

C O N T E N T S

ACKNOWLEDGEMENT  
TABLE OF CONTENTS

LIST OF APPENDICES

<u>CHAPTER</u>		<u>PAGE</u>
<u>I</u>	<u>I N T R O D U C T I O N</u>	<u>1-40</u>
(A)	Science Education in India & Abroad.	
(B)	Practical Laboratory Work in Science.	
(C)	Present Status of chemistry teaching in India.	
(D)	Position of chemistry laboratory in India and Abroad.	
(E)	The position of chemistry Laboratory Institution in senior secondary schools of India & Abroad.	
(F)	Rationale of the Study.	
	References	
<u>II</u>	<u>A REVIEW OF LITERATURE</u>	<u>41-229</u>
(A)	Laboratory Instruction.	
(B)	Processes of Science.	
(C)	Methods of Laboratory instruction.	
(D)	Types of Laboratory Skills.	
(E)	Recent Advances in Laboratory instruction.	
(F)	Factors affecting Laboratory instruction.	
(G)	Evaluation of Laboratory instruction.	
(H)	Cases studies of various countries.	
<u>III</u>	<u>PROCEDURE AND RESEARCH DESIGN</u>	<u>230-257</u>
(A)	Procedure for the study.	
(B)	Research Design for the study.	

- (C) Hypothesis of the study.
- (D) Selection of the schools.
- (E) Selection of the students.
- (F) Construction of Tools.
- (G) Collection of Personal Bio-data.
- (H) Collection of data regarding out of school activities.
- (I) Details of chemistry Laboratories & other school facilities.
- (J) Laboratory Facilities.
- (K) Evaluation of the tests and other details.

IV. IDENTIFICATION OF CHEMISTRY LABORATORY SKILLS (258-322)

- (A) Analysis of Central Board of Secondary Education syllabus for Entry level Test.
- (B) Analysis of Central Board of Secondary Education syllabus for Terminal Level Test.
- (C) Bifurcation of Chemistry Laboratory skills into relevant and non-relevant.
- (D) Categorisation of Chemistry Laboratory skills

V. CONSTRUCTION OF TESTS VALIDITY AND RELIABILITY

(323-391)

- (A) Entry Level Test.
- (B) Terminal Level Test.
- (C) Theory Test ( Pandit ) .
- (D) Validity of the tests.
- (E) Reliability of the tests.
- (F) Item Analysis (difficulty & discriminating Values).
- (G) Marking Scheme for the various tests & other factors.

VI.	<u>STATISTICAL ANALYSIS OF THE RESULTS</u>	(392-417)
(A)	The main issues.	
(B)	Statistical results - Entry Level Test.	
(C)	Statistical results - Terminal Level Test.	
VII.	<u>SUMMARY, CONCLUSIONS AND SUGGESTIONS</u>	(418-433)
(A)	Conclusions regarding research questions.	
(B)	Conclusions of the study.	
(C)	Suggestions for future studies.	
	APPENDICES	(434-474)