QUALITATIVE ANALYSIS

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Qualitative analysis / Raisa Laaksonen

24/09/2019

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CONFLICT OF INTEREST

There are no conflicts of interest to declare

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HOW TO ANALYSE QUALITATIVE DATA?

FROM RAW DATA TO FINDINGS

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Adjunct Professor in Clinical Pharmacy

LEARNING OBJECTIVES

To describe and compare different approaches to qualitative analysis

To select an appropriate method for qualitative analysis

To describe different ways in which findings can be reported
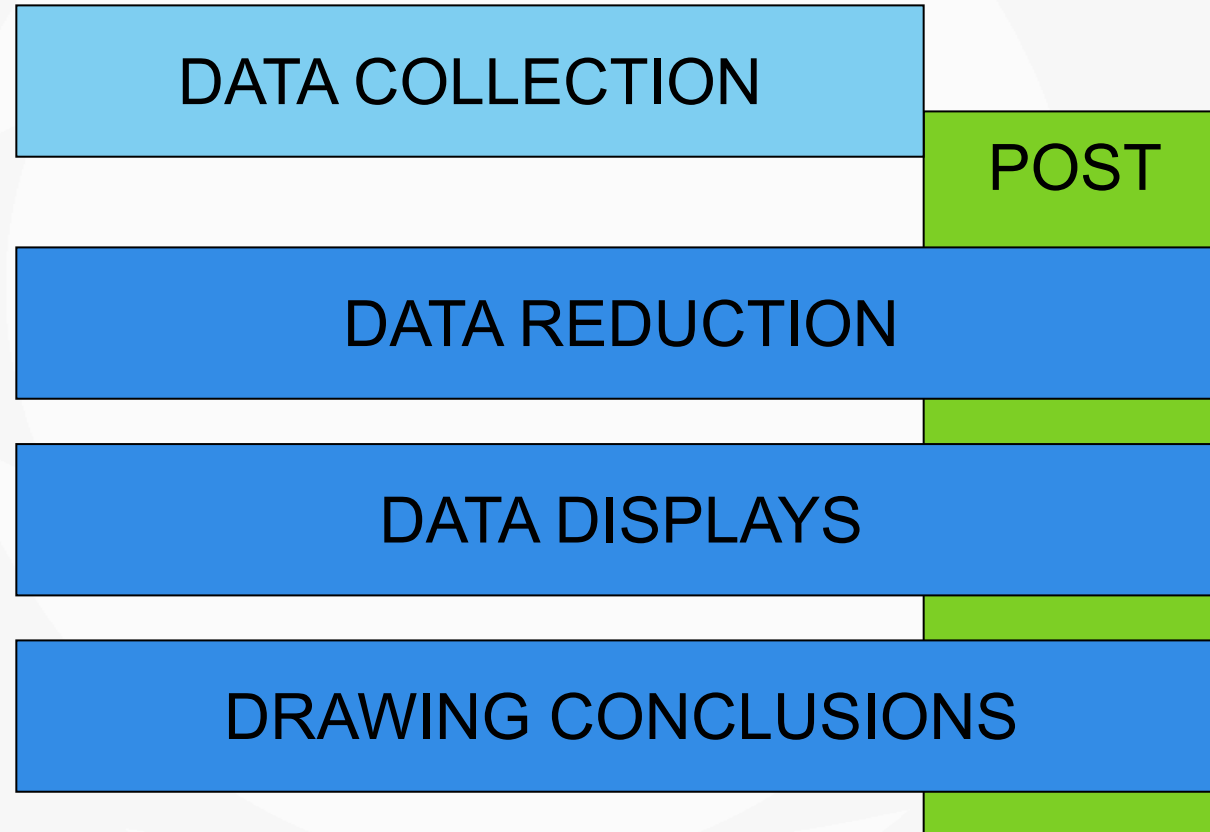
QUALITATIVE DATA

- Research question(s), Aims and Objectives

- Topic guide

- Data collection → Raw data → Analysis
  - Interviews, Focus groups, Observations → Transcripts of audio and video recordings
  - Observations, Interviews, Focus groups → Fieldnotes
  - Policies, Guidelines, Reports, Archived data → Documents
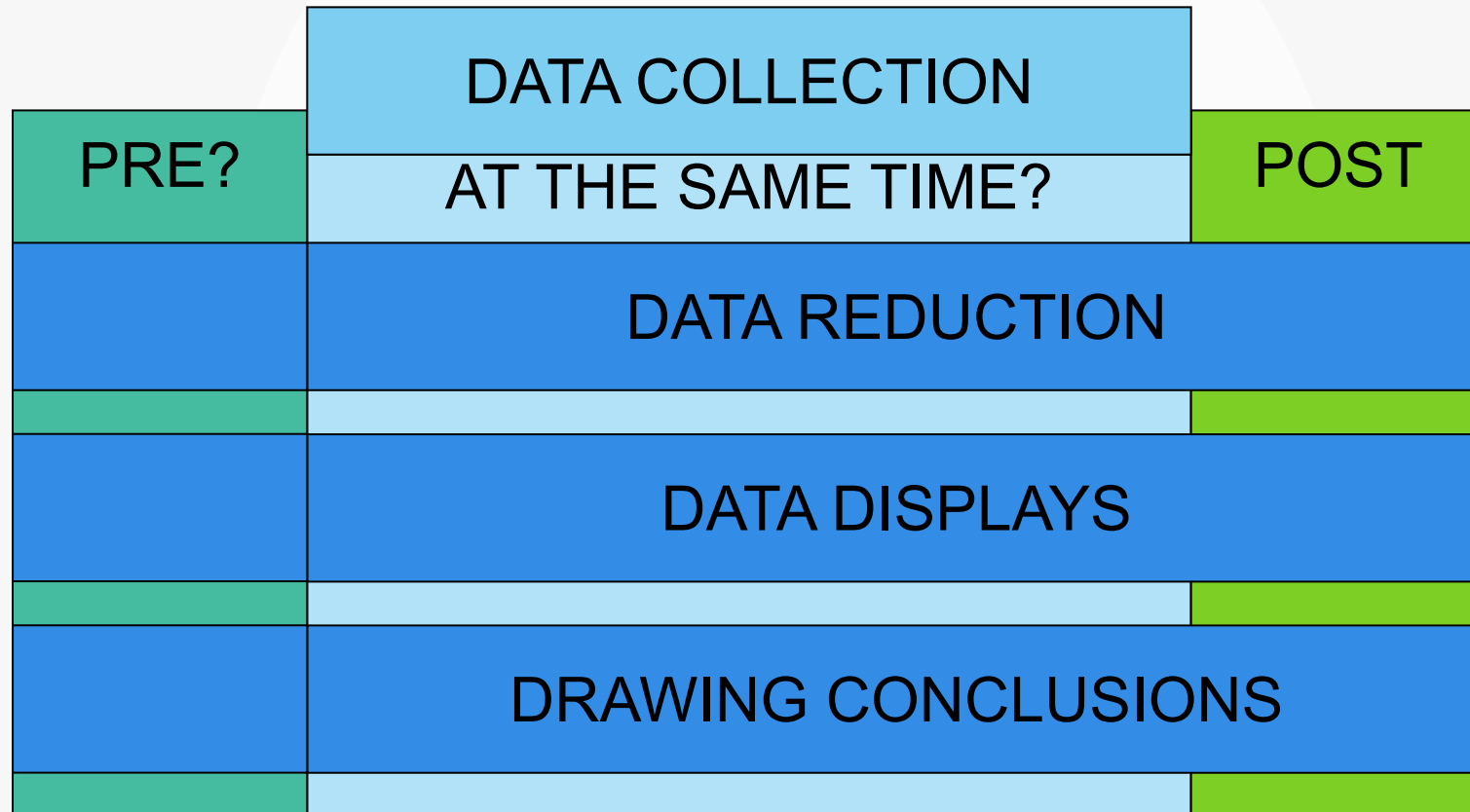 - Questionnaires with open questions, Notes → Documents
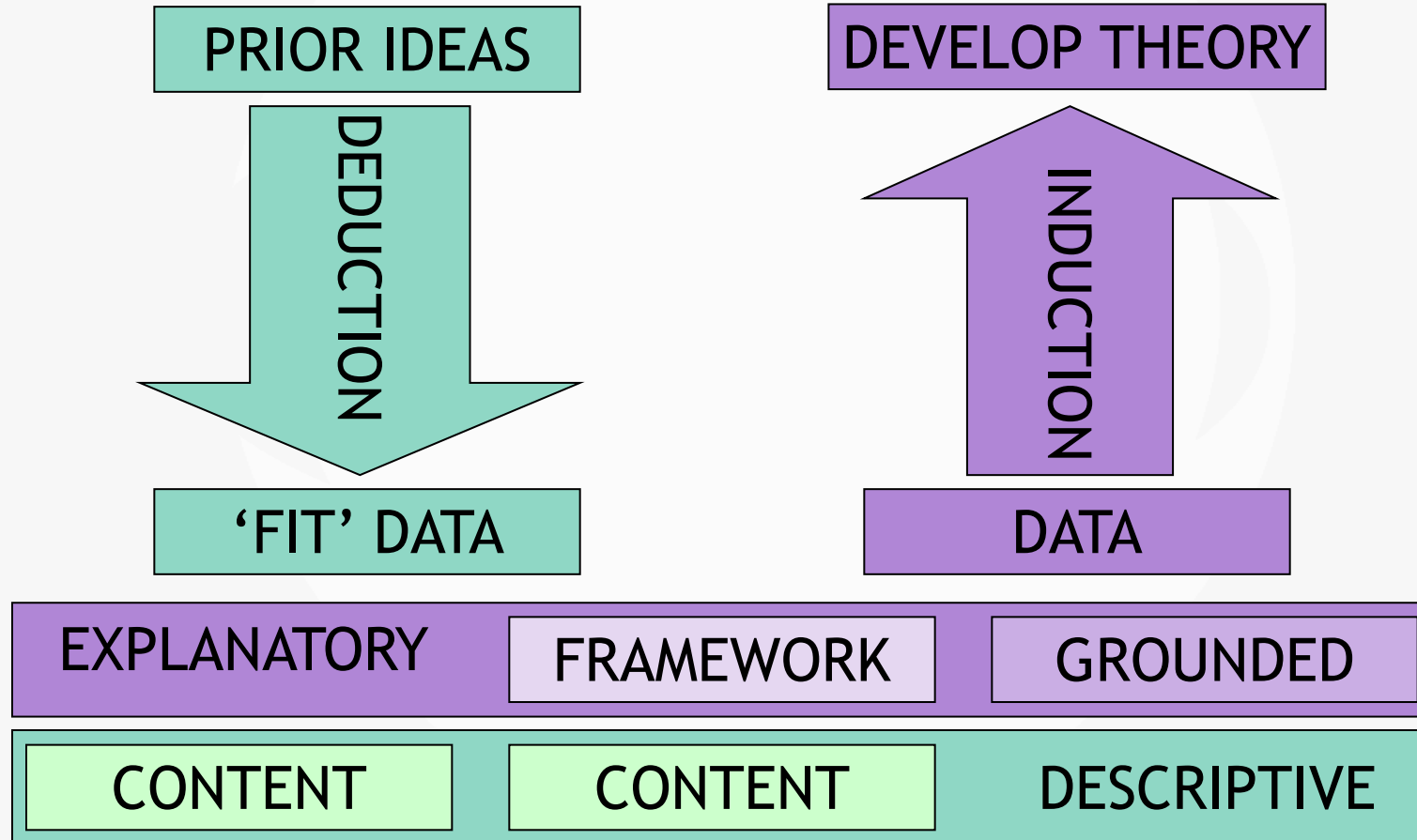 - Internet data

ANALYTICAL PROCESSES

DATA COLLECTION

POST

DATA REDUCTION

DATA DISPLAYS

DRAWING CONCLUSIONS

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ANALYTICAL PROCESSES

PRE?	DATA COLLECTION	POST
	AT THE SAME TIME?	
	DATA REDUCTION	
	DATA DISPLAYS	
	DRAWING CONCLUSIONS	

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ANALYTICAL APPROACHES

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SELECTED ANALYTICAL APPROACHES

PRIOR IDEAS

DEDUCTION

DEVELOP THEORY

INDUCTION

'FIT' DATA

DATA

EXPLANATORY	FRAMEWORK	GROUNDED
CONTENT	CONTENT	DESCRIPTIVE

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CONTENT ANALYSIS 1

- Read data to obtain a sense of a whole

- ***Deductive or directed analysis***: Identify key concepts as initial coding categories/labels from literature

  - Use codes: highlight parts of text that seem to fit the categories derived from the literature → data that does not 'fit' will be analysed later to determine if they represent a new category or a subcategory of an existing code

  - Show codes with descriptions

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CONTENT ANALYSIS 2

- Read data to obtain a sense of a whole

- *Inductive analysis*: Identify categories/labels for coding from the data

  - Derive codes: highlight parts of text that seem to capture key thoughts & make notes of first impressions, leading to merging the thoughts into codes

  - Annotate text with codes

  - Sort codes into meaningful categories & clusters

FRAMEWORK ANALYSIS

- Read data repeatedly to obtain a sense of a whole

- *Inductive analysis*: Initial codes emerge from the data
  - Derive codes: highlight parts of text that seem to capture key thoughts & make notes of first impressions, leading to merging the thoughts into codes
  - Annotate text with codes
  - Sort codes into meaningful categories & clusters by using a framework
  - Interpret the findings

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GROUNDED APPROACH 1

- Read data repeatedly to obtain a sense of a whole

- *Inductive analysis*: Codes emerge from the data & are refined during an iterative analysis process → identify and index codes & categories

  - Descriptive coding: label transcript segments

  - Interpretive coding: explain the meaning of the segments & make connections between a category and its sub-categories

    – Check & compare data in each category with others in 'constant comparison'

    – Add further categories if needed

GROUNDED APPROACH 2

- Thematic / refining coding: arrange coding in patterns and explaining themes

- Use 'deviant case analysis' to specifically seek out examples of categories which do not fit an emerging theory → modify theory

- Comparative coding: arrange themes in clusters which are compared & contrasted to create an overall theory → modify theory

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CODING/LABELLING

Part of an interview transcript

Q1B RL: Is that also what motivates you to take part in (CPD)? ¶

¶

X: It does now, yes. I used to work in a store that was very, very busy and you didn't have time to stop or to think or to reflect on anything and all my CPD was done at home from the CPPE packages whereas now I am in a store where I have got time to stop and reflect. I have time to give, to devote to the patients and there are areas that I need to know more about. Plus when I went to the University in the old days most of the things we use nowadays weren't even available, we didn't, didn't know anything about them, so keeping abreast with new things and new developments I think is essential. ¶

¶

[...] ¶

Q8 RL: What kind of effect CPD could have on in your life or already has? ¶

X: It's made me much more confident. I am never not confident, but I think it it's given me a lot more confidence in, in advising people and also with the students. I enjoy my work with the pre-reg students. I've been a few years without a student and suddenly one turned up in January and he transferred from central London and we've had great fun since January with him. It's been fun to teach and I have always enjoyed doing that. So it's I guess it's parting on my knowledge and expertise and helping out. That's what I was doing all day yesterday working with a whole group of students I enjoyed it much. ¶

¶

← Question

← Segment

← Question

← Segment

Dr Raisa Laaksonen
Satis: has time to reflect on learning and to devote to patients.'

Initial code: Satis(faction) or job/career satisfaction
Interpretation of what the interviewee talks about → creating sub-codes or categories and for later analysis

Raisa Laaksonen
Satis: teaching, supporting sharing knowledge and expertise pre-reg students¶

CODING/LABELLING

Examples of all the coded segments from all the interview transcripts

77 → (2·6·13)·/PD/what·is·CPD/cycle¶

← Code

Document·'B1004A',·1·passages,·411·characters.¶
Section·21,·Paragraph·117,·411·characters.¶
Skills·that·I·need?·That·was·more·on·comparison·and·that·is·probably·the·only·area·of·that·I·feel·not·quite·comfortable·with,·but·I·think·that·I·am·at·the·beginning·of·that·stage·and·I·am·beginning·to·develop·that·skill·a·little·bit·better.·I·am·getting·more·information·and·to·work·with·that·so·I·am,·so·I'm,·I·feel·"that·is·an·area·that·needs·developing"·and·it's·already·been·addressed.·I·am·happy·with·that.¶

Document·'B1005A',·5·passages,·1899·characters.¶
Section·1,·Paragraph·5,·485·characters.¶
Basically·it's·just·identifying·gaps·in·your·own·knowledge·and·in·your·own,·things·that·you·find·working·from·day-to-day,·er,·and·then·setting·out·goals·to·achieve·those·sort·of·like·gaps·or·to·fill·those·gaps·and·then·sort·of·reassessing·what·needs·to·be·done·after·you've·done·it·as·well.·So·it's·like·a,·more·like·a·cycle·and·then·just·looking·back·and·seeing·if·there's·anything·else·that·you·need·to·do·or·just·reassessing·your·what·objectives·are·again·and·trying·to·fill·those.·¶

Section·8,·Paragraph·33,·221·characters.¶
That's·more·continuing·education·rather·than·CPD·because·you·have·not·identified·it·as·a·need·before·you·read·the·article·it's·more·the·other·way·around.·So,·it·would·be·more·like·continuing·education·rather·than·the·CPD.¶

Section·10,·Paragraph·41,·166·characters.¶
And,·also·with·Boot's·we·have·a·continuing·professional·development·folder·where·we·follow·up·our·own·development·plan,·as·well,·that·will·be·an·addition·to·that,·so.¶

Section·13,·Paragraph·53,·481·characters.¶
I·think·continuing·professional·development·is,·the·development·is·more·of·an·individual·thing·because·you·identify·gaps·in·your·own·knowledge·and·those·gaps·might·be·different·for·different·people.·I'd·say·maybe·if·something·new·is·happening,·for·example·emergency·contraception,·then·that·could·be·part·of·it,·but·certainly·I·don't·think·the·whole·of·continuing·professional·development·should·be·set·down·by·someone,·I·think·that's·up·to·individuals·to·determine·for·themselves.¶

Section·35,·Paragraph·169,·546·characters.¶
We·have·like·a·development·plan·and·it's·just·sort·of,·it's·basically·a·folder·and·the·folder·has·a·lot·of·pieces·of·paper·that·got·sort·of·space·for·you·to·draw·your·CPD·cycles·for·different·areas.·And·it·gives·you·an·opportunity·to·sort·of·identify·your·objectives·and·put·down·how·you're·going·to·follow·them·through·and·what·results·you·expect·and·then·how·to·reassess·your·objectives,·to·see·if·you·have·met·them·or·whether·you·have·identified·any·more·objectives·that·need·to·be·met·and·then·continue·the·process·and·so·that's·quite·useful.·¶

Examples of how different interviewees talk differently about the same issues.

Some might talk pithily (B1004A) and perhaps only when asked about a certain issue.

Some might talk at length and might revisit the same issues (B1005A) later in the same interview or pick a certain topic before the question is posed.

ARRANGING CODES

Part of a coding frame used in the analysis of the interview with community pharmacists on their professional perceptions

Codes and sub-codes

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63
64    (2 6) /PD/what is CPD
65    (2 6 1) /PD/what is CPD/choice
66    (2 6 2) /PD/what is CPD/CE
67    (2 6 3) /PD/what is CPD/LLL
68    (2 6 4) /PD/what is CPD/learning needs
69    (2 6 5) /PD/what is CPD/confidence
70    (2 6 6) /PD/what is CPD/independency
71    (2 6 7) /PD/what is CPD/essential
72    (2 6 8) /PD/what is CPD/reflection
73    (2 6 9) /PD/what is CPD/planning
74    (2 6 10) /PD/what is CPD/experience
75    (2 6 11) /PD/what is CPD/competent
76    (2 6 12) /PD/what is CPD/evaluate
77    (2 6 13) /PD/what is CPD/cycle
78    (2 6 14) /PD/what is CPD/personal development
79
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Comment [R1]: Umbrella code, professional development, under which other coding relating to professional development is arranged.

Comment [R2]: Code for labelling all the perceptions of the interviewees of what they thought CPD is.

Comment [R3]: Code for labelling one particular issue related to what CPD is.

REFINING CODING: FRAMEWORK

Quotes from the interviews in the order they appear

Themes & codes

Coded segments from the transcripts arranged in a framework →sub-codes

Framework analysis: Involving students in giving feedback 2008
Collecting: departmental

Theme		A	B
Collecting Departmental	Staff-student liaison committee	26: then we also have staff student liaison meetings as well. So, those are the main	15: The collecting of student feedback is actually University policy and its all determined centrally through the quality assurance committee for the University is ultimately responsible for assuring quality assurance and they direct the development of the process of what we use for student feedback for the end of unit questionnaires, the end of course questionnaires, the requirements for student staff consultative committees all are driven centrally.
		42: Yeah, as I said we have a staff student liaison committee which meets regularly through out the year and each year have two elective representatives who attend that committee and they canvas the year for anything they want brought to each meeting and report on those and the meetings are attended by myself and the assessment officer and a couple of other members of staff and admin staff and we either respond directly or to the next meeting and the minutes of that again are circulated to the students. We also would do informal feedback so for instance if I had brought in a new part to my module perhaps of my visits or a new way of teaching something usually within a module we would actually ask for some immediate feedback on those issues so that we can make more immediate responses.	19: Through the student staff consultative committee would be where we would get issues that are local, particularly local, we would discuss at that level and then they would go through to a board of studies if there were issues that needed policy decisions making on them.
		46: We don't have any problem; generally they give us too much. Certainly the staff/student liaison committee is always a very frank exchange.	31: Those are the formal processes we follow, we are always happy to take feedback from students as individuals obviously particularly in Pharmacy Practice, we have a lot of contact with students and they are always welcome to come and talk to us, it is a general issue then they tend to go through the student staff consultative committee because it makes it a matter of record and then obviously it can be followed through as part of, every year we have to write an annual report on the operation of the school and part of that does require us to show what student feedback has been collected and what we have done as a result of that student feedback.

REFINING ANALYSIS

Framework analysis: Involving students in giving feedback 2008
Collecting feedback: locally

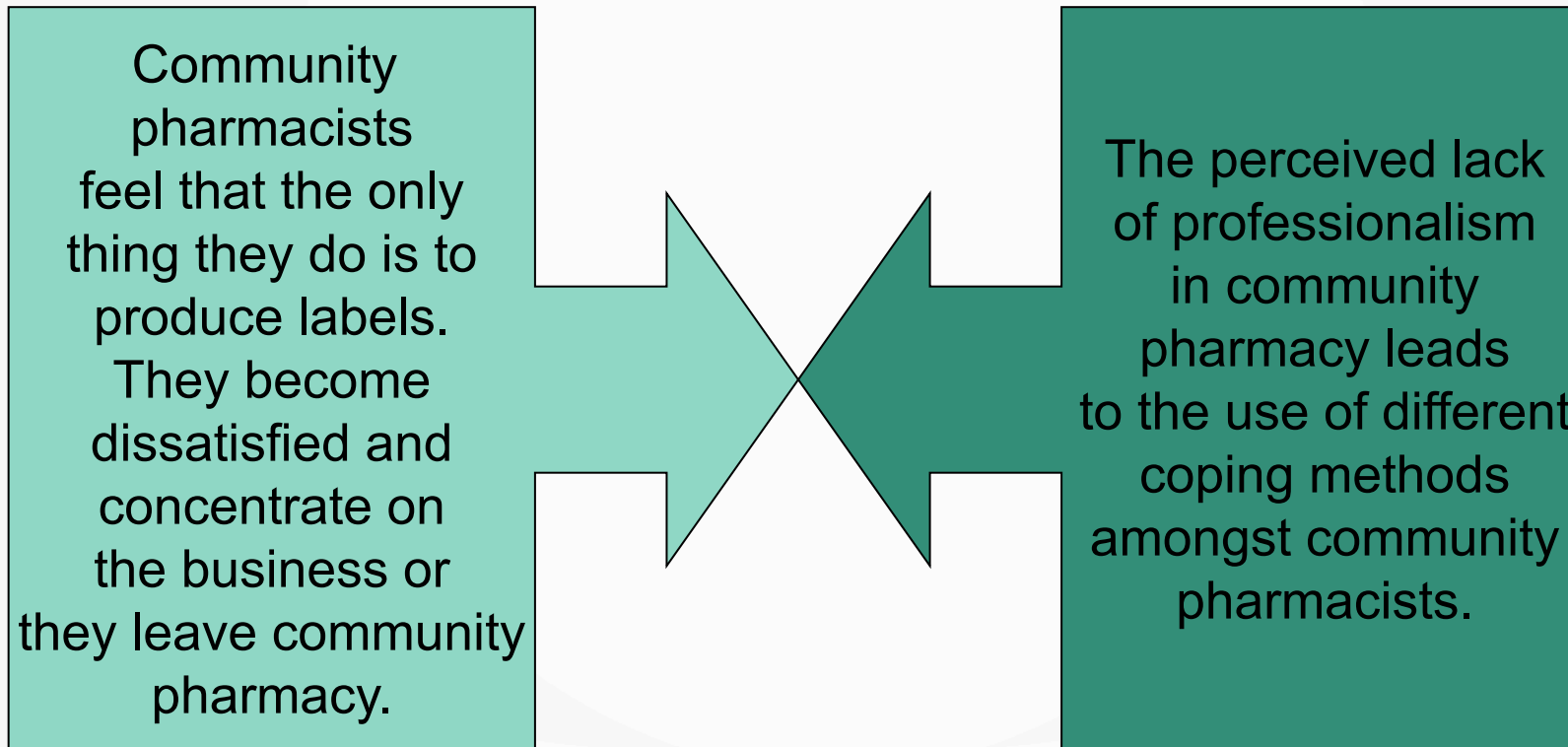| Theme		School A	School B
Collecting feedback locally: Describes the perceptions of the two Directors of Studies on how student feedback is collected locally in the two Schools of Pharmacy	**Staff-student committee:** Describes the perceptions of the two Directors of Studies on how student feedback is collected through staff-student committees A: Sections 26, 42, 46 & 102 B: Sections 15, 19, 31 & 39	The Academic Affairs sanctions the Staff Student Committee.	Collecting student feedback on a range of local issues is University policy, including the requirements for Student Staff Committees.
		The SSC holds regular meetings with student representatives, the Director of Studies, other members of academic staff and an administrator.	Issue not mentioned
		Staff may discuss any issues at the meetings. Students are expected to canvas their peers for any issues they wish to discuss prior to the meetings. Mostly students wish to discuss problems rather than give praise.	The 'good mix' of central questionnaires and local SSC meetings ensures that most issues influencing students are covered. General issues on the local level may be discussed; they may be taken on to other levels as appropriate.
		Staff may respond to student feedback during a meeting, after a meeting or at the next meeting, depending on the issue. Reasons for any decisions are explained. Minutes are taken of the discussions and circulated electronically to students, lending transparency to the formal process. While staff may email all students to explain any decisions, the student representatives are expected to report to their peers.	Minutes are taken of the discussions and circulated electronically to students, lending transparency to the formal process. Students are given the opportunity to inspect the process behind any decisions. An annual report on decisions and actions is prepared.
		Staff and student representatives have a good relationship. Students are expected to engage in the process as they may receive immediate feedback that may affect them and their student experience.	Issue not mentioned

Theme		School A & School B
Collecting feedback locally: Describes the perceptions of the two Directors of Studies on how student feedback is collected locally in the two Schools of Pharmacy	**Staff-student committee:** Describes the perceptions of the two Directors of Studies on how student feedback is collected through staff-student committees	While collecting student feedback through the SSLC is part of the University policy, the SSLC is an important platform for staff and students discuss together any issues influencing teaching and assessment. Transparency is essential in engaging students in the feedback process and to maintain a good relationship between staff and students.

From quotes to descriptions

From descriptions to theory

FURTHER ANALYSIS:
DESCRIPTION / THEORY

Community pharmacists feel that the only thing they do is to produce labels. They become dissatisfied and concentrate on the business or they leave community pharmacy.

The perceived lack of professionalism in community pharmacy leads to the use of different coping methods amongst community pharmacists.

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REPORTING FINDINGS

REPORTING FINDINGS

From description to interpretation to theory

Presenting qualitative data

    Quotes (typical, atypical)

    Ranges of perceptions (numbers or proportions of participants)

    Text

    Tables/matrices

    Diagrams

    Theory

REPORTING FINDINGS: TEXT & QUOTES

- The perceived lack of professionalism in community pharmacy leads to the use of different coping methods.

"I'm not using my skills. What I've got to be trained, you know, training was different [at] my uni. […] You need only one of your training, to be honest, all you need to know is how to make labels."

1015B, male, intervention group

- Pharmacists perceive there is little appreciation for their services from patients and the government. They use any opportunity to gain more clinical roles to show their worth and to become more satisfied.

"I would like to be involved more clinically, you know, with the doctors as well, because I think that's something that could be improved as well."

1002B, female, intervention group

REPORTING FINDINGS: RANGES OF PERCEPTIONS

- Pharmacists expressed their general satisfaction and/or dissatisfaction with their jobs and careers

  - One fifth was satisfied

  - Two fifths were conditionally satisfied
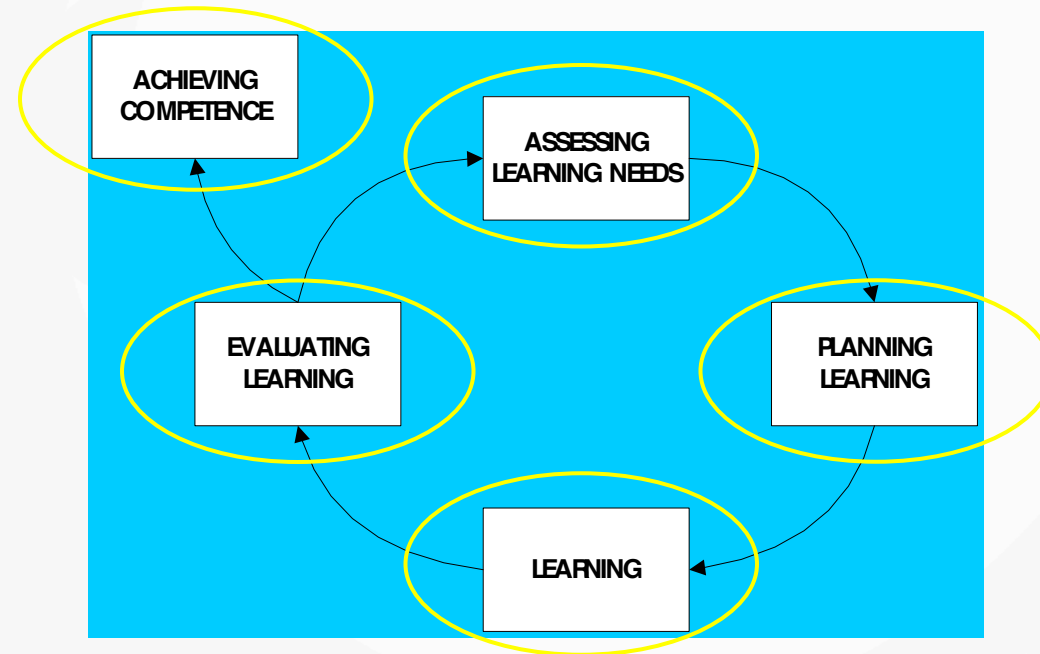
  - Two fifths were dissatisfied

REPORTING FINDINGS: THEMES, CATEGORIES & DESCRIPTIONS IN MATRICES

CPD LEARNING ACTIVITIES: describes the expressed perceptions regarding different CPD activities	CATEGORY	OPINION
	Distance learning: describes the expressed perceptions regarding distance learning	Whilst distance learning was perceived to be best for theoretical learning and had the advantage of being easy to fit into a busy schedule, some thought that it was difficult to be motivated to do and had the disadvantage of not providing any interaction with other pharmacists.
	Workshops: describes the expressed perceptions regarding workshops	Whilst attending workshops was perceived difficult as they might not fit into a busy schedule, once one did participate that time was dedicated for learning. Additionally, they were perceived to be best for practical learning with hands-on experience and interaction with other pharmacists, facilitating learning.
	Professional journals: describes the expressed perceptions regarding journals	Whilst some perceived that by reading relevant journals can help one to keep up-to-date with professional matters, others thought they had no time or motivation for reading. Some thought that reading journals was not CPD as it had not been planned, and reading could not be monitored and learning was not assessed formally.

REPORTING FINDINGS: DIAGRAMS & THEORY

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REPORTING FINDINGS: DIAGRAMS & THEORY

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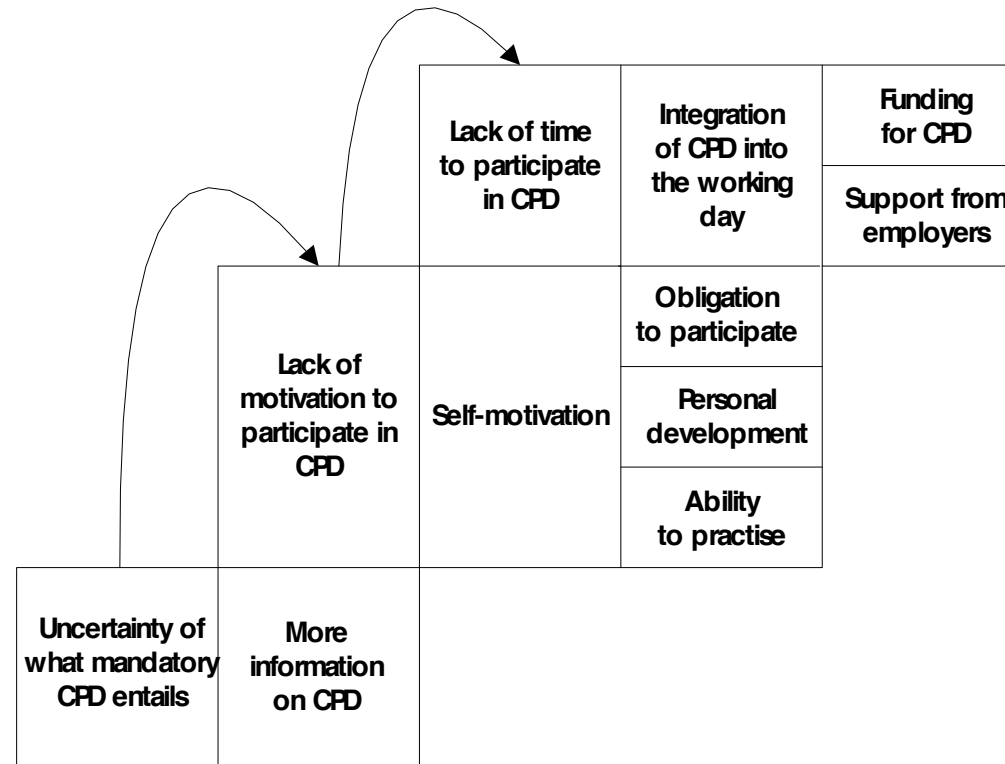
REPORTING FINDINGS: DIAGRAMS & DESCRIPTIONS

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REPORTING FINDINGS: DIAGRAMS

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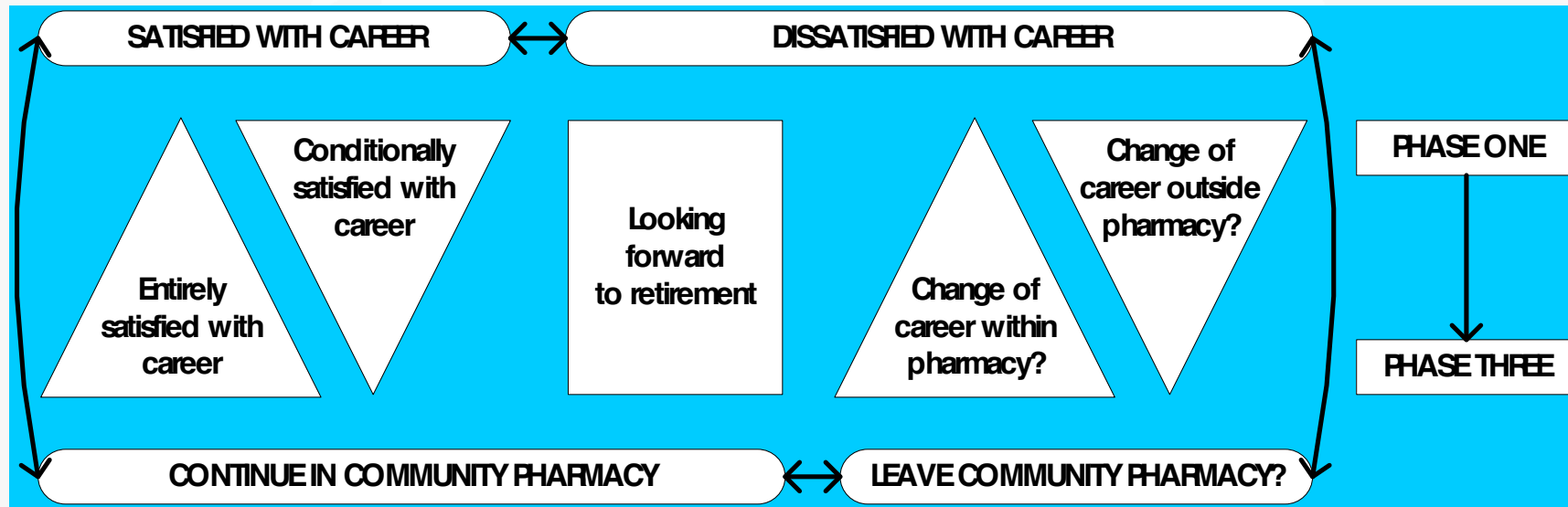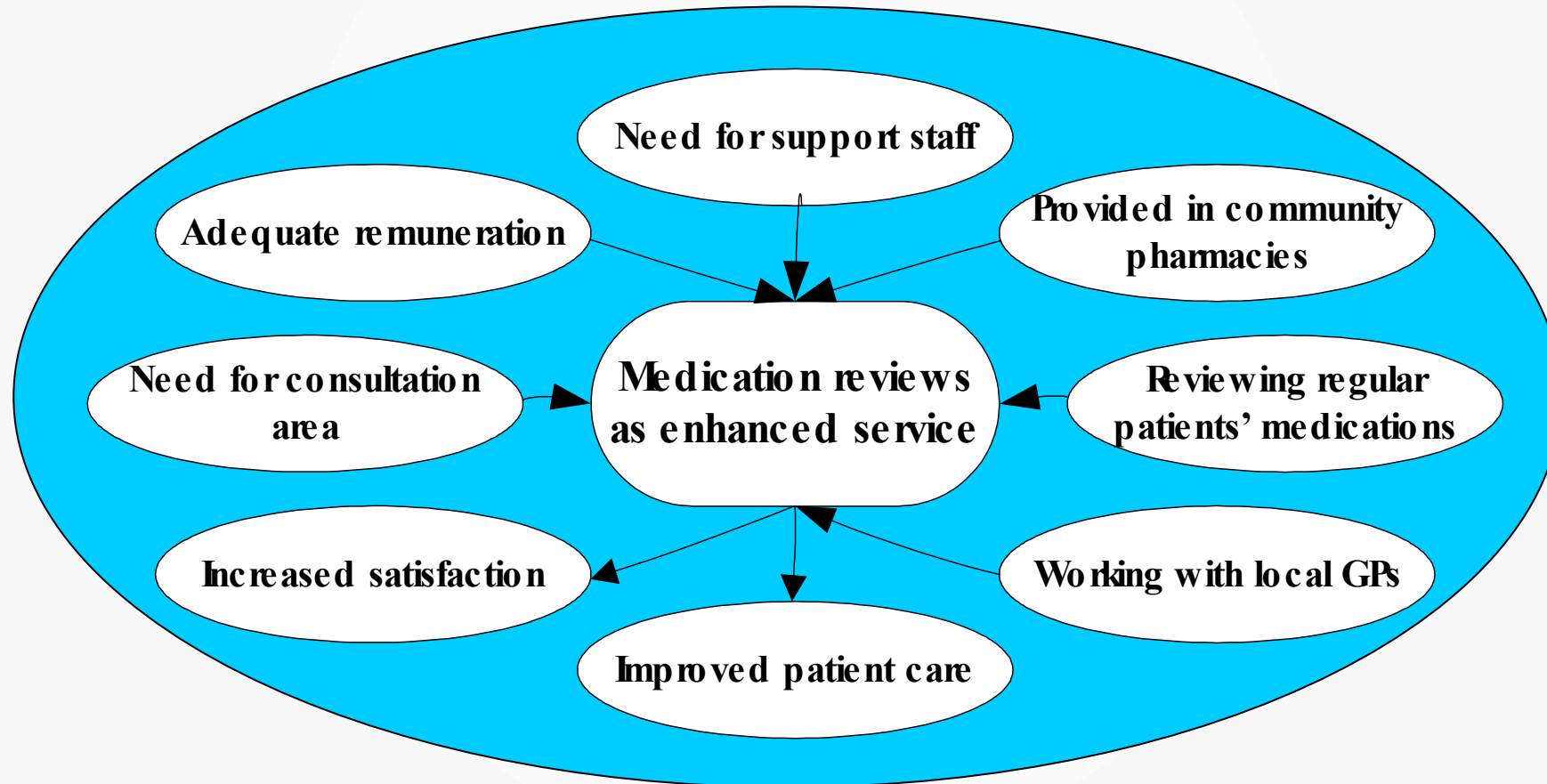
REPORTING FINDINGS:
INTERFACING QUALITATIVE & QUANTITATIVE DATA

Self-assessed competence	Job satisfaction	
'Personal' cluster	Mean score	Quote: Satisfaction now compared with two years ago
Always	16.00	[I am more satisfied now than I was then] because then I wasn't even doing smoking cessation. I wasn't doing minor ailments. I am doing both more now, it's like extra service and extra knowledge. I have to read wide amount to provide those services. So, it's additional work, extra satisfaction providing them." 1011F, male, section 14
Usually	12.43	"Probably a little bit more dissatisfied because the changes that we expected a little while ago. We took on these projects, the Medicines Management, […] smoking cessation. […] It's been very difficult to implement them." 1042F, male, section 14

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Thank you!

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