



AUDIO-VIDEO LEARNING RESOURCE AND THE STUDENTS' ENGLISH PRONUNCIATION SKILLS

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Abstract

Learning is a never-ending task. The same may be said for many learning approaches, strategies, and procedures. With the passage of time, educators have been attempting to devise methods for presenting courses in a way that is more easily absorbed by pupils and other individuals. In this current era, where technology pervades everyone's lives, new approaches have emerged and been developed that focus on learning not just in the old-fashioned or traditional ways, but also in innovative, functional, and engaging ways. The key to attaining this is comprehension. Our goal is to see if employing audio-visual tactics to help students learn to pronounce words makes a difference in their learning. The purpose of this study was to find out how well Grade 8 students at Calinog National Comprehensive High School A.Y. 2019-2020. The current study used a quasi-experimental design, which is a sort of evaluation that seeks to evaluate whether a program or intervention has the expected effect on participants using an experimental method. Quasi-experimental studies can take many forms, but they are best defined as investigations that lack critical elements of a true experiment. There is no strong evidence that traditional and audio-video approaches differ significantly. It also can't say whether one way is superior than the other. Otherwise, it's reasonable to conclude that both methods are statistically equivalent. This means that the English teacher's innovative teaching increases students' performance greatly when compared to the traditional and audio-visual methods of teaching vowel sounds to students. Despite the teacher's efforts to improve students' pronunciation drills, there is no convincing evidence to recommend the traditional method over the audio-visual method.

Keywords: *traditional teaching method, audio-visual materials, quasi-experimental study, pronunciation skill*

Introduction

Learning is an endless process. The same is true with the different methods strategies and techniques of learning. As time passes by, educators have been trying to find ways and means on how they would be able to present the lessons that may be easier for the students and other individuals to absorb. In this new era where technology is involved in the lives of every person,

new methods arise and were produced that focuses in learning not only in the old-fashioned way or the traditional methods but at the same time in the new, functional and exciting way.

This era gave chance to the users a chance to harness and explore the beneficial world of technology because of its faster and easier response from the user. We are blessed with the latest trends and systems where mediums like multimedia-embedded objects like videos and audios are accessible by just a click away

Our students come to school each with a unique individuality having different styles of learning and different needs for learning. Most often, it is the teacher who is the one controlling the learning environment especially in the classroom. It is the role of the teacher to provide instructions and instructional materials needed by the students to develop their utmost potential.

For the past years, teachers play a very important role in influencing the student's attitude and behavior. Teachers being their role model are followed, idolized and imitated. This is often seen in the way they interact and the manner of speaking. Especially for those teachers in the basic grades where students first learn the proper pronunciation of words, they should give priority in providing the kids with a good teacher with a good facility of the language. This is to ensure that students will have a good foundation for the basic speech and pronunciation.

Good for those students who were exposed to televisions which provides shows where the characters speak the English language. At least they tend to imitate the lines from these characters and as they try to keep on repeating the words, it has become a drill that influences their manner of speaking without even thinking of learning it. On the other hand, those kids who weren't exposed to medias and English speakers will have to rely on the proper pronunciation of words from the teachers in school.

This is now where the influence of a teacher takes place. How many of us have been speaking words we have heard from our teachers only to find out in the later part that we have been mispronouncing those words all along. It may sound embarrassing but it is because we have known how to pronounce the words, if not we will just keep on saying those words over and over again mispronouncing them.

It is a fact that a lot of people from all walks of life both professionals and unprofessional have been mispronouncing a lot of words. Words that are very common yet because of being unaware as to how they were pronounce, they just say those words with confidence. We find it hard to correct a person who have already established the pronunciation of those words in their system because sometimes they might be offended by the corrections you made unto them.

The television opens to a lot of studies about the use of audio visual in the field of education and they have found out that students does not only prefer those video presentations but they gain a deeper understanding and learning from those videos presented unto them and not just from the words uttered and presented unto them.

Researchers suggests that since the use of audio-videos is composed of two elements: visual, that enable them to see and have a clearer picture of what is being presented to them, and verbal that enables to communicate with them giving another type of information, the combination of the use of these two could provide a better effect in the learning process.

To understand the language and the ability to comprehend is the key in achieving this. Our goal is to discover how using audio-visual strategies to support students learning in pronunciation can make a difference in the student.

In order to accomplish a good communication, both the sender and the one who receives the information to exert their own effort to accomplish their own intentions. By employing visual aids to support communication process, it will be a great help to improve their successful participation. Since most of the learners are visual learners, we have to use those that will enable the students to understand quickly and easily in order to get their attention. They believe that if they can see it then they can understand.

With the fast development in the field of information and communication technology, different media offers new and innovative ways of providing a wide variety of methods and techniques a teacher can do in order to facilitate learning in the classroom. The Internet has become a valuable tool for a teacher to get information and other instructional aids necessary in delivering a lesson in the classroom.

However, during the conduct of the Aptitude Test for English for the incoming Grade 7 students of Calinog National Comprehensive High School where they are made to read a list of words categorized from Pre-Primer to Grade 7 of the Philippine Informal Reading Inventory. It was found out that there are students who can't pronounce the words correctly much more there are still some who can't even read the words correctly even under the Pre-primer and primer category. The enunciation and intonation of the place where they came from is also evident when they are pronouncing the words.

During class discussion, students in the English classes becomes silent especially when they are asked or made to speak because they are afraid that they would be laughed at by their classmates if ever they commit mistakes in reading or mispronouncing a word. Most often, they would just ask the teacher if they could explain their answer in their native language (Kiniray-a) in order to explain their opinions and views.

Students learn faster from what they see and hear. Often, they try to follow and imitate the things they have seen on videos. It is through this observation that the researcher has decided to use videos as a tool in enhancing the student's proficiency of the English language. They can watch videos over and over again and do practice drills imitating the model. Since a lot of these videos can be found in the Internet, the teacher can choose among them the ones which will be applicable to be used in their classroom.

Through the audio-video learning resource materials the learners can enjoy and study everyday English being used in the real social contexts that are brought to life before their very eyes, listening and speaking, repeating the drills as much as they want wherever they go just right at the tip of their fingers whatever multi media will come at hand. These are the ingredients needed to convey meaning and be able to produce a good and meaningful communication.

This study aims to determine the pronunciation skills of Grade 8 students in Calinog National Comprehensive High School A.Y. 2019-2020. Specifically, it seeks to answer the following questions: What is the Pre-test score in vowels of the students of Calinog National Comprehensive High School using the traditional method and using the audio-video learning resource method in teaching vowel sounds? What is the Post-test score in vowels of the students of Calinog National Comprehensive High School using the traditional method and using the audio-video learning resource method in teaching vowel sounds? Was there a significant main gain between the Pre-test and Post-test score in vowels of students of Calinog National Comprehensive High School using the traditional method and using the audio-video learning resource method of teaching vowel sounds. Is there a significant mean difference in using traditional method and using the audio-video learning resource method of teaching vowel sounds?

Null Hypothesis

Based on the aforementioned problems, the following hypotheses are formulated: The is no significant difference between the Pre-test and the Post-test score of students of Calinog National Comprehensive High School using videos and traditional teaching methods in teaching the vowel sounds? There is no significant difference in using videos and traditional methods of teaching when after the pre-test score are considered covariate?

Conceptual Framework

This study is based on the concept of Krashen's Second Language Acquisition. According to Krashen it is through acquisition that falls under the subconscious process and the learning is in conscious. These two plays a very good role in the development of the second language competency of a person. In spite of these, it is acquisition which is more important since the competence is developed and goes along with it. Through this, a person can be able to learn and understand the language making him more competent and fluent in using it. Competency is gained from learning it from the "Monitor" as Krashen describes it. As a learner, a person learning his second language can be able to modify the language he had learned and acquired. Along with this, he can be able to "monitor" the language he is using during and after the production of it.

He believes that language can be learned in different ways. However, in the case of language acquisition, it develops quite differently. It develops exclusively in a person in a sense that having the second language competence needs exposure to the language. One of the most valuable form of acquisition is that the language undergoes a step by step process in the structure any second language student have already known and acquired. (or, in Krashen's terminology, $i + 1$, where i represents language at the students' current level of competence).

On the other hand, the ability of a person to acquire his first language is a lot more different in the manner as how he will acquire his second language. Based on the traditional view of intelligence which recognizes only the verbal and compound ability, it represents a great departure.

A lot of researchers and linguists from around the world always connect such problems especially among the second language learner simply because the vowels sound system in the English language is very complex and is very inconsistent with its pronunciation. This inconsistencies in the pronunciation of the vowels in the English language makes it difficult for other learners of the language to learn its proper and correct pronunciation of the word. Let us take for example the vowel "o". In words like come, dove, cone, and women, where the vowel /o/ in each word it has different pronunciations. Because of this, any English language learner who is not familiar and do not have the mastery of speaking the language fluently will face difficulties in the pronunciation of such words. On the other hand, the following words like look, butter, should, wolf etc. has the vowel /o/ in another set of pronunciations. If you notice just a single vowel can have different pronunciations as used in the different set of words.

This study is also supported by different concepts and research ideas from the different authors with their published studies which are necessary in the conduct of the present study. A person's ability learning to talk in the foreign language is often considered being one of the most difficult aspects of language learning for the teacher to help the students with. We need to help our students to develop their speaking skill not just for them to pass the examination but for general purposes especially when they can be using English to the outside world. They may be needing this when they are studying, working, doing some recreations or just getting along with other people so that they will not have any problem interacting with them merely because they were unable to express their ideas, feelings and opinions fluently in English despite studying the language for so many years.

Vandergrift (2007) believes that what lies in the heart of language learning is listening comprehension. There will always come a time when during the learning process of the language, activities need to be repeated over and over and in a variety of ways. This assures memory retention on the part of the learner and will be remembered for a long period of time. This intellectual process and activity is needed to improve the ideas and skills from short memory term to long term memory making able to the increasing level of complex skills to be rehearsed and perfected since it offers a place of less risk and a place of constant feedback and advice.

This research focuses on the introduction of audio-video in teaching speaking. The use of audio- video learning resource as audio visual aids prepared by the teacher is beneficial as a teacher aided material students in learning their second language in English. The use of these audio-video learning resource material as part of the instructional aid can be used in teaching the different skills in English. These are reading, listening, speaking and writing. Through this, we can say that "video has so much to offer."

According to Catipunan, et al., (2009), media is one of the modern communication technologies that have been designed for communication purposes. It is a means of communicating the messages from the source to the receiver for such purposes as information, entertainment and business. Audiovisual media is one of the most prevalent forms of media. It emphasizes on the use of the senses of hearing (audial) and seeing (visual). It stresses the use of media as means of communication.

Audio media is a device that emphasizes the sense of hearing as means of communication which can be used in a self-paced instruction and in mastery learning and can present stimulating verbal messages more dramatically than the print media which a student can go back repeat segments of instructions as often as necessary (Lucido, 1997).

Furthermore, students love and preferred watching videos because they find these presentations to be enjoyable, interesting, and at the same time challenging and very stimulating. It allows them to view other people from other places and how they live and interact with other people. It provides them with an opportunity to have a glimpse of the life of the people whose language they are trying to learn. It also provides an authentic experience for the students even though they are in a controlled classroom environment.



Figure 1. Schematic Diagram of the Conceptual Framework of the Study

Design

A quasi-experimental study is a type of evaluation aimed in determining if a particular program or process of intervention have an intended effect on the participants 'study. Quasi-experimental studies take on many forms but may best be defined as lacking key components of a true experiment. While a true experiment includes (1) *pre-posttest design*, (2) a *treatment group* and a *control group*, and (3) *random assignment* of study participants, quasi-experimental studies lack one or more of these design elements.

Since the most common form of a quasi-experimental study includes a pre-posttest design with both a treatment group and a control group, quasi-experimental studies are often an impact evaluation that assigns members to the treatment group and control group by a method other than random assignment. Because of the danger that the treatment and control group may differ at the outset, researchers conducting quasi-experimental studies attempt to address this in a number of other ways (e.g., by matching treatment groups to like control groups or by controlling for these differences in analyses). This section focuses on two forms of quasi-experimental studies: a pre-posttest design study without a control group and a pre-posttest design with a control group.

Matching and stratifying groups requires that researchers match participants in each group on as many characteristics as possible to ensure that control and experiment groups are as similar as possible before the treatment is introduced (Shadish et al., 2002).

Another issue researchers need to consider when designing a quasi-experiment is the way in which a particular outcome (dependent variable) will be measured at the end of the treatment period. A posttest is often utilized by researchers for this purpose (Slavin, 2007). One kind of posttest often used by researchers in education is a non-equivalent dependent variable. This particular posttest measures two constructs, one of which is expected to change after a treatment is enacted while the other is expected to remain consistent with previous results. For instance, in the example provided earlier of the principal wanting to study the impact of an after-school program on students' academic achievement in math by using a non-equivalent dependent variable type of posttest.

Researchers also must consider how they will examine possible selection biases (Shadish et al., 2002). Selection biases are factors that may influence the group to which study participants are assigned. Since selection biases can bias experiments, researchers often depend on pretests to be certain that any selection biases are controlled. Pretests are any questionnaire or test that participants are required to complete prior to implementation of a treatment. While pretests may be an option in the design of true-experiments, pretests are essential in the design of quasi-experiments (Slavin, 2007). Pretests can be additionally utilized by researchers at the conclusion of a study to determine the effects of attrition on the study’s findings.

Respondents

The subject of this study was the 60 Grade 8 students of Calinog National Comprehensive High School Calinog, Iloilo enrolled for the school year 2019-2020. It is composed of two (2) sections, the Grade 8 –Artemis and Grade 8- Hestia. They were classified according to age, sex and section.

They were classified as male and female, as to section, they were classified as Grade 8-Artemis and Grade 8- Hestia. Since the sectioning is heterogeneous, both sections have almost the same level of intelligence as the other.

Table 1 shows the distribution of the respondents.

Table 1. The Student’s Distribution

Group	Male	Female	Total
Traditional	15	15	30
Experimental	15	15	30
Total	30	30	60

Instrument

The instrument used to obtain the data is a researcher made reading test about the English Vowel Sounds. It is used to determine the students reading ability in pronouncing the words containing the vowel sounds of the English language.

The reading test consists two parts: Part One contains the vowel sound. The researcher used the 13 vowel sounds namely the [i:], [i], [e], [ei], [æ], [a:], [ai], [au], [o], [o:], [oi], [ou], [yu:], [u:], [u]. Part Two contains ten examples of words the researcher has chosen containing the vowel sounds used.

Data Analysis

The data will be analyzed using the following descriptive inferential statistical tools: a) the mean, b) the standard deviation, c) the t-test Mann-Whitney test.

The t-test or Mann-Whitney test. This was used to determine the significance of the difference in the pronunciation skills of the students of Calinog National Comprehensive High School using the traditional method of teaching and the use of audio-video materials in teaching

The Mean. This was used to determine the level of English pronunciation skills of the Grade 8 students of Calinog National Comprehensive High School using the traditional method of teaching and the use of audio-video learning resource materials in teaching.

Results and Discussions

English Pretest and Posttest Profile of the Traditional and Audio-Video Group.

Before the exposure of the learners to the audio-video teaching and traditional method of teaching to the experimental and control group respectively, a pretest of 130 items was conducted to both groups. After one month of teaching and assessment, the same test was given as a posttest. Table 3 presents the results of the tests which was compared to the 75% expected performance of the learners is 80.

Table 3.
Pretest and Posttest Performance of the Learners In English

Test	Group	Mean	SD	Z value (p-value)	Description
Pretest	Control	57.87	6.62	19.49 (.000)	Below Average
	Experimental	54.67	5.79	24.76 (.000)	Below Average
Posttest	Control	119.9	3.69	59.55 (.000)	Above average
	Experimental	119.8	5.58	39.40 (.000)	Above average

Control (n=30); Experimental (n=30)

**Significant at <.05*

Pre-tests. The table show that the pre-test means in English of the traditional group (57.87) was a little bit greater than the expected mean of 80.0 while the experimental group mean 54.67 was a little bit lower of the controlled group. However, the z-test values revealed that the two groups were comparable as their performance belonged to the below average level. This means that both groups have come up with the expected performance of 75%. Hence the two groups have comparable performance in the pre-test or it can be said that one groups is as bright as the other group.

Post-tests. The same table revealed that the learners in both groups greatly increased their mean scores in the English post-test and the two groups show comparable mean scores (control group-59.55 and experimental group-39.40). The increase of mean scores also leads to above average performance or higher than the expected mean score of 31.50. The computed z-test values were significant at .05 level suggesting that the post-test scores were greatly higher than the expected mean score. This may imply that the learners have learned so much during the teaching-learning activities in the classroom.

Mean Gain Scores of the Control and Experimental Groups

The post-test mean scores were obviously higher than the pre-test mean scores. It was hypothesized that there is no mean gain from the pre-test to the post-test and this was statistically tested using the t-test of independent samples. Results of the comparison is presented in Table 4. (see next page)

Table 4.
Mean Gain Scores of the Control and Experimental Groups

Group	Mean Gain	SD of Mean Gain	Computed t-test	P value	Remarks
Control Group	62.03	5.19	65.474	.000	Reject Ho
Experimental Group	64.13	4.03	87.12	.000	Reject Ho

Control Group. The table shows that the control group had a mean gain score in English test of 5.19, which is the increase from the pre-test to the post-test. The t-test value (65.474) was significant at .000. This rejected the null hypothesis of no significant difference. The post-test score was significantly higher than the pre-test score. The learners have improved their performance in English after being taught using the traditional method of teaching. Hence, traditional method is an effective teaching strategy in English. The lecture and demonstration method can still develop the learners' skills in the correct pronunciation of the words containing the vowels of the English language.

Experimental group. The same findings were revealed with the experimental group. The mean gain score of 64.13 with SD value of 4.03 was significant. The computed t-value of 87.12 was significant at .000 level. This means that the post-test score was significantly higher than the pre-test score. This also mean that the Audio-Video Learning Resource method was an effective teaching method in English. It has improved the learners' scores from the pre-test to the post-test. The audio-video presentations make the students excited about the new teaching-learning techniques. This multimedia presentations may have developed the cognitive domain of the learners' in the experimental group. Hence the use of Audio-Video learning resource is also an effective method of teaching English.

Mean Gain Difference between the Control and Experimental Group

Both traditional and audio-video learning resource methods of teaching were found out to be effective in teaching English. However, the study would like to compare the mean gain between the two groups to find out which method has greater effect on the learners' performance. The t-test of independent sample was used to test the hypothesis of no significant difference between the mean gain scores of the two groups. The results are presented in Table 5.

Table 5.

Mean Gain Difference between the Control and Experimental Group

Group	Mean Gain	SD of Mean Gain	Computed t-test	P value	Remarks
Control Group	62.03	5.18	1.75*	.085	Do not Reject Ho
Experimental Group	64.13	4.03			

**Significant at .05 level*

The table clearly shows that the mean gain score of the experimental group is significantly higher than that of the control group. When statistically tested, the t-test value of 1.75 yielded a p-value of .085 which is lower than .04. Hence the null hypothesis of no significant difference was rejected. There was a significant difference between the mean gain of the control and experimental group. The findings would indicate that the use of audio-video learning resource method of teaching was better than the traditional method. Even if the two methods were effective, yet it can be said that the use of audio-video learning resource is better.

Conclusions

The researcher concludes that new methodology should be adapted into the traditional learning contexts. Since education is deeply rooted in specific philosophies and following the vision and mission of the school curriculum, teachers cannot develop an appropriate methodology unless he or she reflects on the usefulness of it among students in terms of their profile or performance in the class. The challenges of classroom instruction increase when prescribed instructional materials are constituted with many interactive activities to students.

Audio-video learning resource material is a supplementary tool to aid resources form classroom course learning activities. The present study gives insights on students' perceptions using audio-visual method and resources. However, it is also important to consider the teachers' opinions, perceptions, experiences, failures and success in using this methodology.

Recommendations

Based on the findings of this present study the researcher recommends the following:

Teachers may give importance to the students' opinion regarding the use of the audio-visual learning resource materials and understanding on the device use by the teacher.

The school administration should share the opinions of the students regarding on the usage of audio-video learning resource materials that will be helpful in enhancing the learning of these students.

Teachers are encouraged to participate seminars and workshops, conferences and refresher course to improve their skills in teaching speech and oral communication and the use of modern technology as an aid in helping the learning needs of students.

Teachers should expose themselves in modern use of technology and other teaching resources such as computers, audio and visual aids, photographic materials like film strips slides, flat pictures and internet.

The use of the handbook and the video compilation used by the researcher during the conduct of this study can be used by other teachers as an aid in developing and improving the pronunciation skills of students in English



REFERENCES

Arguel, A., & Jamet, E. (2009). Using video and static pictures to improve learning of procedural contents. *Computers in human behavior.*, 25(2), 354.

Baggett, P. (1984). Role of temporal overlap of visual and auditory material in forming dual media associations. *Journal of Educational psychology*, 76(3), 408-417.

Carisma, A. J. et., al. (2009) The effect of Computer Aided Instruction on the Performance in Science of Grade VI-SSC and grade VI-I Pupils of Calinog Elementary School.

Unpublished Undergraduate Thesis, West Visayas State University- Calinog Campus, Calinog, Iloilo

Catipunan, J.D. et., al (2009) Exposure to Audiovisual Media and the Listening Ability of the College Freshmen Students.

Unpublished Undergraduate Thesis, West Visayas State University- Calinog Campus, Calinog, Iloilo

Chandler, P. (2009a). Dynamic visualizations and Hypermedia. Beyond the “Wow” factor. *Computers in Human Behavior*, 25(2), 389-392.

Chandler, P. (2009b). Dynamic visualizations and Hypermedia. Beyond the “Wow” factor. *Computers in Human Behavior*, 25, 389-392.

Craig, S.D., Gholson, B., & Driscoll, D.M. (2002) Animated pedagogical agents in Multimedia educational environments: Effects of agents properties, picture features, and redundancy. *Journal of Educational Psychology*, 94(2), 428

De Jong N.H. et., al. (2011) “Facets of Speaking Proficiency”, *Studies in Second Language acquisition*, Cambridge University Press.

DiPaolo, A. (1995). The Stanford Instructional Television Network: A partnership with Industry. *European Journal of Engineering Education*, 20(2), 243.

Ganzon, J.C. (2009). Exposure to Media and the Oral Production Performance of the Bachelor of Secondary Education Major in English Students of West Visayas State University Calinog, Campus

Unpublished Undergraduate Thesis, West Visayas State University- Calinog Campus, Calinog, Iloilo

Gallacher, L. (undated) , “Video and Young Learners”, *British Council Journals*.

Guttormsen, S., Kaiser, J., & Krueger, H. (1999). *Multimedia: The effect of picture, voice and text for the learning of Concepts and Principles*. ETH-Zentrum 8092 Zurich: Lawrence Erlbaum Associates.

Hegarty, M., Kriz, S., & Cate, C. (2003) The roles of mental animations and external animations in understanding mechanical systems. *Cognition and Instruction*, 21(4), 209-249.

<http://www.cal.org/resources/digest/stansf01.html>

Ibrahim, M. Implications of designing Instructional Video Using Cognitive Theory of Multimedia Learning, Arkansas Tech University.

King, J. (2014) preparing EFL Learners for Oral Presentations

Labitoria, L.M.A., et., al. (2010) Learning Language is Fun and Interactive Multimedia for Kindergarten 2.

Unpublished Undergraduate Thesis, West Visayas State University- Calinog Campus, Calinog, Iloilo

Lapinig, S.M. et., al (2010) Interactive English Learning for Grade One Pupils of Calinog Elementary School

Unpublished Undergraduate Thesis, West Visayas State University- Calinog Campus, Calinog, Iloilo

Laplana, P.D., et., at. (2013) Computer Aided Instruction for P.E 101 and P.E 102.

Unpublished Undergraduate Thesis, West Visayas State University- Calinog Campus, Calinog, Iloilo

Lowe, R. (1999). Extracting Information from an Animation during Complex Visual Learning. *European Journal of Psychology in Education*, 14(2), 225-244.

Mayer and Chandler. (2001). When learning is Just a Click Away: Does Simple User Interaction foster deeper Understanding of Multimedia Messages? *Journal of Educational Psychology*, 95(2), 390.

Mayer, Dow, and Mayer. (2003). Multimedia Learning in an Interactive Self- Explaining Environment: What works in the design of Agent- based Microworlds? *Journal of Educational Psychology*, 95(4), 806.

Moon, J. (2000), *Children Learning English*, Oxford: Macmillian Publishers.

Purcell, K. (2010). The State of Online Video. Pew Internet and American Life Project retrieved 11/10/2010, 2010

Richards, J.C., & Rodgers, T.S. (1996). *Approaches and Methods in Language teaching*, Cambridge: Cambridge University.

Spanjers, D.M., Burns, M.K., and Wagner, A.R. (2008). Systematic Direct Observation of Time or Task as a Measure of Student Engagement, *Assessment for Effective Intervention*, 33:2, 120-126.

Salomon, G. (1984). Television is “easy” and print is “tough”: The Differential Investment of Mental effort in Learning as a Function of Perceptions and Attributions. *Journal of Educational Psychology*, 76(4), 647-658.

Spanjers, I.A.E., van Gog, T., & van Merriënboer, J.J.G. (2010). A Theoretical Analysis of How Segmentation of Dynamic Visualizations Optimizes Student’s Learning. *Educational Psychology review*, 22(4), 411-423.

Wetzel, C. D., Radtke, P., P.H., & Stern, H.W.(1994). *Instructional Effectiveness of Video Media*: Lawrence Erlbaum Associates.