Using Feature Analysis as a Litracy Strategy

Pittleman, Heimlich, Berglund, & French (1991) identify the literacy strategy, feature analysis, as a procedure for helping students discriminate details among concepts. This strategy works well with specialized vocabulary as well as general vocabulary in content area literacy.

The idea of using feature analysis to help students compile and analyze their research data about a specific topic of interest in a content area class is supportive of reading comprehension. It also fosters higher-level critical thinking by asking students to synthesize and generalize about the data.

Throughout research units of study, teachers can support students' use of appropriate reference materials as they complete the feature analysis chart when summarizing and compiling the data or research information.

How To Get Started

The following steps are recommended by Readence, Bean, & Baldwin (1995) to get started using feature analysis in your class.

1. **Category Selection** - While planning this unit of research on the various types of energy, the teacher decided that feature analysis would be an appropriate literacy strategy to support students' content area reading. Therefore, **Energy** was selected as the category for this unit of study since it consists of two or more items that are similar and need to be studied.

2. **List Category Terms** - Knowing the kinds of energy that are to be studied, the teacher placed these terms along the left side of the blackboard. The kinds of energy being researched became the category terms for using feature analysis.

   Nuclear
   Electrical
   Solar
   Heat
   Chemical
   Radiant

3. **List Features** - Across the top of the blackboard, the features that will be used to describe the terms (or kinds of energy) that are to be explored should be listed. As the teacher you may pre-select the features that you want to have the students explore or the features may be generated with the students. In this unit of research on energy, the teacher pre-selected the features to coincide with the specific information that she wanted the students to research.

Feature Analysis

Feature Analysis Chart
Energy

	Natural	Synthetic	Used at Home	Reusable	Causes Pollution
Radiant					
Heat					
Electrical					
Nuclear					
Chemical					
Solar					

4. **Complete Feature Chart –** Students should be guided through the completion of the feature chart matrix as they determine whether or not each category item possesses that particular feature. In Mrs. Saia's lesson, the children had previously researched information that would be used to complete the feature chart. Completion of the chart may be done individually, in small groups, or whole group as the teacher did in this video lesson. A plus (+) indicates that the category items have that feature. A minus (-) indicates that the category item does not have that particular feature. In the video lesson Mrs. Saia used pink chalk to indicate the students' initial responses. Usually, the plus (+) indicates that a category item has that particular feature.

Following a period of research time, the teacher provided guidance through the process a second time to record what the students then believed based on their research. It is important to note that this highly qualified science teacher was using this literacy strategy to teach the scientific process as well as for the students to obtain content information. She provided various scaffolds for her students to become comfortable with using the matrix as a procedure for conducting their research. A second color of chalk was then used to confirm or change the information about the features based on their ongoing research. In some cases, the teacher and the students decided more research was needed before they completed the feature chart.

Every feature area should be completed with a plus or minus for all of the category terms. As the students discuss whether the category has this particular feature or does not, they begin to develop higher-level critical thinking skills through their synthesis, reasoning, and problem solving skills. Discussion of this nature supports the scientific process.

Feature Analysis

5. **Explore the Matrix –** Exploring the matrix is the final step in this literacy strategy. During this step the students continue to discuss their observations about the various features for each category item. Time should be given for small group discussions as students have the opportunity to make generalizations. Guiding comments and probing questions will be supportive as students generalize, synthesize, and rationalize the bits of information they have indicated about the category in the matrix. These questions can be posed in order of simple to more complex.

Each teacher should determine the kinds of questions that will guide the students' understanding of the topic of study based on their developing an understanding about the topic. Comments or questions that Mrs. Saia may have posed for her class:

- Which kinds of energy are used at home?
- Which kinds of energy cause pollution?
- Which are the most hazardous?
- Which kinds of energy are most cost efficient?

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