## **Basics about Research Design**

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## Introduction



Adapted from Saunders et al., 2020, p. 164

## Introduction



- 1. Methodological choice: Qualitative? Quantitative? Mixed methods? why? (nature of the research: exploratory, descriptive, explanatory, evaluative)
- 2. Research strategy(ies): Experiment? Surveys? Case study? etc. Why?
- 3. Time horizon: cross-sectional? Longitudinal? Why?
- 4. Techniques and procedures of data collection? Potential ethical concerns and to minimise them?

## Methodological choice

## Quantitative research vs. Qualitative research

### Quantitative

- Numeric data (numbers).
- Data collection techniques (e.g., questionnaires) and data analysis procedures (e.g., statistics) that generates or uses numerical data.

### Qualitative

- Non-numeric data (words, images, video clips, other similar materials).
- Data collection techniques (e.g., interviews) or data analysis procedures (e.g., data categorisation) that generates or uses non-numerical data.

### **Important to consider** (potential problems with the distinction above)

- *i.* Many research designs are likely to combine quantitative and qualitative elements
  - e.g., Questionnaires with open questions; Follow-up interviews to explain findings from questionnaires
  - e.g., Qualitative research data being analysed quantitatively
  - e.g., Text mining approaches transformed into quantitative data
- *ii.* The distinction QUAL vs. QUANT is narrow the methodological option should be linked to the philosophical assumptions, research approaches and strategies

## Examples of QUAL ---> QUANT

Item	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Number in Agreement	Item CVI
1	_	Х	Х	Х	Х	Х	5	.83
2	Х	_	Х	Х	Х	Х	5	.83
3	Х	Х	_	Х	Х	Х	5	.83
4	Х	Х	Х	_	Х	Х	5	.83
5	Х	Х	Х	Х	_	Х	5	.83
6	Х	Х	Х	Х	Х	_	5	.83
7	Х	Х	Х	Х	Х	Х	6	1.00
8	Х	Х	Х	Х	Х	Х	6	1.00
9	Х	Х	Х	Х	Х	Х	6	1.00
10	Х	Х	Х	Х	Х	Х	6	1.00
Proportion Relevant:							Mean I-C S-CVI/U Mean e	VI = .90 A = .40 xpert
	.90	.90	.90	.90	.90	.90	proport	ion = .90

Table 2. Fictitious Ratings on a 10-Item Scale by Six Experts: Items Rated 3 or 4 on a 4-Point Relevance Scale

I-CVI, item-level content validity index.

S-CVI/UA, scale-level content validity index, universal agreement calculation method.

https://pubmed.ncbi.nlm.nih.gov/16977646/



Figure 2. Undertaken approach scheme.

https://www.tandfonline.com/doi/full/10.1080/02614367.2022.2131888



## Quantitative research design

## Research philosophy

• Generally associated with POSITIVISM (especially when used with predetermined and structured data collection techniques) BUT

Some survey research, while conducted quantitatively, may be partially within an interpretivist or pragmatism philosophy

## Approach to theory development

• Usually associated with a **deductive** approach (i.e., using data to test theory) BUT

It may also incorporate an inductive approach (data used to develop theory)

## Characteristics

- Often examines relationships between variables (i.e., analysed numerically and using statistic techniques)
- Important that questions are expressed clearly so that all participants understand the exact same thing (e.g., items in the questionnaires).
- It may use a single data collection technique (Mono method quantitative study; e.g., questionnaire) or more than one (Multimethod quantitative study; e.g., questionnaire, report data, structured observation)

## Research strategies

• Associated with experiment and survey research strategies (i.e., questionnaires, structured interviews, structured observation)

## Qualitative research design

## Research philosophy

• Generally associated with INTERPRETIVISM (to make sense of the subjective and socially constructed meanings expressed about the phenomenon being studied)

### BUT

In some cases, it may be used within realism and pragmatism philosophies.

## Approach to theory development

• Usually associated with an inductive approach to theory development (i.e., used to build theory or develop a richer theoretical perspective that already exists in the literature)

### BUT

Some QUAL research may start with a deductive approach.

### Characteristics

- It studies participants' meanings and the relationships between them (a variety of data collection techniques can be used to develop a theoretical framework)
- Data collection is non-standardised (i.e., questions and procedures may alter and emerge during a research process).
- It may use a single data collection technique (Mono method qualitative study; e.g., semi-structured interviews) or more than one (Multi-method qualitative study; e.g., in-depth interviews, diary accounts, structured observation)

### Research strategies

• Associated with a variety of strategies (e.g., case study, ethnography, Grounded theory, narrative research)

## Mixed methods research design

## Research philosophy

• Mixed methods research combines the use of quantitative and qualitative data collection techniques and analytical procedures (Interpretivism & pragmatism often influence a mixed method research design)

### Approach to theory development

• It may use a <u>deductive</u>, inductive or abductive approach to theory development.

e.g., it can be used to test theoretical propositions followed by quantitative o qualitative research to further develop a richer theoretical understanding

### Characteristics

• Quantitative and Qualitative techniques can be combined in a variety of ways.



**Quantitative methods** Concurrent **Qualitative methods** Sequential **Qualitative methods Quantitative methods** exploratory Sequential **Quantitative methods Qualitative methods** explanatory Quantitative **Sequential** Qualitative Qualitative multi-phase methods methods methods

## Mixed methods research design: why to use?

Reason	Explanation
Initiation	<ul> <li>To define the nature and scope of sequential quantitative and qualitative research.</li> <li>To provide contextual background and to better understand the research problem</li> <li>To revise/improve the research question, interview questions, questionnaire items and the selection of samples</li> </ul>
Facilitation	- During the research, one method may lead to the discovery of new insights which inform a subsequent step
Complementarity	- It may allow meaning and findings to be clarified or confirmed
Interpretation	<ul> <li>One method (e.g., qualitative) may be used to help explain relationships between variables emerging from the other (e.g., quantitative)</li> </ul>
Generalisability	<ul> <li>To establish the generalisability of a study or its relative importance</li> <li>To enhance the credibility of a study</li> </ul>
Diversity	- To have a greater diversity of views to inform the study
Problem solving	- It may be important when the initial method does not allow to explain results
Triangulation	<ul> <li>To combine data to ascertain if the findings from one method mutually corroborate the findings from the other method</li> </ul>
<u>C</u> onfidence	- To improve confidence in the conclusions

## Purpose of the research design (see also week 1)

Exploratory studies	<ul> <li>Valuable means to ask open questions discover what is happening and <u>gain insights</u> about a topic of interest</li> <li>It often includes search of the literature, interviewing experts, conducting in-depth interviews or focus group interviews</li> <li>It often helps <u>guide subsequent steps</u> of your research</li> </ul>
Descriptive studies	It may be an extension of an exploratory research <ul> <li>It is often a precursor to explanation</li> </ul>
Explanatory studies	<ul> <li>Studies that establish causal <u>relationships</u> between variables</li> <li>It is often based n the analysis or quantitative data</li> <li>But it can also draw on qualitative data (e.g. to understand why individuals adopt certain behaviours)</li> </ul>
Evaluative studies	To find out how well something works ( <u>assess and compare</u> ) e.g., Assessing the effectiveness of a busines strategy, policy, programme or process. e.g., comparisons between events, situations, places or periods
Combined studies	<ul> <li>It is often achieved through <u>mixed methods</u></li> <li>A single method research design may be used to provide scope</li> </ul>

## Choosing the research strategy(ies)

## Research strategy?

- A plan of how a researcher will go about answering the research question
- It is the methodological link between the research philosophy and the subsequent choice of methods to collect and analyse data



An **experiment** is a form of research that owes much to the <u>natural sciences</u>, but it is often used in psychology and <u>social</u> <u>sciences</u>.

- **Purpose**: to study the probability of a change in a variable (independent variable) to cause a change in another (dependent variable).
- It is often based on hypotheses rather than research questions (i.e., researchers anticipate whether or not a relationship will exist)
- Some experimental designs may also include <u>control variables and confounding variables</u>

Variable	Meaning
Independent (IV)	Variable that is being manipulated or changed to measure its impact on a dependent variable
Dependent (DV)	Variable that may change in response to changes in other variables; observed outcome or result from manipulation of another variable
Mediating (MV)	A variable located between the independent and dependent variables, which explains the relationship between them (IV $\rightarrow$ MV $\rightarrow$ DV)
Moderator	A new variable that is introduced which will affect the nature of the relationship between the IV and DV
Control	Additional observable and measurable variables that need to be kept constant to avoid them influencing the effect of the IV on the DV
Confounding	Extraneous but difficult to observe or measure variables that can potentially undermine the inferences drawn between the IV and DV. Need to be considered when discussing results, to avoid spurious conclusions

## Experiment

Classic experiments include experimental control groups and experimental groups.



### Sport management related examples

Received: 4 June 2022	Revised: 20 June 2023	Accepted: 20 August 2023	
DOI: 10.1002/cb.2247			
SPECIALISSU	EARTICLE		

WILEY

### The neural bases of sport fan reactions to teams: Evidence from a neuroimaging study

Ricardo Cayolla<sup>1</sup><sup>o</sup> | Rui Biscaia<sup>2</sup><sup>o</sup> | Roy F. Baumeister<sup>3</sup><sup>o</sup> | Marc Fetscherin<sup>4</sup><sup>o</sup> | Sónia Brito-Costa<sup>5</sup><sup>o</sup> | Isabel C. Duarte<sup>6</sup><sup>o</sup> | Miguel Castelo-Branco<sup>6</sup><sup>o</sup>

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Correspondence Ricardo Cayolla, Department of Economics and Management, Portucalense University, REMIT, Rua Dr. António Bernardino de Almeida, no. 541/619 4200-072 Porto,

Abstract This study uses neuroimaging methods to identify patterns of brain activation among sport fans in reaction to team stimuli. In a whole-brain analysis without selected regions in advance, the purposes were to identify the structures involved when fans

#### https://onlinelibrary.wiley.com/doi/10.1002/cb.2247

Sport Marketing Quarterly, 2018, 27, 250-263, © 2018 West Virginia University

### The Impact of Brand-Event Fit in Virtual Advertising on Sport Television Viewers' Brand Attitudes

#### Sangchul Park and Yuhei Inou

Sangchul Park, obtained his master's degree in the Graduate School of Business at Seoul National University. His research interests include sport consumer behavior, service marketing, and the social impact of sport. Yuhei Inoue, PhD, is an associate professor in the School of Kinesiology at the University of Minnesota. His research aims to understand how sport organizations and events create social impacts.

#### Abstract

When virtual advertising is inserted into a sport broadcast, viewers are simultaneously exposed to both a sport event and an advertised brand. The purpose of this study was to determine whether the perceived fit between a sport event and an advertised brand in virtual advertising affects viewers' atitudes toward the advertised brand. Sport viewer confusion and event suspense were also examined, as a mediator and mod-

#### https://fitpublishing.com/articles/impact-brand-event-fit-virtualadvertising-sport-television-viewers%E2%80%99-brand-attitudes

#### RESEARCH ARTICLE

Sports ingroup love does not make me like the sponsor's beverage but gets me buying it

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#### Abstract

Previous literature has shown that social identity influences consumer decision-making towards branded products. However, its influence on ones' own sensory perception of an ingroup (or outgroup) associated brand's product (i.e. sponsor) is seldom documented and little understood. Here, we investigate the impact of social identity (i.e. team identification) with a football team on the sensorial experience and willingness to buy a beverage, said to

https://journals.plos.org/plosone/article?id=10.13 71/journal.pone.0254940

## Survey

Survey strategies are often associated with a deductive approach.

• Very popular in business and management research

Questionnaires allow the collection of standardized data and get large samples

- It is often easy to both explain and understand (perceived as authoritative)
- Often analysed <u>quantitatively</u> through <u>statistical</u> techniques (e.g., descriptive statistics, inference statistics)
- <u>Dimension of the questionnaire</u> vs. <u>goodwill of respondents</u> to answer the questions/items

**Structured observation, Structured interviews** (i.e., standard questions to all interviewees) also fall within the **survey strategy** (semester 2).



## Where to find the items of a questionnaire in a journal article?

A. <u>https://www.emerald.com/insight/content/doi/10.1108/IJSMS-05-2016-0020/full/html</u>
B. <u>https://journals.humankinetics.com/view/journals/jsm/28/3/article-p295.xml</u>

Adapted from Saunders et al., 2020

## Archival or documentary research

### The digitalisation of data and the creation of online archives have increased the scope of to use archival or documentary research.

- Communications between individuals or within groups (e.g., emails, letters, social media and blog postings)
- Individual records (e.g., diaries, electronic calendars)
- Organisational sources (e.g., administrative records, minutes of meetings, policy statements, press releases)
- Government sources (e.g., publications, reports, national statistics)
- Media sources (e.g., printed and online articles)

Visual and audio sources: advertising posters, artefacts, audio recordings, digital recordings, Web images, etc.

•	These documents were not originally created for a research purp	ose (i.e., secondary dat	a sources)
•	Often provide rich data		
		LEISURE STUDIES 2027, VOL. 40, NO. 6, 888–894 https://doi.org/10.1080/02614367.2021.1933575	Routledge Taylor & Francis Croup
		RESEARCH NOTE	Check for updates
		Obstacles and possibilities in archival research: a source for leisure scholars in lockdown	rchives as a data
		Paul Tully : and Neil Carr <sup>b</sup> Independent Scholar IIK: Department of Tourism University of Otago, Dupedia, N	ieu Zealand
		independent scholar, or, bepartment of foursin, oniversity of orago, bureau, in	
		ABSTRACT During the 2020/1 coronavirus pandemic, leisure scholars in lockdown have found their research activities restricted to desk-based strategies. In this situation, one possible strategy is the existing data found via achival research, a method that has received limited attention from leisure scho- lars to date. This paper explains archival research obstacles during a coronavirus induced lockdown whilst also showcasing the possibilities archive collections can offer. During the discussion, the potential that archival newarch has as a alternative data source for lieure studies.	ARTICLE HISTORY ACCEPTED TO THE ADDRESS ACCEPTED TO MAY 2021 ACCEPTED TO MAY 2021 KEYWORDS Archval research archives; Iebuve data; (CVID-19; Iocidown
		https://www.tandfonline.com/de	oi/pdf/10.1080/

02614367.2021.1933575?needAccess=true

## Case study

A case study is an in-depth inquiry into a topic or phenomenon within its real-life setting.

- It may refer to a person (e.g., manager), a group (e.g., team), an organisation (e.g., a club), an event (e.g., Tokyo 2020), a change process (e.g., restructuring of a club), among other types of case subjects.
- It sets out to <u>understand the dynamics</u> of the topic being studied (i.e., interaction between the subject and its context)
- It can draw on <u>quantitative</u>, <u>qualitative</u> or <u>mixed</u> methods research.

### Case study strategies

- Single case study vs. multiple case studies (e.g., potential replication across cases)
- Holistic case (e.g., Club/team as a whole) vs. Embedded case (e.g., sub-units within the club/team)



Journal of Sport Management, 2015, 29, 305-317 http://dx.doi.org/10.1123/jam.2013-0160 © 2015 Human Kinetics, Inc. Human Kinetics

Managing Diversity to Provide Culturally Safe Sport Programming: A Case Study of the Canadian Red Cross's Swim Program

> Kyle A. Rich Western University

Audrey R. Giles University of Ottawa

This article examines the piloting of a cultural safety training module in the Canadian Red Cross's (CRC's) Water Safety Instructor Development Program. Thematic analysis of interviews with program participants and facilitators revealed two main themes: Inclusion is important and valued by instructors, and accommodation for cultural and ethnic diversity is difficult to achieve in aquatics settings. Debetry and Chelladurai's (1999) fromwards was used to understand the structures and waseness of the nilit module. In accommodation and to understand the structures and waseness of the nilit module.

https://journals.humankinetics.com/view/journals/jsm/29/3/article-p305.xml

Adapted from Saunders et al., 2020

## Ethnography

It is used to study the **culture or social world of a group** (origins in anthropology).

**Ethnography** (original meaning): written account of a people or ethnic group. ٠

It involves **observation** - immersing in a community or organization to observe behaviours and interactions. ٠

## Ethnography is relevant for modern organisations.

- In-depth understanding of markets and consumers ٠
- Researchers need to <u>immerse</u> themselves in the social world being researched (without interfering with it) •



https://www.youtube.com/watch?v=FTboT3 au4-4

EUROPEAN SPORT MANAGEMENT QUARTERLY 2018, VOL. 18, NO. 4, 439-458 https://doi.org/10.1080/16184742.2017.1410203	Taylor & Francis Group	EUROPEAN SPORT MA VOL 17, NO. 3, 392-4 http://dx.doi.org/10.10
	Check for updates	
Sunday afternoon social capital: an ethnogra	phic study of the	A digital el termination
Dorothy R. Collins <sup>a</sup> and Bob Heere <sup>b</sup>		Mark H. McCormac
<sup>a</sup> Department of Sport Management, Lake Erie College, Painesville, OH, USA: <sup>b</sup> E Entertainment Management, University of South Carolina, Columbia, SC, USA ABSTEACT Research question: In this study, the authors use social identity and social capital theories to examine how identity forms within communities of displaced sport fans, and how that sense of identity leads to a manifestation of social capital for the participants. Research methods: To answer this question, the principal investigator conducted an ethnographic study with a fan group,	ARTICLE HISTORY Received 22 February 2017 Accepted 17 November 2017 KEYWORDS Fans; sense of community; social identify: team identification; social capital	ABSTRACT Research que response to ti study was to cycling team the team disb Research me digital ethnog the case of analysed to to Euskattel-Eusk Sponsor, Eusk Results and sponsor, Eusk
		sponsorship appeared to celebrate the
https://www.tandfonline.com/dc	bi/full/10.108	https:/
0/16184742.2017.1410203		0.1090

JROPEAN SPORT MANAGEMENT QUARTERLY, 2017 DL. 17, NO. 3, 392–412 ttp://dx.doi.org/10.1080/16184742.2016.1276208	Routledge Taylor & Francis Group
	Check for spdates
A digital ethnography of fan reaction to spo ermination	nsorship
lizabeth B. Delia	
lark H. McCormack Department of Sport Management, University of Massach SA	usetts Amherst, Amherst, MA,
ABSTRACT Research question: Scholars have paid little attention to consumer response to the termination of a sponsorship. The purpose of this study was to examine the reaction of fans of a professional cycling team to a sponsorship terminating, which utimately led to the team disbanding. Research methods: The research purpose was pursued through digital ethnography (via message boards and weblog), examining analysed to understand fam' reaction to the 2013 consulton of EuslaheFukkadi, a Bisnue professional cycling team, after its sponsor, Euslahel, evident the partnership. Results and findings: Fan reaction to Euslahel ending its sponsorib utimately led to the team disbanding, yet fans appeared to be appreciative of Euslahel. They continued to	ARTICLE HISTORY Received 8 November 2015 Accepted 11 November 2016 KEYWORDS Consumer bahaviaa; consumer psychology; spontonship; taam identification

0.1080/16184742.2016.1276208

Adapted from Saunders et al., 2020

## Action research

# Action research is an <u>iterative process of inquiry</u> that is designed to develop <u>solutions to real organisational problems</u> through a <u>participative and collaborative approach</u>.

... Explicit focus on action and making changes. Combines data collection and facilitation of change. Also go beyond and inform other contexts.

- Purpose: to promote organisational learning leading to practical outcomes (research in action)
- **Process**: Emergent and Iterative (diagnosing planning action taking action evaluating action)
- Participation: researcher acts as a facilitator and teacher
- Knowledge: incorporate different types of knowledge
- Implications: influence decision-making, organisational culture, etc.



Amiri-Farahani et al. BMC Sports Sci Med Rehabil (2021) 13:133 https://doi.org/10.1186/s13102-021-00367BMC Sports Science, Medicine and Rehabilitation

**Open Acces** 

https://bmcsportsscimedrehabil.biomedc entral.com/articles/10.1186/s13102-021-00367-0

#### RESEARCH

#### Development, implementation and evaluation of the 'BELIEVE' program for improving physical activity among women: a mixed method action research study

Leila Amiri-Farahani<sup>1\*</sup>, Soroor Parvizy<sup>2</sup>, Eesa Mohammadi<sup>3</sup>, Mohsen Asadi-Lari<sup>4</sup>, Ziba Taghizadeh<sup>5</sup> and Sally Pezaro<sup>6</sup>

Abstract

Backaround: There is insufficient physical activity among women. Yet the implementation of effective. multilevel.

Grounded theory can be used to refer to a methodological approach, a method of inquiry and the result of a research process.

- It is used to develop theoretical explanations of social interactions and processes in a wide range of contexts.
- Early commencement of data collection
- Data are collected and analysed simultaneously, developing analytic codes and themes.
- <u>Initial use of the literature as complementary source</u> to categories and concepts emerging in the data.
- <u>Development of theory grounded in the (qualitative) data (i.e., it starts without the formation of an initial theoretical</u> framework).



The Sport Psychologist, 2000, 34, 11-02. https://dx.org/10.1102/ba.2014-0014 © 2000 Human Kinetice, Inc.	Human Kinetics
A Grounded-Theory Study o	f Meta-Attention in Golfers
Alex Oliver, Paul J. McCar Glasgow Caledor	thy, and Lindsey Burns ian University
This study sought to construct a theoretical understanding of meta- 1 successful-effuity were interviewed about their experiences of atta selective coding. Results indicated that meta-attention is resour- resources that facilitate attentional control. Attentional control re- and consistent postshot rotations: - failures in wide or immediate re distraction. The emergent theory provides an understanding of the by goldres, coaches, ero psychologists to improve attentional attra- ted program.	attention in golfers. Eight male golfers (7 competitive-elite and ntional processes in competitive golf, A Stranssing pround-d- terior and the strange of the strange of the strange of the particular strange of the strange of the strange of the quired successful target selection, consistent preshot routines, sources or failure to initiate control routines, can lead to internal function of meta-attention in golf performance that can be used topics.
Keywords: attentional control, attention regulation, metacognitic	n, optimal performance
Meta-attention is a form of metacognition that relates to one's knowledge and awareness of the operation and controllability of	many planning strategies as their less-skilled counterparts. These strategies included attaining goals in the match, specific strategie
https://journals.humanki	netics.com/view/journals
/tsp/34/1/article-p11.xm	

## Choosing a time horizon

Do I want my research to be a 'snapshot' taken at a particular time OR do I want to I want a series of 'snapshot' over a given period?

### **Cross-sectional studies**

Group

Time 1

- Study conducted at a particular time (most likely your case).
- It often employ a survey strategy, and developed to describe a phenomenon or to explain how certain factor are related.
- It can also draw on qualitative or mixed methods strategies.

### Longitudinal studies

- Study conducted to study change and development.
- It implies repeated observations of the same people over short or long periods of time.
- It often employ survey strategy.



Journal of Sport Management, 2020, 34, 475-487 https://doi.org/10.1123/jem.2018-0204 © 2020 Human Kinetics, Inc.

Human Kinetics

#### Brand New: A Longitudinal Investigation of Brand Associations as Drivers of Team Identity Among Fans of a New Sport Team

Henry Wear Bob Heere
University of Oregon University of North Texas

The role of brand associations and team identity in the sport management literature has received significant attentions, however, there exists operatinists to investigate the way they impact one another over tims. The authones examined the development of brand associations and team identification among fans of a new team to measure the impact the team's brand head in the development of new fans. Longitudinal quantitative data were collected from fans of a new professional baseball team (N=119) across three points during the team's inangural season. Using multilevel growth curve modeling, unconditional growth curve models provided evidence of the development and change of brand associations and team identifications.

https://journals.humankinetics.com/view/journal

s/jsm/34/5/article-p475.xml

## The ethics of the research design

## Research ethics is a critical part of formulating your research design

- Your choice of topic will be governed by ethical considerations (e.g., Human Rights & Sport vs. consumer-decision making)
- Check University ethics procedures (more details about ethics next week)

e.g., You may need to consider whether you should collect data if those you are researching are unaware, they are the subject of research and so have not consented



https://www.youtube.com/watch?v=kA1dL6 NqVyw

## The quality of the research design

## **Reliability & Validity**

Central ideas to judge the quality of quantitative research Sometimes contested in qualitative research

## Reliability

It refers to replication and consistency (i.e., ability of the researcher to an early research design and obtain the same findings)

• Internal reliability: Ensuring consistency during a research project

e.g., using more than one researcher to conduct interviews or observations or analyse the data.

• External reliability: whether data collection techniques and analytic procedures would produce consistent findings if they were repeated in different occasions by the research or another researcher.

## Threats to reliability

- <u>Participant error</u>: any factor that alters the way in which a participant performs (e.g., asking a sport fan to complete a questionnaire while attending a team game)
- <u>Participant bias</u>: any factor which induces a false response (e.g., conducting an interview in an open space may lead participants to provide falsely positive answers)
- <u>Researcher error</u>: any factor which alters the researcher's interpretation (e.g., being tired or not sufficiently prepared and misunderstand the interviewees)
- <u>Researcher bias</u>: any factor which induces bias in the researcher's recording responses (e.g., allow personal beliefs to accurately recording and interpreting the responses)

## Validity

It refers to appropriateness of the measures used, accuracy of the analysis of the results and generalisability of the findings.

• Measurement validity: different types of validity to assess the measures used in the study

e.g., face validity; construct validity; content validity; predictive validity.

• Internal validity: when the research accurately demonstrates a causal relationship between variables.

e.g., questionnaire: when a set of questions can be shown statistically to be associated to an outcome factor (often used in positivist approaches and quantitative research)

• External validity: whether the research findings can be generalised to other relevant settings or groups.

e.g., is fan satisfaction a predictor of loyalty in both football and basketball settings?



## Alternative criteria

**Example:** Measurement validity is appropriate to assess quantitative research based on positivist assumptions, but often technically inappropriate in relation to research based on interpretive assumptions.

## Three different views in qualitative research

<ul> <li>I. Adaptation of the concepts of validity and reliability</li> <li>Qualitative research is <u>not intended to be replicated</u> but <u>rigorous description</u> of the research design, context and methods may <u>help others to replicate similar studies.</u></li> </ul>
<ul> <li>II. Parallel versions of reliability, internal validity and external validity (with distinct names)</li> <li>Dependability = Reliability</li> <li>Credibility = Internal validity</li> <li>Transferability = External validity</li> </ul>
<ul> <li>III. New concepts to discuss the quality of qualitative research</li> <li>Authenticity criteria as an alternative to validity</li> </ul>

## Alternative criteria

#### Table 5.5 Alternative quality criteria

Criterion	Definition and techniques to achieve each criterion			
Dependability	This is the parallel criterion to reliability. In interpretivist research, the research focus is likely to be modified as the research progresses. Dependability in this context means recording all of the changes to produce a reliable/ dependable account of the emerging research focus that may be understood and evaluated by others			
Credibility	This is the parallel criterion to internal validity. Emphasis is placed on ensuring that the representations of the research participants' socially constructed realities actually match what the participants intended. A range of techniques to ensure this match include:			
	<ul> <li>lengthy research involvement to build trust and rapport and to collect sufficient data;</li> <li>use of reflection using a different person to discuss ideas and test out findings etc.;</li> <li>developing a thorough analysis that accounts for nega- tive cases by refining the analysis in order to produce the best possible explanation of the phenomenon being studied;</li> <li>checking data, analysis and interpretations with participants;</li> <li>making sure that the researchers' preconceived expecta- tions about what the research will reveal are not privi- leged over the social constructions of the participant by regularly recording these and challenging them during analysis of the data</li> </ul>			
ansferability	This is the parallel criterion to external validity or gener- alisability. By providing a full description of the research questions, design, context, findings and interpretations, the researcher provides the reader with the opportunity to judge the transferability of the study to another setting in which the reader is interested to research			
thenticity criteria	These were not conceived as parallel criteria but as criteria that are specifically designed for the nature of constructiv- ist/interpretivist research. Guba and Lincoln (1989) devised 'fairness', 'ontological', 'educative', 'catalytic' and 'tactical' authenticity criteria. These are designed to promote fairness by representing all views in the research; raise awareness and generate learning; and bring about change			

## Validation

Validation is the process of verifying research data, analysis and interpretation to establish their validity/credibility/authenticity.

### Validation techniques

## TRIANGULATION

It involves using more than one source of data and method of collection to confirm the validity/credibility/authenticity.

- This means using a multi-method quantitative study, multi-method qualitative study or mixed methods study
- The purpose is to check if the data is telling what you think it is telling.
- More common for <u>qualitative studies</u>

## Participant or member validation

It involves taking or sending research data back to participants to allow them to confirm its accuracy, thus permitting them to comment on and correct it to validate it.

- e.g., showing interview transcripts, observation or other notes
- More important for qualitative studies and mixed methods

## **Review Questions**

- 1. Explain the meaning and importance of the research design And what should be included on it?
- 2. What are the main differences between qualitative and quantitative research?
- 3. Explain the different methodological choices that can be adopted when preparing your research design. Discuss the advantages and disadvantages of each methodological choice.
- 4. What are the features of mixed methods studies? And when can/should be mixed methods be used in a research study?
- 5. Define and explain the features of each of the following: Experiment; Survey; Narrative Inquiry; Archival Research; Case Study; Ethnography; Action Research; Grounded Theory.
- 6. Why is ethics a key part of any research design?
- 7. What is a cross-sectional study? Give an example
- 8. What is a longitudinal study?. Give an example.
- 9. Explain the criteria often used to assess the quality of quantitative research.
- 10. Explain alternative criteria often used to assess the quality of qualitative research.
- 11. Describe two validation techniques often used in qualitative research.

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