

Contents

Introduction 1

Chapter 1 Research in Education 11

What Is Education? 11

Factors Influencing Education 13

Cultural and Philosophical Influences 14

Practical Influences 15

Research and the Educational Process 17

Learning Objectives 17

The Learning Process 20

Instructional Programs 24

Summary 27

Chapter 2 Research and Decision Making in the Classroom 29

The Teacher as Decision Maker 30

Factors in Decision Making 31

Method of Instruction 31

Instructional Aids 33

Technological Aids 33

Testing and Measurement 34

Graded Instruction 39

Discipline and Control 41

Summary 44

Chapter 3 Research on Content 45

Documentary Research 45

Choosing and Ordering 45

Content Research in the Social Sciences 46

Policy Decisions 48

Historical Research 49

The Study of Educational History 49

Purposes of Historical Research 50

Selection of a Topic 52

Source Material 53

Historical Criticism 54

Integration of Related Literature 55

Library Facilities 57

The Card Catalog 58

	General References Used in Documentary Research	58
	Periodicals, Indexes, and Abstracts	58
	Additional Guides and References	60
	Encyclopedias and Directories	61
	Government Publications	61
	How to Begin	62
	Philosophic Method and Educational Content	63
	Summary	65
Chapter 4	Research on Process	67
	Empirical Research	67
	Independent, Dependent, and Moderator Variables	68
	Nominal, Ordinal, and Metric Data	70
	Nominal Data	71
	Ordinal Data	71
	Metric Data	72
	Concepts and Behavioral Indices	73
	Theory, Design, and Analysis	74
	Theory	74
	Research Design	77
	<i>Experimental Research</i>	77
	<i>Comparative Research</i>	87
	Analysis of Research Data	89
	<i>Classification</i>	90
	<i>Descriptive and Inferential Statistics</i>	93
	<i>Central Tendency and Variability</i>	97
	Summary	98
Chapter 5	Descriptive Research Methods	101
	Naturalistic Observation	103
	Observational Studies	105
	Participant Observation	105
	Nonparticipant Observation	106
	Surveys	107
	The Community Survey	107
	The School Survey	108
	Content Analysis	109
	The Case Study	109
	Developmental Studies	110

The Popular Research Instruments 111

The Test 111

Aptitude Tests 112

Achievement Tests 112

Interest Tests 113

Personality Tests 114

Other Tests 114

The Questionnaire 115

The Interview 116

Measurement 119

Reliability 120

Observer Agreement 120

Internal Consistency 121

Test Retest 121

Validity 122

Content Validity 122

Predictive Validity 122

Construct Validity 123

Norms 124

Summary 125

Chapter 6 Research on Structure 127

The Organization of Content 128

Theory and Organization 128

Guiding Principles of Organization 130

Strategy and Structure 131

The Response of the Learner 134

The Ordering of Knowledge for the Learner 134

The Use of Concepts to Structure Instruction 135

The Use of Activities in Instruction 136

The Empirical Basis of Structures 137

Structure from the Disciplines 139

The Principle of Meaning and Experience 140

The Principle of Emphasis 140

The Principle of Transfer 141

Problems in Organizing Content 142

The Problem of Classification 142

The Problem of Evaluation 143

The Problem of Selection for Specific Learners 146

The Problem of Teaching 146

The Role of the Learner in the Development of Structures 147

Directions for Inquiry on Structure 150

A Value Structure 150

Future Directions	151
The Rules of the Game as the Foundation for Structure	151
The Beginning Student and the Rules of the Game	152
Summary	154

Chapter 7 Research and Educational Change 157

Influences on Education	159
Controlled Educational Change	160
The Researcher and Change: An Ethical Dilemma	163
Categories of Interaction Between Change and Value Systems	164
Introduce Change Where No Values Are Involved	164
Introduce Change Within the Framework of Positive Values	166
Change the Values Through Resocialization	168
Confrontation and Compromise	169
Change Values Through Use of an Agent of Change	170
Change Values Through the Development of a Totally New System	172
Research and Educational Progress	173
Personnel	173
Curriculum	174
Facilities	175
The Changing Educational Picture	176
Education's Scientific Revolution	176
Research in Education and the Solution of Social Problems	177
Summary	181

Index	183
--------------	-----