

A SURVEY OF THE LITERATURE RELATING TO
PHYSICAL SCIENCE FOR THE SLOW LEARNER

by 2214

PHYLLIS NIETFELD WEYERTS

B. S., University of Denver, 1949

A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1971

Approved by:


Major Professor

LD
2668
R4
1971
W45
C.2

TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION	1
Statement of the Problem	3
Definition of Terms	4
Limitations	5
Design and Procedure	5
II. REVIEW OF THE LITERATURE	6
Characteristics of Students in Non-academic Classes	6
Objectives for Physical Science Classes Which Are not College-preparatory	11
Suggested Methods of Instruction for Disinterested Students	15
Characteristics of Effective Teachers of Slow Learners	25
III. SUMMARY AND RECOMMENDATIONS	30
BIBLIOGRAPHY	34

CHAPTER I

INTRODUCTION

Occasionally a teacher is asked to assist in developing a course of study in physical science for slow learners and disinterested students in the secondary school. Sometimes the course of study has been developed and the teacher is asked to teach this class--often with no previous teaching experience. This teacher needs to know what factors will enhance the learning for these young people who are often not interested in science or school.

The problem of the disinterested student has been receiving national attention during recent years because of such outward symptoms as drug abuse and violence. Although the slow learner and the disadvantaged child have always been present, the problem of educating them has become more urgent recently for several reasons. Automation and advanced technology have eliminated many of the menial tasks. Equality of job opportunity requires also an equal opportunity for developing intellectually.¹ The racial disturbances and high population concentration in urban areas have caused educators

¹J. McVicker Hunt, "The Implications of the Changing Ideas on How Children Develop Intellectually," The Disadvantaged Child: Issues and Innovations, Joe L. Frost and Glenn Hawkes, editors (Boston: Houghton Mifflin Company, 1970), p. 141.

to analyze the quality of education in the inner city schools.² Finally, many people are recognizing the necessity to prepare well-informed, literate, thinking members of our society to become responsible citizens.

Our society has attempted to move from education for the elite to education "for all". Unfortunately, we have often failed to realize that the needs of students of varied backgrounds are so different that merely providing the materials for education is not enough. It is necessary to reach the child before one can teach him. If he comes from a background of failure, he must experience success. If he has lost his ability to trust others--especially anyone associated with the school--this trust must be restored. As he sees relevance between the topic studied and his own life, as he experiences success and develops trust, he will begin to learn within the bounds of his own capacity.³

In order to help each student develop within the limits of his potential, the teacher must know as much as

²Kenneth R. Johnson, "The Culturally Disadvantaged--Slow Learners or Different Learners?" Journal of Secondary Education, 45:46, January, 1970.

³John Holt, How Children Fail (New York: Dell Publishing Co., Inc., 1964); John M. Lembo, Why Teachers Fail (Columbus, Ohio: Charles E. Merrill Publishing Company, 1971); Carl R. Rogers, Freedom to Learn (Columbus, Ohio: Charles E. Merrill Publishing Company, 1969); W. R. Wees, Nobody Can Teach Anyone Anything (Garden City, New York: Doubleday and Company, 1971).

possible about slow learners and disadvantaged children in general and about his students in particular. This necessitates cooperation from the administration and counselors to provide the information about the students.⁴ It also requires small classes with freedom to utilize the information he has obtained.⁵ The teacher needs to be a sensitive, well-trained individual who is mature and self-confident enough to provide the atmosphere for learning which these students deserve and need. This is indeed a challenge!

I. STATEMENT OF THE PROBLEM

This literature survey was undertaken to prepare for meeting the challenge of providing a suitable atmosphere for learning for slow learners and disinterested students in physical science. An attempt was made to: (1) determine the characteristics of students who are called slow learners or disinterested students (2) compare the objectives suggested for physical science for classes which are not college-preparatory, (3) report methods of instruction which have been successful with slow learners and disinterested students,

⁴James R. Okey, "Diagnosing Learning Difficulties," The Science Teacher, 37:60, May, 1970.

⁵Jules Henry, "White People's Time, Colored People's Time," The Disadvantaged Child: Issues and Innovations, Joe L. Frost and Glenn R. Hawkes, editors (Boston: Houghton Mifflin Company, 1966) p. 399.