Coding Large Sets of Data Reporting with Frequency and Code Co-Occurrence Table

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Doctorate in Educational Technology Leadership

EDTC 813: Advanced Using Integrated Software Across Curriculum

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August 10, 2021

Introduction

This report displays a frequency table and a code co-occurrence table from ATLAS.ti and Excel. They are the outcome of a process that is used to code large sets of data from a survey. In this method, coding is done using a codebook, a set of predetermined, pre-researched descriptive phrases called codes. Once a quotation is selected, one code or multiple codes are attributed and appropriated to it based on relationships. In this process, the data survey results and the codebook were downloaded onto excel and imported into ATLAS-ti. Having registered one hundred participant responses from the question, "What was your biggest difficulties during the Covid-19 shutdown?" the procedural task went on. After the coding, there were screenshots and the exportation of the code co-occurrence table into excel. The final figures are shown below.

Table 1
Frequency Table
Survey Response: What Was your Biggest Difficulties During the Covid19 Shutdown?

<u>Code</u>	Grounded
Difficulty: Administration	12
Difficulty: Assessment and Feedback	6
Difficulty: Change	24
Difficulty: Connecting with Students	43
Difficulty: Covid19 Related Difficulties	36
Difficulty: Educator Finding Time	25
Difficulty: Engaging Students	35
Difficulty: Incomplete Work	23
Difficulty: Individual Needs	21
Difficulty: Missing (f2f) Face-to-face Interactions	29
Difficulty: Missing Resources	0
Difficulty: Parent Involvement	21
Difficulty: Planning	24

Difficulty: Student Motivation	21
Difficulty: Student Self-management	31
Difficulty: Student with Special Needs	16
Difficulty: Technology	23
Difficulty: Unique	25
Difficulty: Work-Life Balance	7
Participant	99
What are your biggest difficulties during the Covid19 pandemic?	99

Code Co-Occurrence Table

Survey Response: What Was your Biggest Difficulties During the Covid19 Shutdown?

	D:AD	D:AS	D:C	D:CC	D:C\	' D:EF	D:ES*	* D:IW	D:IN	D:MI	D:MR	D:PI	D:P	D:SM	D:SS	D:SN	D:T	D:U	D:WB	PP*	WB*
	CT*	СТ	СТ	СТ	СТ	СТ	СТ	СТ	СТ	СТ	СТ	СТ	СТ	СТ	СТ	СТ	СТ	СТ	СТ	СТ	СТ
D:AD*	0	0	4	2	3	3	3	3	2	2	0	3	3	0	3	2	3	3	0	0	12
D:AS*	0	0	1	1	0	0	2	1	2	4	0	1	1	0	3	1	1	0	0	0	6
D:C *	4	1	0	10	9	5	4	4	2	5	0	4	6	4	5	1	5	8	2	0	24
D:CC*	2	1	10	0	18	15	20	12	6	14	0	5	8	7	11	7	7	7	1	0	43
D:CV*	3	0	9	18	0	10	13	7	6	7	0	4	5	8	12	4	8	6	1	0	36
D:EF*	3	0	5	15	10	0	10	4	4	4	0	5	7	6	4	4	5	4	1	0	25
D:IW*	3	1	4	12	7	4	9	0 !	5	6	0	2	2	4	7	3	7	5	0	0	23
D:IN*	2	2	2	6	6	4	5 !	5 ()	7	0	1	5	2	10	11	3	1	0	0	21
D:MI*	2	4	5	14	1 7	4	12	6	7	0	0	2	4	6	9	3	6	4	0	0	29
D:MR*	0	0	0	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D:PI*	3	1	4	5	5 4	5	3	2	1	2	0	0	9	6	6	0	4	10	0 4	0	21
D:P*	3	1	6	8	3 5	7	6	2	5	4	0	9	0	4	3	4	6	7	7 4	0	24

D:SM*	0	0	4	7	8	6	9	4	2	6	0	6	4	0	10	0	2	5	1	0	21
D:SS*	3	3	5	11	12	4	6	7	10	9	0	6	3	10	0	7	6	7	0	0	31
D:SN*	2	1	1	7	4	4	4	3	11	3	0	0	4	0	7	0	2	2	1	0	16
D:T*	3	1	5	7	8	5	5	7	3	6	0	4	6	2	6	2	0	5	0	0	23
D:U*	3	0	8	7	6	4	3	5	1	4	0	10	7	5	7	2	5	0	7	0	25
D:WB*	0	0	2	1	1	1	0	0	0	0	0	4	4	1	0	1	0	7	0	0	7

Note. D:AD = Difficulty: Administration; D:AS = Difficulty: Assessment and Feedback; D:C = Difficulty: Change; D:CC = Difficulty Connecting with Students; D:CV = Difficulty: Covid19 Related Difficulties; D:EF = Difficulty: Educator Finding Time; D:ES = Difficulty: Engaging Students; D:IW = Difficulty: Incomplete work; D:IN = Difficulty: Individual Needs; D:MI = Difficulty: Missing (f2f) Face-to-face interactions; D:MR = Difficulty: Missing Resources; D:PI = Difficulty: Parental Involvement; D:P = Difficulty: Planning; D:SM = Difficulty: Student Motivation; D:SS = Difficulty: Student Self-management; D:SN = Difficulty Student with Special Needs; D:T = Difficulty: Technology; D:U = Difficulty: Unique; D:WB = Difficulty: Work-life Balance; PP = Participant; WB = What are your biggest difficulties during the Covid19 pandemic? CT = Count

Code Co-Occurrence Link

https://drive.google.com/file/d/1z2gWSivWN5ZJM-UoetocrkHazwVAEu0 /view?usp=sharing

Conclusion

In qualitative study, the researcher collects data in the form of ideas, categorizes them in codes, and formularizes concepts into theories. Going through the process, the researcher creates images and numerical graphs to chart findings. This serves as a statistical reference to identify the most relevant perceptions and popular views of an issue. For instance, the frequency and

co-occurrence tables above show that the codes ``connecting with students, ``"Covid-19 related difficulties," and "student self-management" have forty-three, thirty-six, and thirty-one mentions respectively. This is followed by "missing face-to-face interactions" (twenty-nine), "educator finding time" (twenty-five), and "change" (twenty-four). Besides the frequencies, along the horizontal axes, there are numerical correlations that establish the relative intensities of two codes. For example, according to various quotations, "connecting with students" relates to "change," ten times; it relates to "engaging with students," twenty times. It also relates to "educator finding time," fifteen times. This is an indication that "connecting with students" was a core issue and stumbling block during the pandemic shutdown. This is to say that graphic displays of the coding process are a simple and convenient approach for researchers to determine major ideas that would contribute to qualitative theorization.

Reference List:

YouTube. (2016). ATLAS ti 8 Windows-Creating and Displaying Semantic Linkages. <u>ATLAS ti 8 Windows-Creating and Displaying Semantic Linkages</u> <u>YouTube</u>.

YouTube. (2020). #35 Working with code co-occurrence table in ATLAS.ti for relationship analysis. #35 Working with code cooccurrence table in ATLAS.ti for relationship analysis - YouTube

YouTube. (2021). Code co-occurrence tools and analysis ATLAS.ti 9 Windows. <u>Code Co-occurrence Tools and Analysis ATLAS.ti 9 Windows - YouTube</u>