

THE EFFECT OF INTENSIVE SAFETY INSTRUCTION ON THE
LEVEL II INTERMEDIATE SCIENCE CURRICULUM
STUDY STUDENT

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by

DONALD L. ALLEN

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Chapter 1

INTRODUCTION

The Intermediate Science Curriculum Study (ISCS), developed at the Florida State University in cooperation with the National Science Foundation, is an individualized course of study involving activities rather than the lecture method of instruction. Specifically, Level II ISCS focuses on the building of a model to explain the nature of matter. While working with various chemical reactions on a daily basis, the middle school student finds himself in a potentially dangerous laboratory environment.

Safety tips to students are an important part of the ISCS text, Probing the Natural World 2.¹ Suggestions have also been made in the ISCS teacher module, Classroom Organization,² to improve safety conditions. The fact remains that little research has been focused on the role of an intensive laboratory safety program in reducing the number of students involved in accidents. Basically, research has been limited to studying factors associated with the cause of accidents.³

The purpose of this study was to determine if students in a Level II ISCS classroom receiving intensive safety instruction had significantly fewer accidents than students who received only minimum safety instruction.

Chapter 2

REVIEW OF THE LITERATURE

Ulrich⁴ concluded from a survey of the safety conditions in various New York public schools that comprehensive safety programs were lacking. In a recent survey of safety conditions in high schools in the State of Illinois, Young⁵ has concluded that accidents do not just happen. Most accidents can be eliminated and should be eliminated through proper techniques and adequate anticipation.

To date the Florida Department of Education has published a handbook⁶ to guide the science teacher in taking the proper safeguards in the laboratory as prescribed by Florida Law. This, however, fails to guarantee that accidents will be eliminated or even reduced in the classroom.

Intensive safety education programs have been shown to be effective in reducing the frequency of accidents in several areas outside the realm of the ISCS laboratory. Doss⁷ has shown that students having successfully completed a course in driver education possess greater driver knowledge in terms of driving practices and principles than students not receiving the same treatment. Using data from the Seibrecht Attitude Scale, it was further shown by Doss that the treatment group possessed a more favorable attitude toward safe driving practices.

It appears that if the individual's attitude toward safety is improved, then the number of accidents may subsequently be reduced.