Discussion

Did the Rescue classification task improve vocabulary knowledge? The results of this study strongly supports the conclusion that intensive classification practice designed to promote lexical organization and retrieval enhances vocabulary knowledge. The instructional treatments produced effects on three of the four vocabulary knowledge posttests. Positive effects of the treatment in contrast to the control group were observed on posttests of subjects' ability to: (1) identify the correct spelling of instructional words, (2) define these words, and (3) identify the appropriate use of the words to complete cloze sentences. These outcomes replicate earlier vocabulary instruction studies that produced similar word knowledge effects.

The results support the view that the classification task promotes the incidental learning of word knowledge that was not explicitly required in the learning task. Although subjects were not required to learn word spelling their posttest scores indicate that word knowledge was organized on tests of this knowledge. Since a good deal of time is spent on teaching word spelling in vocabulary training, it is not trivial that there are indirect ways to teach the same knowledge and the outcome demonstrates one powerful aspect of the classification task as a pre-reading exercise.

In addition to the incidental learning of word spelling, the training enabled subjects to use their new word knowlege to select the appropriate definitions for instructional words in a multiple choice

test. Presumably, the association formed between the instructional word and the category enabled them to learn enough about the words to aid their performance in this task. The training did not focus on the unique definitions, so the subjects had to depend on what they learned about the class in which the word was included in order to respond adequately. Although this is no small accomplishment, there remains the question of how much better could they have done if the training focused on unique word definitions as well.

The fourth posttest, Open-ended sentence completion, was less successful. However, since subjects were very good at conjuring up noninstructional words to fill in the open-ended test in the pretesting phase, there wasn't much room for improvement. In comparison, very few of their items were instructional words. It was anticipated that, after the treatments, subjects would use more instructional words to complete the task. Overall, treatment groups increased their use of instructional words on the posttests by twice as much compared to control group, but this difference was not significant. Presumably, the increase was insufficient up against the overwhelming use of other types of appropriate words. These results indicate that the instruction did not influence their word knowledge for instructional words in ways that would override their use of familiar items that adequately completed the task. That is, they were already good at this task. They used their own subjective organization to answer the questions and apparently they were confident that their responses were adequate.

Improvement on the discrimination task is an indication that the treatment groups learned the category relations. Each multiple choice item corresponding to a cloze sentence was from a different category and use of this knowledge to discriminate amongst them was helpful to complete the sentences.

Did the amount of improvement in vocabulary knowledge and reading comprehension vary as a function of level of the instructional speed factor? When differences in amount of instructional exposure was used as a covariate, level of instructional speed did not contribute significantly to the outcome. The higher posttest scores for the speeded instructional treatment may have been due to the increased number of exposures needed to accomplish the task. The extra time on task presumably was due to the greater difficulty of the speeded task. The additional exposure did, however, increase word knowledge.

Did semantic category differentially affect improvement in vocabulary knowledge and reading comprehension? Firstly, treatment groups did not differ in their recall of the three types of lists. This outcome supports the hypothesis that making themes conform to a structure similar to a taxonomic on, and embedding them in a classification task, results in similar learning effects. It seems also that presentation of mixed lists did not lead to richer lexical organization, as evidenced by the equivalent outcomes across the list types. These results conflict with those found in studies of matrix (Broadbent et al, 1978) and hierarchical (Bower et al, 1969) organizations of lists. The assumption in these earlier studies was that increased structure would achieve memorability similar to story

structure. Although the mixed word items in the present study could be decomposed into two independent categories, these lists were not recalled any better than thematic or taxonomic items alone. One possible reason for this difference between the present results and the previous work of Broadbent et al is that the two level matrix in the present study was not as well formed as the four levels used in the previous study. There are other possibilities as well. One possibility is that the category label that included both subcategories was made explicit, but the subject had to discover that the subcategories could be labelled differently. It may be that they never discovered the subcategory relations. More research is needed before we can understand these results better.

Instruction that teaches subjects to classify unfamiliar words on the basis of either thematic, taxonomic, or a mix of the two types of relations affects vocabulary learning and reading comprehension equally. It seems that each type of relation is a rich context in which to improve lexical organization. Thus, taxonomic concepts are not the only type of conceptual factors that can be used to improve vocabulary knowledge. Lexical items that relate to what we know about our everyday events can also be useful.