Contents

PART I FOUNDATIONAL CONCEPTS		Sources of Research Problems	8
AND PROCESSES		Narrowing the Problem	9
		Characteristics of Good Problems	9
CHAPTER 1 EDUCATIONAL RESEARCH:		Stating the Research Problem	9
METHOD, PURPOSE, AND ETHIC	S 20	Developing Research Questions	9
Tasks 1A, 1B	21	Formulating and Stating a Hypothesis	9
Task 1C	21	Definition and Purpose of Hypotheses in Quantitative Studies	
Welcome!	21		9
The Scientific Method	22	Types of Hypotheses	9
Limitations of the Scientific Method	23	Stating the Hypothesis	10
Application of the Scientific Method in Education		Testing the Hypothesis	10
Different Approaches to Educational Research	23	Definition and Purpose of Hypotheses in Qualitative Studies	40
The Continuum of Research Philosophies	24	Summary	10
Quantitative Research	24	Summary	103
Qualitative Research	24		
Mixed Methods Research	25 26	CHAPTER 3 LITERATURE REVIEW	106
Characteristics of Quantitative and Qualitative		Task 2A	107
Research Approaches	26	Task 2B	107
Classification of Research by Design	28	Review of Related Literature: Purpose and Scope	107
Quantitative Approaches	28	Qualitative Research and the Review	107
Qualitative Approaches	32	of Related Literature	108
Classification of Research by Purpose	34	Identifying Keywords and Subject Terms, and Identifyin	
Basic and Applied Research	34	Evaluating, and Annotating Sources	109
Evaluation Research	35	Identifying Keywords	109
Research and Development (R&D)	35	Identifying Your Sources	110
Action Research	36	Evaluating Your Sources	119
The Ethics of Educational Research	36	Annotating Your Sources	122
Informed Consent and Protection from Harm	38	Analyzing, Organizing, and Reporting the Literature	123
Deception	39	Meta-Analysis	127
Ethical Issues Unique to Qualitative Research	39	Summary	129
Gaining Entry to the Research Site	42	Performance Criteria Task 2A and 2B	132
Summary	47	Task 2 Example	133
Performance Criteria Task 1	51		
Tasks 1A and 1B	51		
Task 1C	51	CHAPTER 4 PREPARING AND REFINING	
Task 1A Quantitative Example	52	A RESEARCH PLAN	136
Task 1B Qualitative Example	76	Task 3A	137
		Task 3B	137
APP E & A 1994 SM SM SM SM 3 2000 PT A 1900 L1000 A		Definition and Purpose of a Research Plan	137
CHAPTER 2 IDENTIFYING AND STATING		Components of the Quantitative Research Plan	138
A RESEARCH PROBLEM	88	Introduction Section	138
The Research problem	89	Method Section	139
ldentifying a Research problem	89	Data Analysis	141

Time Schedule	141	Test Selection, Construction, and Administration	195
Budget	141	Selecting a Test	195
Components of the Qualitative Research Plan	142	Sources of Test Information	195
Prior Fieldwork	142	Selecting from Alternatives	198
Title	142	Constructing Tests	199
Introduction Section	142	Test Administration	200
Research Procedures Section	143	Summary	201
Appendixes	147	Performance Criteria Task 5	205
Revising and Improving the Research Plan	147	Task 5 Example	206
Summary	148		
Performance Criteria Task 3	151	The state of the s	
Task 3 Example	152	PART II RESEARCH DESIGNS	
CHAPTER 5 SAMPLING	154	CHAPTER 7 SURVEY RESEARCH	208
Task 4A	155	Task 6A	209
Task 4B	155	Survey Research: Definition and Purpose	210
Sampling in Quantitative Research	155	Survey Research Designs	210
Defining a Population	156	Cross-Sectional Surveys	210
Selecting a Random Sample	156	Longitudinal Surveys	211
Determining Sample Size	163	Conducting Survey Research	211
Avoiding Sampling Error and Bias	165	Conducting a Questionnaire Study	212
Selecting a Nonrandom Sample	166	Administering the Questionnaire	216
Sampling in Qualitative Research	167	Summary	222
Selecting Research Participants:		Example: Survey Study	225
Purposive Sampling Approaches	168	Example: Survey Study	220
Determining Sample Size	169	CHAPTER & CORDELATIONIAL DECEARCH	232
Summary	170	CHAPTER 8 CORRELATIONAL RESEARCH	
Performance Criteria Task 4	172	Task 6B	233
Task 4A Example	173	Correlational Research: Definition and Purpose	234
·		The Correlational Research Process	235
CHAPTER 6 CONSTRUCTS, VARIABLES,		Problem Selection	235
AND TESTS	174	Participant and Instrument Selection	235
Task 5	175	Design and Procedure	235
Vignette: Big Pine School District	175	Data Analysis and Interpretation	235
Constructs	175	Relationship Studies	239
Variables	176	Data Collection	239
Measurement Scales and Variables	176	Data Analysis and Interpretation	239
Quantitative and Qualitative Variables	178	Prediction Studies	242
Dependent and Independent Variables	178	Data Collection	242
Characteristics of Measuring Instruments	179	Data Analysis and Interpretation	243
Instrument Terminology	179	Other Correlation-Based Analyses	244
Quantitative and Qualitative Data	1,,,	Problems to Consider in Interpreting Correlation	
Collection Methods	180	Coefficients	245
Interpreting Instrument Data	180	Summary	246
Types of Measuring Instruments	181	Example: Correlational Study	249
Cognitive Tests	181		
Affective Tests	182	CHAPTER 9 CAUSAL-COMPARATIVE	
Projective Tests	185	RESEARCH	258
Criteria for Good Measuring Instruments	186	Task 6C	259
Validity of Measuring Instruments	186	Causal–Comparative Research: Definition	
Reliability of Measuring Instruments	190	and Purpose	260

The Causal–Comparative Research Process	263	Examining Photographs, Memory Boxes,	
Design and Procedure	263	and Other Artifacts	372
Control Procedures	264	Storytelling	372
Data Analysis and Interpretation	265	Letter Writing	372
Summary	267	Autobiographical and Biographical Writing	372
Example: Causal-Comparative Study	269	Other Narrative Data Sources	372
		Writing the Narrative	373
CHAPTER 40 EVDEDINAENITAL DECEMBELL	204	Summary	374
CHAPTER 10 EXPERIMENTAL RESEARCH	284	#154 PAPPER ## [PTIINIA A DI 11/4 DECENDO 1	000
Task 6D	285	CHAPTER 13 ETHNOGRAPHIC RESEARCH	390
Experimental Research: Definition and Purpose	286	Task 7B	391
The Experimental Process	287	Ethnographic Research: Definition and Purpose	392
Manipulation and Control	288	The Ethnographic Research Process	393
Threats to Experimental Validity	289	Key Characteristics of Ethnographic Research	395
Threats to Internal Validity	290	Types of Ethnographic Research	395
Threats to External Validity	293	Ethnographic Research Techniques	396
Control of Extraneous Variables	298	Triangulation	397
Group Experimental Designs	300	Participant Observation	397
Single-Variable Designs	301	Field Notes	399
Factorial Designs	309	Observing and Recording Everything	
Summary	312	You Possibly Can	401
		Looking for Nothing in Particular; Looking	400
CHAPTER 44 CINCLE CURLECT		for Bumps and Paradoxes	402
CHAPTER 11 SINGLE-SUBJECT	224	Summary	404
EXPERIMENTAL RESEARCH	334	CHAPTER 14 CASE STUDY RESEARCH	416
Task 6E	335		
Single-Subject Experimental Designs	336	Task 7C	417
Single-Subject versus Group Designs	336	Case Study Research: Definition and Purpose	418
The Single-Variable Rule	336	When to Use Case Study Research	419
Types of Single-Subject Designs	336	Characteristics of Case Study Research	419
Data Analysis and Interpretation	342	Case Study Research Design	420
Threats to Validity	342	Sample Selection in Case Study Research	421
External Validity	342	Data Collection Techniques	422
Internal Validity	343	Conducting and Analyzing Multiple Case Studies	422
Replication	344	Summary	426
Summary	345		
Performance Criteria Task 6	348	CHAPTER 15 MIXED METHODS RESEARCH:	
Task 6 Example	349	INTEGRATING QUANTITATIVE	
Example: Single-Subject Study	351	AND QUALITATIVE RESEARCH	
		DESIGNS	442
PERSONNE 40 SIADDATU/F DECEADAL)	2/4	Task 7D	443
CHAPTER 12 NARRATIVE RESEARCH	364	Mixed Methods Research: Definition and Purpose	444
Task 7A	365	Types of Mixed Methods Research Designs	445
Narrative Research: Definition and Purpose	366	Basic Mixed Methods Designs	445
Types of Narrative Research	367	Advanced Mixed Methods Research Designs	447
Narrative Analysis and the Analysis of Narrative	368	Conducting Mixed Methods Research	449
The Narrative Research Process	368	Identifying Studies Using Mixed Method Designs	451
Key Characteristics of Narrative Research	369	Evaluating a Mixed Methods Study	451
Narrative Research Techniques	370	Summary	453
Restorying	370	Performance Criteria Task 7	455
Oral History	371	Task 7 Example	456

CHAPTER 16 ACTION RESEARCH	474	Measures of Central Tendency	504
Task 8	475	Measures of Variability	506
Action Research: Definition and Purpose	476	The Normal Curve	508
Key Characteristics of Action Research	476	Skewed Distributions	510
Action Research Is Persuasive and	470	Measures of Relative Position	511
Authoritative	476	Measures of Relationship	514
Action Research Is Relevant	476	Graphing Data	517
Action Research Is Accessible	477	Postscript	518
Action Research Challenges the Intractability of Reform of the Educational System	477	Summary	519
Action Research Is Not a Fad	477	CLIARTER AS INTERPRETAR	
Types of Action Research	477	CHAPTER 18 INFERENTIAL	F00
Critical Action Research	478	STATISTICS	522
Practical Action Research	478	Task 9	523
Levels of Action Research	479	Concepts Underlying Inferential Statistics	523
The Action Research Process	480	Standard Error	5 2 3
Identifying an Area of Focus	480	Hypothesis Testing	526
Data Collection, Analysis, and		Tests of Significance	526
Interpretation	482	Two-Tailed and One-Tailed Tests	527
Action Planning	482	Type I and Type II Errors	529
Summary	483	Degrees of Freedom	532
Performance Criteria and Examples Task 8	485	Selecting Among Tests of Significance	532
Write an Area-of-Focus Statement	485	The t Test	533
Define the Variables	485	Analysis of Variance	540
Develop Research Questions	485	Multiple Regression	544
Describe the Intervention or Innovation	485	Chi Square	547
Describe the Membership of the Action Research Group	485	Other Investigative Techniques: Data Mining, Factor Analysis, and Structural Equation Modeling	550
Describe Negotiations That Need to Be Undertaken	486	Types of Parametric and Nonparametric	330
Develop a Time Line	486	Statistical Tests	551
Develop a Time time Develop a Statement of Resources	486	Summary	552
Develop Data Collection Ideas	486	Performance Criteria Task 9	556
Example: Action Research	488	Task 9 Example	557
BARTIN DATA IN DECEARCH		CHAPTER 19 FIELDWORK	562
PART III DATA IN RESEARCH		Data Collection Sources and Techniques	563
		Observing	563
CHAPTER 17 ORGANIZING AND		Interviewing	568
GRAPHING DATA	500	Questionnaires	570
The Language of Statistics	501	Examining Records	57°
Preparing Data for Analysis	502	Validity and Reliability in Qualitative Research	572
Scoring Procedures	502 502	Validity in Qualitative Research	572
Tabulation and Coding Procedures	502 502	Reliability in Qualitative Research	572
Types of Descriptive Statistics	503	Getting Started	577
Frequencies	503	Summary	578
· · · · · · · · · · · · · · · · · · ·			- / -

CHAPTER 20 ANALYZING AND		CHAPTER 22 ANALYZING AND	
INTERPRETING DATA	580	CRITIQUING RESEARCH	620
Data Analysis and Interpretation:		Task 11	621
Definition and Purpose	581	General Evaluation Criteria	621
Data Analysis During Data Collection	581	Introduction	622
Data Analysis after Data Collection	582	Method	622
Steps in Analyzing Qualitative Research Data	582	Results	623
Reading/Memoing	583	Discussion (Conclusions and	
Describing	584	Recommendations)	623
Classifying	584	Abstract or Summary	623
Data Analysis Strategies	584	Design-Specific Evaluation Criteria	623
Example of Coding an Interview	586	Survey Research	624
Developing a Concept Map	588	Correlational Research	624
Qualitative Data Analysis:		Causal-Comparative Research	624
An Example	589	Experimental Research	624
Data Interpretation Strategies	592	Single-Subject Research	624
Ensuring Credibility in Your Study	593	Qualitative Research (in General)	625
Summary	594	Evaluating Validity and Reliability	
		in Qualitative Studies	625
		Narrative Research	626
PART IV WRITING AND EVALUATING		Ethnographic Research	626
RESEARCH REPORTS		Case Study Research	626
	THE STATE OF THE S	Mixed Methods Research	626
CHAPTER 21 PREPARING AND PUBLISHI	NG	Action Research	626
A RESEARCH REPORT	596	Summary	627
		Performance Criteria Task 11	629
Task 10	597	Task 11 Example	630
Guidelines for Writing a Research Report	5 9 7		
Format and Style	599	Appendix A Statistical References	645
Formatting Theses and Dissertations	600	A constant of the Constant of	, , , , , ,
Preliminary Pages	601	Appendix B Suggested Responses	667
The Main Body	602	Glossary	673
Writing for Journal Publication	604	Giossary	073
Summary	606	Name Index	685
Performance Criteria Task 10	608		200
Task 10 Example	609	Subject Index	687