of information resulting from interplay of both verbal and visual elements. Thus, the availability of the visual aid in the video mode likely played a significant role in enhancing these participants' overall performance. This is mainly due to the relationship between the language used in the video and the symmetrical and coherent correspondence of the visual aid. Such a relationship is not present in the reading passage. In other words, "pictures and sounds bridge the gap of unconnected themes, save spaces for learners' limited working memory and therefore speed up the process of learning." (Wang, 2012).

Although both groups tries to decode the given input to extract the required information, the use of a video provided language input accompanied by visual aids, which served as an advantage to the video group. This advantageous feature of video also played a great role in keeping the participants less distracted by potential obstacles such as unfamiliar phrases or words which might have hindered the reading participants from maintaining a necessary level of attention until the end of the material. This is another example of how stimulation of ESL students' visual memories aids significantly in the acquisition of English as a second language.

(2) The Delivery Mode of Input

Although both groups in this experiment were exposed to identical content and procedures in two different phases, the modes through which the L2 input was conveyed had different degrees and dimensions in keeping a learner's more engaged. As Spencer (1991) indicated:

There is now strong evidence that information is stored in two separate but inter-connected systems within the human organism: a verbal system and an image system. Media which involve bi-modal presentations, addressing both storage systems, will be more effective than uni-modal media, particularly when the tests are bi-modal. (p. 19-20)

Apparently the use of video exceeded the use of written text during this experiment. This is due to the fact that the use of visually-enhanced content could hit more "buttons" in a learner's brain. As the given questions included specific details, the participants had to be focusing on the content when watching the video or reading the text in order to give correct answers. This indicates that watching a video encouraged levels of strengthened student engagement with the content than can be achieved while reading. The data gathered from this experiment is undeniable evidence that the reading participants, to some extent, began to disengage when nearing the end of the reading. The decreasing frequency of correct answers regarding content found in the end of the passage strongly supports this finding. White et al. (2000) who presented different instructional advantages of video-based instruction over printed materials as videos contain visual aid accompanied with audio as well as contextual factors that can significantly enhance learners' comprehension.

(3) The Motivation Factor

Another factor, which explains the results of this experiment, is the role of motivation. Although the selection of the given content aimed at motivating the participants to enthusiastically participate in this experiment, it is apparent that watching the movie was generally more entertaining than reading the book. While this is an element potentially skewed

by personal preferences/individual differences among participants, correct answers were always more abundant in the video groups' results. Thus, whether consciously or subconsciously, the video participants managed to better maintain their attentiveness.

While great supporting evidence exists in the case for using video as a learning tool, there is no one mode of delivery that definitely works for all L2 learners. This is mainly due to the varying levels of motivation, abilities to decode information, and capacity of working memories in learners (Salville-Troike, 2012). When compared to other previous studies, particularly the ones in the literature review section, this experiment covered ESL learners' actual performance when using a video comparing it to the typical reading process in ESL classrooms. Unlike other studies, this study did not attempt to directly know ESL students' opinions of the use of videos in ESL classrooms. Rather, it attempted to understand the reasons why and how viewing videos are more beneficial for students. Of course, these results are not to encourage the removal of traditional methods of instruction, as reading and other similar methods are of obvious importance.

Conclusion

This experiment examined ESL learners' comprehension as the result of two different learning tools: video and written text. As shown in the results section that the use of a video was more effective for language comprehension than the use of a written text. Based on the answers of the given questions, the experimental group members, who viewed the movie segment, demonstrated higher levels of attentiveness than the reading group members. Again, this paper is in no way an attempt to encourage the replacement of reading classes with video viewing. Rather, it encourages implementing the use of more narrative-style videos with greater content instead of the commonly used "small-talk" genre of educational videos.

This study, however, does have some limitations. One such limitation is the fact that all participants were Saudi and their native language is Arabic. If this experiment had been conducted with participants of different or mixed groups of ESL learners, the results might have differed. That is, the results of this study cannot be overgeneralized to cover Chinese ESL learners, for example. Another limitation is that this experiment was exercised with only adult ESL learners. Including younger ESL learners to do this experiment could provide useful insights into the language learning process. Lastly, the experiment compared the viewing of videos to reading texts, but it did not compare any other types of language input like listening or interpersonal interaction is another limitation.

To study and experiment further, the same style experiment could be conducted to examine ESL learners' acquisition of new vocabulary—especially idioms. Also, this experiment method could be potentially beneficial in evaluating ESL learners' comprehension of L2 academic and scientific content, particularly with advanced-level learners. One last proposal for further experimentation and research is to employ this experimental structure to examine the results of video viewing in comparison to the listening of radio, tapes, and other recordings.

About the Author:

I am a graduate student at the University of Arizona. My research interests are in (1) L2 processing and (2) English teaching methods and assessment. I have taught English as a foreign language for several years in the English Department at Najran University, Saudi Arabia. My Bachelor's Degree was in English and my Master's Degree was in TESOL.

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Appendix**The questions given in Phase (1) and (2).****A. Chronologically reorder the statements according to the actual events:**

- 2) Horton talked back to the noise coming out of the speck saying: “You’re safe now. Don’t worry. I won’t let you down.”
- 4) The mayor of Who-ville introduced himself to Horton and thanked him for saving his town.
- 3) The Kangaroo confronted Horton and tried to make him look like a fool since Horton was trying to convince her that there are living people inside the speck.
- 5) Vlad the eagle took the flower from Horton and flew away with it in his beak.
- 6) Horton had picked and piled up 9005 flowers on his search for the flower with speck.
- 1) Horton heard a small noise when he was in the pool.

B. Check whether each statement is true or false:

- F Horton was drinking from the pool when he heard a noise coming out of the speck.
- T According to the story, that was the first time that Horton saw a speck that could cry out loud.
- F The speck was lying on the surface of the pool when Horton first noticed it.
- T Horton was not sure how many people live on that speck.
- F The monkeys convinced the Kangaroo that there are no living people on that speck after she initially believed Horton's story.
- T The news of Horton's speck quickly spread through the jungle and everybody knew about it.
- F Horton easily found the speck after Vlad the eagle took it from him.
- F From the very beginning Horton never thought, even for a second, of putting the speck down and leave it.

Phase (2)**A. Chronologically reorder the statements according to the actual events:**

- 1) Horton suggested that everyone in Who-ville should participate in the "shouting!" and the mayor followed this suggestion and the "shouting" started.
- 4) The mayor called up through the howling mad hullabaloo: "Hey, Horton! How's this? Is our sound coming through?"
- 5) They don't hear a thing! Are you sure all your boys are doing their best? Are they ALL making noise? Are you sure every Who down in Who-ville is working.
- 3) People all over Who-ville started beating on metal stuff in order to make their sound heard.
- 2) The elephant smiled: "That was clear as a bell. You kangaroos surely heard that very well." "All I heard," snapped the big kangaroo, "was the breeze, and the faint sound of wind through the far distant trees.
- 6) And, just as he felt he as getting nowhere, and almost about to give up in despair, He suddenly burst through a door and that mayor discovered a very small kid named Jo-Jo who was standing, and bouncing a Yo-Yo and not making a sound.

B. Check whether each statement is true or false:

- F Horton picked four million flowers till he found the speck.
- F Horton suggested to help the Whos repair their city by providing them with tiny papers.
- F Horton was going to be put in a cage and the speck was going to be drowned in the pool.
- T The Whos mayor called for a big gathering in order to shout, "We are here!"
- F Most people in Who-ville were not in fear of being destroyed.
- T Horton asked the Whos to cry loader as the Kongaroo's ears are not as big and sharp as his ears.
- T Through the town rushed the mayor from the east to the west. But everyone seemed to be doing his best. Everyone seemed to be yapping or yipping! Everyone seemed to be beeping or bipping!
- F All Who-ville people died as the speck was destroyed at the end.