# Overview

Ways of Knowing: Tradition or History, Authority, Personal Observation, Rational Analysis, Scientific Method

Quality Research: Can be replicated, Is generalizable to other settings, Is based on a reasonable rationale and linked to a theory or theories, Is not based on political beliefs, Is objective (though still subject to human error)

Common errors researchers make: Inaccurate observation, Overgeneralization, Selective observation, Illogical reasoning

Research Philosophies Often Used in Counseling: *Post-Positivism* assumes individual perceptions of social environment and an event influence how they behave (including researchers, who try to "bracket" and remove biases); also assumes we can only approximate the "truth" with research. *Constructivism* assumes there is no true reality, but multiple, socially-constructed realities; research is about accessing participants' "lived experience"; values of researchers cannot be removed from the research process. *Scientific Realism* assumes the world is composed of layers of causal structures; some causal structures are easy to observe and others are not; researcher's job is to identify causal structures and how they interact to produce an effect

Types of Knowledge: Research Approaches: *Description* Consists of attempts to describe natural, social, or psychological events • Focus on assessment, which allows people to describe identified events. *Prediction* Involves developing ways to predict identified outcomes *Improvement* Involves developing information designed to determine the effectiveness of interventions *Explanation* Researchers frame questions and problems in terms of theories or explanations of phenomena

**Practitioner-Scientist Model** : Emphasis is on practice first, with the use of research/ science as a foundation for conducting practice. Can involve using steps of scientific method to solve problems in clinical work (i.e., identify problem; operationalize the problem; identify principles, theories, and research applicable to solving the problem; identify desired outcomes; select & implement a strategy; monitor outcomes)

### Ethics and Research

Ethical Theories Utilitarianism: the end justifies the means Deontological: the outcome is less important than following a rule or principle (More concerned with principles of right or wrong)

General principles of ethics: Autonomy, Beneficence, Justice, Nonmaleficence, Fidelity

Ethical Guidelines: APA, ACA, Laws (state & fedral)

ACA Guidelines for Scholarly Work: Need to balance goal of extending knowledge with ethical principles. Accurately and reliably plan and conduct the study, consistent with ethical guidelines. Report results accurately including unfavorable results. Report errors. Minimize bias and respect diversity in designing and implementing research. Provide info that describes the extent to which results are applicable to diverse populations. Make original research information available to other researchers who want to check them out. No duplicate or publication. Give credit adequately and accurately. Don't plagiarize.

Professional Codes of Ethics of ACA Code Research responsibilities of the counselor, Rights of research participants (the importance of informed consent), Reporting of results, Issues related to publication

Laws (State and Federal) Federal legislation requires that investigators who are associated with institutions that receive federal funds must receive IRB approval before conducting studies

Questions to ask to determine the ethical quality of research What possible negative implications or harm does this study have on the population? What are the possible benefits of the research results for the population? Are the sample and population studied fairly representative of the general population?

ACA Guidelines: Participants: Identify & eliminate/minimize potential sources of risk to persons (incl. physical & mental discomfort, harm, danger), Get informed consent from participants, Participation of students/supervisees has to be optional, Don't use deception unless there's no other option and the prospective value of the research justifies it. Physical/emotional harm is never justified. Debrief ASAP., No sexual or romantic interactions/relationships with research participants. Don't sexually harass participants., Maintain privacy/confidentiality of participants

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### Ethics and Research (cont)

**Identifying Research Topics**: Research ideas can extend previous studies or investigate areas that have not been researched before. (Goal is to contribute to knowledge in a meaningful way and motivate others to learn more about the topic) **Strategies for Identifying a Topic**: *Personal*. think about experiences that have raised your curiosity *Interpersonal*: brainstorm with others (classmates, professors, supervisors) *Printed Sources*: what have you read but would like to learn more about? *Computer Strategies*. do PsycInfo, and other online searches.

**Research Question & Hypothesis**: Research questions and hypotheses guide research. Research questions explore the relations among or between constructs. Research hypotheses state specific expected relationship(s) between constructs. *3 general categories* Descriptive, Difference, Relationship

**Operational Definitions & Research Variables:** *Variable* any characteristic, behavior, event, or other phenomenon that is capable of varying on at least two different levels or conditions *Independent Variable* variable that is believed to affect or change the status of another variable (the DV) *Dependent Variable* the variable whose status seems to "depend on" the status of another variable (the IV)

#### **Program Evaluation**

Through program evaluation, we can gather information about our programs, determine whether programs are effective, and improve our programs

**Research v. Program Evaluation**: *Research Purpose*: Test theories, develop practices and procedures *Evaluation Purpose*: Decision making and information for social programs *Research Audience* Professional and scientific community *Evaluation Audience* Specific group or communities such as funding sources or governmental agencies *Method* (same for both) True experimental, quasi-experimental, nonexperimental (descript-ive), qualitative, etc.

Professional Standards and Guidelines for Program Evaluation *Joint Committee on Standards for Educational Evaluation (1994)*30 standards in four categories: Utility, Feasibility, Propriety, Accuracy *The Guiding Principles of Evaluators (American Evaluation Association, 2004)* Five basic principles: Systematic inquiry, Competence, Integrity and honesty, Respect for people, Responsibilities for general and public welfare

Types of Evaluations: *Need*: designed to identify the discrepancy between actual conditions and what is sought or desired *Formative*: concerns whether a program is implemented as designed *Summative*: evaluation of outcome; concerns how successful a program is in achieving designated goals

Needs Assessment: Typically conducted before designing programs to determine what is needed Formative Evaluation (aka:Implementation/Process) Focus on amount and quality of effort needed to implement program. Results typically provided to those implementing program Summative Evaluation (aka: Effectiveness/Outcome) Results typically provided to policy makers and/or funding sources

**Evaluation Models** *Case study model*: usually involves the use of qualitative methods. Involves a deeper investigation into the processes of a program *Consumer-oriented approach*: evaluation is focused on determining the worth or value of a program. The use of checklists is key. *Context, input, process, and product (CIPP) evaluation model*: focused on both formative and summative evaluation

Steps in Evaluation *Step 1*: Formation of the evaluation team (Individual v. team & Insiders v. outsiders) *Step 2*: Identification of relevant stakeholders *Step 3*: Determination of a focus for the evaluation *Step 4*: Identification of evaluation model and methods *Step 5*: Selection of evaluation methods and designs *Step 6*: Selection of measures for the evaluation *Step 7*: Collection of the data *Step 8*: Analysis of the data *Step 9*: Reporting of the results to relevant stakeholders

#### **Program Evaluation**

Identify the stakeholder(s) who were contacted about the PE.Summarize questions/goals stated by referral source(s)/stakeholders. Describe the agency/organization where the program is taking place (Location, mission, types of services provided, clientele served, etc.)



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# Cheatography

Program Evaluation (cont)	
Describe the program that is being evaluated (Purpose, structure/format, clientele in program, etc.)	Provide a history of the current program and the question/issue that is prompting the evaluation (History of the current issue, Summary of previous interventions, Current state of the issue)
Review articles on topic in an integrative way, summarizing what we know about each topic	Highlight strengths / limitations / gaps in previous literature.

**Evaluating Articles in The Professional Literature** a general purpose of the literature section is to provide an argument for conducting the study. it is important to note any biases in the literature review. there is need for the researcher to define new concepts in the literature review.

#### Hourglass Form of Research Articles

(comparing and contrasting)

Introduction/Literature Review Introduction to the problem, Development of the framework of the study, Statement of purpose, research questions, hypotheses, provide an argument for conducting the research. *Should include* relevant definitions and descriptions of unknown concepts

Method Describes how hypotheses were tested, including how all aspects of study were conducted. Usually includes: Participants, Measures/-Variables/Instruments/Materials, Design, Procedures

Results Summarizes data and results of statistical analyses

**Discussion** Explains if results supported hypotheses, States conclusions drawn by authors, relates them to previous research, Describes study limitations, Suggests implications and future research

## Annotated Biblios and Literature Review

What to Include in Annotation: Summary: main topic/ideas discussed, purpose and justification, methodology and major findings Critique/Evaluation: goal and credibility of the source, major strengths and weaknesses, value/use of the work Reflection how this was useful, how it fits with other works you reviewed, what is relevant to your study and how you plan to integrate the information into your work.

Introduction/Literature Review: Purpose is to concisely convey rationale and objectives of the study. *Goes from very broad to very specific*. States topic of study and why it is important, Reviews existing literature relevant to this particular study in an integrative way, Places study in context of what we know and what we don't know about this topic, Should very clearly show why this particular study is needed, explains (gaps & how this study meaningfully extends current knowledge), Ends with statement of purpose, hypotheses/RQs

**Purpose Statement**: Should provide information about the design of the study, Should be testable or researchable (variables should be defined), Population being studied should be identified

**Hypothesis**: A hypothesis is a formally stated expectation of outcomes based on theory, previous research, or personal experience. Data can support a hypothesis, but data cannot prove anything, can only draw conclusions based on accumulation of evidence.

Types of Hypothesis: Null hypothesis: Assumes that there is no difference between groups or no relationship between variables. Alternative hypothesis (two types): Non-directional: posits that there is a difference between groups or a relationship between variables, but does not indicate which group will be more or less or the direction of the relationship, *Directional*: posits that one group will be more or less than at least one other group or there is a positive or negative relationship between two or more variables

#### Validity

Broadly, validity is about how well-founded the conclusions are that we can make about a research study

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# Validity (cont)

Internal Validity: The extent to which the intervention can be considered to account for the results (as opposed to a confounding variable). Relates to the amount of control researchers had over the study.

Threats to Internal Validity:				
<i>History</i> Any event during the time of the study other than the independent variable that could account for the results (control for it by no-treatment group & random assignment),	<i>Instrumentation</i> Changes in the measuring instrument or measuring procedures over time (Develop standard procedures for rating, train observers/raters prior to data collection),			
<i>Diffusion or Imitation of Treatment</i> The intervention given to one group is unintentionally provided to another group (tell participants not to talk to eachother)	<i>Maturation</i> Changes over time that result from physical/psycho- logical processes within participants (no-treatment group, random assignment),			
<i>Testing</i> The effects that taking a test once can have on subsequent performance (no-treatment group, reduce the number of administrators, use post-test only design),	<i>Statistical Regression</i> The tendency for extreme scores on any measure to revert to the mean of a distribution when the measure is readministered (No-treatment or wait-list control group)			
<i>Selection Biases</i> Systematic differences between groups before any experimental manipulations or interventions (random assignment),	<i>Attrition</i> Loss of participants, problem of longitudinal studies (Participants more likely to remain in study if they are doing something interesting, something that has little or no cost or adverse side effects, seems plausible, and is effective)			
<i>Combination of Selection and Other Threats</i> Another threat results in selection bias <i>Differential Selection</i> occurs when the experimental and control groups are selected based on different criteria or when participants	Special Treatment or Reactions of Controls Control group may receive some special treatment to offset their feelings about not receiving a desirable treatment			

are assigned to groups differentially and not by random assignment.

External Validity: The extent to which the results can be generalized to circumstances other than those in the particular experiment. Relates to how true to life (generalizable) the study is.

Threats to External Validity.				
<i>History/Treatment Interaction</i> Events occurring at time of treatment/inter- vention may affect outcome (Hard to control this, but can address by extending study beyond impact of uncontrolled event)	<i>Reactivity of Assessment</i> If awareness of assessment leads people to respond differently (Include some unobtrusive measures)			
Sample Characteristics The extent to which characteristics of the sample represent the target population (control with random selection)	Interaction Between Sample and Treatment Specific personal characteristics of participants may interact with treatment and influence outcome in a way that is not representative of the population (Include relevant sample characteristics in the design)			

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## Validity (cont)

<i>Stimulus Characteristics and Settings</i> Features of the study with which the intervention or condition may be associated (Use multiple experimenters, settings, stimuli)	<i>Reactivity of Experimental Arrangements</i> The influence of the partic- ipants' awareness that they are participating in an experiment (Archival data, Observational data)			
<i>Multiple-Treatment Interference</i> In some studies, participants are exposed to multiple treatment conditions (counter-balance)	<i>Novelty Effects</i> The possibility that the effects of an intervention may in part depend on their innovativeness or novelty in the situation			
<i>Test Sensitization</i> The effect of a previous test on subsequent performance (Various group designs (post-test only, Solomon four-group)	<i>Timing of Measurement</i> The results of an experiment may depend on the point in time that assessment devices are administered			
Construct Validity: The conceptual basis (construct) underlying the effect.	Threats impact the conclusions that can be drawn from the findings.			
Threats to Construct Validity				
<i>Experimenter Expectancies</i> Expectations could lead to changes in tone of voice, posture, facial expressions, delivery of instructions, and adherence to the prescribed procedures	<i>Single Operations and Narrow Stimulus Sampling</i> the intervention includes features that the investigator considers irrelevant to the study, but that may introduce ambiguity in interpreting the findings (a wide range of conditions associated with treatment delivery)			
Attention and Contact with the Clients Differential attention across groups may be the basis for group differences ( To control for this, you would need to include a placebo group and ensure that experimenters are blind to the conditions to which participants are assigned)	<i>Cues of the Experimental Situation</i> May include information conveyed to prospective participants prior to their arrival to the experiment, instructions, procedures, and any other features of the experiment			
Statistical Conclusion Validity: The extent to which a relation is shown and the extent to which the experiment detects effects if they exist	The Experimenter Effect. When the experimenter communicates to the participants, most often subtly, what outcomes they would like to achieve			
Uthe				

interaction between history and treatment effects refers to how events occurring at the time of the intervention or treatment affect the outcome

# Methods

(threat to external ecological validity)

**Types of Populations**: *Target population*: Il individuals or objects the researcher is interested in and to which the study results will be applied *Accessible population*: the segment of the population that is accessible to the researcher

Selecting Participant Samples: Determine the characteristics of interest. Identify the relevant demographic characteristics. Select a sample that is representative of the larger population.

Sample Size: Several factors influence the sample size: Design of the study, Whether the researcher is using qualitative or quantitative methods. For quantitative methods, generally, more is better: Rule of thumb: Categorical: 15 participants per group. Continuous (descriptive): 10-15 participants per variable

**Power analysis: 4 factors**: *Power*: the likelihood of finding an effect that actually exists, .80/80% minimum. *Effect size*: the magnitude of the effect/difference/relationship (expressed as small, medium, or large). *Alpha*: the probability of finding an effect when one does not exist (Generally set at .05 where 5% chance that the results are due to factors other than the variables in the study)

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#### Methods (cont)

Clarifying Methods When the purpose statement denotes an attempt to identify phenomena, events, or exercises

#### Sampling Methods Used in Quantitative Research

Simple random sampling Every single individual in the population has an equal chance of being chosen. *Advantages*: If completed adequately, the results can be generalized readily back to the population. *Disadvantages*: It is difficult to ensure that every individual in the population has an equal chance of being chosen.

Systematic random sampling A finite list of those in the population in which every nth person is selected. *Advantages* An easy, simple method to use. *Disadvantages* Difficult to identify everyone in a population.

Stratified sampling (proportional and nonproportional) Selection of individuals from the population who represent subgroups. *Advantages*: Ensures adequate representation on relevant variables (e.g., ethnicity) *Disadvantages*: May focus on a variable that is not as important as the others.

**Cluster sampling** Random selection of intact groups (e.g., whole classrooms) *Advantages*: Allows the researcher to conduct studies with naturally intact groups. *Disadvantages*: The researcher cannot study differences between individuals in intact groups.

**Convenience sampling** Section of a population that is convenient and accessible to the researcher. *Advantages* Convenient; reduces costs and amount of effort in conducting a study. *Disadvantages* Severely limits potential for generalizing the results back to the population

#### Sampling Methods Used in Qualitative Research

Some methods are the same as those used in quantitative research: Simple random sampling, Systematic random sampling, Stratified random sampling, Convenience sampling

Purposive sampling: based on their special knowledge or expertise about a group, researchers select participants who represent the population

Maximal variation sampling: a form of purposive sampling; researchers select participants who differ on some characteristic or trait to obtain a sample with maximum variation

Typical sampling: a form of purposive sampling; researchers choose participants with the intent of using those who represent what one may expect to be "normal"

Snowball sampling: researchers identify people who have relevant characteristics/traits and then ask those people to identify other people with the same characteristics/traits

Quota sampling: researchers establish characteristics of interest and then determine how many participants the researchers need in each characteristics/cell

### Issues

Sampling error: the extent to which the sample does not accurately represent the population (occurs by accident, cannot be controlled) Sampling bias: occurs when the researcher actively selects a sample that differs from the target population (can be controlled)

Both affect external validity (generalizability)

#### Instruments

There are generally two types of approaches to scoring a formal measure

Criterion referenced : based on a predetermined level of performance (criterion)

Norm referenced: scores are interpreted based on the comparison of one group's performance with other groups' performance, all of whom represent a clearly defined population



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# Instruments (cont)

Researchers must select appropriate instruments to measure the construct of interest. When researchers select inappropriate instruments, their results can be impacted by test bias, and they can experience problems interpreting their results. Historically, many instruments were designed for use with White, English-speaking, middle-class men. All professional ethics codes require that mental health professionals use culturally fair tests.

Reliability of Instruments				
Reliability refers to the consistency/accuracy of an instrument. It is very important				
Test scores are determined by two factors: True score,	Error Reliability is report	ed as a correlation ranging from -1 to +1		
<i>Positive</i> : as one goes up, the other goes up. <i>Negative</i> : a up, the other goes down	s one goes 0: there is no relati administration. Ge	onship between the scores obtained on any given nerally .8 is strong indicator of reliability		
	Ways to Determine Reliability			
<b>Test-retest</b> : Tests the consistency of scores over time. O scores from multiple administrations of the same instrum same person	Compares Alternate form: Me   nent to the Compares two differences   measure the same	asures the consistency of a measure based on content. erent forms of the same instrument to ensure they thing		
Inter-rater: Measures the consistency of ratings across raters. Measures whether a scoring key/manual is deve used consistently	ifferent Internal consistence oped and ated. Measures ho	y: Measures whether items in a measure are correl- w consistent responses are within a measure		
	Validity of Instruments			
Validity is how well an instrument measures what it purp	orts to measure			
Construct validity: the extent to which an instrument measures the construct of interest				
Content-related sources: concerns the extent to which re-	esponses of test items represent	a particular content		
Convergent/divergent sources: concerns the extent to which scores on a test correlate with other tests that measure the same construct (convergent or concurrent) or different constructs (divergent)				
Criterion-related sources: concerns how well a test pred	icts outcomes based on a particu	ılar behavior or skill		
	Approaches to Measuring the DV	,		
Quantitative: Direct observation and behavioral measures, Self-r- eport and inventories, Ratings of others' behavior, Physiological approaches, InterviewsQualitative: Direct observation, Interview, Triangulation methods, Documents, Audiovisual materials				
Direct observation Trained observers or scorers are used to evaluate behavior. <i>Strengths</i> : Measurement is more objective <i>Limitations</i> : Possib- ility of bias among the observers/raters				
Self-report inventories Rate the extent to which an identified behavior, attitude, or feeling is present. <i>Strengths</i> : Ease of time and administration, Do not require extensive training, Achieve access to non-observable events <i>Limitations</i> : Possibility of distortion bias by the responder attempting to achieve socially desirable responses, Responder may not be aware of certain feelings, attitudes, or behaviors				
Ratings Use of some standardized method of scoring behavior of others <i>Strengths</i> : Measurement is not time-consuming, Increases the accuracy of the measurement <i>Limitations</i> . Rater may interject own biases into the process				
Physiological methods Assessment of responses such as heart rate, ECG, blood pressure, GSR, EEG, and immune system response <i>Strengths</i> : Measurement is objective and accurate <i>Limitations</i> : Method is generally time consuming, Measuring the variable of interest is expensive				
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#### Instruments (cont)

Interviews Interviewers ask respondents a set of questions that may involve brief or detailed responses *Strengths* Flexibility in the way information and data are collected, In-depth information may be collected *Limitations* The method is time consuming and costly, It is difficult to achieve a standard approach to scoring responses

#### Procedures

The procedures section should be a step-by-step description of how the researcher(s) conducted the study

Also gives information to practitioners about how to implement the treatments in the target population

Researcher(s) should describe (in chronological order) every step of the study: Recruitment of research assistants, Recruitment of participants, What the participants experienced (Informed consent, Assignment to groups/conditions, Administration of study materials, Any interventions/t-reatments, Debriefing)

#### Statistical Conclusion Validity

Statistical Conclusion Validity: The extent to which a relation is shown and the extent to which the experiment detects effects if they exist. Basically, how "correct" or "reasonable" are the conclusions we are drawing about the data

#### Important Concepts

Alpha ( $\alpha$ ): the probability of rejecting the **Beta** ( $\beta$ ): The probability of accepting the null hypothesis when it is false (risk of a type 2 error) null hypothesis when that hypothesis is

true (risk of a type 1 error)

Power (1-β): The probability of rejecting the null hypothesis when it is false (The likelihood of finding an effect if it actually exists)

Effect Size: The size/magnitude of the difference or relationship

Threats: Variability in the Procedures, Subject Heterogeneity, Unreliability of the Measures, Low Statistical Power, Multiple Comparisons and Error Rates

#### Validity Threats

Variability in the Procedures: Were the procedures administered consistently across groups?

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**Unreliability of the Measures**: The measure may have characteristics that foster error or variability. Performance on the measure may vary widely from item to item within the measure because items are not equally clear or consistent in what they measure.

Subject Heterogeneity: Variation among participants. The more diverse your sample is, the less likely it is that you will find a difference between groups. (Address this by choosing heterogeneous samples, but ensure that the effect of selected participant characteristics can be evaluated in the design)

Low Statistical Power: Affected by Alpha level (type 1 error), sample size, effect size, error/noise. The most straight-forward way of increasing power is to increase sample size

Multiple Comparisons and Error Rates: more tests = more chance of a Type I error

### Results

Results are presented mathematically. Generally both descriptive and inferential statistics are used.

**Descriptive statistics**: statistics that describe the sample. Not connected to understanding or generalizing back to the population *Continuous data* is most often presented using the mean and standard deviation *Categorical data* is usually presented using frequencies and percentages

#### Results In Quantitative And Single-Subject Studies

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### **Results (cont)**

Inferential statistics: statistics that are designed to make it possible to make inferences about the larger population and generalize back to the target population

Terms: Normality: data are normally distributed; data fit a normal bell curve Homogeneity of variance: whether the differences between scores are similar or different between the comparison group Independence: there should be no relationship between the data points (between-subjects data is independent; repeated-measures/within-subjects data is not independent) Linearity: when graphed, the data (on average) forms a line instead of a curve

### **Results In Qualitative Research**

The results section of a qualitative study is very different from the results section of a quantitative study. The results section in a qualitative study is characterized by descriptions of categories and themes, with quotations.

Data are reported using language instead of numbers. The authors should describe using some kind of qualitative data analysis procedure to explain how they coded the data.

### The Discussion Section

Restate the purpose of the study. Present the results in plain English and in the context of previous literature. Provide alternative explanations when then results are not consistent with expected outcomes or with theories addressed (this usually includes identification of threats to validity). Identify limitations of the study, how limitations impact interpretation of results. Discuss the implications (i.e., practical applications) of the results for practice, training, policy, theory, etc. Offer suggestions for future research.

### **Quantitative Research Designs**

Quantitative research = research that is based on measurement and quantification of data (i.e., all data turned into numbers)

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Independent variable: An event, condition, or measured attribute or characteristic that the researcher manipulates	<b>Dependent variable</b> : Changes as a result of changes in independent variables
Extraneous variable Uncontrolled and/or unknown variables that can impact the dependent variable.	<b>Control variable</b> : An extraneous variable that the researcher has identified and addressed in the method.

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Three methods for controlling for extraneous variables: Build the variable into the design and control for its effects (make it an independent variable), Remove possible effects of the extraneous variable (sample from one level of the variable), Control through statistical methods after the study has been conducted

#### **True-Experimental Designs**

Two characteristics: Random assignment to groups, Manipulation of the<br/>independent variableTypes: Pretest-posttest equivalent group, Posttest-only group,<br/>Solomon Four-Group Design

Symbols used in describing research designs: R = random assignment of participants to groups, X = exposure of the group to treatment or manipulation of a targeted condition, O = observation or measurement of the DV

#### Quasi-Experimental Designs

Designs in which the researcher cannot randomly assign participants to conditions

Types: Pretest-posttest design, Time series design, Multiple time series design

#### **Preexperimental Designs**

have no random assignment, but have an intervention

Includes two types of designs: One-group pretest-posttest design, Static group comparison

Descriptive Designs



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### Quantitative Research Designs (cont)

These designs involve no random assignment to groups and no manipulation/intervention. These designs are used to describe characteristics or the effects of events for an identified population.

Four approaches: Survey, Observational, Correlational, Causal comparative

#### Single-Case and Single-Subject Research Designs

Best suited to applied research. **Types**: AB design. ABA design. ABAB design. Multiple baseline design. Alternating treatment design (AB1AB2 or ABAC) *A=baseline*, *B=intervention* 

#### **Qualitative Research Methods**

Five qualities: A naturalistic approach. Involves the collection of data in the natural environment *The use of descriptive data*. Data is collected and presented through language and pictures *An emphasis on process*. Focus on the way things are done rather than the outcomes/accomplishments *An inductive approach*. Researchers explore what comes up, as opposed to the deductive approach, in which researchers hypothesize what is there and look for support for the hypothesis *A focus on meaning*. Understanding the meaning that certain things in the environment have for the people in that environment

Research Designs: Case study, Multiple case study, Ethnographic, Grounded Theory, Phenomenological, Historical

Six steps in using a case-study approach: Establishing the boundaries of the case, Identifying themes of emphasis, Focusing on specific patterns of data, The use of triangulation in data interpretation, Considering alternative views, Determining the appropriate generalizations from the case

Ethnographic: Focusing on investigating cultural patterns in behavior and commonalities of a given culture, Determining how members of a culture define and derive meaning from the experiences and events occurring within that culture, Studying these cultural behaviors and patterns in their natural environment **Participant observer**: he investigator enters the social system and lives among those he or she is studying **Memoir-***e*/*e*thnographic genre: ased on his or her experience as a participant observer, the researcher writes about the experience as if it were a memoire

Grounded Theory: The primary approach is the dynamic interaction of identifying categories, which are analyzed and reconstituted into more complex ones with each continuous level of analysis

**Phenomenological**: The focus is to understand how humans develop a way of knowing the world. The intent to to describe phenomena as they happen. This design helps researchers understand an individual's personal perspective.

Historical: The purpose is to systematically understand past events and phenomena to obtain a clearer understanding of current issues. May involve the use of systematic methods (e.g., diaries, oral records, relics). *Four Steps*: Define the problem or develop a hypothesis, Identify potential sources of historical data, Evaluate the historical sources, Report and summarize the results.

# Writing

#### Method

**Design**: Need at least one sentence describing (a) what type of PE you are conducting and (b) the design of the study. Need at least one sentence describing (a) what type of PE you are conducting and (b) the design of the study.

Participants: Any/all descriptors or characteristics required of the participants goes here.

**Measures**: List and describe each measure to be used. Measures are realistic and/or already exist. Usually each one gets its own subheading and a brief description. Be sure to describe each one with as much detail as possible. If you are using a measure that has already been developed, be sure to cite the article you took it from. (Normally you cite the article where the measure was published, but that's an extra step l'm not asking you to do.)

**Procedure**: Give the step-by-step process of doing the study, starting with participant recruitment. Like it's a recipe. If there is a treatment/intervention, be sure to describe it in detail.

Throughout, use future ("the participants will...") or conditional ("the participants would...") tense. Either is fine, just be consistent.

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### Writing (cont)

Anticipated Findings: Write a few sentences describing what the findings would be if you were to actually conduct this study.

#### Discussion

Rationale For Selected Design: Explain how/why the design used in the Method was selected (e.g., how it fits with previous research, RQ/hypotheses, referral question).

Strengths and Limitations: Should be about the selected design(s) in general (e.g., limited external validity for a qualitative study) AND about your study in particular (e.g., participants might begin to fill out measures carelessly if they are asked to do them every week for 6 months). Should include threats to validity, potential research & participant bias, ethical/multicultural considerations, etc.

Implications of Anticipated Findings: Say what the implications of your anticipated findings would be for the agency/stakeholders. Make suggestions for future research.

#### **Common Factors**

**Background/History**: In a 1952 study, Hans Eysenck concluded that talk therapy had no effect.30 years later Smith, Glass & Miller (1980) found that at the end of treatment, the average treated person is better off than 80% of the untreated sample. Since the mid-80s, the number of therapists has increased 275%. The number of DSM diagnoses has gone from 66 to 286 in the DSM-IV. There are over 200 therapy models (a 600% increase from the 1960's!) and over 400 therapy techniques. Comparative studies of treatment type routinely show none to be significantly superior to the others. (Dodo Bird Hypothesis- they all can be successful). So, what makes therapy work? If they all work equally well, there must be things common to all of them that is making them work. *Enter Common Factors...* 

**Common Factors** First proposed by Saul Rosenzweig in 1936, who proposed that the effectiveness of different therapy approaches had more to do with their common elements than with the theoretical tenets on which they were based.

Ingredients of a Healing Relationship An emotionally charged, confiding relationship between healer and client. A healing setting. A rationale, conceptual scheme, or myth that provides a plausible explanation for the client's symptoms/distress and prescribes a ritual or procedure for resolving them. Active participation by both client and healer in that ritual/procedure that both believe to be the means of restoring the client's health.

#### **Common Factors In Therapy**

Client Variables/Extratherapeutic factors (account for 40% of variance in outcome) Client participation Goals, Motivation, Expectation that it will help *Experience of the client* Time/place to focus on self, Personality of the therapist, Having someone who cares and listens, Having someone who encourages and gives advice *Make use of natural healing process* Interactive, Think together

Therapeutic relationship (accounts for 30% of variance in outcome) Relationship is formed early (Working alliance in Session 3 is predictive of outcome!), Clarify expectations/perceptions, Solicit feedback on helpfulness of the sessions, Ruptures occur (so discuss them directly), Dispositional characteristics influence the relationship—awareness of self helps

Placebo, hope, expectancies (accounts for 15% of variance in outcome) *Pathways thinking* hought about ability to produce one or more workable route. A therapeutic ritual/procedure; therapist's confidence in method enhances client belief in potential healing. *Agency thinking* houghts about ability to begin and continue movement toward goals. Emotional, confiding relationship with therapist who is hopeful and determined to help. A therapeutic setting that reinforces perception of therapist as helper who is effective. *Way to increase hope is to help client find a new goal, pathway, or sense of agency* 

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### **Common Factors (cont)**

Model/Techniques (account for 15% of variance in outcome) Little evidence to support technique-based training; remember Dodo Bird.(Exceptions include exposure therapy for some anxiety disorders and behavioral treatments for sexual dysfunction.) Therapists who are flexible in their responses/interventions to clients have increased potency. Skill and experience matter.

### Blending Common Factors and Empirically-Supported Treatment (EST)

Disciplined Inquiry Model (Peterson, 1991) Assessment of the client based on theory/guiding conception. Assessment used by practitioner to create specific formulation of the client's situation, often involving reframe of client situation. Assessment and formulation rely on practitioner knowledge of relevant empirical research and mental storehouse of similar cases. Formulation leads to treatment plan. Research important to choosing this. Monitoring process used and formulation, plan, and treatment altered as needed. Case added to knowledge base of practitioner.

Local Clinical Scientist (Stricker & Trierweiler, 1995) Bring attitudes and knowledge base of a scientist to clients' problems. (Observe, test hypotheses, reflect, conclude repeatedly.) Understanding the "local situation" is at least as important as knowing something about clients or techniques in general.



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