A PROJECT

in

THE TEACHING OF SCIENCE

AN ABSTRACT OF

A THESIS

PRESENTED TO THE GRADUATE FACULTY

OF DANBURY STATE TEACHERS COLLEGE

IN PARTIAL FULFILLMENT

OF THE REQUIREMENTS FOR THE DEGREE

MASTER OF SCIENCE

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May 1959

THE TEACHING OF SCIENCE

It has long been the feeling of this writer that the intellectual capabilities of our children are frequently underrated by the teaching profession as well as the adult population at large.

This writer also feels that our salvation in this troubled world lies through the proper development and use of our mental capabilities. If our children have a greater intellectual potential than we have realized, we must utilize every means at our disposal to develop that potential.

These were the thoughts that prompted this project in the teaching of science which is the basis for this thesis.

The writer teaches an academically gifted sixth grade, and it was felt that these children could cope with a much broader and deeper treatment of a unit of study than even that which was in their already advanced curriculum.

Accordingly, a "ninth" grade text of real substance was chosen, one which would make the children think. It was also a text that treats science as a human activity and stresses relationships and new ways of looking at different phenomena, both of which are so important in science. In short, the students were exposed to solid weighty thoughts.

The unit of study was one concerning light and electricity as two manifestations of the radiant energy continuum.

The teaching method employed was a usual one, namely, that of having the children read the text to themselves first, then read and discuss it aloud in class, followed by further clarification through questions and answers. As a corollary to this condition, they were asked to plan or design experiments and demonstrations to show how they would give instruction in this information were they called upon to teach it. It was felt that if the children could be encouraged to approach the project with this intensity, their learning would indeed be of a high calibre.

After the initial shock of being called upon to really use their minds, the students responded in a most admirable way. After they had grasped such theories as light can be thought of as both wave-like and corpuscular at the same time, they plunged into debating such thoughts with the same gusto that Mr. Huygen and Mr. Newton had displayed.

The experiments and demonstrations which they devised were thoughtful and, for them, original, and their papers describing their activities were clear, concise and showed real understanding.

It is felt that such an intense, exciting approach to schoolwork as the one outlined is not only workable, but it is needed in this new dark age.