



SURVEY FUTURES

SURVEY DATA COLLECTION
METHODS COLLABORATION

An Evaluation of the Look-Up Approach to Occupation Coding

Helena Koerber¹, Matt Brown¹, Lisa Calderwood¹

¹Centre for Longitudinal Studies, UCL Social Research Institute

Survey Futures Workshop: Industry and Occupation Coding | University College London | 4 June 2026



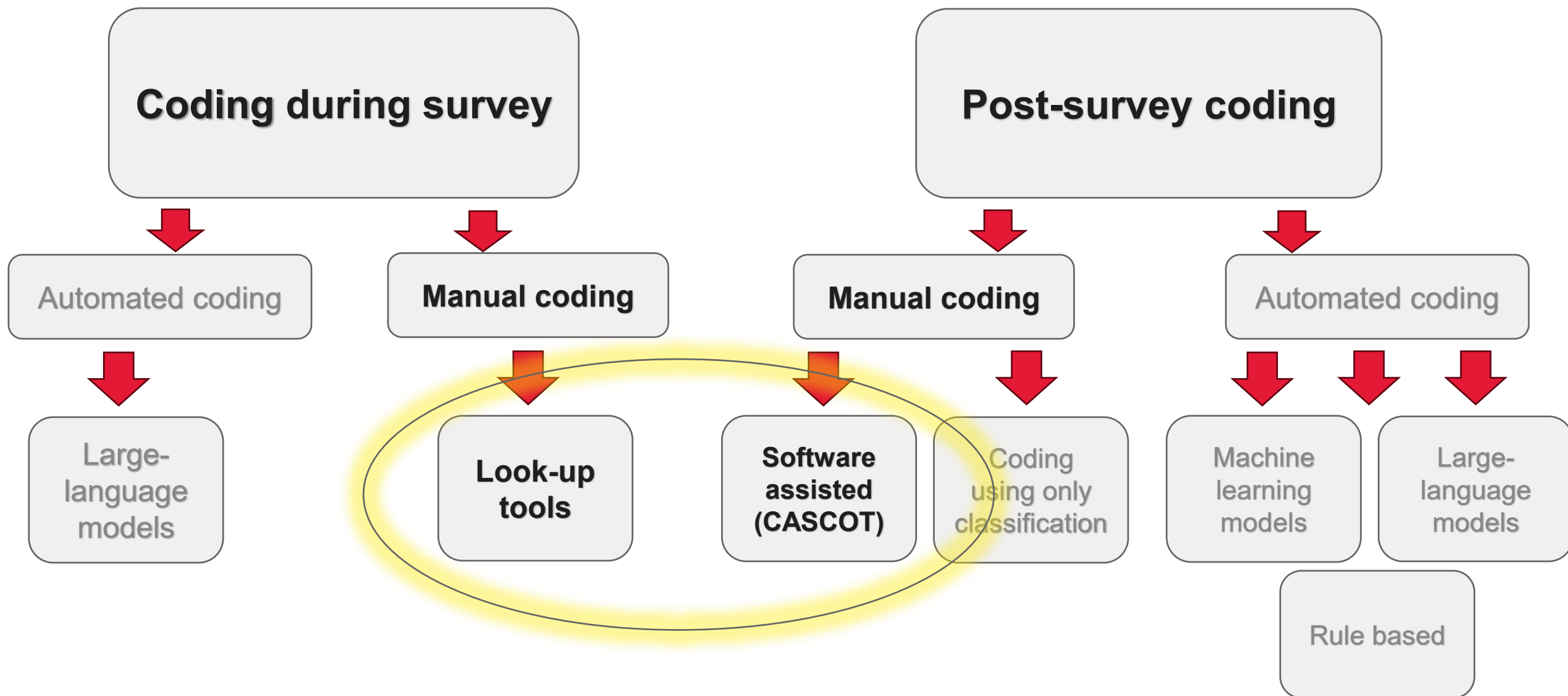
Background

- Occupation is a core measurement in social surveys:
 - Indicator of socio-economic status
 - Strongly linked to income, health, and lifestyle
- Traditional Measurement Approach:
 1. **Interviewers** asking **open questions** to collect job title and a description of duties (Lyberg & Dean, 1992)
 2. **Interviewers** ensure the necessary information is provided (Conrad et al., 2016)
 3. **Software assisted** manual coding by specialist **office-based coders** to a **standard classification** (e.g., SOC 2020)

Background

- Methodological challenges:
 - Job titles/ descriptions are highly diverse
 - Same job may be described in multiple ways
 - In **self-completion surveys**, the absence of interviewers can have a negative impact on the quality of the collected data for coding (Conrad et al., 2016)
- Ongoing research aims to improve validity and reliability of occupation coding in surveys

Focus of this Research



CASCOT assisted office coding

Input

Text:

Code

Recommendations

Code	Title	Best Matching Index Entry	Score
------	-------	---------------------------	-------

Classification Structure - SOC 2020 6 digit (v12)

- ▶ 1 MANAGERS, DIRECTORS AND SENIOR OFFICIALS
- ▶ 2 PROFESSIONAL OCCUPATIONS
- ▶ 3 ASSOCIATE PROFESSIONAL OCCUPATIONS
- ▶ 4 ADMINISTRATIVE AND SECRETARIAL OCCUPATIONS
- ▶ 5 SKILLED TRADES OCCUPATIONS
- ▶ 6 CARING, LEISURE AND OTHER SERVICE OCCUPATIONS
- ▶ 7 SALES AND CUSTOMER SERVICE OCCUPATIONS
- ▶ 8 PROCESS, PLANT AND MACHINE OPERATIVES
- ▶ 9 ELEMENTARY OCCUPATIONS

Job Titles in this Unit Group

Job Titles

Look-Up Approach



Your job title is:

Teacher

In that job you mainly:

Teaches in a school

Which of the following options best describes your job?

INTERVIEWER: READ OUT LIST OF JOBS BELOW.

If none of the options are suitable, I can change the job title and/or job description and search again. Adding more words will narrow the search.

INTERVIEWER: IF YOU CAN'T FIND A SUITABLE JOB AFTER ALTERING THE SEARCH TERMS, SELECT 'JOB NOT ON LIST'.

Search

Teacher, school, comprehensive | 2313

Teacher, school, junior | 2314

Teacher, school, nursery | 2315

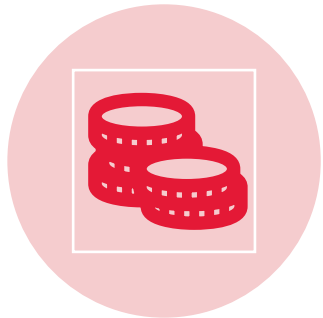
Teacher, school, play | 6111

Teacher, dancing (primary school) | 2314

Teacher, dancing (special school) | 2316

JOB NOT ON LIST

Coding Approaches:



Office Coding:

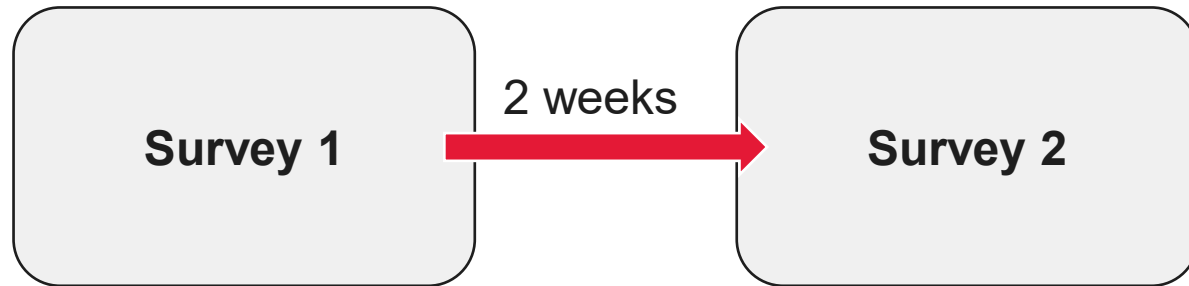
Reliable but time consuming and costly



Look-up tool:

New, fast and cost efficient
But reliable?

Study Design: Mode Experiment



- Random mode allocation: online, video, in-person
- Look-up coded + 2x office coded: coded to 4-digits
- Question to determine whether participants had changed jobs since survey 1
- Exclusion criteria: changed jobs or not working at time of either survey
- Fieldwork conducted by IPSOS
- Non-probability sample of 20-to 40-year-olds

Mode Groups

Mode Group	Frequency
Online/ Online	135
Online/ Video	136
Online/ In Person	130
Video/ Online	134
Video/ Video	137
Video/ In Person	139
In Person/ Online	122
In Person/ Teams	133
In Person/ In Person	129
Total	1195

Measuring Occupation

Look-Up

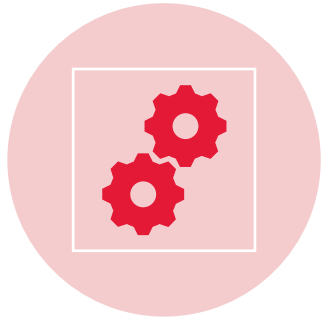


Open-Text Job
Description

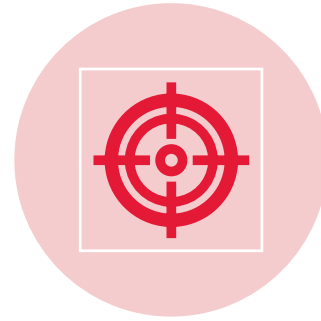
*“What is your job title?”
“Please tell us keywords which
describe what you do in your
job”
“How well does the selected
option describe your current
job?”*

*“This approach to collecting
information about your job is new and
we are testing it out. To help us check
whether it is working, could you also
describe in your own words what you
mainly do in your job? Please describe
in detail (for example the type of work,
the department you are in, and what
level you work at).”*

Evaluation of Look-Up Tool: Quality Indicators:



Coding Success: Successful selection of a job code. Office coding as benchmark.



Subjective Accuracy: Participant's perceived accuracy of how well the selected job code reflects their actual job.



Agreement with Office Coding: The degree of agreement between the participant-selected job code (via the Look-up Tool) and the job code assigned by an expert office coder.



Coding Consistency: The consistency of participant-selected job codes using the Look-up Tool across two experimental waves. Office coding as a benchmark.

Research Questions

- **RQ1:** How successful are respondents at **selecting an occupation code** using the look-up tool and how does this vary by mode and participant input?
- **RQ2:** How do **respondents rate the accuracy** of the occupation code they select using the look-up tool and how does this vary by mode and participant input?
- **RQ3:** How closely do respondent selected look-up codes align with codes assigned by **office coders** and how does this vary by mode and participant input?
- **RQ4:** Among respondents who have not changed jobs, how **consistent** are respondents at selecting look-up codes across two time points and how does this compare with the consistency of office coding? How does this consistency vary based on whether participants **switched modes**? To what extent is observed coding consistency attributable to the **similarity of text inputs** across time points?

Results: Coding Rates by Mode Wave 1

Mode	Look-up coding rate	Office coding rate
Web	86.2%	100%
Video	88.1%	100%
In-person	86%	100%
Total	86.8%	100%

Results: Subjective Accuracy

Subjective accuracy			
Mode	Very well	Fairly well	Not very/ at all well
Online	45.6%	51.1%	3.4%
In-person	54.5%	42.5%	3%
Video	64.1%	34%	2%
Total	54.8%	42.5%	2.8%

Results: Agreement with Office Coding

Mode	Agreement look-up & office coder 1				Agreement office coder 1 & office coder 2			
	1-digit	2-digit	3-digit	4-digit	1-digit	2-digit	3-digit	4-digit
	Online	80.1%	74.8%	72%	65.7%	98.3%	96.8%	96.5%
In-person	75%	70.8%	68.8%	63.4%	98.4%	97.2%	96.9%	95.1%
Video	77.9%	74.2%	69.7%	65.1%	98.4%	97.3%	97.8%	95.3%
Total	77.7%	73.3%	70.2%	64.7%	98.4%	97.1%	96.8%	95.1%

Results: Coding Consistency

Digit Level	Look-up Coding consistency	Office Coding consistency
1-digit	76.1%	83.1%
2-digit	70.7%	80%
3-digit	67.1%	78.2%
4-digit	60%	73.7%

Results: Coding Consistency

Digit	Same mode	Switch video & in-person	Switch online & interviewer-assisted	Rao-Scott corrected Chi2	p-value
Look-up					
1-digit	76.7%	79.9%	73.7%	.9522	.3844
2-digit	73.7%	74.4%	66.3%	1.9986	.1363
3-digit	71.9%	69.7%	62%	2.6791	.0692
4-digit	66.3%	58.1%	55.9%	2.6095	.0740
Office					
1-digit	88.4%	82.9%	79.2%	4.0315	.0180
2-digit	85.9%	82.1%	74.4%	5.7121	.0034
3-digit	84.4%	80.3%	72.6%	5.8528	.0029
4-digit	77.8%	75.8%	69.6%	2.5832	.0759

Results: Text Similarity Analysis

Similarity analysis	Mean similarity LU	Mean similarity Office coding
Title similarity lexical	.64	.64
Title similarity semantic	.84	.84
Description similarity lexical	.26	.25
Description similarity semantic	.77	.77
Combined lexical	.35	.35
Combined semantic	.85	.85

Results: Text Similarity and Coding Consistency Across Waves

Look Up

- Higher lexical similarity was associated with greater coding consistency
- Semantic similarity also increased consistency, but mainly at very high levels of similarity

Office Coding

- Higher lexical similarity was associated with greater coding consistency
- Semantic similarity showed no significant relationship with coding consistency

Key Findings and Conclusion

- Look-up approach has potential to reduce the need for office coding – but results suggest it could not replace manual coding
- Low levels of agreement with office coding and low levels of consistency raise concerns with the potential quality
- Coding consistency across waves was associated with mode switching and textual similarity
- Further work could develop a more user-friendly code frame which uses terms people use to describe their jobs
- AI approaches are also being explored for real-time coding



**SURVEY
FUTURES**
SURVEY DATA COLLECTION
METHODS COLLABORATION

Thank you for your attention!

