Achievement in Spanish Class for Middle School Students through eLearning

by

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Abstract

The purpose of this study was to determine whether the type of delivery of virtual instruction would affect the achievement of middle school students in Spanish class. The study was conducted with seventy-eight Middle School students enrolled in 8th grade located in Baltimore County, MD. This study evaluated students’ Spanish speaking assessments when lessons were provided with asynchronous as compared to synchronous instruction. Analysis was conducted with a dependent samples t-test. Results suggest that students who in a synchronous class scored higher than students in an asynchronous class. Overall, data indicate that students who took the asynchronous class had more difficulty familiarizing themselves with the structure and pronunciation of words. It appeared that students receiving synchronous instruction were more confident in their Spanish speaking skills.
CHAPTER I

INTRODUCTION

Overview

Nationwide, eLearning has become a topic of heightened importance and attention as its implementation increased rapidly during 2020 and 2021 in response to the Covid 19 worldwide pandemic. Prior to the pandemic, most public-school classes were taught in person, including those at the middle school level. However, with the onset of the pandemic, governments had to take drastic measures to curtail the spread of Covid 19, and these measures frequently included closing schools and moving classes from in person settings to virtual classes.

Reactions to virtual education were mixed. For example, comments from parents, teachers, and government officials reflected their belief that virtual learning was not appropriate and that students did not learn well virtually. Some individuals considered it a lost year academically. Others questioned the quality of instruction offered virtually. Midcalf and Boatwright (2020), reported that students enrolled in online courses have a greater risk of failing and dropping out from school than students who meet face-to-face with their teachers. These researchers noted that online classes are even more challenging for K-12 students because the students frequently are without supervision.

Virtual classes can be taught in asynchronous or synchronous ways. In a study conducted for Beyth et al. (2005) comparing asynchronous and synchronous lessons, the researchers examined six dimensions that included location of the tutorial, time, accessibility of materials, interaction with the tutor during the class, interaction with other students and the cost of technology. These dimensions are useful when identifying advantages and disadvantages of both types of lessons.
Student engagement plays an important role in giving students autonomy to complete their classwork and assignments successfully. Students who are engaged in their classwork demonstrate greater interest and success than those who are not engaged (Hospel & Galand, 2016). Hospel and Galan conducted a study that examined the relationship between student engagement and academic success. The researchers used a questionnaire to collect data from 744 grade nine students. Hospel and Galand found a relationship between classroom context and engagement and highlighted how support for autonomy offered within the classroom was linked to emotional engagement.

Educators frequently use games to engage middle school students in the classroom setting. Piaget (1952) indicated the important link between learning and socializing. Prensky (2001) reflected how games can be used effectively to enhance student learning.

This researcher became interested in the most effective way to use eLearning in her role as a middle school Spanish teacher. She observed that students’ engagement was low in virtual classes and wished to learn whether asynchronous or synchronous virtual teaching styles resulted in more effective learning among her middle school students. This study focused on how the format in which a lesson is delivered to students can affect their achievement in Spanish class.

**Statement of Problem**

This research attempted to find evidence of the learning capacity of middle school students in Spanish class according to the type of instruction assigned (synchronous or asynchronous).
Hypothesis

The hypothesis in this study was that there would be a difference between asynchronous and synchronous instruction as measured by students’ performance in assessments of speaking of Spanish. It was hypothesized that students who received synchronous instruction would evidence a greater level of achievement.

Operational Definitions

**Synchronous instruction** is a virtual class where the instruction is produced at a specific time. This type of class is similar to traditional face-to-face classes, with the only difference being that it is a virtual class. The platform used for synchronous instruction in this study is Google Meets. Students attend the class in their assigned period to complete their tasks during the class time.

**Asynchronous instruction** does not require students to be present with the instructor at a specific time. This type of instruction takes place online. Students have access to a platform where they can complete their tasks. The platform used in this study for asynchronous class was in Schoology.

**eLearning** is also known as online learning or electronic learning. Instruction is delivered through digital resources. eLearning education is to be provided for an electronic device with internet connection.

**Student Achievement** for purposes of this study refers to the level of academic progress reached by a student. This study involved the collection of data in a grade eight Spanish class through a speaking assignment using the two types of instructional delivery: asynchronous and synchronous. The rubric used to measure the students’ achievement was created using the American Council on the Teaching of Foreign Languages (ACTFL) standards.
CHAPTER II

REVIEW OF THE LITERATURE

This literature review is presented in four sections that explore relevant issues related to teaching Spanish to middle school students through eLearning. Section one provides definitions that must be considered regarding virtual classes. Section two discusses perceptions of teachers, parents, and students regarding eLearning. Barriers to effective eLearning are described in section three. Strategies for effective eLearning are offered in section four.

Definitions Regarding e-Learning and Student Engagement

Two important terms related to virtual learning that must be considered are engagement and eLearning. With regard to engagement, the Glossary of Education Reform (2016), refers to the degree of attention, curiosity, interest, optimism, and passion students demonstrate as they learn. It also refers to their level of motivation to learn and progress.

Educators play an important role in the level of student engagement because the way the teacher delivers the lesson affects the students’ interest. There are three types of engagements in the classroom: behavioral, cognitive, and affective (Fredericks et al., 2004). All three types are necessary elements that teachers must consider when they plan a lesson and implement classroom management strategies.

eLearning is not a new concept but one that has received increased attention during the COVID 19 crisis when schools across the nation were closed in 2020-21 due to concerns about infections, serious illness, and death caused by the virus. Online classes have been offered in colleges and universities for many years and were especially designed for adult students who were working full time, but they were offered less frequently in schools serving students in kindergarten through grade 12 (Garcia & Weis, 2020).
eLearning is a type of learning produced via any type of electronic system. The most popular is the online learning that uses internet. There are two ways to deliver lessons through eLearning. These delivery methods are known as synchronous (lessons happening during a specific time with people attending) and asynchronous (lessons that do not happen in a specific time or with mandatory attendance at specific times). Some school districts deliver synchronous lessons on some days and asynchronous lessons on others. Engagement in lessons may vary depending on the delivery method (Beyth-Marom et al., 2005).

When considering student engagement, the theories of Gagne (1965) and Bloom (1956) can be valuable. Gagne’s development theory includes nine levels of learning to activate the five conditions of learning. The nine levels are gain attention, inform learners of objectives, stimulate recall of prior learning, present stimulus, provide learner guidance, elicit performance, provide feedback, assess performance, and enhance retention and transfer. Gagne recommends following the nine levels to help students be successful with their learning. This learning theory, when combined with the Bloom’s Taxonomy (Bloom), is highly recommended for teachers to use in their lessons because Bloom’s Taxonomy helps teachers to prepare lesson objectives through differentiation and Gagne’s theory helps teachers to scaffold the lesson (Fulbrook, 2019).

Perceptions about eLearning

Perceptions about eLearning vary, and these perceptions can enhance or become challenges to eLearning. The section below considers perceptions of teachers, parents, and students.
Teachers’ Perceptions

Teachers have noted that a major challenge related to eLearning is keeping students engaged with the lesson. A study of student engagement conducted by Louwrens & Harnett (2015) considered three areas: behavioral engagement, cognitive engagement, and emotional engagement. Although cognitive and affective engagement are more internal and difficult to observe and measure, both are important for building relationships and increasing student engagement. However, because it is difficult to identify personal goals, values of learning, and school connectedness, and because academic and behavioral engagement are easier to observe, cognitive and emotional engagement, may be inferred from them. Some examples of academic engagement that researchers can measure are time on task, homework completion, and participation during class activities. Examples of behavioral engagement are attendance, suspensions, and being on time to class. Academic engagement is an important concept for teacher reflection. Academic engagement assists teachers to apply the necessary techniques and strategies to remove negative behavior or modify academic situations that could hinder the students’ engagement (Midcalf & Boatwright 2020).

When situations such as the COVID 19 pandemic caused schools across the nation to close in March 2020, school systems were required to adapt instruction to a virtual methodology. School systems implemented different types of instructional delivery, both synchronous and asynchronous, lowered expectations, modified instructional time, and adjusted lesson content. Some of the findings of the study reported by Midcalf and Boatwright (2020) were that communication with parents and students was difficult, some of the students did not log into class during synchronous lessons, many students lacked access to technology and other students did not have access to internet or they had internet issues. The researchers found that even with
schools providing computers to students, some students continued to have issues with internet and Wi-Fi at their homes, or the area where they live had poor internet coverage. The research also revealed that some students are not comfortable with eLearning and they avoid video connections and keep their microphones muted.

It is difficult to ensure equity with virtual learning when not all students have the same accommodations, personal situation, or background. Researchers Barnum and Bryan (2020) provide evidence of the lack of equity in the level of participation among students. They found that 51% of teachers in low-income schools reported that students participated in class daily, but 49% of teachers were concerned about the lack of participation of their students. The researchers also reported that schools with primarily black and Hispanic students spent 78% of instructional time reviewing previously introduced concepts instead of introducing new topics.

**Parents’ Perceptions**

It is essential to value what parents think about the lessons their children receive, and their concerns about their children being left behind by the challenges of virtual learning, Midcalf and Boatwright (2020) expose the problems of online teaching and learning as revealed by a parent survey. The results of this parent survey highlighted the major challenges for parents as being time to help their children, use of technology, and learning concepts. Most of the parents surveyed worked full time and had difficulties combining work life with family life when their children were taking online classes at home by themselves. Another major concern was using the technology because even though parents were familiar with cell phone usage, the tools used for online learning are different and varied and include using venues such as Microsoft, Zoom, and Canvas.
**Students’ Perceptions**

Students are undoubtedly those most impacted by the changes the COVID 19 pandemic has imposed on schooling and everyday life. Midcalf and Boatwright (2020) explain that students lost their liberty to play in their neighborhood streets or playgrounds, to participate in sports or after school activities, to see their classmates, and attend face to face classes. These regular activities that had been part of their daily lives were gone. Their lives were now largely limited to being at home and meeting their teachers and classmates through the screen of their computers. Students were being asked to use different and unfamiliar platforms to learn. Students felt disconnection with teachers and teaching. They had issues adjusting to online learning environments and experienced a lack of resources such as parental support, technology and tools used for learning activities.

Bishop and Pflaum (2005) studied the relationship between social dimensions and academic engagement and found that middle school students identify four major social dimensions that influence their engagement in classroom learning. These four dimensions are community, leadership, distraction, and judgment. It is possible that these dimensions which affect the students in a face-to-class could be applied to benefit them in eLearning.

**Barriers during eLearning**

Although eLearning is a new field to explore for most everyone, there several barriers that teachers, parents, and students must surmount to succeed during this adaptation period. The lack of social interaction is the single most important barrier to students learning online, while technical problems and access to internet also are barriers. Muilenburg and Berge (2005) cited lack of social interaction, administrative or instructor issues, time and support for studies, learner motivation, cost, access to the internet, and lack of technical skills as issues related to eLearning.
These researchers also identified barriers to eLearning such as lack of technology knowledge, lack of motivation, personal cognitions, challenging materials, lack of support, technical issues, or lack of resources.

As discussed above, lack of support is a barrier that students must face to during eLearning. Parent involvement is important during the middle school years. In general, parents reduce their involvement as their students advance to higher grade levels, but Mo and Singh (2008) confirmed the importance of parent involvement at that level and noted that children are more engaged in school activities and learning during middle school when parents are involved in their education. The authors concluded that students with supportive parents have higher levels of school engagement and better grades. During virtual learning, schools can contact families to engage them with the school community through events and activities such as Parent Teacher Student Associations (PTSA), after school activities, meetings, and sports. Schools can engage parents with the school community and at the same time allow parents to express their concerns.

**Strategies for Effective eLearning**

Research such as that reported by Fulbrook (2019) indicates that students have different ways to learn, come from different backgrounds, and that some will need accommodations to achieve the lesson objectives. This is the case in both virtual learning and in-class learning situations and teachers need to deliver the same learning in different ways depending on the students’ need. Giving options that enable students to communicate in multiple formats and is a positive strategy to use in effective eLearning. For example, in the same classroom, is possible have ESOL students or students with a 504 plan or an IEP that includes some recommendations and accommodations. Perhaps an ESOL student who does not feel comfortable sharing orally in
front of the class might record an audio and send it privately to the teacher. Wolf (2016) emphasizes that it is important to provide learning opportunities for students that include scaffolding with the necessary steps to develop the content and produce something at the end of the lesson. Some of the strategies Wolf recommends are scaffolded storytelling, optional prompting, and selected-response multiple trials. The author also provides possibilities for scoring and measuring scaffolding tasks.

With regard to eLearning, the lessons that school districts provide for teachers to upload and use, may be enhanced by adding scaffolding and helping the students with additional steps and practice before they are required to perform the output task. Ak (2016) facilitated development of a framework to enhance problem-based online asynchronous discussion environments, the use of technology-based scaffolds, and encouraging reflective and elaborative discussions. In his study, Ak found that the "high cognitive level contributions differed between the groups" (p. 683), concluding that students who completed the assignment with scaffolding shared higher cognitive level contributions than other students who were not provided with scaffolding support. One of the major barriers to the effectiveness of eLearning is the lack of social activity. An effective strategy to address this issue is through application of the social learning theory that recommends observing others to imitate them as a learning process and social behavior (Albert, 2008).

During eLearning, it is important to provide enough time to process instruction, complete the assignments, and include feedback for teachers. Feedback offers an opportunity for teachers to reflect on their teaching and improve their lessons and classroom activities. Feedback also can offer information about how comfortable students feel with a specific lesson and can help teachers decide whether to move forward or reteach a lesson. Student surveys, focus groups,
A study by Winter (2018) addresses the flipped learning method. The flipped learning method begins in an individual learning space and ends with interactive learning. In this method, teachers guide the students, but it is the student’s responsibility to apply the concepts. This is a student-oriented strategy in which the teacher is a moderator who observes, provides feedback, and assesses students’ work. In the study, Winter implemented the flipped learning method by using technology. The procedure he described stated that instruction should be delivered prior to the class and that the class time should be focused on engaging students with collaborative activities, including differentiation depending on the students’ needs. Winter notes that delivery of lessons including technology is beneficial for middle school students.

Gaming is an effective strategy to use with the students during eLearning. Gaming engages students with the lesson content and many tools are available to incorporate games into instruction such as Gimkit, Kahoot, Quizizz, Quizlet, Classflow, Flipgrid, Voicethread, and Capitalize Names (Fengfeng & Abras 2013). Students enjoy playing games and have fun learning through gaming. Many online games have features to give teachers and students instant feedback about the students’ errors, improvement, knowledge, and participation. Fengfeng and Abras highlight the importance of computer games for students because they believe that computer games are a good “hook” to connect students with learning and help to engage students with the content.

In addition to the strategies discussed above, it is important to consider the importance of differentiation when presenting a lesson. School populations include students of different races, cultures, backgrounds, and economic status. Not all students have the same learning capacity or
the same way of learning. Therefore, it is essential to create accommodations and facilitate lessons with differentiation according to the needs of each student. Researchers such as Rose and Meyer (2002) believe that instruction can accommodate individual learning differences. These researchers noted that the American Disabilities ACT (ADA) requires accommodations for all students with disabilities.

Asim et al. (2020) shared different ways educators can plan and implement instruction in online learning environments. The study reported by Asim and associates asserts that differentiation through the curriculum and instruction is needed, and it is essential that students are engaged with the lesson they receive. It is therefore important that the topics selected for the lesson are appropriate for the ages of the students and that the lessons include activities that connect with real life and make learning interesting for students. One strategy shared by the authors in their research to keep students engaged is use of E-Portfolios. It is an effective way to include differentiation in an assessment artifact. Other very useful tools are e-pal ideal, virtual field trips, and social media use (Asim et al.).

**SUMMARY**

E-learning has been newly emphasized in secondary education. Due to the global pandemic caused by Covid 19, schools have had to make major adjustments and adapt hurriedly to a new virtual teaching model. Parents, students, and teachers have expressed both positive and negative perceptions about eLearning. Teachers are concerned about how to motivate students with the lessons so that they are more visible and engaged in the lessons, and their assignments are completed. Teachers also are concerned about how to improve communication with parents and students, understanding that if communication with family members could be more consistent, many school failures could be avoided. Students, frequently struggle with technology
and they often do not have the necessary support at home to complete a virtual learning process. Parents often do not have time to help their children, there is a lack of familiarity with technology and the new apps used in school, and many parents have never had specific training about the technologies or student portals.

Barriers during eLearning also have been noted. The most significant barriers are lack of technology knowledge, lack of motivation, personal cognition, challenging materials, lack of support, technical issues, and lack of resources. These barriers, along with the difficulty of socializing online can cause students gradually to become unmotivated and lose interest in learning. To avoid this situation, teachers should employ strategies that can be applied in virtual classes to keep students motivated. Continued research is needed to identify and improve these strategies.
CHAPTER III
METHODS

The purpose of this action research study was to determine if the performance level of middle school students on a Speaking Task in Spanish class would be higher when the instruction offered by the teacher was delivered through synchronous instruction rather than asynchronous instruction. In the current study, students were assessed with a video that was self-recorded in which students presented a topic in the target language.

Design

The study was a descriptive study that utilized two dependent t-tests to compare students’ speaking ability during two forms of eLearning. All students provided two videos. The first video was recorded during an asynchronous lesson and the second video with a synchronous lesson. The hypothesis in this study was that there would be a difference in students’ speaking in Spanish between those receiving asynchronous instruction and those receiving synchronous instruction.

Participants

The tests were administered to 78 students in eighth grade at a middle school in Baltimore County Public Schools, Maryland. A hundred percent of the participants were in the third year of Spanish and 5.75% of the students were native or heritage Spanish speakers. The study included both male ($n = 36$) and female ($n = 42$) participants. The ethnicity of participants in the current study included White ($n = 41$), African American or Black ($n = 17$), Hispanic or Latino ($n = 4$), Asian ($n = 13$), and Arabic ($n = 3$).
Instrument

The two independent tests were used to compare the difference between the results of students’ learning of Spanish based on an asynchronous and a synchronous lesson. In both tests, the same requirements, standards, and rubric were used to measure student learning in Spanish. The skill assessed in an independent test was a speaking task. For the synchronous lesson, students were asked to record a video using the Flipgrid app vs recording a video and upload it to Schoology for the asynchronous lesson. The vocabulary taught in each type of lesson was related to a different topic. The topic chosen for a synchronous lesson was music and the topic selected for the asynchronous lesson was museums. Both of the speaking presentations and the introductions to the presentations required use of the target language (Spanish), following the structures learned during the lessons, and including the vocabulary from the lessons. Both lessons followed the same structure used with the participants during the school year: think about it, learn about it, try it, and Show What You Know.

The rubric used for the tests was an American Council on the Teaching of Foreign Languages (ACTFLs) rubric for an intermediate low level, with a total value of 25 points, indicating a major assignment. The rubric is divided in four criteria categories (context, vocabulary, function, and structure, and comprehensibility) and six grading scale levels based on the students’ performance. These scales were Intermediate Low (between meeting and exceeding expectations), Novice High (between meeting and approaching expectations), Novice Mid (approaching expectations), and Novice Low (developing, insufficient evidence). Each grading scale was aligned with an I CAN DO. Students earned points based on the level reached in each criteria category.
**Procedure**

Both the synchronous and asynchronous lessons followed the same structure to avoid confusion or disinterest with the lesson. The topic assigned for the synchronous class was music. The lesson was presented in Schoology using the format recommended by the school system: Think about It, Learn about It, Try It, and Show What You Know. Schoology is a service used in Baltimore County Public Schools for virtual learning and as a social network service. When using the Schoology service, students can upload documents, access the lessons, see their grades, email teachers, engage with other students, and use educational tools integrated to the platform such as OneDrive, Brain Pop, or Discovery.

During the “Think about It” component of the lesson, students were asked to make a prediction about the topic. The objective for the lesson was "I can identify different music styles to be able to express my musical preferences, and record a video talking about my musical preferences." The objective and guiding questions related to the lesson were shared with the students through a Google slide format to review the goals and sentence structures during the lesson. The guiding questions required the students to be able to respond to questions about their favorite music genre, favorite song, and favorite artist. The “Learn about It” component of the lesson was presented with an infographic with different music genres (blues Latina, jazz, alternative, metal, electronic, pop, and reggae). Thumbs up or Thumbs down, a review strategy, was applied after the Learn about It aspect, asking the students to unmute themselves in the Google Meet and share their musical preferences in the target language. During the Try It component of the lesson, students watched a Fortnite video with different music genres to categorize the genres with the Fortnite characters. In Try It, Part 2, students completed an output task practicing the model for the assignment. A model was shared with the students with
structure sentences and the students filled the other genres with examples of artists and songs. After the Try It component, students completed the assignment named “Show What You Know.”

For this assignment, the students used the Flipgrid tool to record their video. Flipgrid is a free instructional tool in which students can record a video and create a discussion. A discussion topic was created, and students recorded their videos and shared them with the class.

For the asynchronous class, the topic assigned was museums. The structure used for this method was the same structure used in the synchronous class. The lesson was published in Schoology. The objective for the lesson was "I can identify different types of museums to express my preferences and record a video talking a about my favorite museums and the reasons why I like this museum." Students started the lesson with the Think about It component, where they had to make a prediction about the topic. After completing the Think about It, they completed the Learn about It task. In this part of the lesson, the students’ task was to mark a text locating cognates, vocabulary that they already knew and vocabulary that they did not understand. In Learn about It, Part 2, students proceeded to complete an input play. In this task, students completed a matching activity where they paired the descriptions from the Learn about It, Part A with the types of museums (art museum, monographic museum, historic museum, agriculture museum, archaeological museum, and science museum). The next lesson activity assigned for the students was the Try It. This component included two parts. The first part included vocabulary to review and reinforce the practice of the vocabulary learned and the second part to practice their preferences. At the end of the lesson, the students completed the Show What You Know in Schoology. They recorded a video in their devices and uploaded it to Schoology. In the video, students were asked to start with a small introduction, list three types of museums, talk about their preferences, and the reasons why they like the museum.
The topics included in the lessons were not specifically chosen for the study. The topics used were designated lessons for an Intermediate Eighth grade class in Baltimore County Public Schools, included in the school system’s curriculum. The lessons were uploaded in Schoology, under Materials. A rule was generated in both lessons to prevent students from skipping the practice task (Try It) or learning the vocabulary (Learn about It). This ensured that students followed the steps necessary to achieve the objectives of the lesson.

As discussed above, the nomenclature used for the steps of the lesson is Think about It, Learn about It, Try It, and Show What You Know. Think About It is a warming or hook activity to engage students with the lesson. In the asynchronous and synchronous lessons, students were asked to write a post with their opinion about an assigned topic. The Learn about It component included the vocabulary the students needed to learn for the lesson. After the students learned the vocabulary, they proceeded to complete the Try It component of the lesson. The Try It task is an input play where students practice the vocabulary learned before moving on to the assignment. Show What You Know is the assignment component in which students are to demonstrate what they have learned and applied. Both tests required a video recorded with a speaking task in the target language about an assigned topic.

The tests were distributed to 78 students, divided into five different periods. The first test was distributed in Schoology, the platform used by the school system, under the Materials component of the program. The instructions for the assignment were placed under Material with the title "Show What You Know Unit 3 Week2 L2". Participants were required to record a video talking about an avatar created. The video was uploaded to Flipgrid and the link to the app was shared with the students. The assignment was completed individually for the participants. Data were collected a week after the assignment was locked in Schoology and Flipgrid. The second
test was distributed three weeks later after test one in Schoology under Materials. The instructions for the assignment were placed under the title "Show What You Know Unit 3 Week5L1". In this test, the students had to record an assignment in which they talked about their museum preferences and uploaded them to Schoology. The assignment was completed individually for the participants and the data were collected a week after the assignment was locked in Schoology.
CHAPTER IV
RESULTS

This study identified the level of performance of middle school students in a speaking task for their Spanish class. Comparisons were made between two types of virtual learning: asynchronous and synchronous. The students completed two tests using a different type of instruction in each test.

A dependent groups \( t \) test revealed that there was a statistically significant difference in Spanish Speaking Scores between synchronous (\( M = 96.82, SD = 7.93, n = 78 \)), as compared to asynchronous (\( M = 10.99, SD = 10.98, n = 78 \)), with a medium effect size, \( t(77) = 3.58, p < .05 \), \( d = 0.50 \). On average there was a 4.83-point difference.

The following graph shows the results in both type of instruction. It demonstrates the performance in a Spanish Speaking task between Asynchronous and Synchronous learning. The \( y \) axis represents the Mean for the dependent variable with the Spanish Speaking Scores. The \( x \) axis represents the two types of instruction (synchronous and asynchronous) for the independent variable.
Figure 1

Spanish Speaking Scores between Asynchronous and Synchronous Instruction
CHAPTER V
DISCUSSION

The purpose of this action research study was to determine if the performance level of middle school students on a Speaking Task in Spanish class would be higher when the instruction offered by the teacher was delivered through synchronous instruction rather than asynchronous instruction. The study was a descriptive study that utilized a dependent samples t-tests to compare students’ speaking ability during two forms of eLearning. The hypothesis for the study was that students’ scores on a Speaking Task in Spanish class with synchronous instruction would be higher than students’ scores with asynchronous instruction. Results from the current study indicated that the students obtained higher scores when the lesson was presented in a synchronous way.

Implications of Results

After analyzing the data, the results demonstrated an improvement in the students' grades when they received instruction synchronously rather than asynchronously. The results of this study suggest that Spanish students can complete a speaking assignment in a class presented through Synchronous eLearning at a higher level than in a class presented through Asynchronous eLearning. It appears that student participants were more confident in completing a speaking activity when the lesson was delivered synchronously, and the teacher and the students were present in the class at the same time. Analysis of the results of the study suggested that during Asynchronous instruction, students had more problems with uttering the words and organizing the structures than was the case with Synchronous instruction. In some cases, it was difficult to understand the students’ response in the Asynchronous class. In contrast, students who received
Synchronous instruction demonstrated a higher level in creating structure sentences and a more fluid and natural pronunciation when using the target language.

**Threats to Validity**

There are several threats to validity that may have affected the outcome of the study. The two exams were given to a total of 145 grade eight students divided into five different periods during the school day. In both types of eLearning, a high number of missing work was detected, thus resulting in a reduction of the number of study participants from 145 to 78 students who completed both exams. The sample size was restricted to the classroom roster of the researcher but at the same time limited to the students who completed both tests. The sample was selected with a convenience sample because the researcher had access to students and the curriculum in the school system in which she was employed. Participants did not volunteer for participation in the study as the speaking task was an assignment that the researcher required her students to complete during Quarter 3. During the study, the participants had a virtual model in their classes. Monday, Tuesday, Thursday, and Friday participants received Synchronous instruction and on Wednesdays they received Asynchronous lessons. This situation could cause a low level of interest by not having adult supervision during their Asynchronous class periods.

Internal variables also may have affected the outcomes of the study in a similar manner. For example, the low number of participants who managed to complete the two exams may have impacted the results of the study. The two tests were given to a total of 145 students and only 78 of the participants were able to complete the two exams. A total of 53% of the students completed their assignments knowing that failure to complete and submit the exams could affect their grades in Spanish class. The sample with only the 78 participants may not reflect the
entirety of the students’ performance based on the type of eLearning instruction they received. With a larger number of responses, it would be possible to arrive at a different conclusion.

**Connections to Previous Studies or Existing Literature**

Because virtual instruction, or eLearning, is somewhat new for middle school students, the data from the current study cannot be compared accurately with other studies that do not involve eLearning. For this reason, it is important to highlight several aspects of the literature reviewed for this study, as these features may affect eLearning as well as face-to-face instruction.

Teachers have noted that one of the greatest challenges they have faced with regard to eLearning is keeping students engaged with the lesson. A study of student engagement conducted by Louwrens & Harnett (2015) considered three areas: behavioral engagement, cognitive engagement, and emotional engagement. This study suggests that student engagement is better during Synchronous instruction during which the students scored higher than during Asynchronous instruction. The lack of social interaction is the single most important barrier to students learning online, while technical problems and access to the Internet are also barriers. Muilenburg and Berge (2005) specify lack of social interaction, administrative or instructor issues, time and support for studies, learner motivation, cost, access to the Internet, and lack of technical skills as additional challenges. These researchers have faced some of the barriers such as lack of technological knowledge, lack of motivation, personal cognitions, challenging materials, lack of support, technical issues, or lack of resources. Normally parents reduce the involvement as their students advance to higher grade levels, but Mo and Singh (2008) confirmed the importance of parent involvement and noted that children are more engaged in school activities and learning during middle school when parents are involved in their education.
Research such as that reported by Fulbrook (2019) indicated that students have different ways to learn, come from different backgrounds, and that some will need accommodations to achieve the lesson objectives. Wolf (2016) emphasizes that it is important to provide learning opportunities for students that include scaffolding with the necessary steps to develop the content and produce something at the end of the lesson. The study by Winter (2018), addresses the flipped learning method. The flipped learning method begins in an individual learning space and ends with interactive learning. In this method, the teacher’s guide the students, but it is the student’s responsibility to apply the concepts.

**Implications for Future Research**

Based on results from this study, the researcher recommends that the school system in which she is employed review the curriculum to create more interesting virtual lessons for the students. Because 47% of students did not submit their assignments, it appears that current eLearning classes are not sufficiently engaging for students. Likewise, results from the study indicate that students’ grades improve when the instruction is Synchronous. It appears that when eLearning is Synchronous, the students retain the lesson content more effectively and engagement in their classwork increases. For example, student engagement in foreign language classes can be enhanced when the teacher can request participation and interaction between and among the students to practice their speaking skills.

Having virtual classes requires substantial financial investment from a school system. Chromebooks currently provided for students may have limitations due to slow processing speed resulting in difficulties downloading images, having slow responses, or sometimes not enabling students to open a word document. It is essential that students have a quality market tool and high-speed internet to make eLearning effective. With more resources, it would be important for
school systems to continue to invest in professional development opportunities for teachers to give them additional tools for virtual classes and create a more engaging atmosphere. Additionally, access to programs such as Google classroom, Kahoot, Gimkit, or Nearpod should be available to all who are engaged in eLearning.

If school systems across the nation would take measures to improve the infrastructure of the schools and technological conditions, it would be beneficial to replicate the study to learn if the conditions mentioned above affected the students’ engagement in a positive way. It would be helpful to analyze the results of the participants in both types of eLearning to learn if after improvements such as those identified above were made, that the hypothesis still would be supported or if the data would vary.

Conclusions/Summary

The purpose of this action research study was to determine if the performance level of middle school students in a Spanish speaking task class is higher when eLearning instruction offered by the teacher is delivered through synchronous instruction rather than asynchronous instruction. The study was a descriptive study that utilized two dependent *t*-tests to compare students’ speaking ability during two forms of eLearning.

All students provided two videos. The first video was offered during an asynchronous lesson and the second video was shared during a synchronous lesson. The data collected from this study suggest that students who took the major assignment in a Synchronous class scored better than students who took the major assignment during an Asynchronous class. These results may not encompass all grade eight students involved in the initial research design as only 78 of the initial 45 participants were used when analyzing data for this study. However, study results suggest that students’ performance is higher in a Synchronous instruction based on the grades
scored in the speaking task assigned. Overall, data indicate that students who took the Asynchronous class had more problems familiarizing themselves with the structures and with the pronunciation of words. Additionally, in some cases, it was difficult to understand what the Asynchronous participants were trying to communicate. It appeared that after taking the Synchronous classes, the students felt more confident when using the target language as well as more comfortable and familiar with the guiding questions and starting sentences shared with the participants during the lesson. Having to connect at a specific time with the teacher and with other students appears to make eLearning students take more responsibility when it comes to participating in class and completing their assignments.
References


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