The Effects of Note Taking Modeling on ESL Student Achievement and Comprehension

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Abstract

In an effort to raise the level of achievement in my class I created a structured note-taking template so as to provide Limited English Proficient (LEP) students a visual and audible way to access new material. This template served as the primary method of conveying new information during my second semester of teaching. The reasons that I chose to create and study this method of taking notes stemmed from my observations of my students’ retention and comprehension of material during my first semester as a teacher. I found that few students took notes and even those who did take notes rarely used them as a resource. This paper details the results of using the template in terms of student comprehension and achievement as well as how the template influenced the greater classroom environment.

Introduction

I am a first year Mathematics teacher at Bell Multicultural High School in Washington D.C. I taught a semester-long course in Algebra II both first and second semester at Bell. Bell Multicultural High School is located in the Columbia Heights/Mt. Pleasant neighborhoods of Washington, D.C. The student population at Bell is approximately 75% Hispanic / Latino, 5% Ethiopian, 5% Chinese, and 10% African-American (plus or minus 5%). There are designated ESL English classes but Math classes are composed of students with mixed ability and language levels.

Within my first month as a teacher at Bell, several issues had come to my attention. First, most of my students were limited English proficient (LEP) students. Most had a low level of comprehension and an even lower level of writing and speaking skills. Second, my students’ math backgrounds varied between students who had a firm grounding in Algebra and could do numerical calculations in their head and students whose ability to multiply and divide was shaky at best. Last, I had little to no behavior problems. I had anticipated of my students a low, but more uniform, level of math experience, in addition to major behavior problems. Because of the lack of behavior problems, I was able to focus on how to best activate and engage students with the new material.

Creating and Using the Note-Taking Template

After reflecting on my first semester teaching at Bell, one of the themes I saw across all of my classes was a basic lack of understanding and retention of new material. Students that already had high levels of English language and math skills were able to digest and retain most of the information given in class.
Unfortunately, for almost all of the remaining students it was unclear as to what they were taking away from my class. When given time to apply what they should have learned from taking notes and watching examples in class, most students did not know where to start or where to look for help. Because of their limited English proficiency, most students could not use the textbook, even if directed to the proper page. Furthermore, if students had even taken notes, they rarely, if ever, referred to them for help. It was this dilemma that motivated me to create a more structured method of note-taking.

The question that guided the creation of this template was, “What is the best way for ESL students to understand new material?” Thus, I created a note-taking template. The template contains the following headings to be filled in by students:

- Lesson Objective / Standard
- Why am I learning this? → how does the material relate to the real world
- What do I already know? (prior knowledge)
- How to do it / Terminology → the steps to solve a certain type of problem
- Concept Examples → examples of the concept following the steps
- Lesson Summary

(See attached note-taking template the Appendix).

Each day that notes were given, I used this template on the overhead projector and lead students through each category. In the beginning of the semester, I would usually fill in most of the headings myself and let students copy the notes onto their own papers. As students became increasingly familiar with this structure, I asked guiding questions and had them help me fill in each section of the template. It was my hope that even low-level ESL students could use these notes to help them complete homework assignments and study for tests.

Classroom Observations and Results

Throughout the semester, I observed how students used the template and the effects the template had on student achievement. Each student was given a photocopy of the note-taking template on the first day notes were given. As I proceeded through the notes, students filled in the boxes for each heading. After the first day, students took notes on regular, lined paper and wrote the headings themselves.

One of the most immediate benefits of this system is that students became familiar with the key components of any lesson, as well as the education jargon associated thereto. Terms like “Concept”, “Prior Knowledge”, and “Objective” are important for ESL students to understand, as this understanding can open new avenues of reflection into students’ learning processes.

A further benefit of this template is that it makes clear that taking notes is an essential part to understanding new material. For most of my students, the
The process of distilling material and transcribing it for their own use was one of their most difficult tasks. Because of this, it was important to give them a scaffolded note-taking experience. By using the note-taking template, I was able to model the process of taking notes, as well as model the process of using the notes to solve problems. For each new concept, students would participate in formulating the steps required to solve a problem and I would then model using the steps to solve a problem in the concept examples section.

After observing the horrendously disorganized state of most of my students' notes after the first semester, one of my goals was to create a highly scaffolded note-taking environment. This note-taking template served to organize the flow of my teaching as well as the students' notes. Ideally, if a student needed to look back for help, they would know exactly where to look in their own resources. Unfortunately, throughout the second semester, I rarely saw students refer back to their notes in class to help them with math problems. Furthermore, even when directed to use their notes to answer their own questions, some students were never sure where to look or how to use their notes.

Lastly, this template created a classroom routine that was centered around learning, and facilitated the quick and efficient introduction of new material. Students sometimes began their notes as soon as they saw me walk towards the overhead projector. Students had a sense of accomplishment after summarizing a newly learned concept. On most occasions, students eagerly volunteered to summarize what they had learned. Particularly important for ESL students, this note-taking format had a built-in space for terminology and vocabulary to be defined, so that even low-level ESL students could try to decipher the content and meaning of their notes.

In most of my observations and reflections on the note-taking template, I was pleased by the effects it had on student comprehension and the classroom environment. However, there were certain problems that I noticed as the semester progressed. In terms of student achievement, my students' 2nd semester grades were significantly better than the 1st semester grades. For some students, taking notes was an opportunity for them to mentally “tune-out” and simply copy down words from the overhead with little to no comprehension. In addition, as mentioned above, students were rarely seen using their notes in class to guide them in answering their own questions about a math problem. However, in the End-of-Year Survey, given to all students, about 75% of students said that they had used their notes to help them complete a homework assignment and about 80% said that used their notes to study for tests. Furthermore, based on the written response to the question, “What did you like or dislike about the way notes were given?”, there were several encouraging responses. Several students stated that the notes helped them to study for tests. Others liked the flow of the notes and how they went “step-by-step”. Still others said that the notes made it easier for them to organize their notebooks and to complete homework assignments.
Conclusion and Future Direction

The note-taking template changed my teaching style and planning process dramatically. It was my hope that this method of presenting new information would both increase student comprehension and allow students to be more reflective on their learning processes. Based on my survey results, some of these goals were partially achieved. In the future I would like to have students present to their peers new concepts using this note-taking template. Perhaps in the future I will more explicitly model and practice going back to refer to notes in order to answer questions. In future courses, I hope to use more frequent and more focused student surveys to address the issues of how students use their notes. In addition to this, I would like to try to better activate and investigate students higher cognitive responses to the notes. Lastly, I would like to investigate whether this model influences students’ note-taking processes in their other classes as well.
Appendix

Unit: ______________________
Topic: ____________________________________________
Date: ______________________

Lesson Objective / Standard:

WHY am I learning this?:

Prior Knowledge (What do I know already?):

How to do it / Terminology:

Concept Examples (2 or 3 examples of what we are doing):

Lesson Summary: