The Efficacy of Peer Presentations for English Language Learners

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ABSTRACT: This study investigates whether the instructional strategy of peer presentations positively influences English Language Learners’ (ELLs’) relationships with peers and their personal perspectives on their institution, the sciences, and public discourse. Data collection instruments included a pre- and post-sociometric survey to quantitate each classroom’s social status, and a pre- and post-qualitative inquiry of appreciation concerning academic topics via oral interviews. Three ELLs from two learning environments participated in an eight-day intervention, comprised of 45-minute instructive sessions, to become proficient with an arrangement of scientific experiments. After the three ELLs presented these experiments to their classmates, analysis of pre- and post-sociometric results demonstrated an overall increase in friendships. Examination of the ELLs’ oral interview responses indicated growth of enjoyment regarding their institution and speaking publicly. Discussed are suggested methods for using peer presentations in classroom instruction, in addition to potential for future research.

KEYWORDS: English Language Learners, peer presentations, classroom instruction

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INTRODUCTION

Each year, the population of English Language Learners (ELLs) living in the United States increases. According to the Migration Policy Institute’s National Center on Immigrant Integration Policy, between 1998 and 2008 the number of ELLs enrolled in pre-kindergarten to twelfth grade escalated by 1.9 million children (Batalova & McHugh, 2010). These demographics are growing rapidly in California, Texas, Florida, New York, Illinois, and Arizona. Students are coming from non-native backgrounds, and presenting limited English proficiency upon entering the public school system. Instead they are bringing diverse cultural mannerisms, beliefs, and customs into the classroom. With a language barrier and few lifestyle similarities, these ELLs may become neglected and/or rejected by their peers (Santrock, 2008; Wood, Wood, & Boyd, 2011).

This research investigates an instructional methodology aimed at improving the social and academic achievements in the pre-adolescent ELL population. Peer presentations, a cooperative pedagogical method in which students teach the subject content, may be an effective learning strategy (Paul, 2011). Henceforth, the following primary question is posed:

• In what ways do peer presentations affect the relationship of ELLs with native English-speaking peers?

Furthermore, previous research demonstrates that peer presentations increase students’ motivation and subject proficiency (Chase, 2012; Saenz, Fuchs & Fuchs, 2005). Therefore, the following question is also posed:

• What is the nature of the relationship between peer presentations and students’ perceptions of science, public speaking, and school?

To determine the answers, related literature and studies were read and analysed. Afterwards, an investigation was conducted by having a small group of ELLs complete a peer presentation involving one of the most underrepresented subjects in school: science (Common Core, 2012). Using the research results, educational implications are discussed in regard to encouraging and improving student coequality in the classroom.

REVIEW OF LITERATURE

Social Psychology Background

Humans desire acceptance from those surrounding them due to the social necessity of creating relationships with others (Poston, 2009). People attempt to create connections by finding similarities in one another’s experiences, such as upbringing, education, and culture. By locating these equivalences in backgrounds, individuals may be accepted into a group and form relationships, which is essential for a healthy lifestyle. Having a positive communal standing can improve students’ social and mental development, and their academic achievement. In contrast, being rejected by peers may generate serious opposing effects (Sentese, Lindenberg, Omvlee, Ormel & Veenstra, 2009). Leung and Silberling (2006) describe rebuffing in detail:

Rejection seems to play an important role in achievement and motivation for students because students who are rejected by their peers are often found to have more problematic academic and socioemotional adjustment. Further, peer rejection has been linked with violations of classroom rules and has been considered to be a predictor of academic dysfunction. Consistent with the above findings ... students who were viewed negatively by peers were also rated by their teachers as having academic and social difficulties. (p. 58)

In contrast, individuals who are viewed positively by peers are more likely to accept themselves. According to Maslow’s Hierarchy of Needs, this is known as “self-actualization” (1954). It has been proposed that, prior to satisfying this fulfillment, four other psychological extrinsic values are required, as depicted in a pyramidal order of ascension in a linear pattern of growth: physiology, safety/security, belongingness, and self-esteem or respect (Olson, 2013). Self-actualization may be achieved when each standard is met. Individuals would then demonstrate “reality-centered” attributes, including interconnectedness, spontaneity, autonomy, acceptance, and lawfulness (Gawel, 1997).

English Language Learners

Language Learner (ELL) is a student whose first language is not English and has yet to gain proficiency. Within the public schools of the United States, they are the largest growing population; of the 49.9 million students enrolled in the 2007 to 2008 school year, 5.3 million (10.7%) were ELLs (Batalova & McHugh, 2010). These numbers will continue to increase as racially and ethnically diverse populations grow (Crouch, Zakariya, & Jiandani, 2012). Statistics demonstrate that 20% of children within the U.S. who are five years or younger are non-English speakers. With an increase in minorities, it is estimated that by the year 2030, over 40% of the student population in schools will be ELLs (Navarrete & Watson, 2013).

Due to this linguistic diversity, in addition to cultural and socioeconomic diversity, the need for English as a Second Language (ESL) and/or bilingual instruction is a priority. Suggestions of methods to develop a supportive environment may include implementing verbal scaffolding, employing student’s prior knowledge and experiences, and planning oral functions. Unfortunately, the number of educators who are qualified for ESL/bilingual instruction is low. According to the National Center for Education Statistics, in the 2011-2012 school year, only 2.1% of the educators in public elementary and secondary schools were certified to teach ELLs (2013).

Being rebuffed by peers can have serious repercussions on a student’s academic achievement and emotional well-being. However, in the case of an ELL, it may also prevent the child from communicating effectively in class; students who do not already speak English may carry additional anxieties about speaking. This anxiety may be due to the fear of incorrectly pronouncing words, peer/teacher laughter, and the overall learning environment (Zgutowicz, 2009). Students dissuaded by such factors from speaking and interacting in the classroom are hindered in their language learning and academics, but additionally, any acceptance from peers is handicapped.

Peer Presentations

Ancient Greek philosopher Aristotle introduced in *Metaphysics* the idea that personal instruction demonstrates the highest form of scholarship:

> In general it is a sign of the man who knows and of the man who does not know, that the former can teach, and therefore we think art more truly knowledge than experience is; for artists can teach, and men of mere experience cannot. (p. 2)

From this perspective, individuals who are capable of explaining the reasoning behind actions are wiser than those who only act. Therefore, an instructional strategy that encourages students to learn the explanation behind operations would enable them to demonstrate their proficiency in this subject area.

In learning environments, students typically attempt to complete assigned undertakings of which they have prior knowledge. However, such comportment does not assure nor verify whether instructed subject matter was comprehended, causing imprecise responses during assessments. Considering the philosophy in which educating others demonstrates comprehension, it is implied that instructing students to become teachers will guarantee a high probability of retention, a learning strategy referred to as “peer presentation.”

In 2005, the Institute of Education Sciences modelled this strategy by researching the overall effectiveness and improvement of ELLs’ literacy after participating in an intervention called “Peer-Assisted Learning Strategies.” As a form of instruction, students worked in pairs or small groups for 35 minutes three to four times weekly to tutor one another in retelling, summarizing, and analyzing literature elements. Of the 99 ELLs between third and sixth grade who participated, 49 served as the experimental group. With the Comprehensive Reading Assessment Battery (CRAB) used as a collation tool, it was determined that peer-assistance improves reading achievement by a mean of twelve percentile points compared to the controlled group (Saenz, Fuchs & Fuchs, 2005).

In California, Envision Education completed a similar project by developing a curriculum encompassing a project-based environment and implementing web-based educational resources from the non-profit organization, Khan Academy. To increase student involvement and cultivate the importance of learning, a new web platform called “Upside Down Academy” was designed and applied, to which students had opportunities to virtually teach as a method of learning. A post-project reflection from the students demonstrated an increased fluency in the content, both from the perspectives of the presenter and audience, in addition to obtaining a higher respect for their teachers. Understanding how teachers educate provided Upside Down Academy students
the knowledge to analyze difficult concepts and teach themselves (Chase, 2012).

Both programs demonstrated the effectiveness of peer presentations in improving students' academic achievement. However, neither provides adequate enlightenment to answer this study's research questions: in what ways does peer presentation affect the relationship of ELLs with native English-speaking peers and what is the nature of the relationship between peer presentations and students' perceptions of science, public speaking, and school? Therefore, further in-field research is necessary.

**METHODOLOGY**

*Setting and Participants*

The study was completed at a Title I urban school located within a lower socioeconomic neighborhood in northern Brevard County, Florida, where over 20% of the student population are ELLs. Educators within the upper-elementary grades were asked to participate because, during late childhood to pre-adolescent years, children become preoccupied with establishing a strong social status (Erikson, 1980; Miller, 2003). Two classrooms agreed, with each environment having a total of 19 students with combined demographics of 21% Caucasian, 42% of African-decent, and 37% Latino/Hispanic (Appendix A, Table 1).

All of the students were given parental/guardian permission letters, which would permit them to complete a pre- and post-sociometric survey to determine the environment's social status. A total of 27 were returned, 14 from Classroom A and 13 from Classroom B. From this group, a total of three ELLs were chosen and authorized to take part in the intervention of a science peer presentation.

**Case Study of ELL #1**

The 10-year old male in Classroom A is from the Western United States and was raised in a Spanish-speaking community. The student’s teacher considers him to be quiet during academic studies, although he is humorous and outgoing during recreational activities.

**Case Study of ELL #2**

The second student from Classroom A is a 10 year-old female, who was born and raised in Eastern Central Florida. She is considered to be a caring and sweet individual by her teacher, yet is very reserved in her overall demeanor.

**Case Study of ELL #3**

The student from Classroom B is a 10 year-old male student. He is an immigrant from Central America and has lived in the United States for approximately three years. Although occasionally finding companionship with two classmates, he focuses on academic studies.

*Instrumentation and Materials*

To evaluate the differences between social relationships and the three participating ELLs' change in motivational attitudes, two instruments were used prior and subsequent to the intervention. In addition, six experiments were selected for the three students to learn.

**Pre- and Post-Sociometric Survey**

To evaluate the differences in social relationships between the ELLs and their classmates prior and subsequent to the intervention, a six-question sociometric survey was provided and orally read to the participating students in either English or Spanish. The questions were taken and adapted from a previous study by Bowen (2008) which contained sixteen scenario-based questions, which positively and negatively posed situations, including: Which of the students in the class would you most/least like to have as a friend? and, which of the students in the class would you most/least like to sit with at lunch? To ensure that focus was placed upon favorable components, this study only required responses to positive situations (Appendix C).

**Experiments**

To gauge the three ELLs’ self-perceptions regarding science, school, and public speaking, each was separately interviewed prior and subsequent to the intervention. The discussion consisted of five questions either stated in English or Spanish, to which they could respond with “Never,” “Sometimes,” “Often,” or “Always.” Of the inquiries, two addressed science education, two addressed public speaking, and one addressed their enjoyment of school (Appendix D).

For the intervention, the three ELLs were brought to the school's science lab where they learned how to conduct
and present experiments, following benchmarks under the Big Ideas for fourth-grade science in accordance with Florida’s Sunshine State Standards (Butler, 2008). Each experiment was considered safe and required no hazardous tools or substances, having been adapted from education literature written for children conducting experiments privately.

**Procedures**

From the two fourth-grade classrooms, all students with parent/guardian consent to participate in the study were provided with the initial six-question sociometric survey, in addition to a random code name to maintain confidentiality. This provided an occurrence rate to determine each environment’s social status. Upon receiving the results, the three ELLs completed an individual five-question interview in order to share and rate their perceptions of school, science education, and public speaking.

After completing the interviews, these ELLs were brought together to begin the intervention by learning how to independently conduct and present each demonstration effectively. This continued every school day for two weeks, excluding Mondays (totaling eight days), with each session lasting 30–45 minutes. During the first half of the intervention, the students learned scientific explanations and methods for conducting the experiments. For the last three days of the intervention, they were given the opportunity to work cooperatively to determine what to present. Upon deciding their individual roles and movements, the students dictated a script for the researcher to type. Each student was given a printed copy to practice at home.

On the last day of the intervention, the students performed the experiments in a classroom for their fellow classmates and teachers. The following Tuesday, the participating students were given another random code and an undifferentiated sociometric survey. Additionally, the three ELLs who participated in the intervention completed an identical five-question interview.

**RESULTS**

*Analysis of Pre- and Post-Sociometric Surveys*

To evaluate the differences between the ELLs’ pre- and post-intervention results, both sociometric surveys were inferentially analyzed by measuring the frequency distribution of the three students’ names compared to their peers. Both of the two classroom environments were separately evaluated. Furthermore, social statuses were assessed statistically and discussed in concern to individual phenomena.

**English Language Learners’ Status Results**

Both ELL #1 and #2 were from Classroom A, each having 65 opportunities for their names to appear on the surveys, while ELL #3 from Classroom B had 60 possibilities (Appendix A, Table 2). On the first survey, ELL #1’s name appeared five times (7.7%). This number neither increased nor decreased for the second survey. With ELL #2, the student’s name was written on nine occasions on the first survey (13.8%) and ten during the second (15.4%), making her total social status equivalent to 14.6%. ELL #3’s name appeared six times (10%) on the first sociometric survey. However, this number doubled on the post-survey, when his name appeared 12 out of 60 occasions (20%), equaling a total of 15%.

**English Language Learners’ Interaction Opportunities**

Prior to intervention, as inquired on the sociometric survey, the three ELLs were not considered best friends by any of their classmates. Instead, they were considered as individuals with whom to begin a friendship. The post-survey indicates these numbers changed; although the ELLs’ names decreased for “want as a friend,” they increased for being considered a classmate’s “best friend.” The other four opportunities of interaction also escalated (Appendix B, Figure 1).

*Analysis of Pre- and Post-Interview Surveys*

Demonstrated by bar-graphs in Figures 2 & 3, all three ELLs perceived an increased enjoyment in speaking. Also, ELL #2 demonstrated growth in her comfort with speaking, and there was an increase for ELLs #1 and #2 in their enjoyment of school. There was no change for the ELLs in regard to the enjoyment of science and experiments.

**CONCLUSION**

*Discussion*

For this research study, one of the primary questions asked was: in what ways does peer presentation affect the relationship of ELLs with their native English-speaking
peers? After asking three ELLs to practice and present a series of science experiments, this was determined using a six-question pre- and post-intervention sociometric survey. Social status was quantitatively measured in both environments to determine whether preference towards these three students increased after the presentation. Results showed a neutral to favorably extensive difference in popularity for the chosen students. Given these outcomes, it has been determined that in certain cases, after demonstrating a science-related peer presentation, a student’s social status within a classroom may increase. Fellow classmates may adjust their relationship preferences after witnessing the capabilities of the ELLs, or wanting to learn how to conduct the experiments. These motives would be considered advantageous to the ELLs who participated in the intervention of this research study, as it is directed towards their overall performance.

Another motive for these affirming responses may be that classmates want to receive approval from the co-investigator, who frequently visited the environments. This behavioral studies phenomena is called the “Hawthorne Effect,” named after a study completed at an electric plant by Elton Mayo and Fritz J. Roethlisberger in 1933 (Anteby & Khurana, 2012). However, as Coombs and Smith (2003) suggest, “Social interactions are complex and difficult to study. They represent uncertain acts and actions in the context of a particular situation” (p. 102). Therefore, an in-field social researcher must maintain substantial contact with the study participants to ensure equality.

Prior to commencing this study, the researcher briefly visited each classroom and became acquainted with the students. Eventually, each time she entered either environment, the students became excited at her arrival; such excitement, rather than casual comfort with the arrival of a guest, may demonstrate the phenomena’s existence. Studying the insignificant differences in the social statuses of ELL #1 and #2, it is unlikely the Hawthorne Effect occurred. Yet in Classroom B, where the social status of ELL #3 increased by 100%, it may have.

The second question inquired during this study was: what is the nature of the relationship between peer presentations and students’ perceptions of science, public speaking, and school? This was measured prior to and following the intervention using a five-question interview survey to which the students could respond with “Never,” “Sometimes,” “Often,” or “Always.” The outcome showed that students’ positive perceptions of public speaking and school might increase. In regard to the ELLs’ perceptions, considering they received additional attention in comparison to their peers, Coombs and Smith’s (2003) article suggests the Hawthorne Effect would be irrelevant. Therefore, although belongingness may not yet be completely satisfied, the students’ self-esteem and positive attitude toward classroom activities advances each of them toward self-actualization (Maslow, 1954).

Educational Implications

Pedagogic philosophies emphasize “that environments which foster academic achievement through hands-on, authentic learning can motivate students by engaging them in their own learning” (Bradford, 2005). Such an impression may appear quite idyllic; sometimes, lessons that incorporate practical participation may be considered menial. Therefore, educators should focus on increasing students’ motivation to learn, which is the conscious decision to acquire knowledge or a skill set the designed learning activities are intended to develop (Brophy, 2010). As previous studies demonstrate, actively involving students with their learning through means of becoming familiar with a topic and instructing others about the content increases their motivation to learn (Chase, 2012; Saenz, Fuchs & Fuchs, 2005).

For this study, three ELLs were chosen to participate in the intervention; after being privately taught how to conduct a series of exciting science experiments, they were given the responsibility to decide which experiment they would present to their classmates. Additionally, they needed to determine their dialogue and methods to enhance the demonstration by incorporating other features, such as props and audience volunteers. Since educators must involve all students in the classroom, a similar design may be implemented within a learning environment (Appendix E). During the school year, the teacher could incorporate a variety of science experiments into the curriculum until the students can complete them independently. Then, twice during the academic year, students could choose one of the experiments to present independently or with a classmate at a year-end event. All students would be required to share the scientific knowledge behind their chosen demonstration.

Other subjects may incorporate peer presentations, including mathematics, language arts, history/civics,
and physical education. Presentations could also be completed in individual classrooms or larger settings, such as an entire school or grade-level. For instance, a teacher may assign each student a specific topic to research with an outline of set guidelines. Using resources, such as computers, textbooks, library literature, or other books, the students would learn and take notes about their topic. To incorporate multimedia, students may create a PowerPoint or a poster to use as a visual aid while presenting.

Mindful of these suggestions and their positive consequences, it would be in the students’ best interest for teachers to practice this teaching strategy in their classrooms, and for school administrators to develop an authentic and project-based curriculum. It would be designed to allow the students to become the teachers, ultimately promoting learner engagement and motivation. Educator, author and speaker, Stephen Covey wrote in his book, *The Seven Habits of Highly Effective People* (1989), “Remember, to learn and not to do is really not to learn. To know and not to do is really not to know” (p. 12). Henceforth, an individual must acquire the mind and practice of acting accordingly to become successful. Students should be encouraged and instructed on how to fulfill such a principle by educators, parents, and others who both practice and model an identical standard.

*Future Research*

The study provides insight about the positive effects of peer presentations in regard to relationships and motivation, yet refrains from being theoretically significant due to the limited number of participants. To establish this research as an evidence-based practice (EBP), it would need to be a controlled study; multiple fourth- to sixth-grade English Language Learners would participate in a similar intervention. Once again, a pre- and post-intervention sociometric survey would be provided to measure the social status results. Additionally, an adapted and/or translated version of Rosenberg’s Self-Esteem Scale (1965) would be utilized to measure both positive and negative self-perceptions of each participating ELL. A larger study population might confirm the benefits of the learning technique and promote educators to apply it in their classrooms. Additionally, to prevent any occurrences of the Hawthorne Effect, researchers would spend substantial amount of time with the students prior to conducting research as suggested by Coombs and Smith (2003).
APPENDIX A

Table 1. Demographic Information

<table>
<thead>
<tr>
<th></th>
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<th>Classroom B</th>
<th>Total</th>
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<tbody>
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<td>Gender</td>
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<td></td>
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</tr>
<tr>
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<td>16</td>
</tr>
<tr>
<td>Female</td>
<td>12</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td>Ethnicity</td>
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</tr>
<tr>
<td>Caucasian</td>
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<td>6</td>
<td>8</td>
</tr>
<tr>
<td>African-decent</td>
<td>6</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td>11</td>
<td>3</td>
<td>14</td>
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</table>

Table 2. Opportunities Calculation

<table>
<thead>
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<th>n(x)+n(x-1)</th>
<th>Classmates</th>
<th>Questions</th>
<th>+</th>
<th>Classmates</th>
<th>Question #1 or #2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
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<td>Classroom A</td>
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<td>x</td>
<td>6</td>
<td>13</td>
<td>x</td>
<td>(-1)</td>
</tr>
<tr>
<td>Classroom B</td>
<td>12</td>
<td>x</td>
<td>6</td>
<td>12</td>
<td>x</td>
<td>(-1)</td>
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</tbody>
</table>
APPENDIX B

Figure 1. Pre- and Post-Intervention Interaction Opportunities

Figure 2. Pre-Intervention Perceptions
Figure 3. Post-Intervention Perceptions
APPENDIX C

Sociometric Survey

Your Secret Code:  Teacher’s Name:  

1. Which classmate do you consider your best friend?
   Write name here: ____________________________

2. Which classmate would you most like to have as a friend?
   Write name here: ____________________________

3. Which classmate would you most like to work with on a school project?
   Write name here: ____________________________

4. Which **two** classmates would you most like to sit with at lunch?
   Write names here: ____________________________

5. You have been given permission to have a sleepover. Which **three** classmates would most like to invite?
   Write names here: ____________________________

6. Your class is going on a field trip to Kennedy Space Center. Which classmate do you want to sit by on the bus?
   Write name here: ____________________________
APPENDIX D

### Post-Intervention Interview Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
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</thead>
<tbody>
<tr>
<td>1. Do you enjoy science?</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2. Do you like doing experiments?</td>
<td></td>
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<tr>
<td>3. Do you enjoy speaking in front of others?</td>
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<tr>
<td>4. Are you comfortable speaking in front of others?</td>
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<tr>
<td>5. Do you like school?</td>
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</tbody>
</table>

Student’s Name: _______________________

Teacher’s Name: _______________________
APPENDIX E

Techniques for Implementing Peer Presentations

Remember to . . .

• Allow the students to feel in control, as this is ultimately their project.
• Always have a positive and caring attitude to help students feel comfortable.
• Be excited and motivated, to encourage students to feel identically.
• Provide additional guidance when needed.

Procedures for Presentation Structure

• To ensure student stays focused, provide them with a topic to choose and/or focus.
• Provide students with presentation expectations/rubric as principle guidance.
• Emphasize student strengths, and have them utilize their capabilities.
• Ask students what they want to incorporate in the presentation, and prompt them when needed. For example, this may include multimedia, props, volunteers, and/or puns.

Procedures for Script Writing

• After students determine synopses of their presentations, have them create scripts or notes to practice speaking. As an accommodation for ELLs and ESE students, allow them to dictate orally and type it for them.

Procedures during Presentation

• Be patient, and prompt or assist students as necessary.
• Again, emphasize the students’ strengths and provide constructive feedback.
REFERENCES


