QUALITATIVE DATA ANALYSIS

Qualitative Research

Definition

- Qualitative research is an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem.

Approach

- The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting.

BIG SIX METHODS OF QUALITATIVE DATA ANALYSIS

Content Analysis

Narrative Analysis

Discourse Analysis

Thematic Analysis

Grounded Theory

Interpretive Phenomenological Approach (IPA)

QUALITATIVE DATA ANALYSIS

CONTENT ANALYSIS

CONTENT ANALYSIS

- A qualitative analysis method that focuses on analyzing recorded communication taken from artefacts extracts from books, newspapers, articles, interviews, audios video recordings or blogs
- This can be used on both primary and secondary data

TYPES OF CONTENT ANALYSIS

Conceptual Content Analysis (CCA)

- Explicit data
- Appearance of words
- Non-Interpretational
- Surface Level Focus
- Frequency of words
- Phrases without offering interpretation so major focus is frequency

Relational Content Analysis (RCA)

- Explicit data
- Use meaning derived from relationships (effect extraction, proximity analysis, & Cognitive mapping)
- Relationship
- Interpretation from looking at how certain words are used in relation to others

Strengths and Weaknesses of Content Analysis

Strengths

Flexibility can be used on written records, interview recordings, speech records, speech transcripts, and non-text data e.g. images

Weaknesses

***Reliability**: drawing conclusions from frequency of words and phrases or either relationships to each can be subjective process decreasing reliability*

***Reductiveness**: focus on particular words & phrases can result in missing context, nuance & culture specific meaning*

***Generalisation** can lead to lose of meaning*

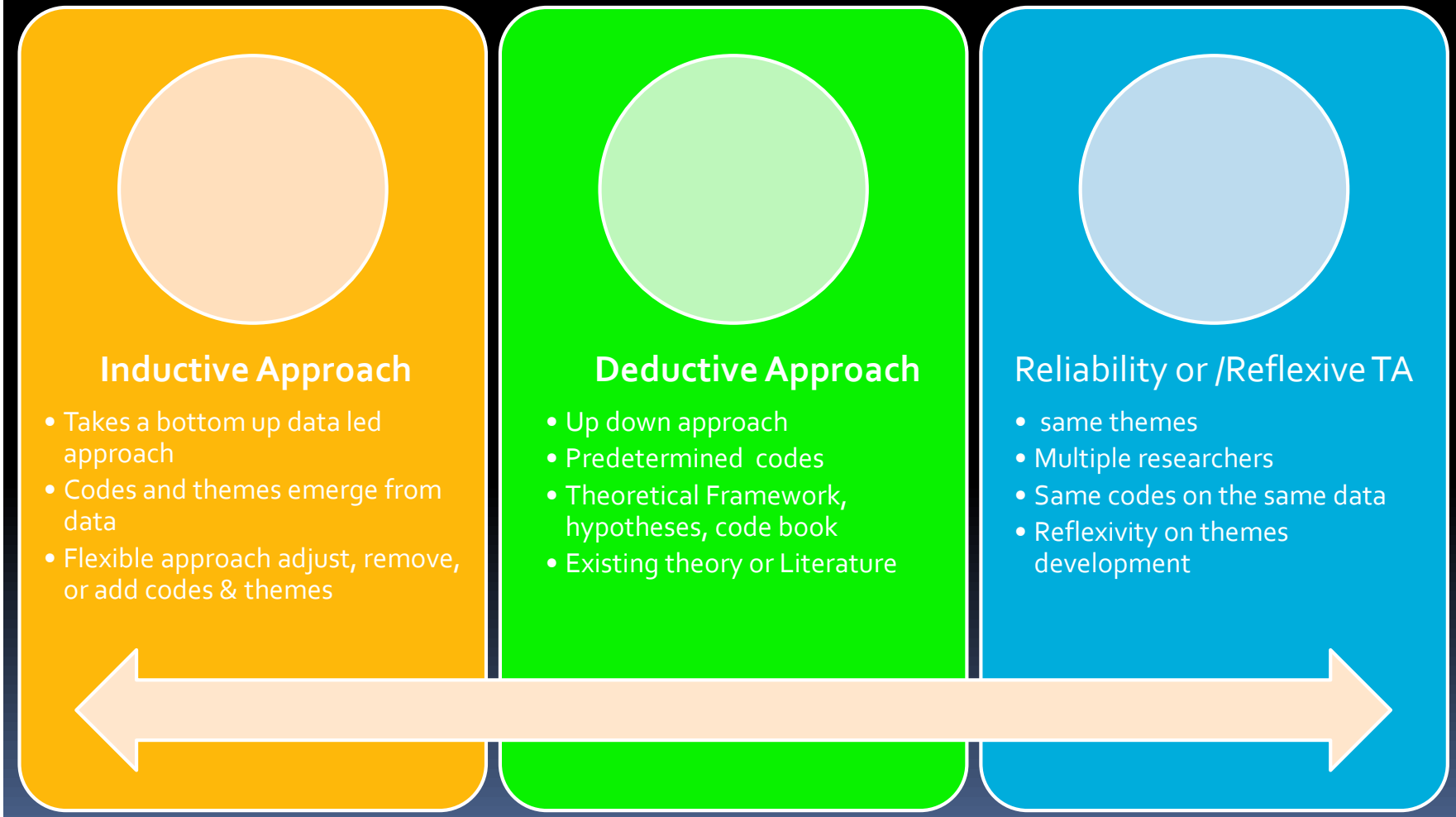
THEMATIC ANALYSIS

- A qualitative analysis method focused on identifying patterns, themes and meanings within a data set
- The language based data to unearth categories or themes
- Thematic can analyse data from interviews, FGDs, Social Media posts i.e both primary and secondary data
- Open ended survey responses from a sample of consumers looking for similarities, patterns, and categories in data
- The themes provide initial foundation

THEMATIC ANALYSIS

- Patterns of meaning in a data set
- Thematic analysis involves identifying key themes in large bodies of text
- Critical in finding peoples experiences opinions or perspectives
- Exploratory in nature
- Some times your research questions will change you undertake analysis
- Time consuming but for a good reason

Types of Thematic Analysis



STRENGTHS AND WEAKNESSES

Strengths

- Simplicity
- Flexibility
- Generic Focus
- Identification of similarities and patterns

Weakness

- Vague or opaque
- Inconsistencies
- Lack of rigour
- Crude for delicate research aims

DISCOURSE ANALYSIS

INTRODUCTION

Definition	Discourse analysis is a qualitative analysis method that specifically looks at subjective underlying meaning of language in written or spoken communication within written or spoken communication within a context in which it takes place
Application	Social Context
	Political Context
	Cultural Context
	Historical Context

DISCOURSE ANALYSIS

- Analysis language within its own social context
- Involves analysis of the use of the language in a conversation
- How politicians speak about terrorism or a particular society speaks about gender equality
- How, when and how people speak about a particular topic reflects the context and culture
- How history, power dynamics or people of different countries look at the context
- Social, Political, Cultural, and Geographical influences context
- Discourse analysis is vast make sure you have clear aims, objectives, & questions in advance
- Social influences and potential of how we speak to each other
- Sample data to a point of saturation

DISCOURSE ANALYSIS

Purpose

- Discourse analysis allows you to go deeper than thematic analysis

Language

- Focuses on the technicalities on the language such as grammar, syntax, phonology.
- English language has relatively inflexible subject-verb-object syntax

Socio-Politico-Context (social Constructivist)

- Focuses on the use and dynamics of power and power relations
- This kind of approach is inspired by a philosopher

Examples

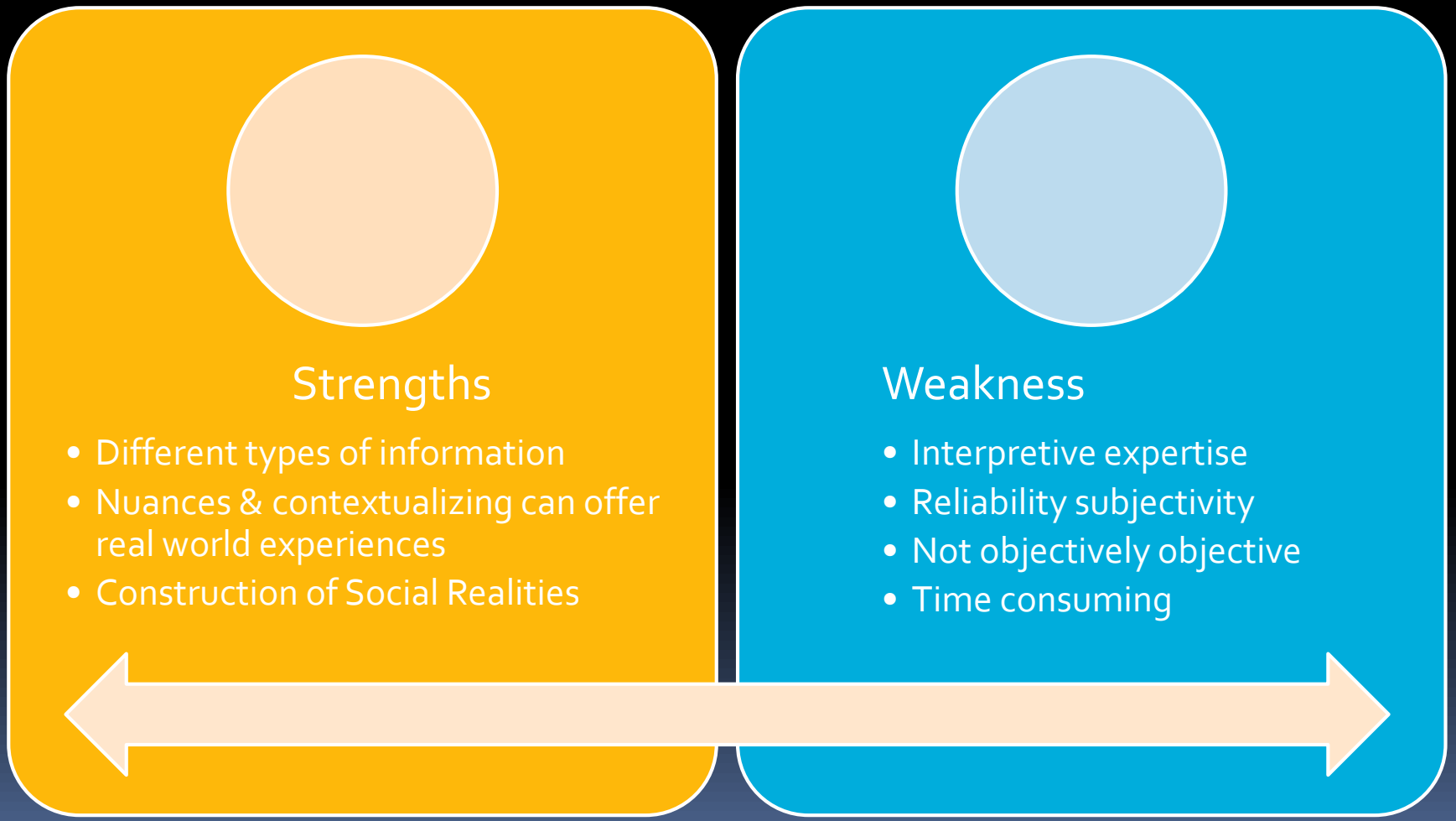
Language tells of power

- Opinions of university students regarding their professors by analyzing recording of their lecturers and communication.
- In one scenario you might find that professors thoughts and opinions treated with difference respect, & authority reflecting on normalized power.

Politics

- The context how politicians discuss about terrorism may be deeper as opposed to journalists and community

STRENGTHS AND WEAKNESSES



NARRATIVE ANALYSIS

INTRODUCTION

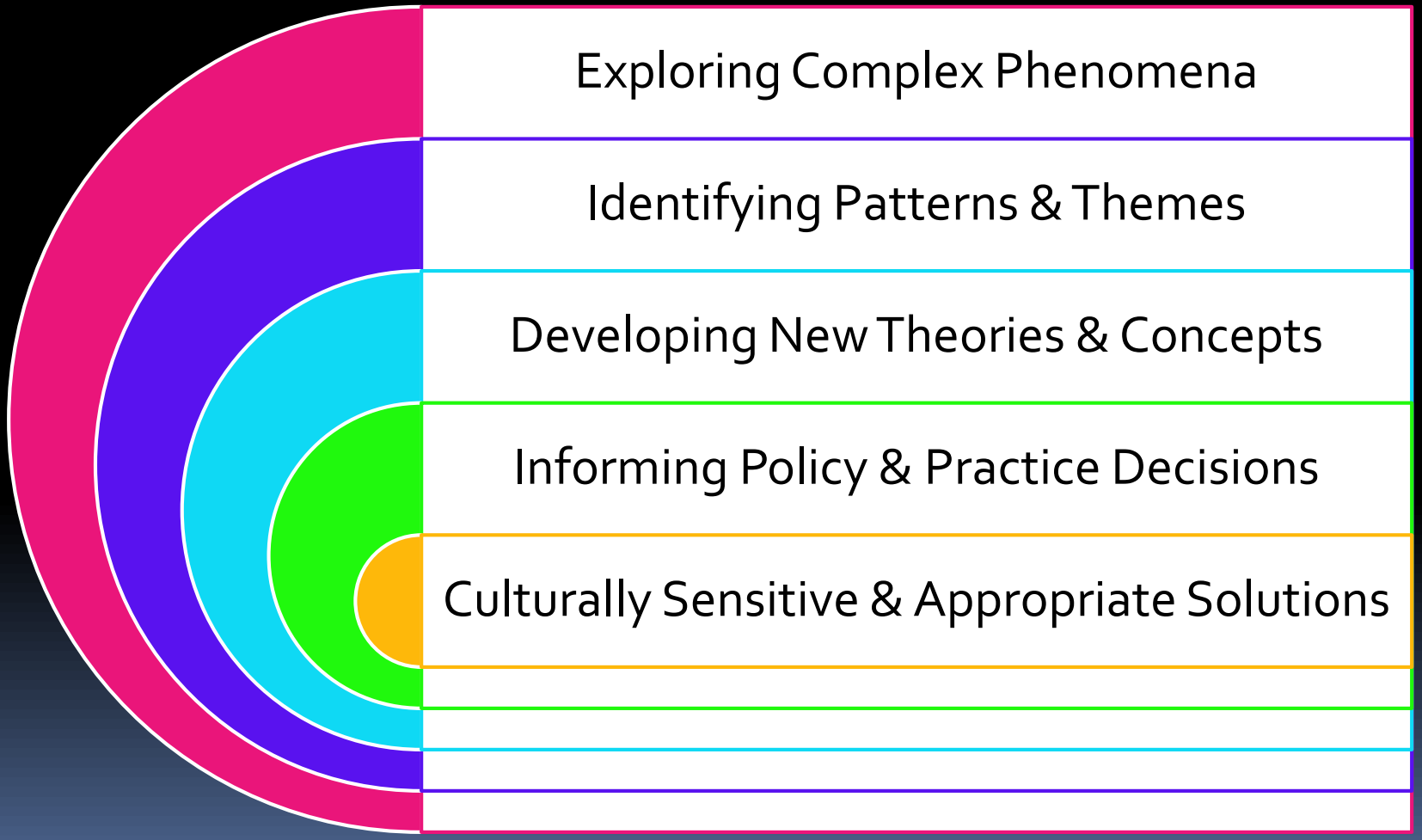
Definition	A qualitative analysis method focused on interpreting individual human experiences and motivations by looking closely at the stories people tell in a particular context
Source of Data (Primary & Secondary)	Interviews
	Monologues
	Written stories
	Recordings
Approach	Beliefs of a particular, author, identify characters, plot lines, symbols & mortify
	Understand the views of the author by analyzing the narratives that run through his work

NARRATIVE ANALYSIS

- The narrative analysis involves the analysis of peoples stories and derive meaning
- This has a potential making sense of reality
- Explore how some things
- Entrepreneurs view of challenges and mechanisms for overcoming
- Paying attention to stories and how they tell them
- Small sample sizes
- Difficult to replace
- The researcher has to be mindful about own biases

GROUNDED THEORY

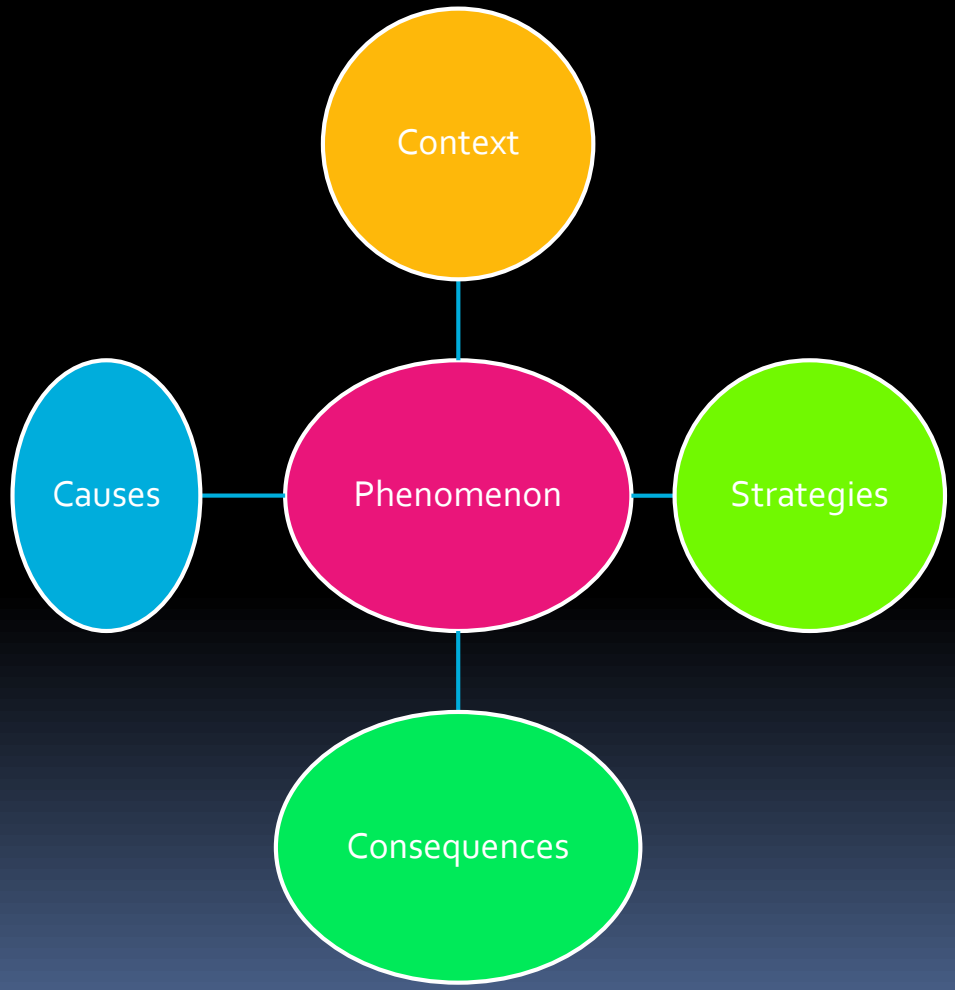
Uses of Grounded Theory



CODING PARADIGM BY STRAUSS & CORBIN

- To elaborate the relationships between categories (and their subcategories) developed in open coding, Strauss and Corbin (1990) introduced what they call the coding paradigm.

- The paradigm is often visualized includes 5 domains i.e. phenomenon, causes, context, strategies & consequences



Grounded Theory Development

Phenomenon

- *What is the phenomenon under study?*

Causes

- *What led to the phenomenon under study?*

Context and intervening conditions

- *What is the context of the phenomenon under study (e.g., place, time) and what conditions influence it (e.g., important experiences, sociodemographic characteristics of the actors)?*

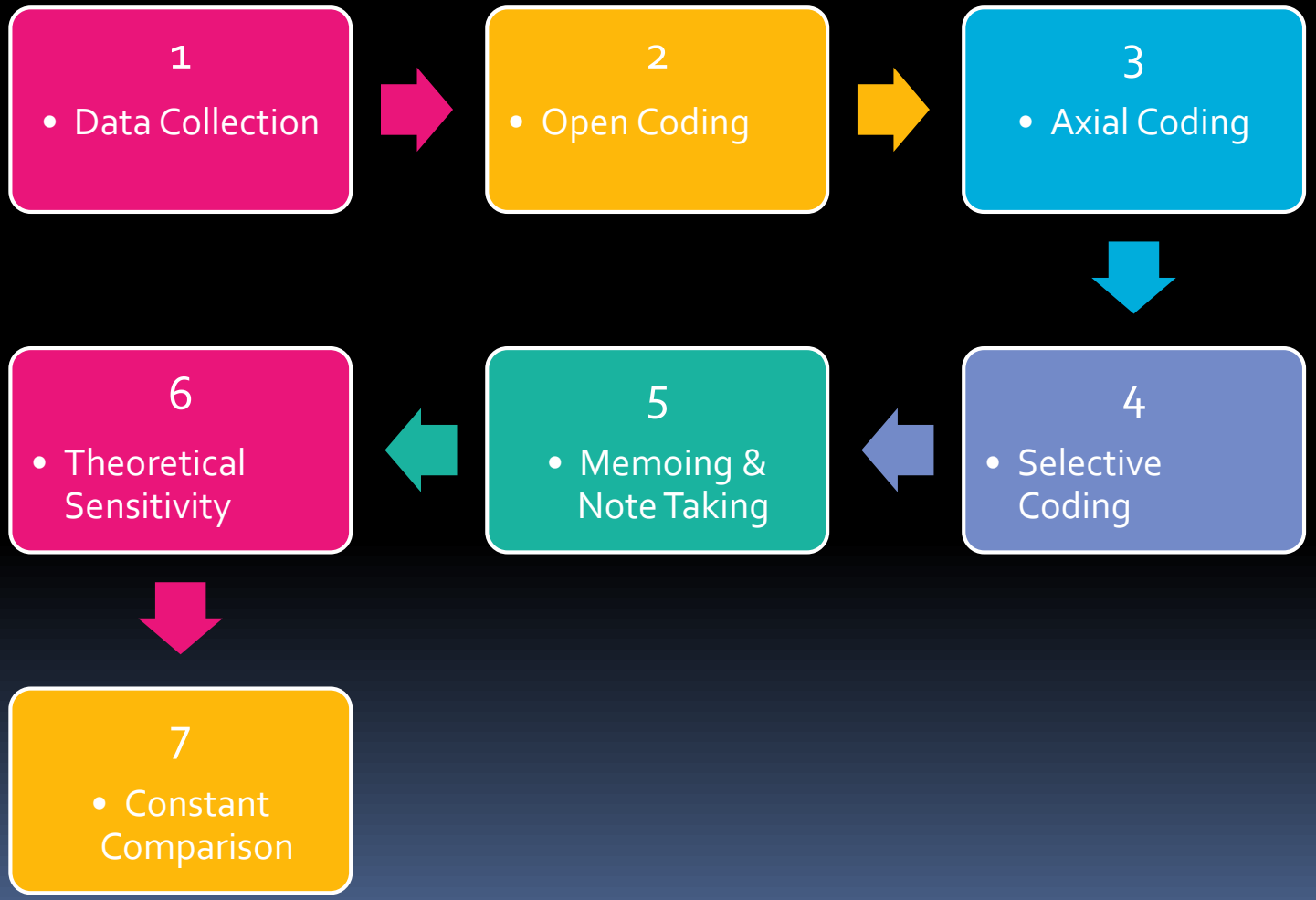
Strategies

- *What strategies do actors use to deal with the phenomenon?*

Consequences

- *What results from the phenomenon and the way actors deal with it?*

GROUNDED THEORY



INTERPRETIVE PHENOMENOLOGICAL ANALYSIS

INTERPRETIVE PHENOMENOLOGICAL ANALYSIS

- Interpretative phenomenological analysis (IPA) is a **qualitative form of psychology research**.
- IPA has an idiographic focus, which means that instead of producing generalization findings, it aims to offer insights into how a given person, in a given context, makes sense.

IPA

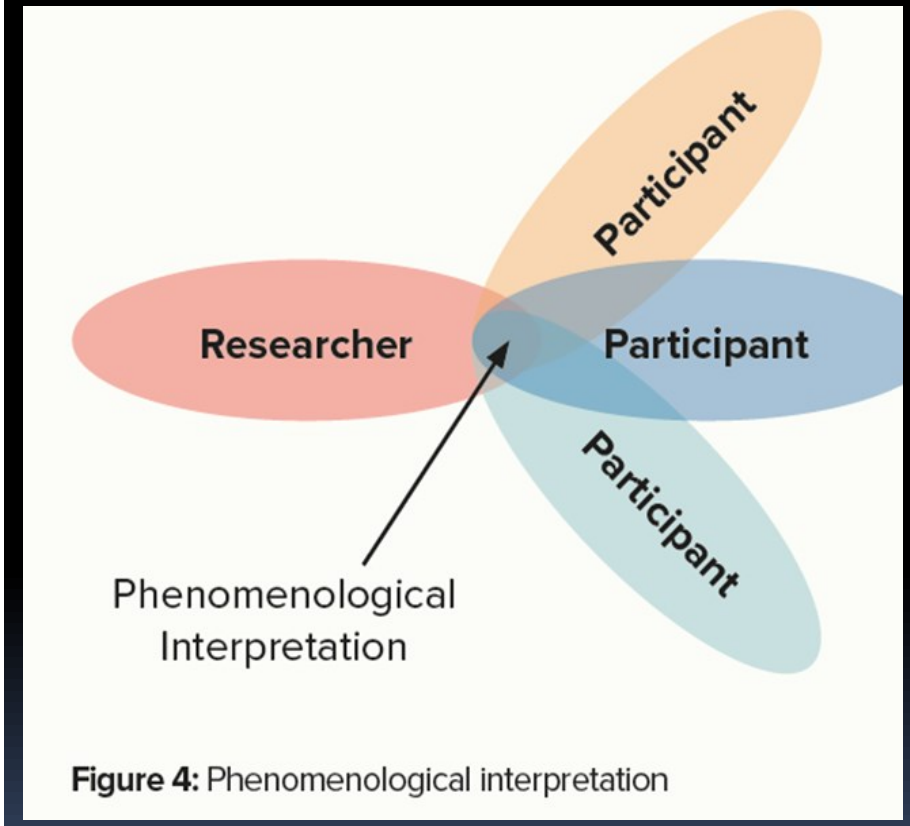
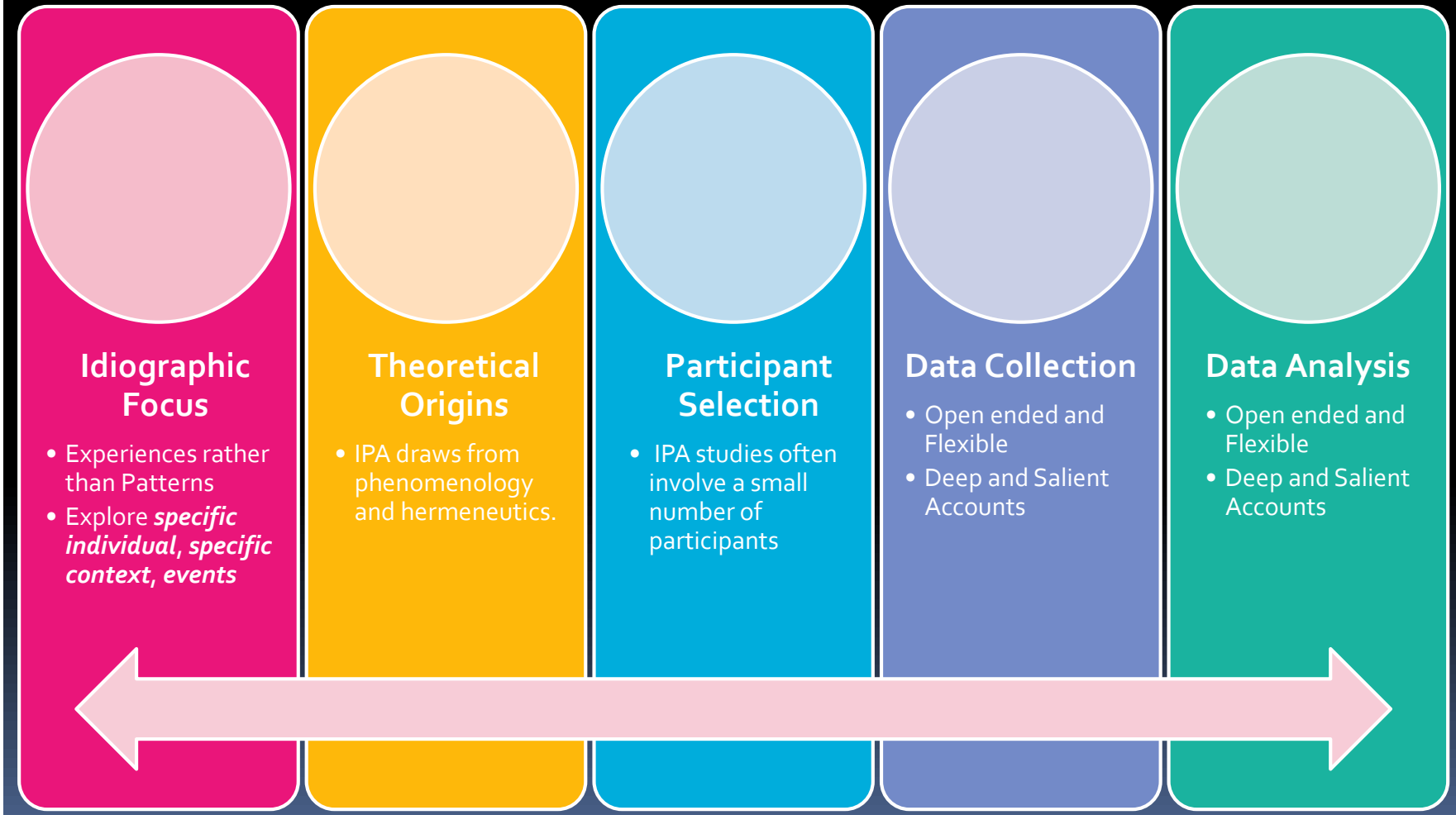


Figure 4: Phenomenological interpretation

- The aim of the research is to provide a detailed examination of personal lived experiences of participants content (interpreting & understanding)
- Interpretative Phenomenological Analysis (IPA) (Smith and Osborn, 2015).

IPA


Idiographic Focus
• Experiences rather than Patterns
• Explore ***specific individual, specific context, events***
Theoretical Origins
• IPA draws from phenomenology and hermeneutics.
Participant Selection
• IPA studies often involve a small number of participants
Data Collection
• Open ended and Flexible
• Deep and Salient Accounts
Data Analysis
• Open ended and Flexible
• Deep and Salient Accounts

CONVERSATIONAL ANALYSIS

Turn-taking

- How speakers take turns and coordinate their contributions..

Sequence organization

- How conversations are structured and unfold over time..

Repair

- How speakers deal with errors, misunderstandings, and other troubles in conversation.

Action formation

- How speakers accomplish social actions (e.g., requests, offers, apologies) through talk.

Membership categorization

- How speakers use categories (e.g., gender, age, occupation) to make sense of each other's actions

CODING IN QUALITATIVE DATA ANALYSIS

Introduction

1	*This is a process of creating and assigning codes to categorize data extracts*
	Its common to notice some themes and patterns emerging during the coding
2	*The objective of coding is to label and group data not to identify themes*
	Coding helps to ensure that your analysis is valid and approached systematically
3	*Coding is the foundation of high quality analysis which makes it an essential first step*

Types of Coding

1

- Inductive Coding
- Deductive Coding

2

- In vivo Coding
- Process Coding

3

- Descriptive Coding
- Structural Coding
- Value Coding

Inductive versus Deductive Coding

Inductive Vs Deductive	Inductive coding the researcher works from the bottom from data to emerging patterns and themes from data
	Deductive coding is the reverse as the you start with set ideas either from theory, framework or literature review
	Inductive theory emerges from data while deductive theory guides coding process

Deductive Coding

- *The researcher begins with a set of pre-established codes and apply the codes to specific data*
- *Make use of predetermined (a Priori codes)*
- *Codes are developed before reviewing the data*
- *A set of codes based on a research question or previous literature reviewed*
- *For example which food do University students prefer codes: Pizza, Chicken, Meat & Beans etc.*

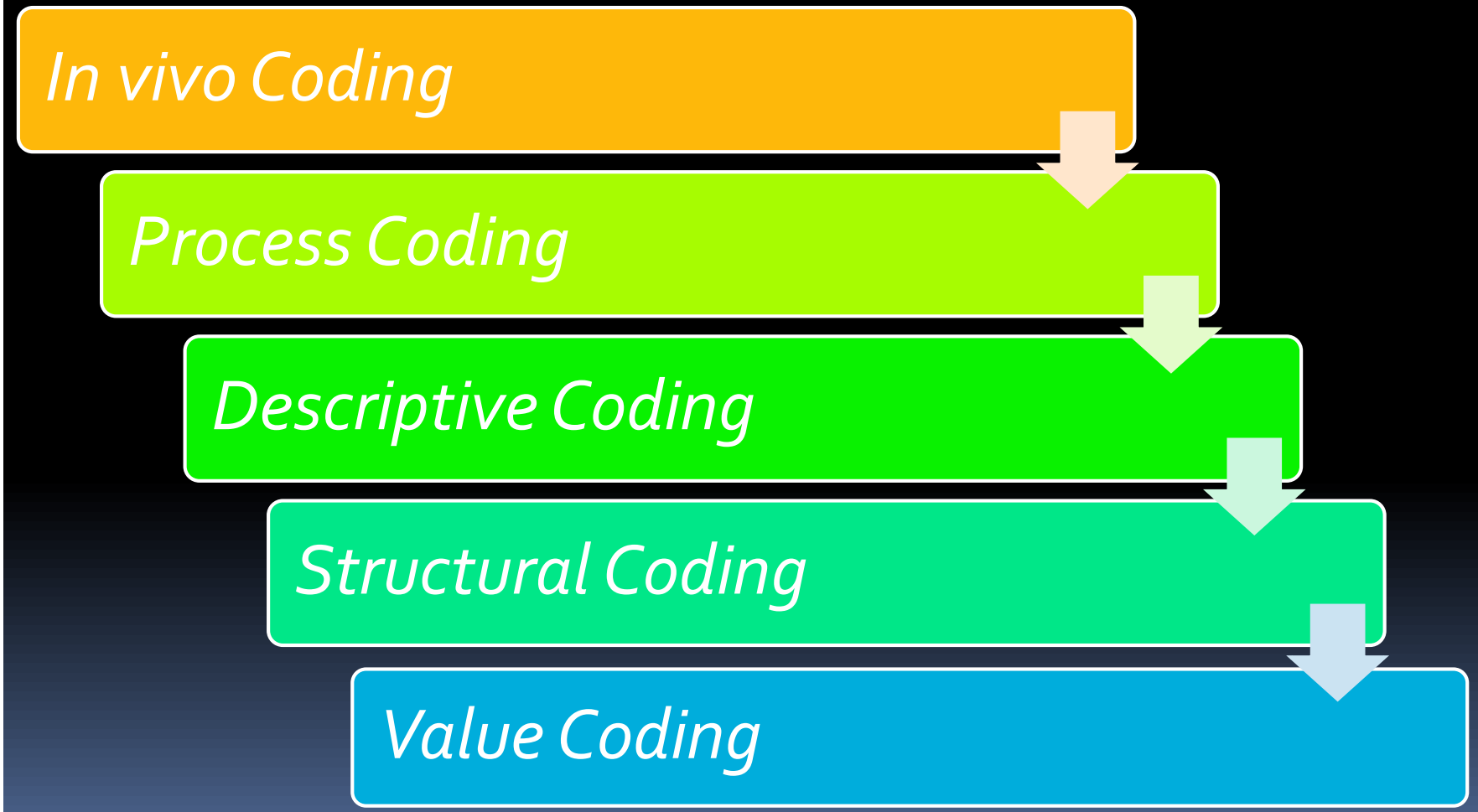
Inductive Coding

- *The researcher doesn't begin with a pre-established ideas or codes*
- *The ideas or codes emerge from the data*
- *The relationships emerge from the data*
- *You don't understand the direction of the conversation*
- *For example which food do University students prefer codes: Pizza, Chicken, Meat & Beans etc.*

Initial Coding

1. The initial coding stage involves reading through the data to get familiar with the data
2. The line by stage involves digging deeper refining your codes and coding each line
3. Identify the essence of the text & code it accordingly, while there are many qualitative analysis software options available
4. In the beginning you may not understand language & subtleties of language & context

Popular Coding Methods



Attribute Coding

- *Attribute coding is a type of data coding used to analyze qualitative data, such as interviews and focus groups.*
- *It is a process of organizing the collected data into distinct categories and assigning a unique code to each category.*
- *The codes are then used to identify and analyze patterns and themes in the data.*

In vivo Coding

- *In vivo codes utilize the language and terminology used by the participants rather than alternative methods where codes are researcher-derived.*

In vivo Coding

1. *When you use in vivo coding you make use of participants own words rather than your interpretation in the data*
2. *In other words you use direct quotes from participants as your codes*

   A first cycle coding method in qualitative analysis, you derive codes from the data itself.
3. *By doing this you will avoid trying to infer many by staying as close to original phrases & words as possible*
4. *In vivo coding is particularly useful when your data are derived from participants who speak different languages or come from different cultures*
5. *Difficult to infer meaning to different linguistic perspectives therefore, avoiding errors*

Process Coding

1	*Process coding, you use codes to communicate an action in the data.*
2	*Process coding makes use of action-based codes*
3	*Process coding isn't meant to be a standalone method of coding, but just one technique to use along with other coding techniques.*
4	*Action based codes are codes that indicate a movement or a procedure e.g. running, swimming, facial expressions, singing a song etc.*

Descriptive Coding

1

- *This also regarded as topic, or attribute coding undertaken in the*
- *Descriptive coding is a first cycle method of coding that involves reading through qualitative data, and coding passages according to topic.*

2

- *Aims at summarizing extracts by using a single word that encapsulates the general idea of the data*

3

- *Descriptive codes are often in the form of a noun, and summarizes the topic of the data.*

4

- *Descriptive coding can be used to capture video clips e.g. happiness*

5

- *An example "food" when coding a video clip that involves a group of people discussing what they ate throughout the day, or "cooking" when coding an image showing the steps of a recipe.*

Structural Coding

1	*Structural coding is a first round coding method where you code your data according to research questions or topics.*
	It enables you to take a large set of semi-structured data, and structure it into smaller pieces for further analysis.
2	*Structural coding describes specific structural attributes of the data*
	Generally it includes coding according to answers of the question who, what, where & how rather than actual topics expressed in the data
3	*For example if you were coding a collection of dissertations which could be quite large data set*
	Structural coding might be useful as you could code according to the different sections within each document
4	*Coding could focus on labels such as hypotheses, literature review, methodology*
	Access segments of data quickly & it can help tremendously when you are dealing with large data

Value Coding

1. *Values coding is a method of coding that delves into the subjective nature of the human experience.*
2. *In particular, values coding deals with labeling the values, attitudes and belief systems that are expressed by participants.*
3. *Typically, this type of coding focuses on excerpts that provide insight regarding the values, attitudes, & beliefs of participants*
4. *Coding excerpts that relate to participants world view*

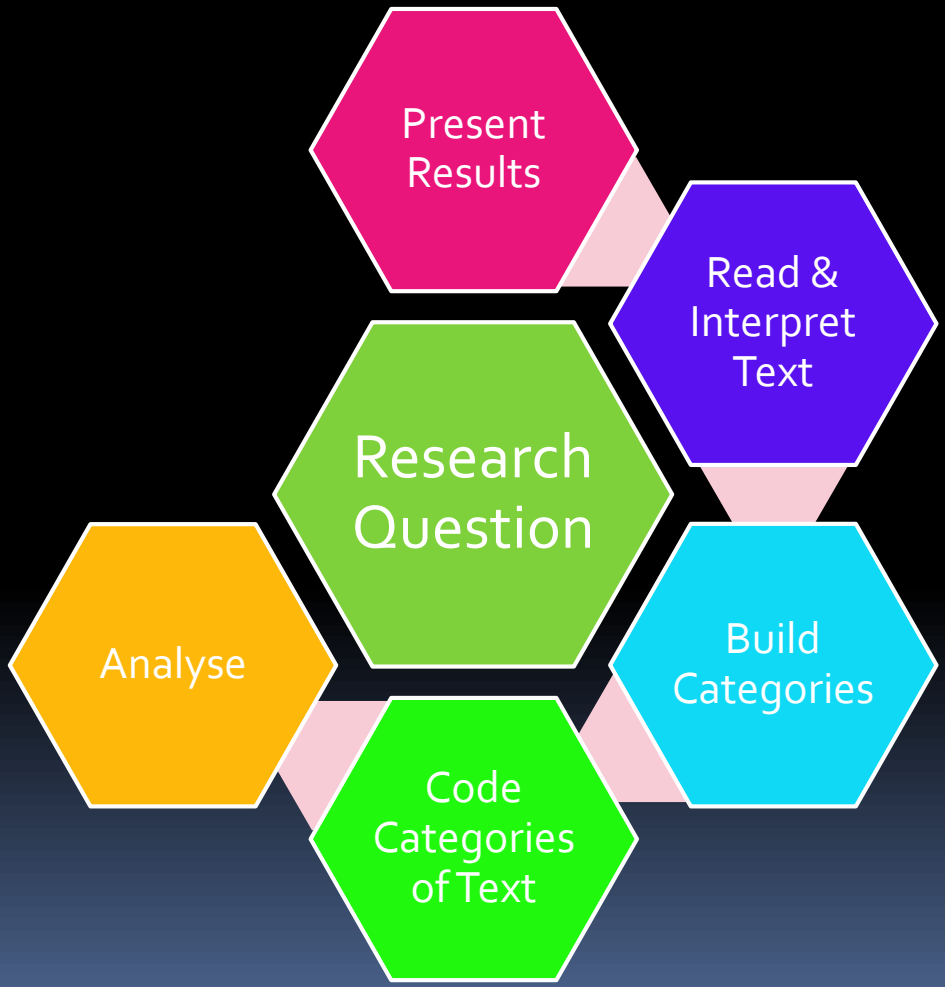
   Useful for exploration of cultural values inter personal experiences

MAXQDA QUALITATIVE DATA ANALYSIS SOFTWARE

Introduction

- *MAXQDA is a world-leading software package for qualitative and mixed methods research.*
- *Use MAXQDA for any type of qualitative research undertakes*
  - *Grounded theory*
  - *Literature Reviews*
  - *Exploratory Market Research,*
  - *Qualitative Text analyses, and*
  - *Mixed Methods Approaches.*

MAXQDA


Present Results
Read & Interpret Text
Research Question
Build Categories
Analyse
Code Categories of Text

Key Words in MAXQDA

Projects	*Projects are the system files, or work units in MAXQDA.*
	They contain all imported data, like texts, PDFs, pictures, tables as well as the codes, memos, comments you created.
Documents	*Documents are those units that you want to analyze.*
	They can be interviews, focus group protocols, video or audio recordings, articles from scientific journals and many more.
Codes	*Codes are your most important analysis tool.*
	They can be assigned to anything you consider worth marking, be it text segments, sections in a photo or parts of a video.
Code system *or* ***Code tree***	*The code system are also regarded as a code tree*
	The code system or tree describes the entirety of all codes and sub codes which can be ordered hierarchically
Coding	*Coding is the act of assigning a code to a marked segment of your material.*

Key Words in MAXQDA

Coded segments	*are those material segments that have been assigned a code.*
Memos	*Basically serve as your records.* *You can note your ideas, assumptions, and questions for your next analysis steps, or formulate first hypotheses regarding possible connections in the data.*
Comments	*Are shorter than memos. You can use them to assign comments like contradictory, or important part to coded segments.*
Overviews	*Are tabular presentations omnipresent in MAXQDA. There are overviews of coded segments, memos, variables, links and so on.* *All MAXQDA overviews follow the same principle and allow easy access to individual elements so that you don't lose track of your data*

- What is a memo? Memos serve to create notes and records to attach them to texts, text segments, document groups, images, audio or video files, and even codes just like you would do with “real” sticky notes.

Coding

1. *The central work technique among most analysis methods is Coding the data.*

2. *Coding describes the process of selecting part of the data material, for example a paragraph or one part of an image, with the mouse (just like in Word or other programs) and assigning a code to it.*

3. *This is principally the same as tagging contents, but coding in empirical social research includes much more than that.*

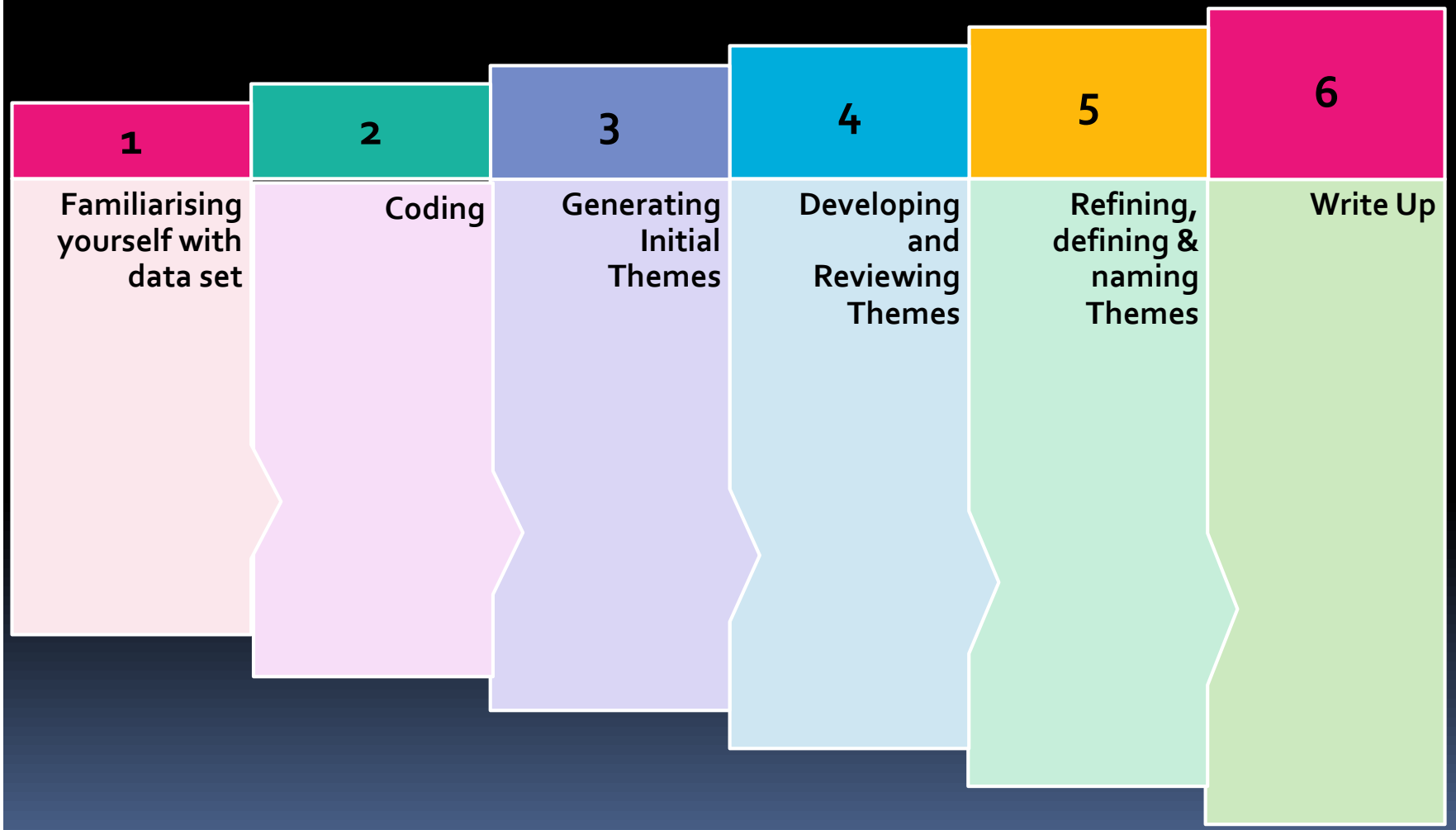
Code Your Data

- Recently Used Code
- Code highlighted segment
- Code with a new code
- Code in-vivo
- Open coding
- Highlight coding
- Emoticode
- Undo code

THEMATIC ANALYSIS WITH MAXQDA

- *Many different TA approaches*
- *Popularised by Braun & Clarke (2006)*
- *Latest Book Braun & Clarke (2021)*
- *There are wide range of approaches within "Thematic Analysis"*

Six Steps of Reflexive Thematic Analysis



Phase1: Familiarising yourself with the Data Set

Here, you become deeply & intimately familiar with the content of your data set through a process of immersion practically this involves Reading & re-reading your and if working with transcripts of data audio data, listening to the recording at-least once and making brief notes about any analytic ideas or insights you may have, both related to each data item & the dataset as a whole.

(Braun & Clarke, 2021:35)

How can MAXQDA Help?

Immersion

- Working at the Data level
- Can happen Slow, low or fast & High

1. Reading & Re-reading Slow

- Highlight (before import or after)

2. Reading & Re-reading (Fast, High)

- Max Dictio Tool
  - Word Frequency
  - Word Combination
  - Interactive Word Tree

Making Brief Notes About Analytic Ideas

1.Related to each data item

- *Paraphrasing,*
- *Comments*

2. Relates the data set as a whole

- *Memos*

3.Visualising those notes

- *At the data level (Margin View)*
- *Gathered together (via codes)*
- *Exporting*

Phase2: Coding

Here, you work systematically through your data set in affine-grained way. You identify segments of data that appear potentially interesting, relevant or meaningful or your research question, and apply xxxx, analytically, meaningful description (code labels) to them. Your focus is specific, and detailed, with coding aimed at capturing single meanings or concepts. In reflexive TA, you can Code arrange levels-from the very explicit or surface meaning (we and others this reducing content, its also about capturing your analytic take on the data. You code the entire data set, systematically & thoroughly when done, you collate your code labels and then compile the relevant segments of data each code.

(Braun & Clarke, 2021:35)

Coding

1. Building on Phase 1

- The continuation not separate
- Categorise paraphrases

2. And or

- Code separately from paraphrasing

3. Capture Analytic meaning

- This is beyond code labels
- Colour, sets, hierarchy, memos

4. Collate Code labels

- To compile data segments
- This happens as part of the coding process when working in MAXQDA doesn't need to be separate step. This allows for continual retrieval/review/recoding/reain

Phase3: Generating Initial Themes

Here, aim to start identify shared meaning across data sets. You compile cluster codes that seem to share a core idea or concept, and which might provide meaningful answer to your research question. Although we originally identified this phase as searching for themes, that language can be misleading. The process is not like an excavation, where meaning is lying there, waiting to be uncovered and discovered through the right research technique. Rather, theme development is an active process, theme are constructed by the researcher, based around data, the research question and researchers knowledge and insights where codes typically capture a specific or particular meaning, themes describe a broader, shared meaning, themes describe a broader, shared meaning. Once you've, identified potential or candidate themes that you feel capture the data & address your research question, you collate all coded relevant to each candidate theme.

(Braun & Clarke, 2021:35)

Phase 3: Generating Initial Themes

1. Identify shared patterned Meaning Across data Set
   - Sub-code statistics
   - Code matrix browser,
   - Code relations browser,
   - Crosstabs & Summary tables
2. Compile Cluster Codes
   - Coding hierarchies
   - Code sets
   - Maps
   - Creative coding
3. Collate all coded data relevant to each candidate
   - Happens, incrementally as you carryout earlier tasks

Phase4: Developing and Reviewing Themes

Here, your task is to assess the initial fit of your provisional candidate themes to the data, and the viability of all overall analysis, by going back to the full data set, Development and review involves checking that themes make sense in relation to both the coded extracts and then the full data set. Does each theme tell a convincing & compelling story about an important pattern of shared meaning related to the data set? Collectively, do the themes highlight the most important patterns across the data set in relation to your research question Radical revision is possible; indeed, its quite common. Certain Candidate themes may be collapsed together, one or more may be split into new theories, candidate theories may be retained; some or all may be discarded. You have to be prepare to let things go! In review, you need to think about the character of each individual theme-it, core focus or idea (the central organizing concept)- and its scope. You also need to start considering the relationship between the themes, and existing knowledge and or practice in your research field & the wider context of your research .

(Braun & Clarke, 2021:35)

Phase 4: Developing Reviewing Themes

1. Assess the Fit (check Themes "Make sense"

- Level of extracts & data sets
- Numerous Retrieval Options
- Always connected to source context

2. Radical Revision

- Smart Coding
- Creative Coding
- Sets

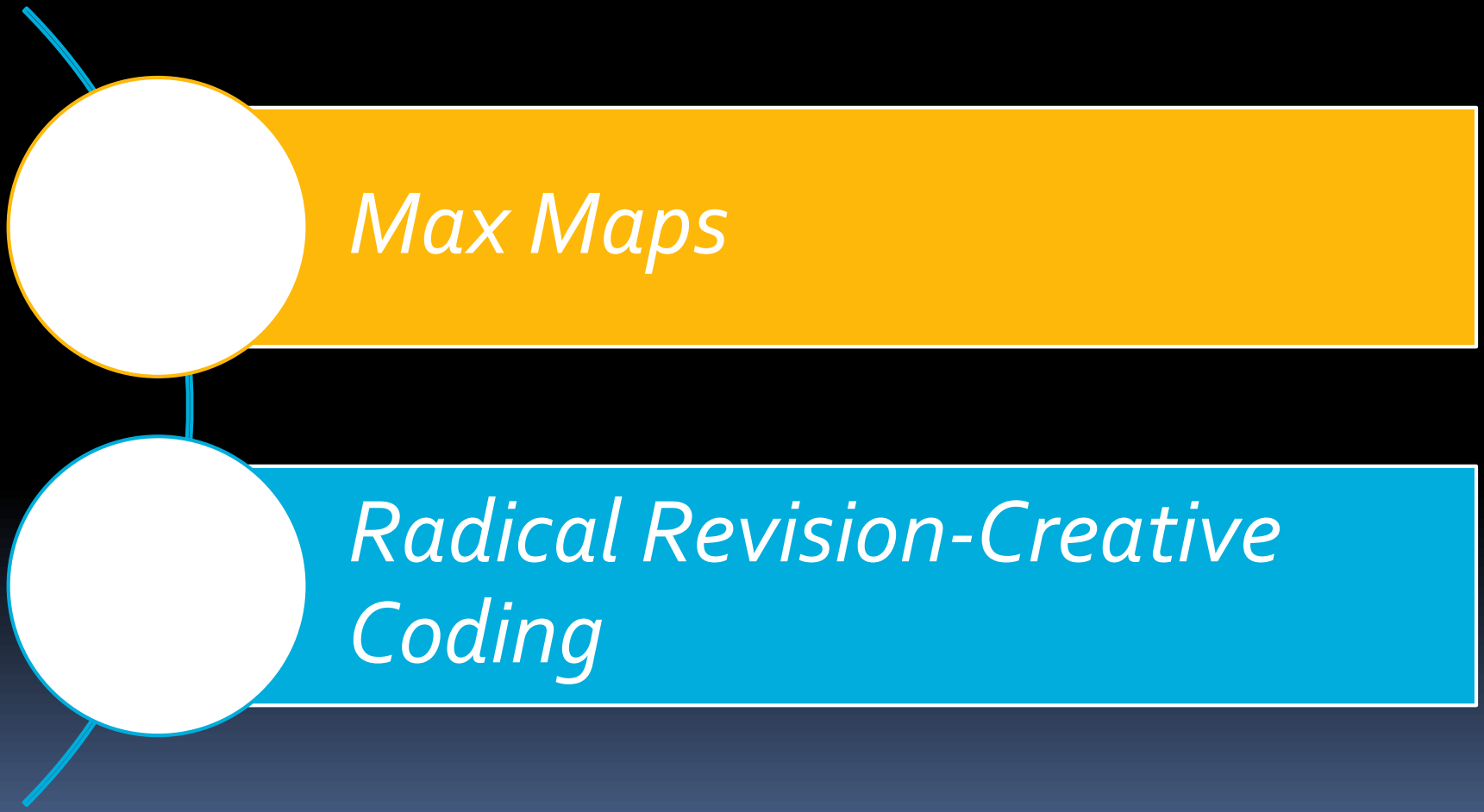
3. Consider Relationship between themes

- Code matrix
- Relationship Browser
- crosstabs

4. Compare with existing Knowledge

- MAXQDA Projects as container for all project materials eg literature etc

Developing and Reviewing Themes



Phase5: Refining, Defining & Naming Theories

Here, you fine tune your analysis-ensuring that each theme is clearly demarcated, and its built around a strong core concept or essence. Ask you self what story does this theme tell? And how does this theme fit into my overall story about the data? Key activities in this phase involve writing a brief synopsis of each phase, you still need to be prepared to let the analysis go, if your refining process indicates more development is needed

(Braun & Clarke, 2021:36)

Application of MAXQDA

1. Ensure themes are clearly demarcated
   - Maps
   - Coding Queries
2. Write Brief Synopsis
   - Memos
   - Summaries
3. Precise Informative Name for @ Theme
   - Code Names
   - Memos

Phase6: Writing Up

Writing is an integral phase of analytic process for TA, as it is for many qualitative analytic approaches, so you start writing early on. In reflexive TA, formal writing often starts from phase 3, the more informal (just for you) writing you do from the start of the process familiarization notes & reflexive formalizing-can feed into the more formal writing. On writing up, you fineness and finish the writing process. Ultimately, you are writing to write together your analytic narrative & compelling, vivid data extracts/ to tell your reader a coherent and persuasive story about the data set that address your research question. Final writing up also involves producing the introduction, method & conclusion section of a research report. An a lot of editing. Never underestimate the importance & value of editing

(Braun & Clarke, 2021:36)

Phase 6: Writing Up

1. Writing Integrated Spaces

- Paraphrases
- Comments
- Memos
- Project log summaries

2. Dynamic (Grounded Visual)

- Representation of qualitative data & Themes
- Maps & models- that include coded segments
- Quote matrices, Charts (e.g. Heat maps, Illustrating theme saturation)

3. Save Evidence

- Export anything in many formats e.g. Version of code book as it develop
- QTT too (Question themes-theories)

4. Export Selected Project Elements

- Smart Publisher

Thank you