

**SCIENCE TEACHING**  
**in**  
**THE ELEMENTARY SCHOOL**

**AN ABSTRACT OF**  
**A THESIS**  
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**by**  
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The purpose of this thesis is to review the latest trends and the newest ideas in science education as stated in current books and periodicals on the subject, and to compare them with the present curriculum and methods used in the Brookfield, Connecticut school system.

The review of the literature showed that present thinking in the field of science education favors the development of the process of problem solving, rather than an accumulation of scientific facts. There are three ways suggested for doing this. First, the study of famous scientists and their methods. This approach would acquaint the student with the successful methods previously used to solve scientific problems, and assumes that the same methods could be used to solve the future ones. A second approach to teaching problem solving techniques, is to apply the so-called scientific method, or experimental approach to various science questions. A third approach is to study broad areas of scientific knowledge and investigate their interrelationship and their affect on man.

In the elementary school, the trend is towards looking at broad areas in science and stressing their interrelationships, then using the scientific approach and incorporating some experimental work by the students to test or verify the hypothesis. The selection of these broad areas and the determination of what age levels should be able to handle them

is the problem of the curriculum expert. In many school systems, this is the job of a curriculum specialist.

Modern methods of teaching science feature student involvement. Since the one fundamental difference between science teaching and the teaching of the other subjects such as English, spelling, or social studies, is the opportunity and the necessity of experimental work, the teacher must be provided with an assortment of equipment and supplies to permit both demonstration and participation by students in experimental scientific work. Such equipment and supplies are not a normal part of the elementary school teaching materials.

Continuity between elementary and junior-high school science programs is a necessity, and can be dealt with by a science consultant or by joining teacher committees, working with the curriculum specialist.

Evaluation of the science program should be continuous, and should be an administrative responsibility.

A comparison was made between the goals and objectives of the Brookfield system, and those favored by the various authorities reviewed. This showed good agreement as to the purposes of the science program. The Fifty-ninth Yearbook of the National Society for the Study of Education presents a list of criteria for evaluating an elementary school science program. Comparing these criteria with Brookfield's program indicates a fair degree of correlation, particularly in the areas of curriculum, A-V materials, and time allotments.

From the results of this study, the writer feels that

the Brookfield program offers a good foundation of science knowledge and its application to the student's environment. Further studies need to be made in an effort to arrive at better standardized testing methods to measure and compare results of science teaching. A regular program of evaluation would be desirable. The services of a science consultant to review and improve the program on a regular basis, to assist teachers in doing a better job, and to recommend changes in texts, materials, and curriculum would be a logical forward step in the Brookfield science program.