

28 11:25AM

Subjectivity and Context



28 11:26 AM

MAYOR OF LONDON



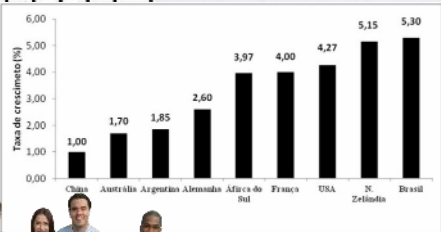
Cloud computing in qualitative research: data analysis with the support of webQDA Software

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Research

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



More
(Quantity)

Better
(Quality)




Täglich siebenmal um die Erde
Bäume spielen in Straßenväher der globalen Hauptstadt eine wichtige Rolle

Während die 12. Internationale Konferenz zur Straßenväher in München eröffnet, ist es am 1. September 2010 das 100. Jubiläum der 1. Straßenväher. Auf dem Gelände der 1. Straßenväher 1910 ist ein Baum, der heute noch steht. Er ist ein Kiefer, der im Jahr 1910 gepflanzt wurde. Er ist heute noch ein Kiefer, der im Jahr 1910 gepflanzt wurde. Er ist heute noch ein Kiefer, der im Jahr 1910 gepflanzt wurde.

Die Straßenväher sind ein wichtiger Bestandteil der Stadt. Sie verbessern die Luftqualität und bieten Schatten. Sie sind auch ein wichtiger Bestandteil der Stadt. Sie verbessern die Luftqualität und bieten Schatten. Sie sind auch ein wichtiger Bestandteil der Stadt. Sie verbessern die Luftqualität und bieten Schatten.

A word cloud containing terms such as: **developing countries**, **Parties**, **mitigation**, **emissions**, **action**, **international**, **country**, **development**, **conversion**, **effort**, **commitment**, **including**, **developed**, **mitigation**, **emissions**, **action**, **international**.



Challenges of *Qualitative Data Analysis Software* (QDAS)

- Enable direct work with various formats and data types.
- Robustness to deal with large amounts of data.
- Allow for greater flexibility in performing tasks.
- Enable collaborative work in large and small groups.
- Simplicity to reduce the learning curve of the tools.
- Greater compatibility and portability of data and analysis processes.



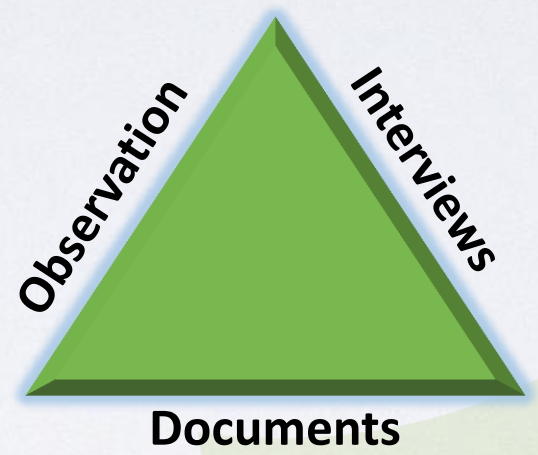
QDAS brief history

- In **1966**, MIT developed a software called "**The General Inquiry**" to help text analysis.
- In **1984**, **Ethnograph** software emerges.
- In **1987**, Richards & Richards developed the Non-Numerical Unstructured Data Indexing Searching and Theorizing software (**NUD*IST**). It evolved into the current **NVivo**.
- In **1991**, the **ATLAS-ti** prototype was launched, mainly related to Grounded Theory.
- In the transition of the **2000s**, it was possible to **integrate video, image, audio and text in the analysis**. However, **HyperRESEARCH** had been presented before. Meantime, **Transcriber** and **Transana** are other software systems that were developed.
- In **2004**, **NVivo** provided an overview of some of the previous software with striking features, such as the Atlas-ti – it recovers encoding by in vivo and Ethnograph – a visual presentation coding system.
- **2009** marks the beginning of the software development in computer contexts in the cloud. Examples are **Dedoose** and **webQDA**, which were developed almost simultaneously in the US and Portugal, respectively.
- From **2013** onwards, we saw an effort by software companies to develop **versions for iOS**, incorporating data from social networks, multimedia and other visual elements in the analysis process.



Qualitative data

- Clinical reports
- Personal documents
- Field notes
- Photographs
- Videos
- Subject's discourse
- Oficial Documents
- ...





What is data analysis in Qualitative Research?

- Working with data
- Organizing data
- Dividing data into manageable units
- Data synthesis
- Looking for patterns
- Discovery of the important aspects of data
- Discovery of what should be learned from the data
- Deciding how to transmit data to others



Without software



Without specific software



Heurísticas	Grau de severidade	Problemas Encontrados
Visibilidade do status do sistema	3 (Médio)	No ambiente o usuário usa uma série de cliques para chegar a disciplina desejada ou arquivo.
	2 (Simples)	Existem páginas onde o usuário tem que retornar para a página Início-Moodle para sair.
	2 (Simples)	Os links que fazem parte de cada disciplina não são claramente identificados e seu destino não é óbvio exceto em arquivos adicionados e os fóruns.
	3 (Médio)	Não existe um link direto para navegar entre os diferentes cursos disponíveis no ambiente Moodle-IESAM, isso só é possível retornando ao início do moodle para acessar outro curso.
Controle do usuário e liberdade	2 (Simples)	No ambiente Moodle-IESAM, geralmente ocorre erro, quando o usuário tenta Configurar as formas e seu trabalho.
Consistência e padrões	2 (Simples)	No ambiente Moodle-IESAM, não existe uma consistência em layout da página, esse é muito subcarregado de informações.
Prevenção de erros	2 (Simples)	No ambiente Moodle-IESAM, não são claramente visíveis os plug-ins.
Reconhecimento ao invés de lembrança	2 (Simples)	No ambiente Moodle-IESAM, o usuário não tem como reconhecer a localização do caminho percorrido sem utilizar o botão voltar.
Estética e design	3 (Médio)	As combinações de cores na página principal do ambiente Moodle-IESAM com o tempo de uso causam incômodo.

Item	Descrição	Observações	Classificação
1	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	1
2	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	2
3	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	3
4	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	4
5	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	5
6	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	6
7	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	7
8	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	8
9	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	9
10	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	As atividades realizadas baseadas em atividades experimentais pelas formadoras, que ocorrem durante as aulas de formação, que são feitas nos perfis...	10



With specific software

“The researcher who does not use software beyond a word processor will be hampered in comparison to those who do”
(Miles & Huberman, 1994, p.44)



What do we look for in a QDAS?


CAQDAS refer to software packages which include tools designed to facilitate a qualitative approach to qualitative data analysis.

Qualitative data includes texts, graphics, audio or video. CAQDAS packages may also enable the incorporation of quantitative (numeric) data and/or include tools for adopting quantitative approaches in qualitative data analysis.

- **Content searching tools**
- **Linking tools**
- **Coding tools**
- **Query tools**
- **Writing and annotation tools**
- **Mapping or networking tools**



Qualitative analysis Software Packages

- **webQDA**
- AQUAD
- ATLAS/ti
- CoAn
- Code-A-Text
- DICTION
- DIMAP-MCCA
- HyperRESEARCH
- KEDS
- DEDOOSE
- NUD*IST
- NVivo
- QED
- TATOE
- TEXTPACK
- TextSmart
- Transana
- WinMaxPro
- WordStat



webQDA history and partnerships

- 2010



centro de investigação

"Didática e Tecnologia na Formação de Formadores"

- 2015



centro de investigação

"Didática e Tecnologia na Formação de Formadores"



ludomedia

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webQDA[®]

LICENSED BY:



universidade
de aveiro



- Software designed to assist researchers to handle non-numeric and unstructured data in qualitative analysis.
- With webQDA the researchers can edit, view and link documents. They can create categories, encode, manage, filter, query and question the data in order to answer research questions.

webQDA[®]



In academic contexts, webQDA is especially useful for researchers, graduation, master's and doctorate students, as well as for research teams to develop synchronous and asynchronous analysis of qualitative data in collaboration, from any device connected to the internet. In a business context, webQDA is especially useful for analysis of **non-numeric** and **unstructured data**, for example, customers' opinions about a product or an advert.



webQDA is to qualitative research and SPSS to quantitative research, as the word-processor (word) is for writing. In any case the human factor is always critical.

"My text editor doesn't write alone."

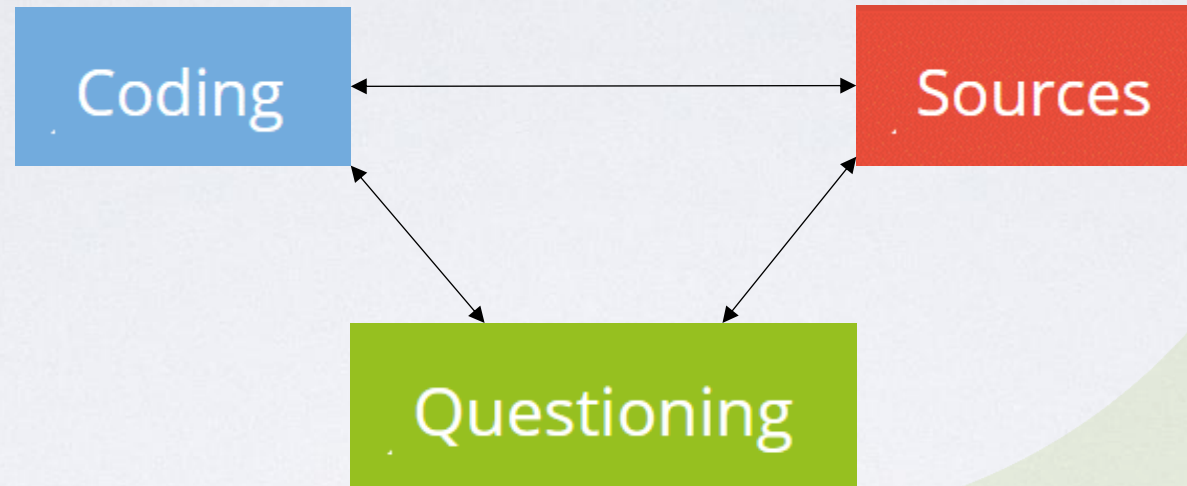


Before and During the use of webQDA

- Sound Research Questions;
- Feasible Research Objectives;
- Comprehensive Theoretical Framework;
- Validate Data Collection Instruments;
- Carefull and Systematic Transcriptions;
- Well Structured Data Organization;
- Etc.



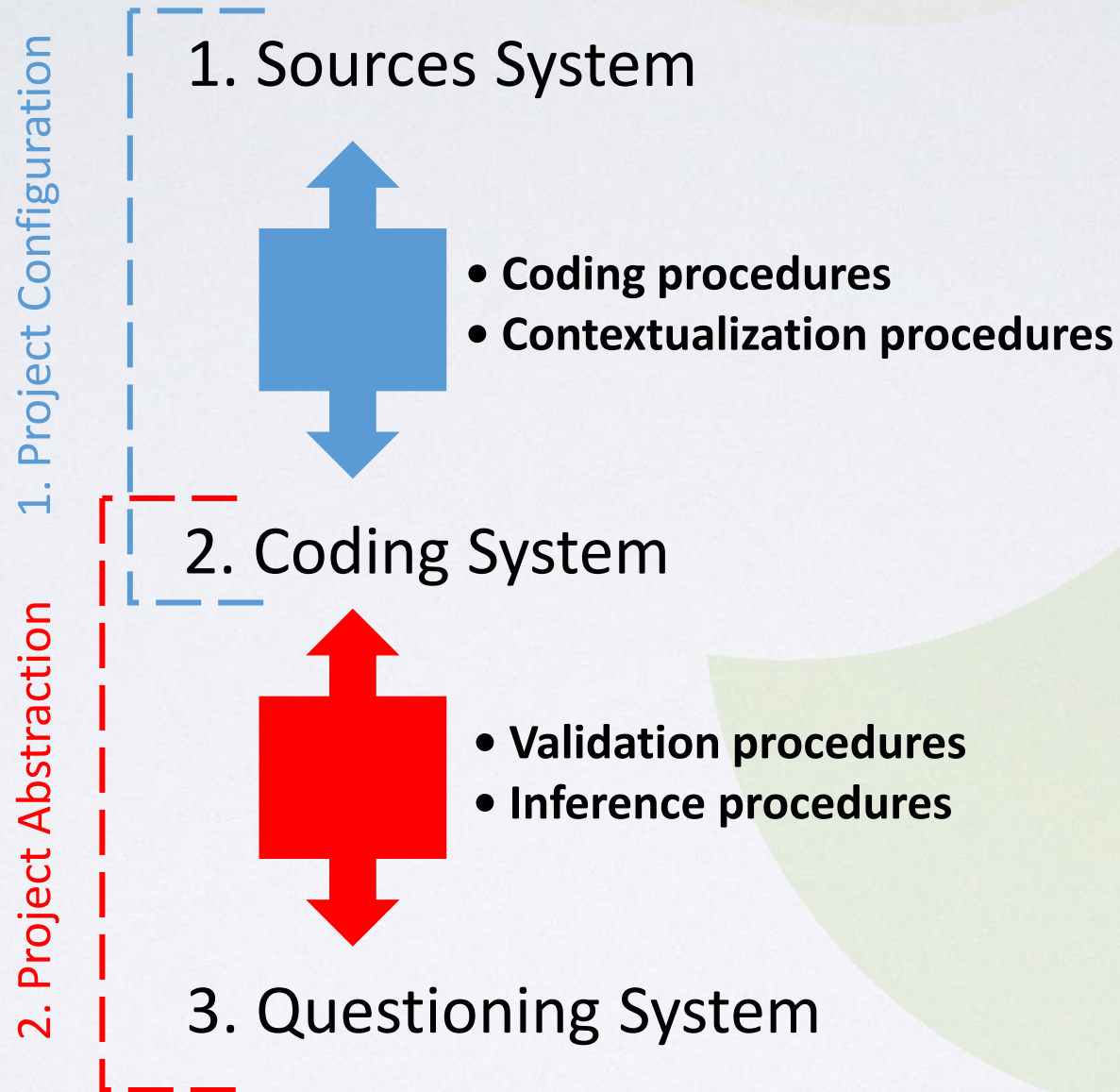
Main areas in webQDA



**Elements for the Writing
of Results in Qualitative Analysis**



Procedural structure in webQDA





Technical Specifications

- Respects the **HTML5 standard** that is supported by most popular web **browsers (Internet Explorer, Firefox, Safari, Chrome, Opera)**.
- Permissions for use of **Cookies** is also a requirement and the browser must be allowed to run **JavaScript**.
- For a better user experience we recommend a resolution of at least of 1280 x 720.
- **Sources requirements:**
 - **Text Sources:** DOCX, PDF and TXT (Maximum size of 500,000 characters per file)
 - **image sources:** JPG and PNG (Maximum size of 5MB per file)
 - **Audio sources:** MP3 and WAV (Maximum size of 10MB per file)
 - **video sources:** MP4, OGG and WEBM (Maximum size of 20MB per file)
 - You can use YouTube videos, or videos from public sharing of Dropbox.



Coding



Three paths amongst several ...

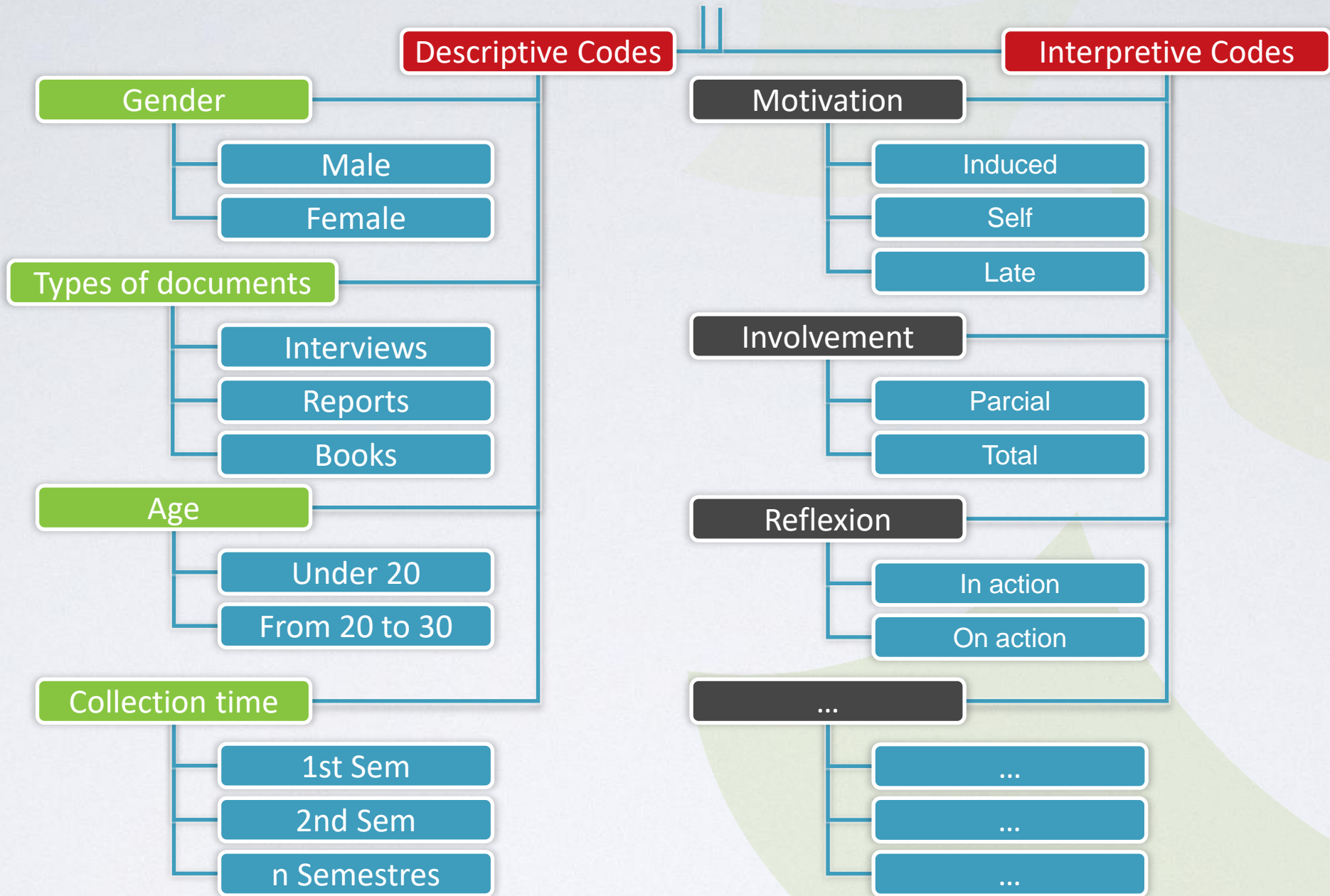
- Codes that emerge from the data.
 - Open code
 - Free codes
- Defined codes before starting the analysis.
 - Tree codes
- Combination of the previous two ways.
 - Free codes
 - Tree codes
 - Descriptors





Manage and categorize data

- A code is a unifying topic of ideas.
- **webQDA** helps the researcher in the process of organization, contextualization and categorization of information entered.
- What is the context of information about a case?
 - Ex.: Interview with John: gender, age, length of service, nationality... (Rating: **Attributes**)
- How to organize and group all the information on cases or concepts.
 - Ex.: All John's documents and interviews... (**Descriptors: Cases**)





Coding process

- **Descriptive codings** can be imputed under "Classifications: Attributes". Ex.: Gender, Age...
- However, as qualitative researchers, we are interested in **interpretive coding**. We can create Analysis dimensions, categories and other binding topic ideas in "Codes".
- **How to code the contents of the documents in those categories created by the researcher?**



Examples of questions

- What is encoded simultaneously in "category 1" and "Category 2"?
- What is encoded in "category 1" that is not part of "category 2"?
- What is the relationship of categories 1 and 2 with my descriptive categories (Attributes)?
- Combining categories 1 and 2 into a third one, what is its relationship with a fourth category?

Fill in the tables with the number of text units*

Data Source 1

Reference 1
Reference 2
Reference 3
Reference 4
Reference 5
Reference 6
Reference 7
Reference 8
Reference 9
Reference 10

Atributtes:

Male

20 years

1st Semestre

Data Source 2

Reference 1
Reference 2
Reference 3
Reference 4
Reference 5
Reference 6
Reference 7
Reference 8
Reference 9
Reference 10

Atributtes :

Female

20 years

2nd Semestre

Motivation

	Induced	Self	Late
1st Sem			
2nd Sem			

	Induced	Self	Late
Male			
Fem			

	Induced	Self	Late
20 years			
30 years			

*This is the case of an interview

Fill in the tables with the number of text units

Document 1

- Reference 1
- Reference 2
- Reference 3

- Reference 4
- Reference 5
- Reference 6
- Reference 7

- Reference 8
- Reference 9
- Reference 10

Atributtes:

- Male
- 20 years
- 1st Semestre

Document 2

- Reference 1
- Reference 2
- Reference 3

- Reference 4
- Reference 5
- Reference 6
- Reference 7

- Reference 8
- Reference 9
- Reference 10

Atributtes :

- Female
- 20 years
- 2nd Semestre

Motivation

	Induced	Self	Late
1st Sem	3	1	2
2nd Sem	2	2	3

	Induced	Self	Late
Male	3	1	2
Fem			

	Induced	Self	Late
20 years	5	3	5
30 years	0	0	0



- Open-ended questions (Questionnaires)
- Online Forums
- Focus groups

Document 1

Male Student 1,
20 years, 1st Sem
Text Text Text
Text unit 1

Female Student 2,
25 years, 1st Sem
Text Text Text
Text unit 2

Male Student 3,
30 years, 1st Sem
Text Text Text
Text unit 3

Document 2

Male Student 1,
20 years, 1st Sem
Text Text Text
Text unit 1

Female Student 2,
25 years, 1st Sem
Text Text Text
Text unit 2

Male Student 3,
30 years, 1st Sem
Text Text Text
Text unit 3

Motivation

	Induced	Self	Late
1 Sem			
2 Sem			

	Induced	Self	Late
Male			
Female			

	Induced	Self	Late
20 years			
30 years			

- Open-ended questions (Questionnaires)
- Online Forums
- Focus groups

Document 1

Male Student 1,
20 years, 1st Sem
Text Text Text
Text unit 1

Female Student 2,
25 years, 1st Sem
Text Text Text
Text unit 2

Male Student 3,
30 years, 1st Sem
Text Text Text
Text unit 3

Document 2

Male Student 1,
20 years, 1st Sem
Text Text Text
Text unit 1

Female Student 2,
25 years, 1st Sem
Text Text Text
Text unit 2

Male Student 3,
30 years, 1st Sem
Text Text Text
Text unit 3

Motivation

	Induced	Self	Late
1 Sem	2	1	2
2 Sem	0	0	0

	Induced	Self	Late
Male	1	1	2
Female	1	0	0

	Induced	Self	Late
20 years	1	0	1
30 years	0	1	1

webQDA[®]

