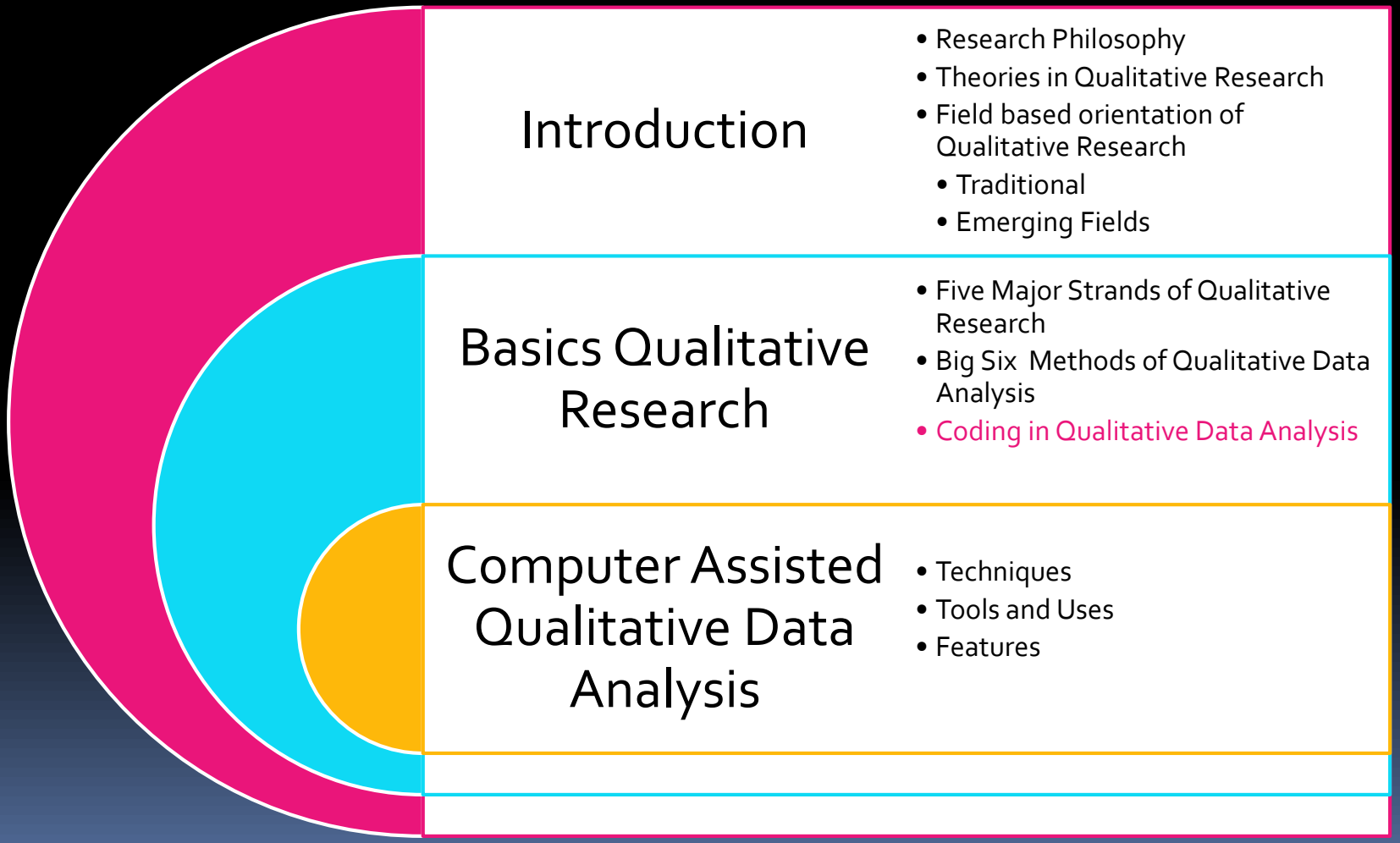
CODING IN QUALITATIVE DATA ANALYSIS

OUTLINE OF THE DISCUSSION



DATA ANALYSIS

Content Analysis

Narrative Analysis

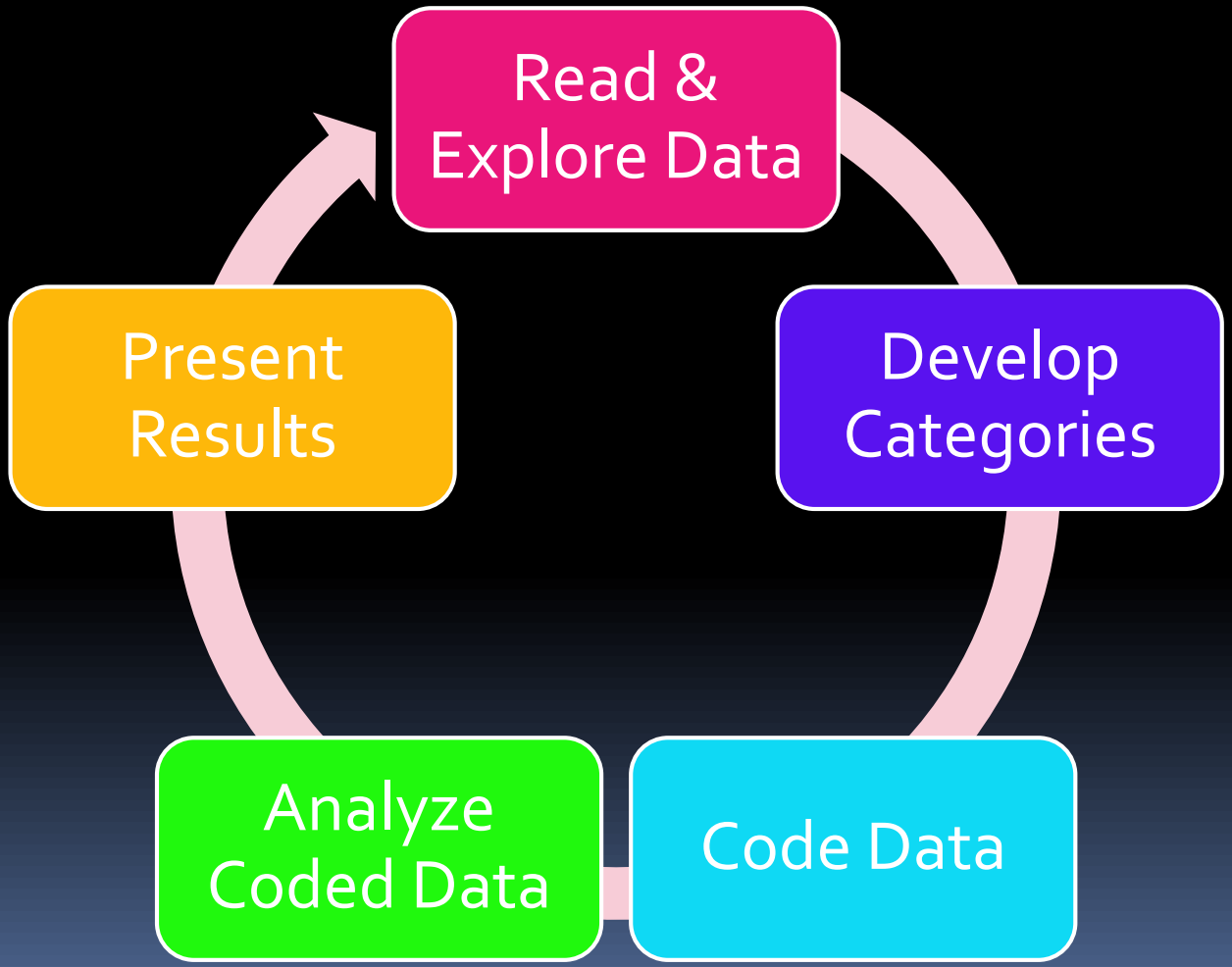
Discourse Analysis

Thematic Analysis

Grounded Theory

Interpretive Phenomenological Approach (IPA)

BASIC DATA ANALYSIS OF QUALITATIVE DATA



INTRODUCTION

This is a process of creating and assigning meaning/codes to categorize data extracts

- Its common to notice some themes and patterns emerging during the coding
- 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
- Coding is the foundation of high quality analysis which makes it an essential first step

JUSTIFICATION

- The different types of coding types help researchers analyze and understand different aspects of the data, from the participants' language to the structural patterns and values embedded in the data.
- Combination of the different coding types facilitates gaining a richer understanding of the phenomena being studied
- These coding types help researchers approach data analysis with different lenses, ensuring a rich and nuanced understanding of the data

TYPES OF CODING

1	2	3
• Inductive Coding • Deductive Coding • Initial coding	• Sensitizing • Emotive • value • In vivo Coding • Process Coding • Open coding	• Descriptive Coding • Structural Coding • Value Coding • Analytical • Theoretical

INDUCTIVE VERSUS DEDUCTIVE CODING

Inductive coding

- the researcher works from the bottom from data to emerging patterns and themes from data

Deductive coding

- This is the reverse as the you start with set ideas either from theory, framework or literature review

Theory

- Inductive theory emerges from data while deductive theory guides coding process

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

SENSITIZING, VALUE AND EMOTIVE

1. Sensitizing coding

- Using codes to sensitize oneself to specific themes or issues.

2. Value coding

- Identifying and coding values, beliefs, and attitudes expressed in the data, exploring the normative and evaluative aspects.

3. Emotive coding

- Focusing on emotions and emotional tone in the data.

ANALYTICAL VERSUS THEORETICAL CODING

Analytical coding

- Focusing on the "how" and "why" of the data.

Theoretical coding

- Using pre-existing theoretical frameworks to code data

OPEN VERSUS IN VIVO CODING

1. Open coding

- This is where the researcher assigns codes to fragments of text, identifying concepts and themes openly.

2. In Vivo Coding

- Using participants' own words or phrases as codes.

OPEN CODING VERSUS CLOSED CODING

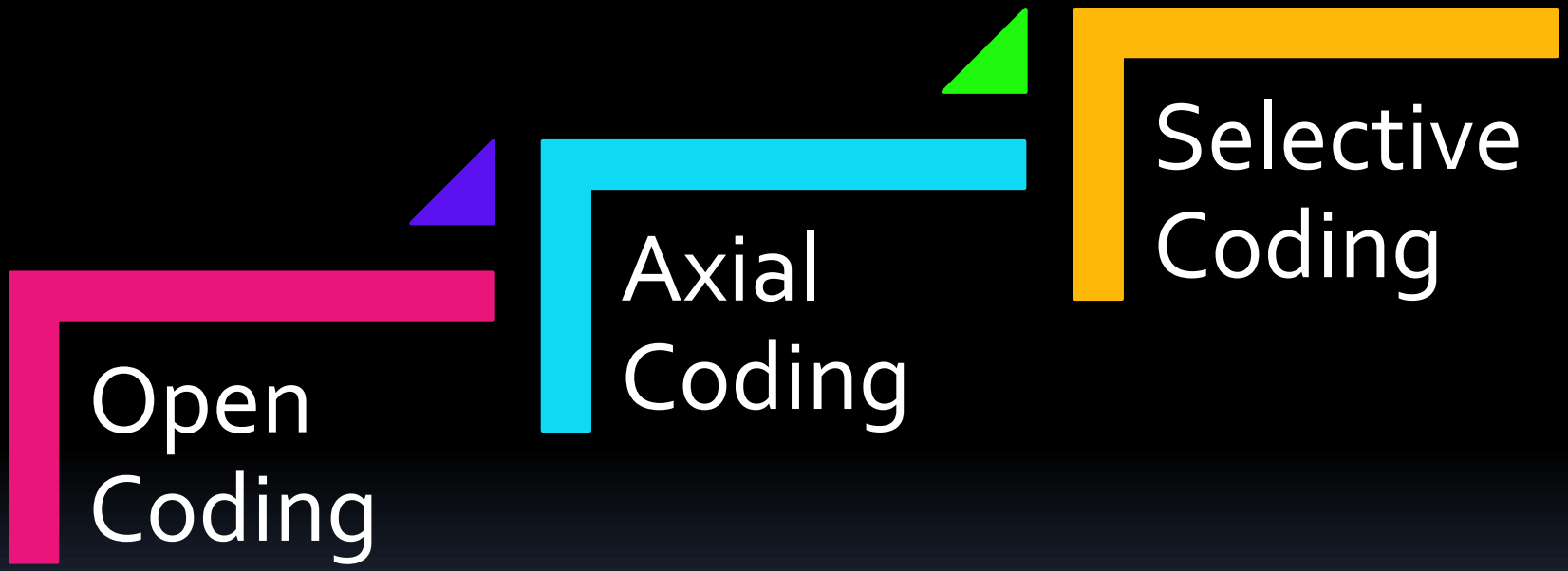
Open coding

- Open coding refers to the process of **generating initial codes without preconceived categories**, allowing for flexibility and emergence of themes.

Closed coding

- on the other hand, involves **assigning predefined categories to data**

GROUNDED THEORY PERSPECTIVE



GROUNDED CODING PERSPECTIVE

1. Open coding

- The initial stage of coding, where the researcher reads through the data and assigns codes to fragments of text, identifying initial concepts and themes.

2. Axial coding

- The second stage, where the researcher takes the initial codes and organizes them into categories and subcategories, identifying relationships between codes and starting to form a conceptual framework.

3. Selective coding

- The final stage, where the researcher selects the most relevant codes and categories, integrating them into a cohesive theory or conceptual framework, and refining the relationships between codes.

CODING DESCRIPTIONS

Process Coding

- Process coding, you use codes to communicate an action in the data
- Action based codes are codes that indicate a movement or a procedure e.g. running, swimming, facial expressions, singing a song etc

Descriptive Coding

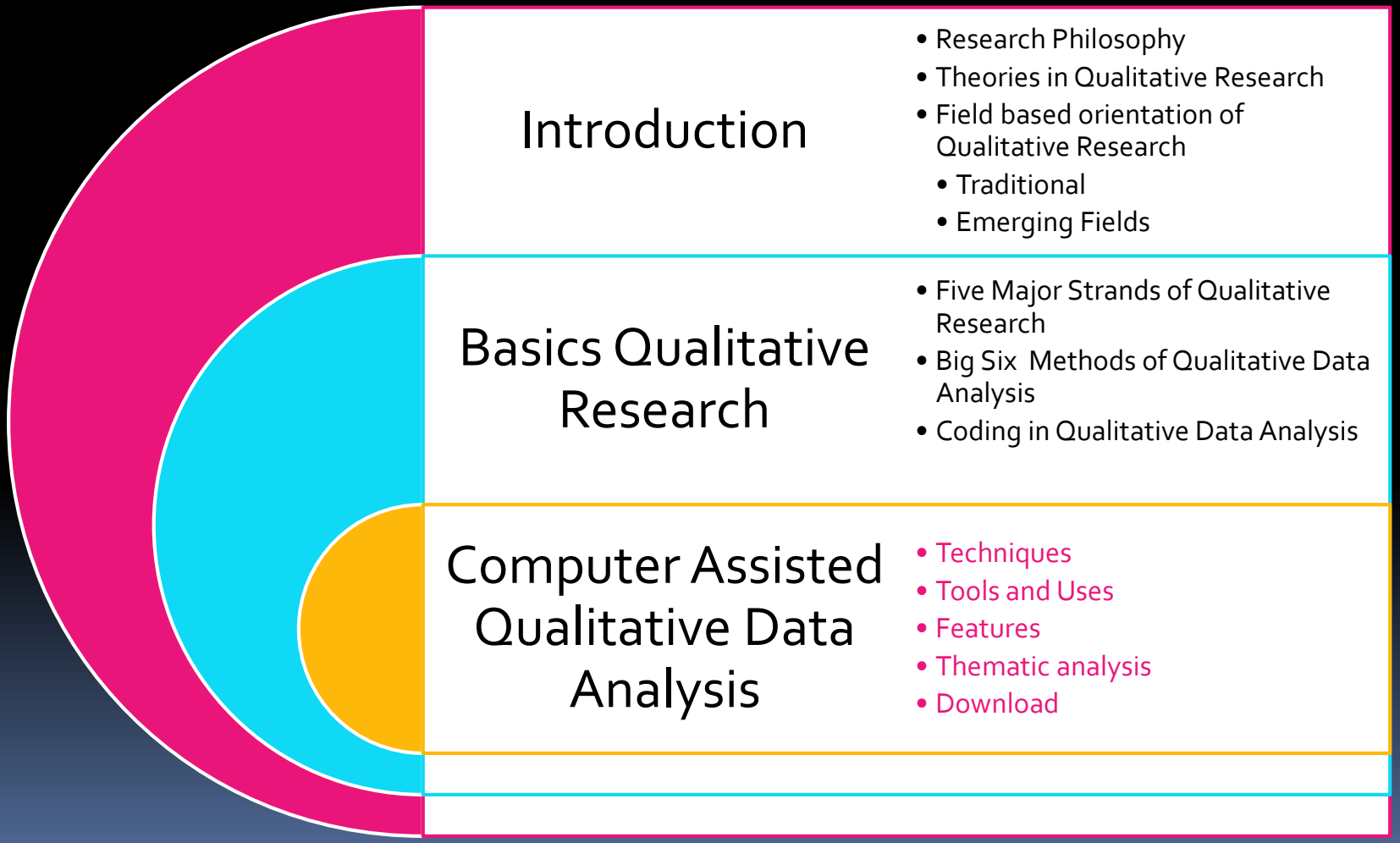
- This also regarded as topic, or attribute coding
- Descriptive codes are often in the form of a noun, and summarizes the topic of the data can be used video clips e.g. happiness

Structural Coding

- It enables you to take a large set of semi-structured data, and structure it into smaller pieces for further analysis.
- Coding could focus on labels such as hypotheses, literature review, methodology

COMPUTER ASSISTED QUALITATIVE DATA ANALYSIS SOFTWARE

OUTLINE OF THE DISCUSSION



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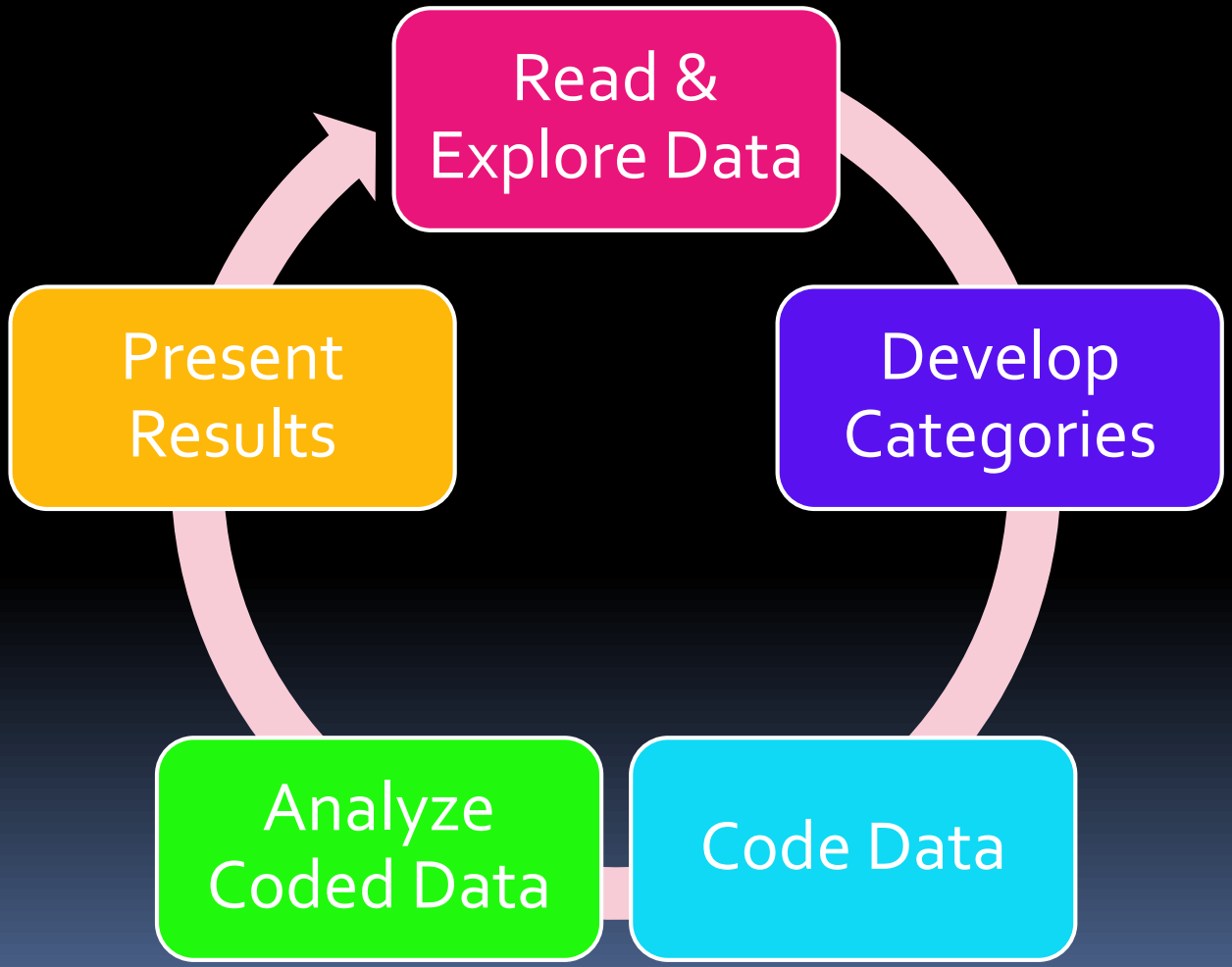
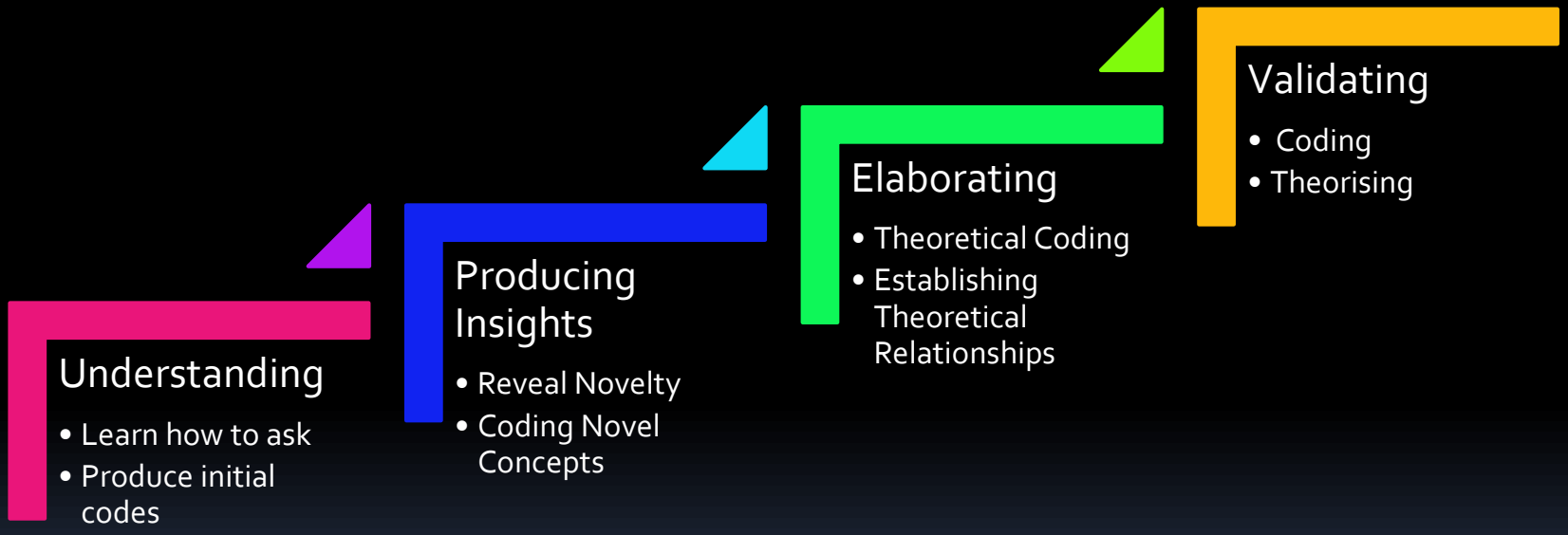


ROAD MAP TO QUALITATIVE DATA ANALYSIS



own home
alone / lonely
people around
When you move into your own home, you're alone. There is no bustle of people around the
miss company
background noise
house. I miss having someone to chat to when I get home. I put the TV or some music so
lonely
there's some background noise, the silence makes me feel so alone. Sometimes I will be sat
wasting time / inactive
watching trash TV and thinking I should be out doing something rather than watching this
doing
tired / depressed
rubbish. I read a lot but sometimes I am too tired and just want to veg out. But it's been good
unhealthy to be dependent
to move out of mum and dads as it's not healthy to rely on them as they won't last forever. I
independence
support
become independent and made my own decisions. It's good they still there when I need them.
distance
conflict
It's good to have some distance as when I was at home I was arguing a lot with my dad and
moving out
that was made me decide it was time to go.

COMPUTER ASSISTED QUALITATIVE DATA ANALYSIS SOFWARE

- Computer Aided Qualitative Data Analysis Software (CAQDAS) A database with some powerful qualitative analysis tools CAQDAS searches, organizes, categorizes, and annotates textual and visual data.
- Programs of this type usually support theory-building through the visualization of relationships between data and/or theoretical constructs

own home
alone / lonely
people around
When you move into your own home, you're alone. There is no bustle of people around the
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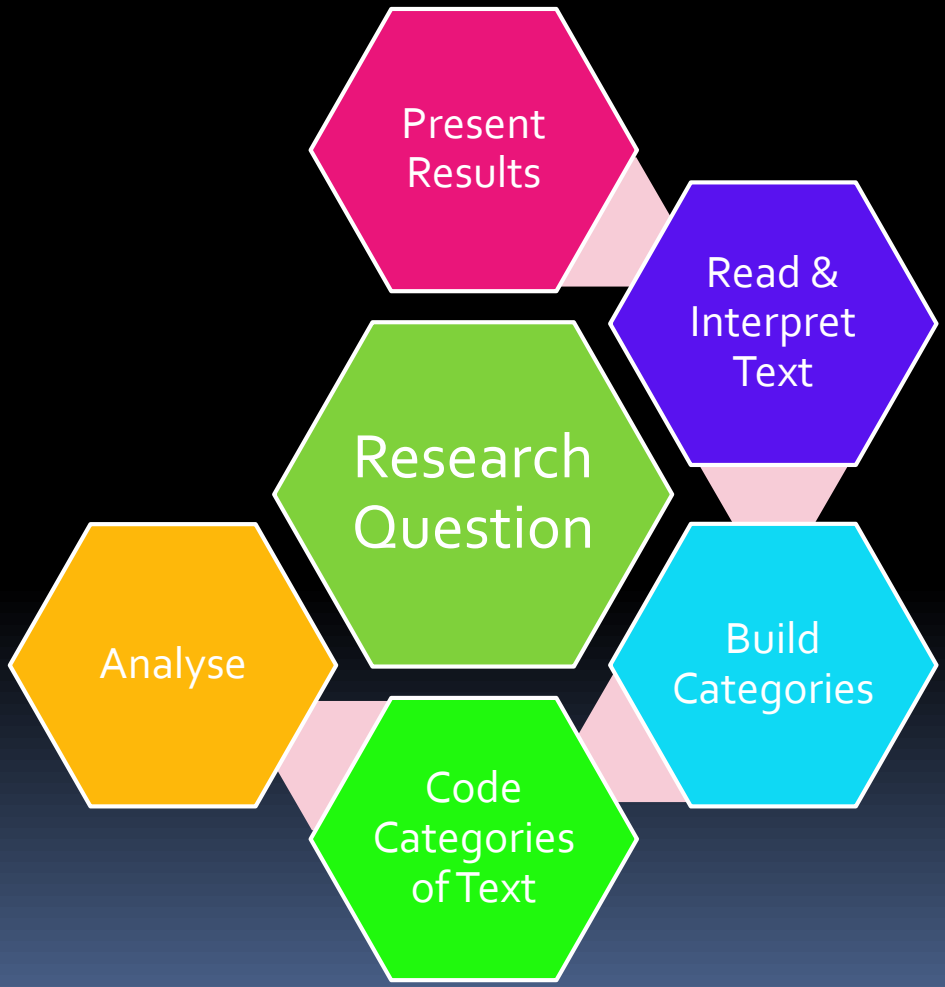
CAQDAS


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

CAQDAS

- Nvivo
- Atlas.ti
- MAXQDA
- QDA Miner
- Dedoose
- Hyper RESE
- RQDA
- GNU Generation

CAQDAS CONSIDERATIONS

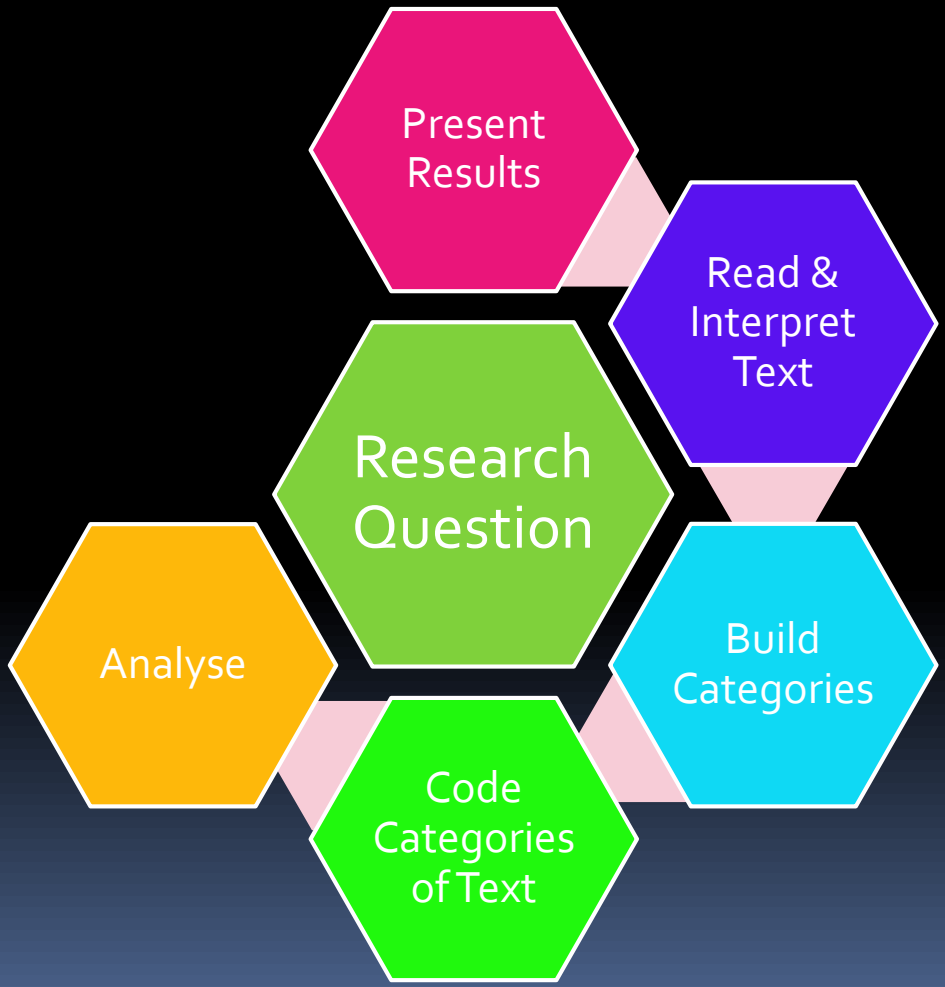
1. License type & cost
2. Data security & storage
3. Support
4. Trials
5. Types of data
6. Use of AI
7. Transcription feature
8. Compatibility
9. Inter-coder functionality
10. Export formats
11. Comfort and familiarity
12. Expectations of a committee
13. Coding & analysis function

INTRODUCTION TO MAXQDA

INTRODUCTION

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

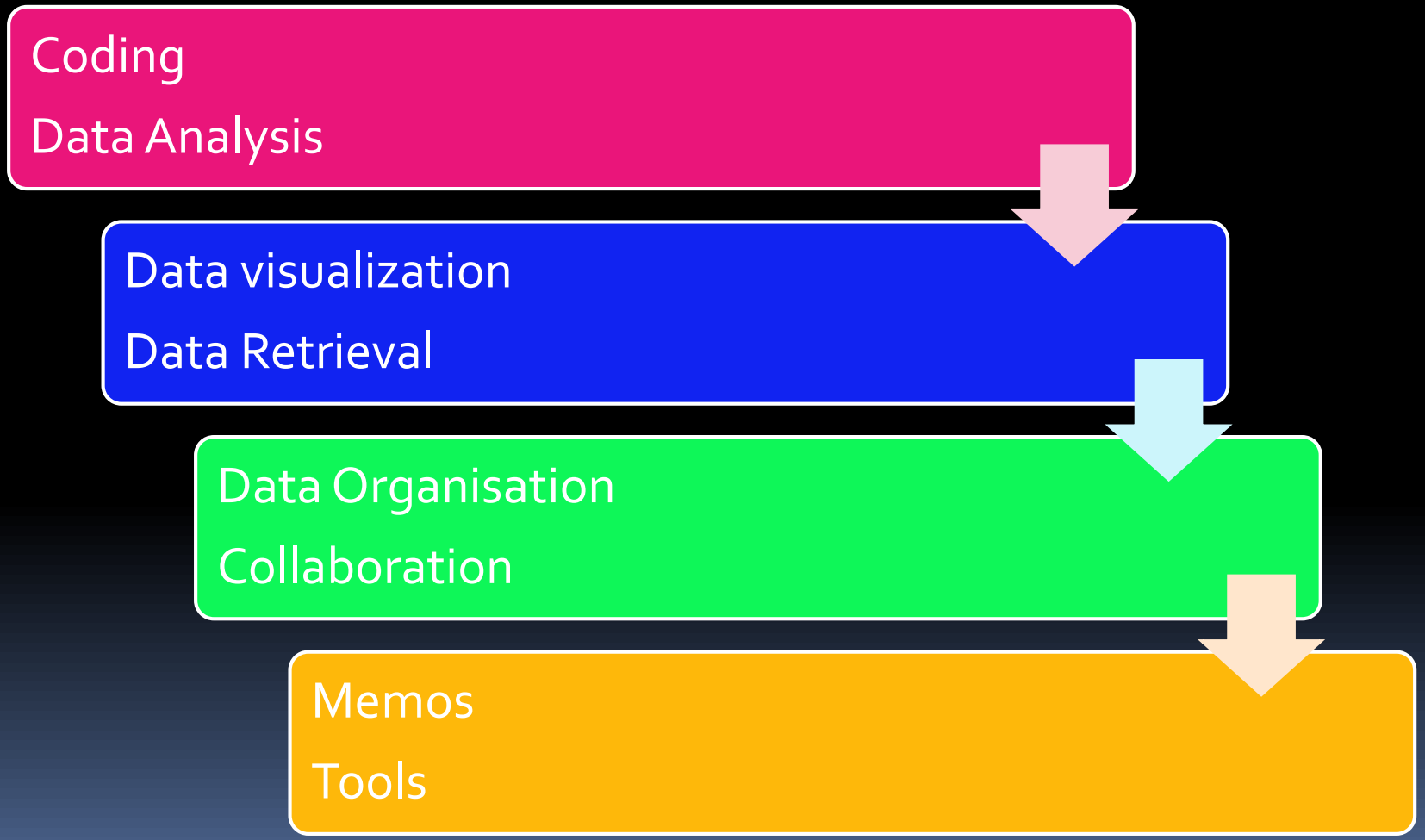
MAXQDA


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

APPROACHES

- MAXQDA is a qualitative data analysis software that offers various techniques for coding, analyzing, and visualizing data.
- MAXQDA offers a range of techniques to support qualitative data analysis, from coding and analysis to visualization and collaboration.
- By leveraging these techniques, researchers can systematically examine and interpret their data, uncovering insights and meaning in their qualitative data.
- By using these options, you can efficiently manage your qualitative data analysis projects and collaborate with your team in MAXQDA Team Cloud

MAXQDA


Coding
Data Analysis
Data visualization
Data Retrieval
Data Organisation
Collaboration
Memos
Tools

Techniques

1. Coding

- Open coding
- Axial coding
- Selective coding

2. Data Analysis

- Code frequency analysis
- Code co-occurrence analysis
- Code sequence analysis

3. Data Visualization

- Code maps
- Code matrices
- Memoing

Techniques

4. Data Retrieval

- **Code Retrieval**
- **Data Search**

5. Data Organization:

- Code systems
- Document systems

Techniques

6. Collaboration:

- **Team collaboration**: Work with multiple researchers on a project
- **User management**: Control access and permissions for team members

7. Data Import/Export

- **Import data** from various sources (e.g., text files, spreadsheets)
- **Export data** and results for further analysis or reporting

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

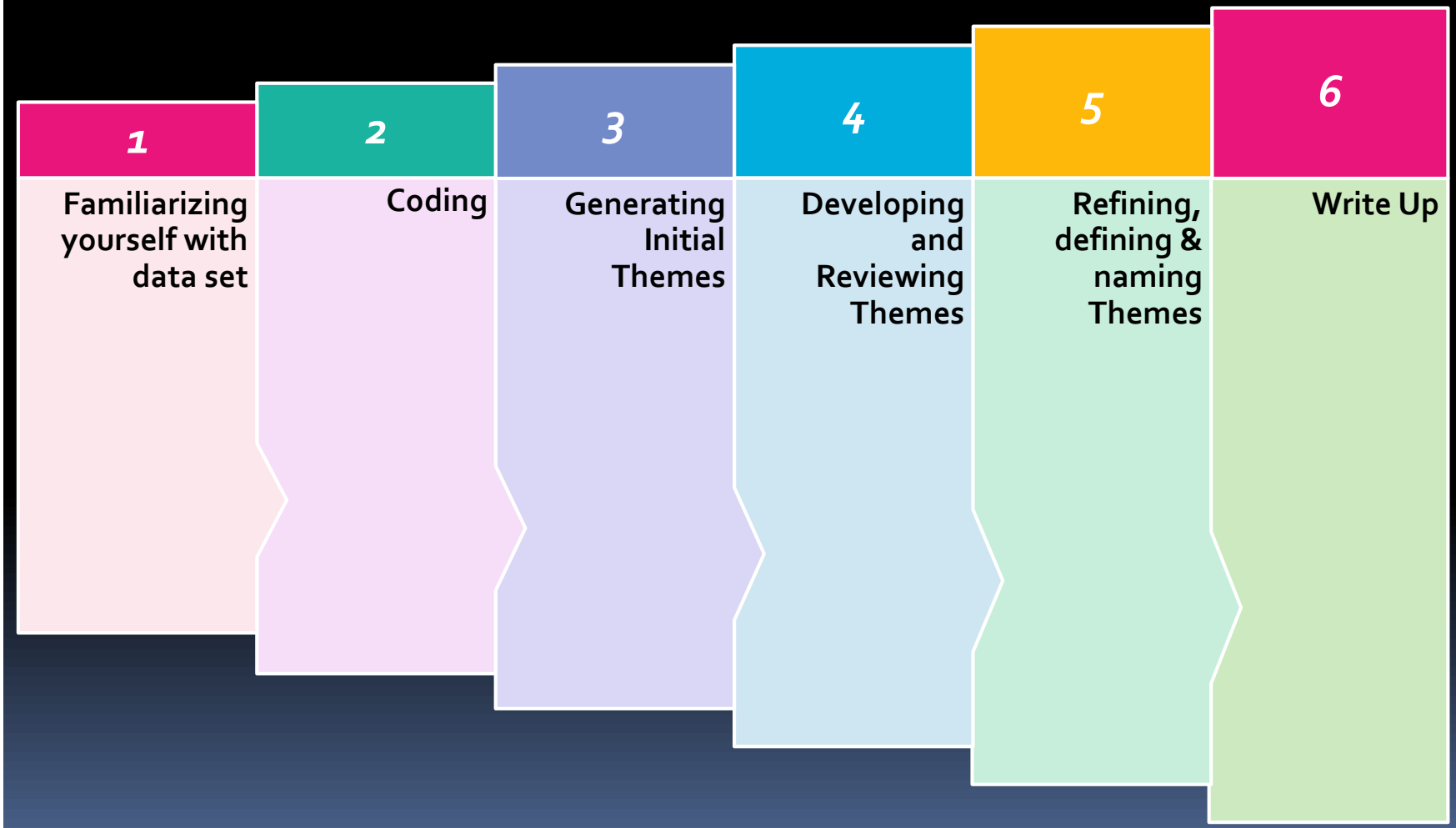
- What is a memo? Memos serve to create notes and records to attach them to texts, text segments, document groups, images, audio or video files, and even codes just like you would do with “real” sticky notes.

THEMATIC ANALYSIS WITH MAXQDA

INTRODUCTION

- Many different TA approaches
- Popularized 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)

USING MAXQDA

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, 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

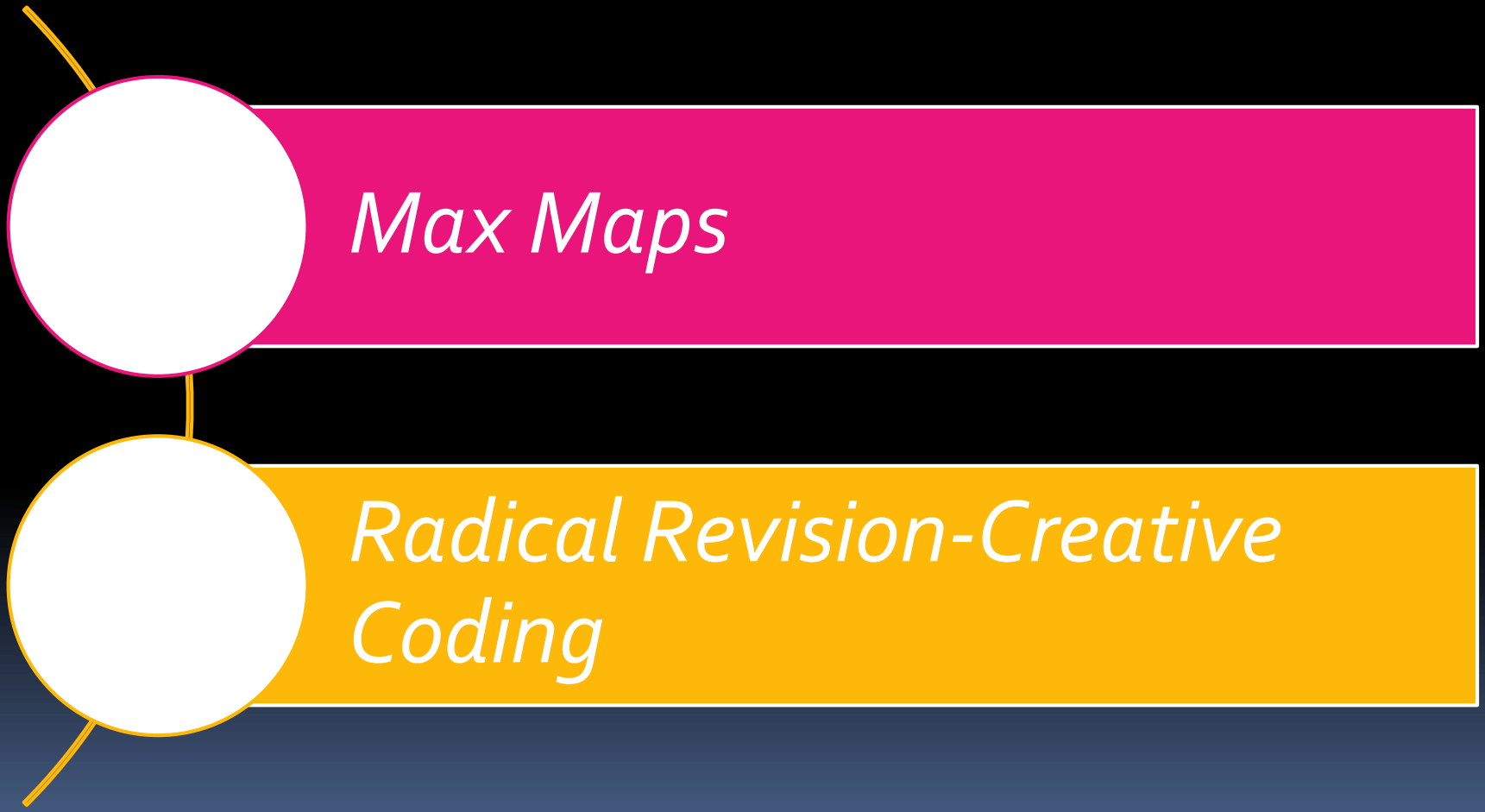
3. Consider Relationship between themes

- 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