

Subtitled Videos, Un-Subtitled Videos, and Indonesian EFL Students' Writing Ability

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Abstract

This study aimed to examine the effects of viewing subtitled videos and un-subtitled videos on Indonesian EFL students' writing ability. In order to achieve the purposes, a quasi-experimental study was conducted by involving 90 EFL students in a state university in Indonesia. The students were from three intact classes. The students in Class A (29 students) were asked to write procedure texts after watching subtitled videos; the students in Class B (31 students) were asked to write procedure texts after watching un-subtitled videos; and the students in Class C (30 students) were asked to write procedure texts without watching any video. The study took place for 14 meetings. At the end of the treatment, the students in the three classes were asked to write an essay in English. The results of the study indicated that there were significant differences in the writing ability of the students in the three classes. More particularly, the students who viewed subtitled videos performed a significantly higher level than those who viewed un-subtitled videos and those who did not view any video. In addition, the students who viewed un-subtitled videos performed better than those who did not view any video. This study offers some pedagogical implications focusing on the use of technology in the teaching of EFL writing. Thus, either subtitled videos or un-subtitled videos can be used to facilitate EFL students' writing ability.

Keywords

subtitled videos, un-subtitled videos, EFL students, writing ability

1. Introduction

Recently, the interest in and use of technology in the field of English Language Teaching (ELT) have greatly changed the way students learn English as a Foreign Language (EFL). This is because the use of technology is likely to make learning more interesting and more successful (Cahyono, 2010). For example, videos, as products of technology, have been claimed to give benefits to the improvement of

language skills due to their potentials in providing language input for students. Videos involve a visual stimulus (images) and language expressions (sounds) that can be used as models of authentic language as used in real situations. Therefore, videos can reinforce the understanding of context-bound expressions and allow students to acquire new vocabulary in EFL.

Subtitled videos in particular provide a triple connection among images, sound, and texts. Thus, by viewing subtitled videos students can hear English used authentically. At the same time they can also notice how English words are spelt, learn how they are pronounced, and see the text on the screen. Accordingly, it will be much easier for them to understand the information that may lead to the learning improvement. Mayer and Moreno (2002) state that the use of subtitled videos in learning environments can facilitate understanding. For example, when the written words fail to fully communicate an idea, a visual representation can remedy the communication problem (Ainsworth & Van Labeke, 2002). Moreover, language expressions can be easily understood when the expressions are matched with the written words. As mentioned by Rokni and Ataee (2014), subtitles had a positive effect on the improvement of students' language skills, particularly students' speaking skill. In other words, subtitles give students a chance to improve their speaking ability.

Lately, educators, materials designers, and researchers have been attracted to investigate the effectiveness of subtitled videos in the EFL classrooms to facilitate students in mastering the language skills and to optimize the teaching and learning process. A number of studies have revealed that subtitled videos offer language students a chance to improve their language skills which include speaking, listening, reading, and writing (Arslanyilmaz & Pederson, 2010; Sydorenko, 2010; Hayati & Mohmedi, 2011; Mohammed, 2013; Rokni & Ataee, 2014). The findings of the studies showed the improvement of the students' language skill. For example, Sydorenko (2010) examined the effect of input from subtitled videos on learning written and oral word forms, vocabulary gain, and vocabulary learning strategies. The findings revealed that the group with subtitled videos performed well in oral recognition of word forms. Similarly, Hayati and Mohmedi (2011) investigated the effect of using subtitle videos in Persian (L1), L2 subtitled videos and unsubtitled videos on listening comprehension on EFL intermediate students. They found that L2 subtitled videos have a positive effect on students' listening comprehension. Subtitled video in the target language is the most beneficial to improve students' language skill particularly in speaking (Rokni & Ataee, 2014).

Studies have also reported some benefits to the integration of subtitled videos into EFL classes. For instance, subtitled videos can help language students in contextualizing the language items (Ilin, Kutlu, & Kutluay, 2013); improve comprehension of, attention to, and memory for the video (Gernsbacher, 2015); improve students' vocabulary (Shabani & Zannusi, 2015); and allow students to perceive the content knowledge easily which leads to the learning improvement (Suparmi, 2017). Moreover, the use of subtitled videos can also facilitate understanding of the target language (Mayer & Moreno, 2002).

In Indonesia, a country in which English is used as a foreign language, it has been widely claimed that among the four language skills, writing is a difficult skill for most EFL students (Mukminatien, 1997;

Widiati & Cahyono, 2006). Widiati and Cahyono argue that writing is difficult because to produce a writing work takes a long process ranging from generating ideas, organizing ideas, and developing the ideas into a readable text. Mukminatien (1997) mentioned that writing is a complex process. In addition, writing needs adequate stock of vocabulary. Hence, it is suggested that EFL teachers use an instructional medium that can facilitate comprehension and vocabulary gain, which makes it an effective language-teaching tool.

Although research has indicated the effect of using subtitled videos on the development of language skills, very limited works examined subtitled videos as tools to improve students' writing ability. Given this reality, the present study aims at investigating the effect of subtitled videos as well as un-subtitled videos as pedagogical tools on Indonesian EFL students' writing ability. The research questions are specified as follows:

1. Do the students taught by using subtitled videos perform better in writing than those taught without using any video?
2. Do the students taught by using un-subtitled videos perform better in writing than those taught without using any video?
3. Do the students taught by using subtitled videos perform better in writing than those with un-subtitled videos?

2. Method

To answer the research questions, we used a quasi-experimental design. The purpose of a quasi-experimental design is not only to determine the effects of teaching strategies but also to be able to create a great deal of knowledge and find reasonable outcomes and conclusions (McMillan & Schumacher, 2010; Ary, Jacobs, Sorensen, & Walker, 2014). Ninety EFL students who were taking English for Specific Purposes (ESP) course in State Islamic University of Maulana Malik Ibrahim Malang, East Java, Indonesia were involved in this study. ESP course in this university is offered in the third semester for English I and fourth semester for English II with 3 credits for each semester. The subjects of this study were the third semester Chemistry department students taking English I. They were 18 to 20 years old. The subjects were from three classes: 29 students in Class A were treated with subtitled videos, 31 students in Class B were treated with un-subtitled videos, and 30 students in the control group (Class C) were taught without using any video.

For the purpose of data collection, the researchers selected five videos as a sample from YouTube (<http://www.youtube.com>). The type of the videos is Chemistry calendar experiment, which is in line with the students' background and need. The language used in the videos is English language. Originally, the videos had no subtitles. With the help of an expert in video-editing, the videos were added with English subtitles. The videos were completed with the duration that showed in minutes and seconds. The topics of the videos were: (1) Chemical Light (3:02), (2) Indigo Dye (3:37), (3) Lava Lamp (3:08), (4) How to Dilute a Solution (3:24), and (5) Making Crystal (3:26). The summary of the

contents of five videos is presented in Table 1.

Table 1. The Title and Content of the Videos from Chemistry Calendar Experiment Published in YouTube

No.	Title of the videos	Content	Duration (Minute & Second)
1	Chemical Light	This video shows the procedure of making light by using a chemical reaction. It explains clearly the materials as well as the steps on how to make a chemical light. There are some materials used in this experiment namely; hydrogen peroxide, sodium hydroxide, and potassium ferricyanide.	3:02
2	Indigo Dye	This video shows the process of dyeing the white cotton T-shirt with blue indigo. It shows the materials needed and the steps of dyeing and mixing the chemicals to make blue indigo.	3:37
3	Lava lamp	This video contains an experiment on making a lava lamp. It can be done either in the laboratory or in our own house with simple ingredients that can be bought freely in a common supermarket.	3:08
4	How to Dilute a Solution	This video shows the appropriate procedure and technique for diluting a solution. The common laboratory technique is preparing a more dilute solution from a concentrated stock solution.	3:24
5	Making Crystal	This video shows the procedure of making crystal. Making crystal is an easy experiment to do but the results depend a lot on the type of chemicals chosen such as salt and aluminum potassium sulfate. This video explains the steps in making crystal clearly.	3:26

The treatment for each group is explained respectively. As subjects taught by using subtitled videos, the students in Class A were given explanation on what a procedure essay is, its linguistic features, and the generic structure. Next, the students were given a model text to be read and discussed in-group. They were then asked to identify the linguistic feature of the model text, classify the information, write the organization of the model text in a procedure scaffold, and they were asked to show and tell their procedure scaffold orally. After group discussion was done, the first subtitled video (chemical light) was played for three times. While viewing the video, the students were suggested to take notes. Having finished viewing the first subtitled video, the students were guided by the lecturer to start writing in-group. Next activities included students' consultations, provision of feedback from the lecturer, and revision of the composition by the students. Having experienced writing in-group, the second subtitled

video (indigo dye) with a topic different was played. Having finished viewing the subtitled video, the students were asked to write immediately and individually. The process was repeated for two other subtitled videos (lava lamp & how to dilute a solution) during the twelve meetings. As subjects taught by using un-subtitled videos, the students in Class B were given the same activities, materials and topics as those given to the students in Class A. However, the videos used in Class B were without subtitles. All in all, it should be mentioned that the five topics of videos were the same, but they were presented differently. The same process, activities, materials and topics were also given to students in Class C. However, the students in this class wrote their compositions without viewing any video.

To obtain the data, this study used two tests and a scoring guide. The first test (pre-test) was administered before the students were given the treatment. This test was used to compare the writing scores obtained by all the students with the aim to know whether the three groups were homogeneous with regard to their writing ability before the treatment. The second test (post-test) was conducted after the treatment to know the effect of subtitled and un-subtitled videos on EFL students' writing ability. The title of the video used for the post-test was "making crystal". The scoring guide for procedure text was used as a reference in scoring the students' essays (see Appendix A to see the scoring rubric for procedure text). Then, two raters rated the students' writings. The scores of the two raters were analyzed to measure the inter-rater reliability coefficient. Pearson Product Moment was employed to measure the correlation between the scores of the first and second raters. The scores of the essays from the three classes gathered from the pre-test and the post-test were analyzed by using One-way ANOVAs to find answers to the research questions.

3. Results

As mentioned previously, this study employed inter-rater reliability to get highly reliable scores of the students' writing. The results of scoring all of the students' writing can be seen in Appendix B to see the students' score both gained from the pre-test and post-test. The three sets of scores were analyzed using SPSS program. Since there were pre-test and post-test for each student, the procedure was repeated for pre-test and post-test separately. Moreover, due to the fact that this study involved three groups, the reliability for each group was calculated separately. The average of the scores of pre-test and post-test of each group was calculated where all the sets of scores given by the two raters were highly correlated in each group since all the correlations were significant ($p = .000$) and all the correlations were high. In addition, it can be reported that the level of internal consistency between the two raters is high.

Using One-way ANOVAs, the scores of the students' essays gathered from the pre-test were compared to know whether the three groups were homogeneous in terms of their writing ability before the treatment. The result of descriptive statistics analysis of the students' writing performance gained by three groups is presented in Table 2.

Table 2. Descriptive Statistics on the Students' Pre-Test

Strategy in Pre-Writing	Mean	Std. Deviation	N
By using Subtitled video	66.3276	5.70601	29
By using Un-subtitled video	62.9839	8.83033	31
Without using any video	62.8333	7.22225	30

Table 2 shows that there is no significant difference among the means of the three groups. The mean obtained by the subtitled group was 66.3276 with a standard deviation of 5.70601, while the mean of un-subtitled group was 62.9839 with a standard deviation of 8.83033, and the mean of the control group was 62.8333 with a standard deviation of 7.22225. To give better understanding in regard to the results of pre-test, it is illustrated in the ANOVA table 3 presented below.

Table 3. Comparison of the Means of the Three Groups by ANOVA (Pre-Test)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	229.942	2	114.971	2.100	.129
Within Groups	4763.547	87	54.753		
Total	4993.489	89			

*The mean difference is significant at the .05 level.

Table 3 shows that the significance level is .129 that is higher than the .05 level of significance, thus, it can be summarized that the three groups were homogeneous dealing with their writing ability before the treatment. Based on this finding, it provides further confirmation to the researchers to use students in the three groups as the subjects of their study.

After a different treatment was given to the three groups, a post-test was administered to get the data of their writing ability. The results of the post-test are shown in Table 3.

Table 4. Descriptive Statistics on the Students' Post-Test

Strategy in Post-Writing	Mean	Std. Deviation	N
By using Subtitled video	87.3621	4.74322	29
By using Un-subtitled video	74.6129	6.74501	31
Without using any video	67.8667	6.99745	30

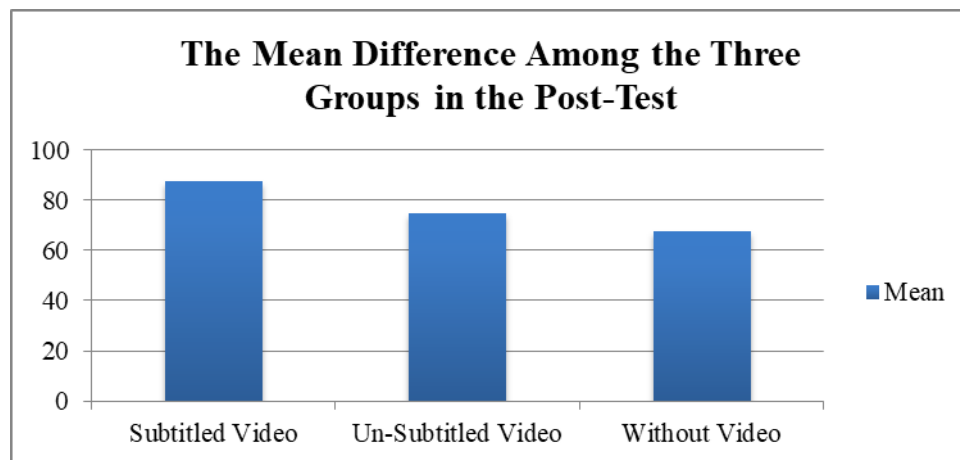
Table 4 indicates that the mean for subtitled group is 87.3621, the mean of the un-subtitled group is 74.6129; while the mean of the control group is 67.8667. The results of comparison among the three means is shown in Table 4.

Table 5. Comparison of the Means of the Three Groups by ANOVA (Post-Test)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5767.911	2	2883.955	73.476	.000
Within Groups	3414.770	87	39.250		
Total	9182.681	89			

*The mean difference is significant at the .05 level.

Table 5 shows that the significance value is .000 which means that there is a significant difference among the means for all the three groups. To give more vivid picture of the result of the post-test, comparison of the mean is shown in Figure 1.

**Figure 1. The Mean Difference of Post-Test Scores among the Three Groups**

Based on the information depicted in Figure 1, it can be said that viewing subtitled videos before a writing activity is the highest among the three groups. However, in order to be able to interpret and determine specifically which groups are different from each other, a Tuckey post-hoc test was administered and the results are presented in Table 5.

Table 6. The Three Groups Differences by Tuckey Post-Hoc Test

Group		Mean Difference	Sig.
Subtitled Video	Un-Subtitled Video	12.74917*	.000
	Without Video	19.49540*	.000
Un-subtitled Video	Subtitled Video	-12.74917*	.000
	Without Video	6.74624*	.000
Without Video	Subtitled Video	-19.49540*	.000
	Un-Subtitled	-6.74624*	.000

It can be seen in Table 6 that the differences among the three groups (subtitled, un-subtitled, and without video group) are significant. On the basis of the results comparison, the answers of the research questions can be stated as follows.

First, among the three groups, the findings show that students who viewed subtitled videos outperformed the group that viewed un-subtitled videos and the group that did not view any video because the significance level was less than .05. Secondly, the difference between subtitled group and the group that did not view any video was significant ($p = .000$). In other words, the students who viewed subtitled videos performed better in writing than the students who did not view any video. Thirdly, the significance level of the mean between un-subtitled group and the group that did not view any video was also significant ($p = .000$), which represented that the mean of un-subtitled video group was greater than the mean of the group that did not view any video. At last, the difference between subtitled and un-subtitled video groups was significant ($p = .000$). Thus, the results of this study indicated that students who viewed subtitled videos performed better than the students who viewed un-subtitled videos. In other words, the effect of subtitled video is greater than the effect of un-subtitled video on students' writing ability.

4. Discussion

The results of the study seemed to be consistent with the hypothesis that there is a significant difference among the three groups-subtitled, un-subtitled, and without video which is in line with the previous studies. The finding of the study revealed that subtitled video group outperformed the other two groups. In other words, subtitled videos give a great effect on students' writing ability than un-subtitled videos and without video. It is shown that students' writing ability in the subtitled group was better than those in the un-subtitled group and the group that did not view any video. One of the reasons might lie on the role of subtitled videos given and viewed in the pre-writing activities. Viewing subtitled videos in the step of pre-writing may be favorable for students to develop their background knowledge and to generate ideas. This statement gives support of the finding of research conducted by Suparmi (2017). She examined the effects of using subtitled video in EFL writing classroom. Two groups were given different treatments; the experimental group was exposed to viewing subtitled videos and the control group was exposed traditional teaching method. Her study concludes that subtitled videos have positive effect on the students' writing ability. In addition, subtitled video benefits and facilitates them in developing their background knowledge, enriching their vocabulary, helping them in generating ideas, and finally leading them in developing their writing. Thus, it can be postulated that the use of subtitled videos can facilitate learning inside the writing classroom as well as improve students' writing ability.

The findings of this study are in accordance with a number of previous studies (Lin, 2004; Baratta & Jones, 2008; Mitterer & McQueen, 2009; Hayati & Mohammadi, 2011; Sydorenko, 2010), which support the effects of subtitled videos in the EFL classrooms. In their study, Barrata and Jones (2008) found that integrating videos facilitates learning of writing and improves students' writing ability.

Similarly, this outcome could also be a corroboration of the findings of research reported by Lin (2004) that subtitled videos affected vocabulary learning which automatically led to writing improvement. This result also coincides with Mitterer and McQueen's (2009) study revealing that subtitled videos help students in regard to the word knowledge and information recall to support them in developing their writing. This statement gives support to findings resulted by Hayati and Mohammadi (2011) and Sydorenko (2010) that subtitles seem to have a positive effect on incidental vocabulary acquisition of students.

It is worth noting that on the one hand, a subtitled video is a powerful pedagogical tool that can help students improve their writing skill, providing them with practice regarding summarized expression, since they must attempt to preserve the main ideas of the message while adapting the discourse. Moreover, subtitles not only facilitate language learning by helping students visualize what they hear, but it also increase language comprehension and lead to additional cognitive benefits (Danan, 2004). Hence, subtitles improve students' understanding the internal coherence and cohesion of texts (Zanon, 2006). In addition to the benefits of subtitled videos on students' writing ability, Richards and Renandya (2002) and Harmer (2001) state that viewing subtitled videos is one of strategies to stimulate writing as well as students' curiosity.

Furthermore, students in the un-subtitled group performed better writing ability than the students who did not view any video. One of the possible reasons for such different results might be connected to the role of video that is likely to be useful for learning and create a meaningful learning experience for students. This supports the assertion by Canning-Wilson (2000) who studied practical aspects of using videos in a foreign language classroom. His study concludes that video increased students' motivation, attracts students' attention, and raises their interest offering a way to contextualize language learning. Similarly, Harmer (2001) mentions that video can be used to create a situation for writing classes in which the students have enthusiasm in learning the process of writing. When students feel motivated in learning, they learn faster and better in understanding the context provided in the videos. Accordingly, viewing un-subtitled videos is more effective than reading printed materials. A study conducted by Kutlu (2013) found that students who studied writing with videos created more successful essays than the students in the control group did. The results of this action research highlight the fact that video, as one of technologies is vital for developing the writing skill as a tool for pre class activities.

All in all, it is interesting to note that there has been an established theory on reading to writing—"the more you read, the better you write". However, the finding of this study verifies that the improvement of writing ability is not simply facilitated by reading printed materials such as books or magazines, yet by viewing subtitled videos. At this point, it might be highlighted that subtitled videos are valuable authentic materials for improving writing ability. Accordingly, subtitled videos can grant students access to authentic text and expose them to real use of the target language. Additionally, subtitled video can serve as an attention-grabbing resource in which students confidently work on the target language. This is also true with Danan (2004) who claimed that subtitled videos are powerful educational tools

since they improve language skills as well as facilitate language learning.

To conclude, the results of the present study indicate that subtitled videos can be effective pedagogical tools. Hence, language instructors should be careful in selecting the topics and adding the subtitled for their lessons in which the choice of the video should be based on the students' proficiency level as well as their interest. Lastly, the integration of subtitled videos in the EFL classrooms is effective, meaningful, and useful when the tasks are carefully planned to assist students accompanied by viewing subtitled videos.

5. Conclusion

The present study has demonstrated some points. First, subtitled videos have a significant effect on Indonesian EFL students' writing ability. The gains of the students were thought to be the result of viewing subtitled videos in the pre-writing activity where it is an important step in the writing process. One prominent point to be taken into consideration is that subtitled videos serve as contextual aids; a concrete picture of words facilitates the students in understanding the target language, provides students a chance to enrich their vocabulary, and helps them in generating ideas.

Secondly, it is also worth to be addressed that apparently, un-subtitled videos have encouraged a meaningful learning environment in writing classrooms compared to the other class experiencing learning without using any video. Videos provide a rich educational experience, facilitating the students to have better writing ability, and making writing activities more exciting and stimulating. All this means that, these results stress the importance of the use of either subtitled or un-subtitled video as a strategy in the pre-writing activity to improve EFL students' writing ability.

This study subsequently offers pedagogical implications, which mainly emphasizes the use of innovative and creative pedagogy in EFL writing classroom. Thus, this study encourages teachers to use either subtitled or un-subtitled in EFL writing classrooms since it improves the students' writing ability, provides them with a variety of ideas related to the topic, and facilitates the writing process. Yet, teachers need to be selective in choosing the video to be used in the writing classrooms that fit to the learning objectives. Next, the video chosen should be educative that contains an issue which is appropriate for the students' need and interest, level, and age. This implies that in choosing the videos, it is important to ascertain that students are exposed to linguistic forms, relevant content, and enriching students' vocabulary.

At last, this study has been limited to the Indonesian setting in which English is considered as a foreign language. Future researchers are encouraged to carry out studies by involving a large sample with different learning styles and comparing students in different levels. In addition, they can conduct a development research by developing a self-made video for teaching writing or other language skills as video proven to be an effective tool for language teaching particularly the teaching of writing.

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Appendix 1. Scoring Rubric for Procedure Essay

Components	Scale	Category	Criteria
Content (30%) <ul style="list-style-type: none"> • Purpose • Clarity and sequential order • Material 	23-30	Excellent to very good	<ul style="list-style-type: none"> • States a precise goal/purpose to communicate a procedural idea for an audience. • Reader can easily complete the task by following the instructions. • Identifies all materials and how much of each is needed.
	15-22	Good to adequate	<ul style="list-style-type: none"> • States a clear goal/purpose to communicate a procedural idea. • Reader can complete the task by following the instructions. • Identifies and list all materials.
	8-14	Fair to poor	<ul style="list-style-type: none"> • States part of a goal/purpose to communicate a procedural idea. • Reader can complete some tasks by following the instructions. • Lists some materials.
	1-7	Very poor to unacceptable	<ul style="list-style-type: none"> • States no goal/purpose to communicate a procedural idea. • Reader cannot complete the task by following the instructions. • Lists a few materials.
Organization (20%)	16-20	Excellent to very good	<ul style="list-style-type: none"> • Clearly introduce background information and knowledge, transitioning seamlessly into procedure. • Transition signals clearly and precisely connect steps in process.
	11-15	Good to adequate	<ul style="list-style-type: none"> • Introduce topic with background information and knowledge. • Transition signals clearly connect steps in process.
	6-10	Fair to poor	<ul style="list-style-type: none"> • Introduce some background information and knowledge throughout text. • Some transition signals are used to connect steps in process.
	1-5	Very poor to	<ul style="list-style-type: none"> • Introduce little or no background information and

		unacceptable	knowledge. <ul style="list-style-type: none"> Few or no transition signals used to connect steps in process.
Vocabulary	16-20	Excellent to very good	<ul style="list-style-type: none"> Very effective choice of words, no misuse of vocabulary and word forms.
	11-15	Good to adequate	<ul style="list-style-type: none"> Effective choice of words, few misuses of vocabulary and word forms.
	6-10	Fair to poor	<ul style="list-style-type: none"> Less effective choice of words, some misuses of vocabulary and word forms.
	1-5	Very poor to unacceptable	<ul style="list-style-type: none"> Not effective choice of words and a lot of misuses of vocabulary and word forms.
Grammar (20%)	16-20	Excellent to very good	<ul style="list-style-type: none"> No errors, full control of structure.
	11-15	Good to adequate	<ul style="list-style-type: none"> Few errors, good control of structure.
	6-10	Fair to poor	<ul style="list-style-type: none"> Many errors, fair control of structure.
	1-5	Very poor to unacceptable	<ul style="list-style-type: none"> Dominated by errors, no control of structure.
Mechanics (10%)	8-10	Excellent to very good	<ul style="list-style-type: none"> No errors in punctuation, capitalization, and spelling.
	5-7	Good to adequate	<ul style="list-style-type: none"> Several errors in punctuation, capitalization, and spelling.
	3-4	Fair to poor	<ul style="list-style-type: none"> Frequent errors in punctuation, capitalization, and spelling.
	1-2	Very poor to unacceptable	<ul style="list-style-type: none"> Dominated errors in punctuation, capitalization, and spelling.

Appendix 2. Pre-Test and Post-Test Scores for Subtitled, Un-Subtitled, and Without Video Groups

Student	Subtitled (Class A)		Un-subtitled (Class B)		Without Video (Class C)	
	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test
1	74	92	60.5	74	66	65.5
2	69.5	90.5	62.5	82	56.5	61
3	60.5	91	51.5	82.5	62	64
4	64	84	56.5	69	51	53.5

5	64	87.5	74	80.5	64	73
6	71	86.5	59	76	61	66.5
7	65.5	84	76.5	81	69	67
8	61	89	79	80.5	61	66.5
9	60	85	56.5	82	71	72.5
10	62.5	91	51	61	62.5	70.5
11	60	85.5	66.5	82.5	64	65
12	56	86	60	83.5	64	67
13	67.5	91	60	71	69	71
14	61	89	83	76.5	61.5	79
15	70.5	88	61	75.5	59	65
16	71	90.5	60	78	59	75.5
17	61.5	91.5	61	65.5	80.5	80.5
18	61.5	91.5	60	71	61	66.5
19	79	87	59	74	60	61
20	72.5	84	59	71	60	70.5
21	70	88.5	60	80.5	62	65
22	65.5	76.5	56.5	71	51	61
23	70.5	90	71	80.5	50	51
24	61	79	83	76.5	64	65
25	73	91	64	77	61	80.5
26	72.5	91.5	59	60.5	50	62.5
27	60.5	89	64.5	65.5	66	67.5
28	73.5	91	69	69	71	74
29	64.5	72.5	68	82	75.5	76
30			51	66	72.5	72.5
31			50	67.5		
Mean	66.3276	87.3621	62.9839	74.6129	62.8333	67.8667