Implementing Nonlinguistic Representations in Language Arts

Joy Ondrak

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Implementing Nonlinguistic Representations in Language Arts

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Senior Honors Project/Thesis

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Abstract

This capstone project analyzes the use of nonlinguistic representation as both instructional and assessment strategies in a Language Arts unit. The project reports the effectiveness of nonlinguistic forms of representation that were integrated into a persuasive unit that focused on students’ comprehension of the modes of appeal, specifically in advertising. The persuasive unit included 12 lessons that were taught over a four-week period. This project analyzed the effectiveness of the implemented instructional and assessment strategies on student’s learning based on pre- and post- assessment scores. Following analysis of the pre- and post- assessment data, I discovered that nonlinguistic forms of representation are effective in increasing students’ learning.

Keywords: instructional strategies, assessment strategies, nonlinguistic representations

Background

In cooperation with my mentor teacher, I planned and implemented a 12-lesson persuasive unit designed to inform students on the modes of appeal in persuasion. This capstone project was conducted in a seventh-grade classroom within a clinical practice placement at an urban middle school in District 66 (Westside). Westside Middle School supports 1,007 students represented in the Westside district. In the 2021-2022 school year, 2% of the student population were reportedly English Learners and 30% were free or reduced lunch.

Introduction

The goal of the persuasive unit was for students to understand the persuasive modes of appeal (ethos, pathos, logos, and kairos) in advertising. The unit was guided by the following questions: (1) Does providing nonlinguistic representations during instructional time engage students in more than one way? (2) Which nonlinguistic representations are the most beneficial
for students at the middle grade level? (3) Do graphic organizers go beyond organizing the thoughts of students? (4) How can graphic organizers push students to a higher level of thinking?

For this unit, the students participated in a pre-test prior to instruction. At the end of the unit, a post-test was given to assess their knowledge on the persuasive modes of appeal. The pre/post-test included 11 questions asking students about the modes of appeal and author’s perspective. Throughout the unit, I implemented three forms of nonlinguistic representations to determine if these instructional and assessment strategies would increase student learning.

Nonlinguistic forms of representation are defined as representations of knowledge that go beyond the use of words, such as graphic representations or physical models. Haystead & Marzano (2009) shared that in order for nonlinguistic representation to be effective, nonlinguistic representations must identify crucial information and students should explain their representations. Without implementing these practices, nonlinguistic information would have little or no positive effect on student learning. The instructional and assessment strategies that do address these practices, were implemented into the unit as Total Physical Response (TPR) and Graphic Organizers (GOs).

Total Physical Response is a method of teaching language or concepts through the coordination of speech and action. Itmeizeh & Ibnnian (2022) discussed the psychological aspects of TPS in association with branch theory. This theory suggested that memories can be easily recalled when its connection can be traced. Itmeizeh & Ibnnian (2022) stated, “Mixing verbal rehearsal with actions helps recall the meaning of words by the learners” (p. 341). TPR, as a nonlinguistic form of representation, would benefit students’ learning because they would be able to recall information from the unit.
Graphic organizers were both an instructional tool and assessment strategy within this persuasive unit. Graphic organizers are visual thinking tools that help organize and visualize the thoughts of students. Fan & Chen (2021) discovered that the use of graphic organizers, specifically concept and argument maps, improved students persuasive writing. They noted that “The posttest results showed that the students’ argumentation ability demonstrated in their writing was strengthened” (p. 180). The use of graphic organizers strengthened students’ understanding of persuasive writing because they had a framework for how to address the content.

I implemented nonlinguistic representations into my persuasive unit to meet the needs of the seventh graders at all levels. I found that the implementation of these representations encouraged greater participation and increased students’ understanding of the modes of appeal.

Participants

The unit of study was taught in a seventh grade Language Arts and Honors Language Arts classroom composed of 57 students. There were 33 Language Arts students and 24 Honors Language Arts students. Of the total 57 students, two were proficient English Learners. Two students had a Section 504 plan. A 504 plan outlines the criteria that the school will provide to support and/or remove barriers for a student with a disability. Two students had Individualized Education Plans (IEPs). An IEP is a plan for a child’s special education experience at school.

Methods and Materials

This unit was aligned with three Nebraska state standards, LA.7.RI.6., LA.7.W.4, and LA.7.SL.2.c. The first standard states that students will analyze the development of an argument and identify the type(s) of reasoning used to support the argument (NDE, 2021, p. 83). LA.7.W.4 states that students will be able to write arguments that develop a perspective with supporting
reasons and evidence organized as appropriate to the task, purpose, and audience. The final standard, LA.7.SL.2.e., states that students will be able to use appropriate visual and/or digital tools to enhance verbal communication and add interest. Based on these standards, the unit objective was for students to be able to create a digital commercial to persuade their audience to buy their product, using the persuasive modes of appeal.

The unit started with a pretest defining the modes of persuasion and essential persuasive vocabulary. After analyzing the results of the pretest, I determined that students needed to identify and analyze the modes of appeal in a variety of formats. Based on my experiences within the classroom, I determined that nonlinguistic representations, such as graphic organizers and Total Physical Response (TPR), would best serve these seventh-grade students in learning about the modes of appeal.

Graphic organizers were implemented into the unit as both instructional and assessment strategies. Students used a graphic organizer to analyze an ad of their choice. Students had to locate an ad they had seen in the media and use the graphic organizer to explain how it used the modes of appeal (ethos, pathos, logos, or kairos). Graphic organizers were also used to help students show their knowledge of pathos by creating a billboard. Figure 1, shown in Appendix A: Pathos Billboard, shows the front side of the graphic organizer that students were given. Students were asked to determine what they were going to advertise, who their audience was, the context (or what people needed to know), the purpose, and how they were going to use pathos. The back side of the graphic organizer gave them the opportunity to sketch their billboard. Students also used graphic organizers when evaluating the persuasiveness of their peers’ ads. They were asked to identify the modes of appeal used, apply the knowledge they have of
persuasive strategies, analyze the how those strategies would be persuasive, and evaluate if they were effective.

The other instructional and assessment strategy used was Total Physical Response (TPR). TPR was used as an instructional strategy by having students move to the side of the classroom that they agreed with. For example, “Is the dress code necessary?” was a prompt that students had to choose a side for. When students picked a side, they would have to give three reasons why their side was correct before sharing with the other side. Student also used TPR to answer questions. For example, I asked students if an advertisement effectively used ethos. Students would show me their opinion with a thumbs up, in the middle, or thumbs down. I could assess how students were processing the modes of appeal and ask them to clarify if necessary.

The unit ended with students creating a 30 second commercial, using at least two modes of appeal. Students had to complete an outline (graphic organizer), a 30 second commercial, and analyze their peers’ commercials. Students also completed the post-test consisting of the same questions as the pre-test. I analyzed the data from the summative commercial assignment and the post-test to determine students’ growth over the course of the unit. From this data, I was also able to determine if the nonlinguistic representations I implemented impacted students learning.

Data Analysis

Appendix B: Test Data includes the pre-assessment and post-assessment data from the persuasive unit. Figure 2 and Figure 3 represent the number of students who answered the pre-test and post-test questions correctly. The light blue color represents the number of Language Arts students who correctly answered the question. The dark blue color represents the number of Honors Language Arts students who correctly answered the question. The red color represents the remaining number of students who answered the question wrong.
Discussion and Conclusions

The data collected from this unit informed me on what students knew previously and specific areas they needed instruction. Viewing the data from the pre-test, I gathered than the modes of appeal (ethos, pathos, logos, and kairos) were the aspects of persuasion that I needed to focus most of my attention on. Figure 1, shown in Appendix A: Pathos Billboard shows that a majority of students struggled to identify the four modes of appeal. However, a majority of students were able to define author’s purpose and students also had the ability to identify the target audience for a product based on the example with 100% accuracy.

Following analysis of the data, I found that integrating representations within the persuasion lessons were effective instructional and assessment strategies. Figure 1, shown in Appendix A: Pathos Billboard, shows that prior to instruction, students had little knowledge with persuasive modes of appeal. Using graphic organizers to identify, analyze, and create a persuasive argument was an effective way for students to display their knowledge. It was also an effective way for me to assess their knowledge as I was able to see how their ideas formed. TPR was also an effective instructional strategy as students were able to participate in discussions about the persuasive topics, in a low-stakes environment. By moving to an area of the room or giving a thumbs up/down, they were able to display their knowledge and I was able to assess their comprehension in the moment.

Based on post-test results, the data supports the idea that implementing differentiated instructional strategies into the lessons increased students’ learning. When comparing the results of the pre-test with the post-test, there was an increase in students’ comprehension of the subject. After instruction, with the implementation of nonlinguistic representations, no more than five out of 57 students were unable to correctly define and identify the terms in the post-test. From the pre-test to the post-test, there was a significant increase in student learning.
References


Appendix A: Pathos Billboard

**Pathos Billboard**

You work for an advertising company and your boss has just given you an assignment to design a new billboard. It is now up to you to design a billboard using pathos to catch drivers’ attention. **Complete the rest of the graphic organizer to create your billboard.**

<table>
<thead>
<tr>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are you going to advertise?</td>
</tr>
<tr>
<td>Who is your intended <strong>audience</strong>?</td>
</tr>
<tr>
<td>What is the <strong>context</strong> for your billboard? (What would people have to know in order to understand your billboard?)</td>
</tr>
<tr>
<td>What is the <strong>purpose</strong> of your billboard?</td>
</tr>
</tbody>
</table>
| How will you use **pathos** to persuade your audience?  
- What emotions will you try to evoke? (Humor, sadness)  
- Write 2-3 complete sentences explaining how you are going to use pathos in the design. |

**Figure 1:** Graphic organizer provided to students to help them design and organize their billboard that incorporated the pathos mode of appeal.
Appendix B: Test Data

**Pre-Test Data**

- **Language Arts Students** who correctly answered the questions. There are 33 total students.
- **Honors Language Arts Students** who correctly answered the questions. There are 24 total students in this class.
- **Number of Students** who did not correctly answer the questions. (From both groups)

*7 absent students

*Figure 2*: Report showing how students scored on each of the pre-test questions. The graph is separated into classes as well as students who did and did not answer the questions correctly.
Figure 3: Report showing how students scored on each of the post-test questions. The graph is separated into classes as well as students who did and did not answer the questions correctly.