6th European Working Conditions Survey

Coding report

Prepared by Ipsos

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1. Overview of the 6th EWCS coding activities

1.1. Objective

In the EWCS questionnaire, information regarding occupation and economic activity were recorded as open-ended questions (for the full questionnaire, source questionnaire) , and afterwards these open-ended questions were coded into 3 and 4-digit ISCO and NACE categories. This report provides an overview of the coding process and its implementation, challenges faced during the process, and finally, discusses the results of the coding. [1]

Specifically, information regarding **occupation** was obtained by two open-ended questions[2]: Q5 and Q6 *(Q5 - "What is the title of your main paid job? By main paid job, we mean the one where you spend most hours", Q6- "What do you mainly do in your job?").* Q5 asks about the job title whereas Q6 was asked to collect extra information in order to make it possible to obtain sufficient detail for coding occupation according to 4-digit ISCO code book. Information about the **economic activity** of the employer was obtained by Q13 *(Q13 – "What is the main activity of the company or organization where you work?").*

Additionally, the question asking about respondents' level of education also required some coding work.

So coding was required for three variables according to the following international classifications:

- **OCCUPATION** (CODING AT 4 DIGIT LEVEL):

  In order to account for the revision of the ISCO classification, data on occupation were coded both in ISCO 88 and ISCO 08.

- **ECONOMIC ACTIVITY** (CODING AT 3 DIGIT LEVEL):

  In order to account for the revision of the NACE categories, data on economic activity were coded both in NACE rev 1.1 and NACE Rev. 2.

- **LEVEL OF EDUCATION** (AUTOMATIC CODING):

  The education categories in the questionnaire were country-specific (i.e. levels in the local education system), so the responses were re-coded in order to obtain the internationally comparable ISCED categories. This, however, was done in a fully automatic fashion on the basis of official correspondence tables.

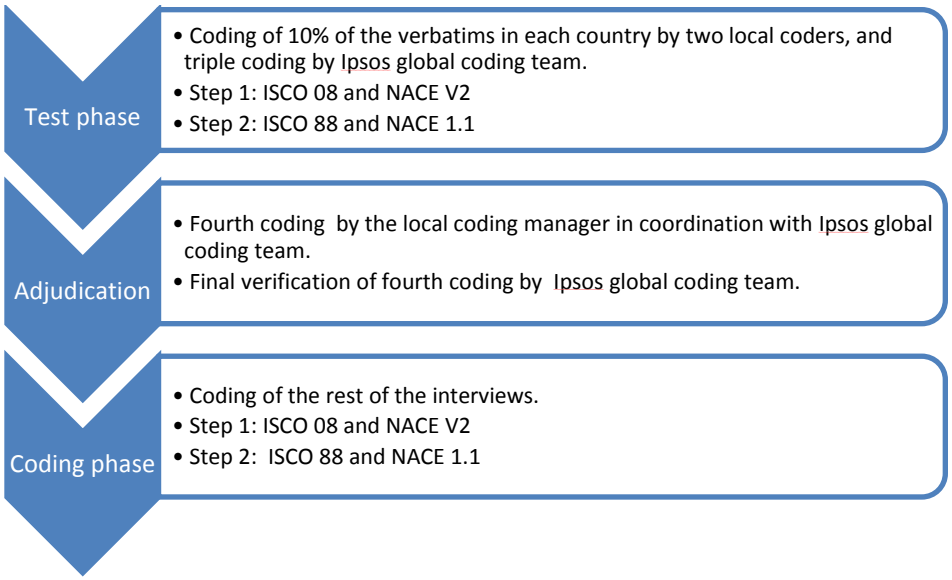
1.2. The coding process

The coding was implemented in three stages*: test phase, adjudication* and *coding phase*. All of the coding was carried out in an online centralised coding system *Ascribe* that enabled countries to access the central code-frame according to the ISCO and NACE code books. Coding was done by coders specifically assigned and prepared for the job in all participating countries, facilitated by coding guidelines and FAQs developed by the Ipsos Central Coordination team (ICC). The quality of coding (inter-coder reliability and comparability across countries) was thoroughly checked, with problems

[1] Full data for the Candidate countries (Albania, Former Yugoslav Republic of Macedonia (FYROM), Montenegro, Serbia and Turkey) will be updated on completion of the EWCS in those countries.

[2] Note that the coding in the 6th EWCS had been carried out in old numbering of the questions (as in the 5th EWCS) which was later on changed as follows on the request of Eurofound: Q2 is changed to Q5, Q3 to Q6, Q7 to Q13, Q4 to Q7, Q4b to Q8b, Q14 to Q23 and Q9a to Q16a.

reported to, and addressed by, the Ipsos global coding team (a sub-team within the ICC). The three stages of the coding process are detailed below.



1.2.1. Test phase

The first stage in the coding process was the test phase. The test phase provided coders with more experience and gave an opportunity for feedback and further improvement of the manuals and the coding process. It also helped harmonising the coding between coders within each country and across the different countries. Specifically, in each country, the first 10% of verbatim from the data were extracted during the fieldwork,

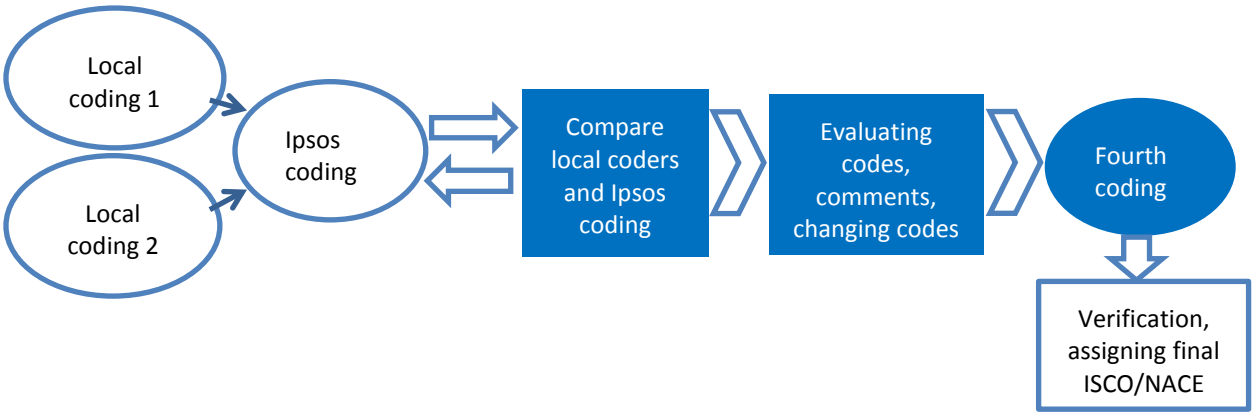
- Coded in local language by two independent coders.
- Translated into English and then coded by the global coding team (triple coding).

The three independent codings were then compared by calculating percentage agreement between the coders. The local coders received individual feedback when there were discrepancies, and thus they were able to discuss the reasons for the discrepancies by the local fieldwork partner coding manager and the Ipsos global coding team.

1.2.2. Adjudication

In the second stage of the coding process, the discrepancies between the three codings were resolved by assigning a fourth code by the coding manager in coordination with Ipsos global coding team. This resulted in four codes for ISCO and NACE.

- The three independent codings and later on the fourth coding were compared in a comparison document including:
    - Comparison and evaluation of three independent codings.
    - The fourth code assigned by the local coding manager in coordination with the Ipsos global coding team.
    - The calculated % agreement between the four codings
    - A final verification of the fourth coding by comparing it to the three independent codings (especially where it differs from all other codings).



The comparison document allowed coders and the coding managers to have a better understanding of the possible challenges in the coding process in each country, and to agree on strategies to deal with these challenges in the remaining part of the coding work.

1.2.3. Coding phase

Following the test phase and adjudication, the network agencies were responsible for coding the rest of the data considering the lessons learned from the test phase.

The **actual coding** was done in two steps:

- 1st step: coding with code list ISCO 08 and NACE V2 (questions Q5Q6_08, Q13_V2)
- 2nd step: coding with code list ISCO 88 and NACE 1.1 (questions Q5Q6_88, Q13_V11)

In step 1, the data were initially coded into the most recent version of the classification. ISCO 08 was used for occupation and for economic activity NACE Rev. 2.

Q5 and Q6 were merged and coded in one step:

Q5 What is the title of your main paid job? | Q6 What do you mainly do in your job - ISCO 08 code list

They appeared together in one response (labelled as Q5Q6_08). Responses from Q13, Q8a (for those who are unable to answer whether they are a self employed or an employee, question on whether they are paid a salary or a wage), Q16a and Q9A were also additionally shown, as they contain information which could be useful for coding.

- Q13-Employment status (*"Are you working as an employee or are you self-employed?");*
- Q16A-Number of people at local site *("How many people in total work at your workplace, that is at the local site where you work?");*
- Q23-Number of people supervised *("How many people work under your supervision, for whom pay increases, bonuses or promotion depend directly on you?").*

The level of education was not added as an additional variable to help code the response. In the paper *"Occupation coding: do's and don't's"* by Harry B.G. Ganzeboom (2008), it is stated not to add information to the coding file other things than the occupation. *["In particular DO NOT add information on education, income, age and gender. Coders should not be allowed to peek at education to determine an occupation code!*

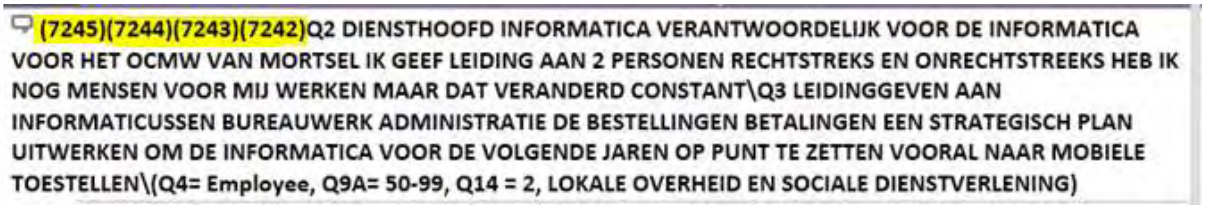
- In step two, the data and the assigned codes was then exported and the codes matched to those in the earlier versions (ISCO 88 and NACE Rev.1.1). The code(s) assigned through pre-

coding were added to the verbatim. A closed numerical value showing the number of pre-codes was added. During the coding, the coder used this information as follows

- *(manual coding from scratch)* Selected records with **0 (zero) codes** assigned through a data manipulation script: all these records were coded from scratch, coding the Q2Q6_88 verbatim

- (automatic conversion) Selected records with **1 code** assigned through a data manipulation script: these records were not coded at all. These have received 1 correct code through data manipulation

- *(choose manually from narrowed list of options)* Selected records with **more than 1 code** assigned through a data manipulation script: these records finally received only 1 code for coding Q2Q6_88. The coder selected the best code out of the range of available codes. The verbatim were coded with one of the codes mentioned in front of the verbatim. No new codes could be selected



At the end of the 2nd step, all responses coded in the first step had only one code assigned. The coding started during fieldwork and conducted in batches as the data came in.

As an additional ongoing quality measure following on from the completion of the triple-coding phase and the successful resolution of any/all issues associated with that, network agencies' researchers reviewed 10% of each coder's remaining work throughout the fieldwork period. Errors were only recorded in case the researcher challenged the coder's coding and the coder (or another senior colleague) agreed that a different code should have been used.

Regarding consistency across countries/territories, Ipsos provided clear instructions and feedback to the trainers (see Annex E: Additional Guidelines to Occupation Coding in EWCS 2015). The Ipsos International Coordination team asked the network to ensure such rules like those stipulated in the guidelines, were followed, and in case of doubt, they should contact the ICC.

2. Quality procedures with regard to coding

In order to ensure high quality of data coding submitted, Ipsos applied the following procedures:

- Development of coding manuals for interviewers and coders;
- Experienced coders were used and all coders followed a specific training for the coders involved in the coding of the study;
- The use of a uniform software 'Ascribe' over the countries;
- A test phase with triple-coding of 10% verbatims per country (minimum 100 per country);
- The implementation of the final coding based on the test phase and requirements of Eurofound;
- The documentation of all coding procedures throughout the project.

3. Supplementary documents for the coding process

Several documents have been developed to help interviewers and coders in the coding process; and they were revised where necessary after the test phase.

3.1. Training documents for interviewers

To ensure that verbatim responses entered by interviewers contain all the necessary information for coding occupation and economic activity, Ipsos developed a guidance sheet on probing (see Annex A) for interviewers to follow during the interview. This helped interviewers understand the level of detail required and provided them with a process to follow when clarifying respondents' job title and activities.

Apart from the guidance sheet Ipsos developed a document with an overview of vague answers (see Annex B) collected during the pre-test and for which coders found not having sufficient information to code the answer at a 4 digit level for ISCO classification or/and at the 2 digit level for NACE classification. These (extra) examples were used by country managers during the EWCS national briefing sessions when discussing Q5, Q6 and Q13 of the questionnaire.

Interviewers also made use of these vague answers during the role-playing and try to find the correct questions to ask to come to a sufficient level of detail to enable their colleague-coders to code the answer at a 4 digit level.

- *Guidance sheet for interviewers on probing at Q5/Q6 and Q13 (see Annex A)*
- *Examples of answers found not sufficiently detailed to code according ISCO 88 and NACE V2 code list – Q13 Economic activity of business/organization (see Annex B)*

3.2. Training documents for coders

Apart from the official manuals for ISCO and NACE classification, coders received additional guidelines for coding ISCO 88 based on two papers: *"Do's and dont's"* by Harry Ganzeboom" (2008) and *"A guide for users"* by Peter Elias and Margaret Birch (1994). A similar document was used during the 5th EWCS.

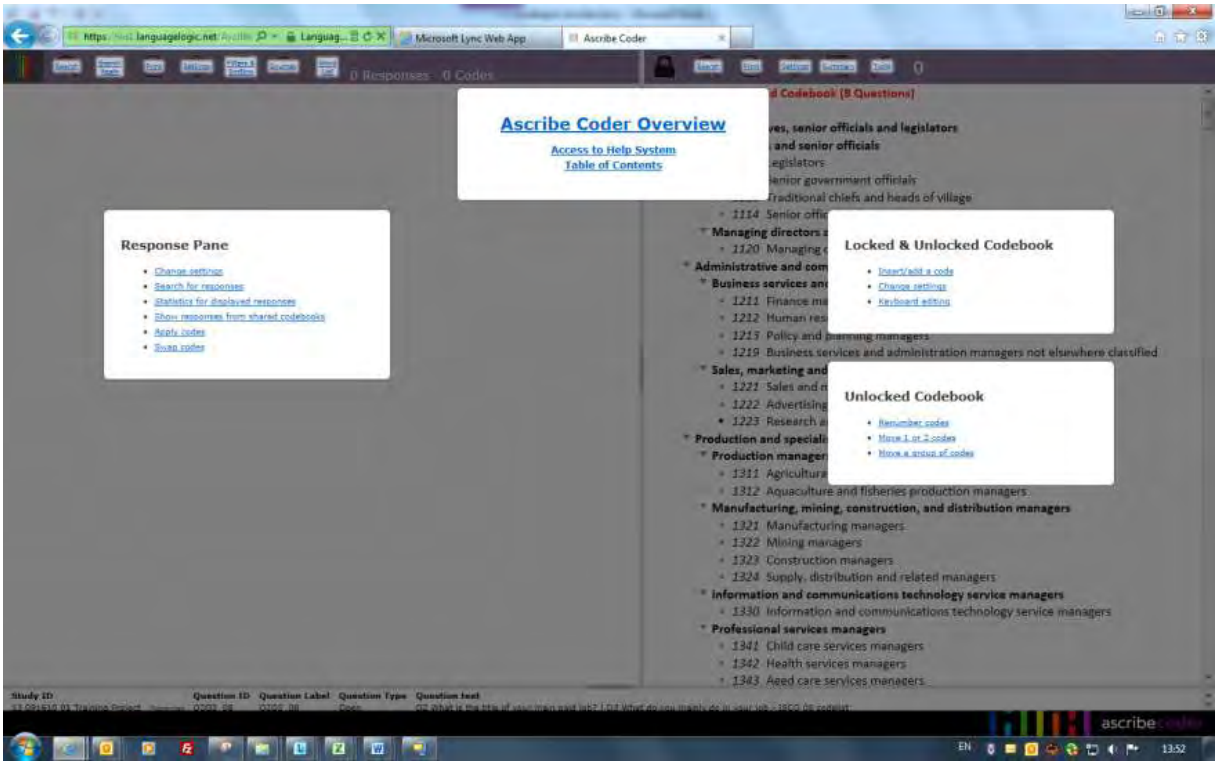
Ipsos also developed a FAQ document for ISCO 88 coding that contained practical examples on certain occupations that were hard to classify according to a number of local fieldwork partners. As a basis to start the coding process with, Ipsos made use of a similar document that has been developed during the 5th EWCS (see Annex F). The document was completed with new practical examples as the coding process of the 6th EWCS moved forward. This document aimed at helping to ensure the uniformity and consistency of coding in all countries. In case it would have been necessary, Ipsos also developed a FAQ for NACE V2.

- The ISCO 88 official manual: *http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_172572.pdf*
- The full NACE V2 classification sector of economic activity: *http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Business_economy_by_sector_-_NACE_Rev._2*
- *Additional Guidelines to Occupation Coding in EWCS 2015 (see Annex E)*
- *FAQ – Practical examples of occupations found difficult to classify (see Annex F)*

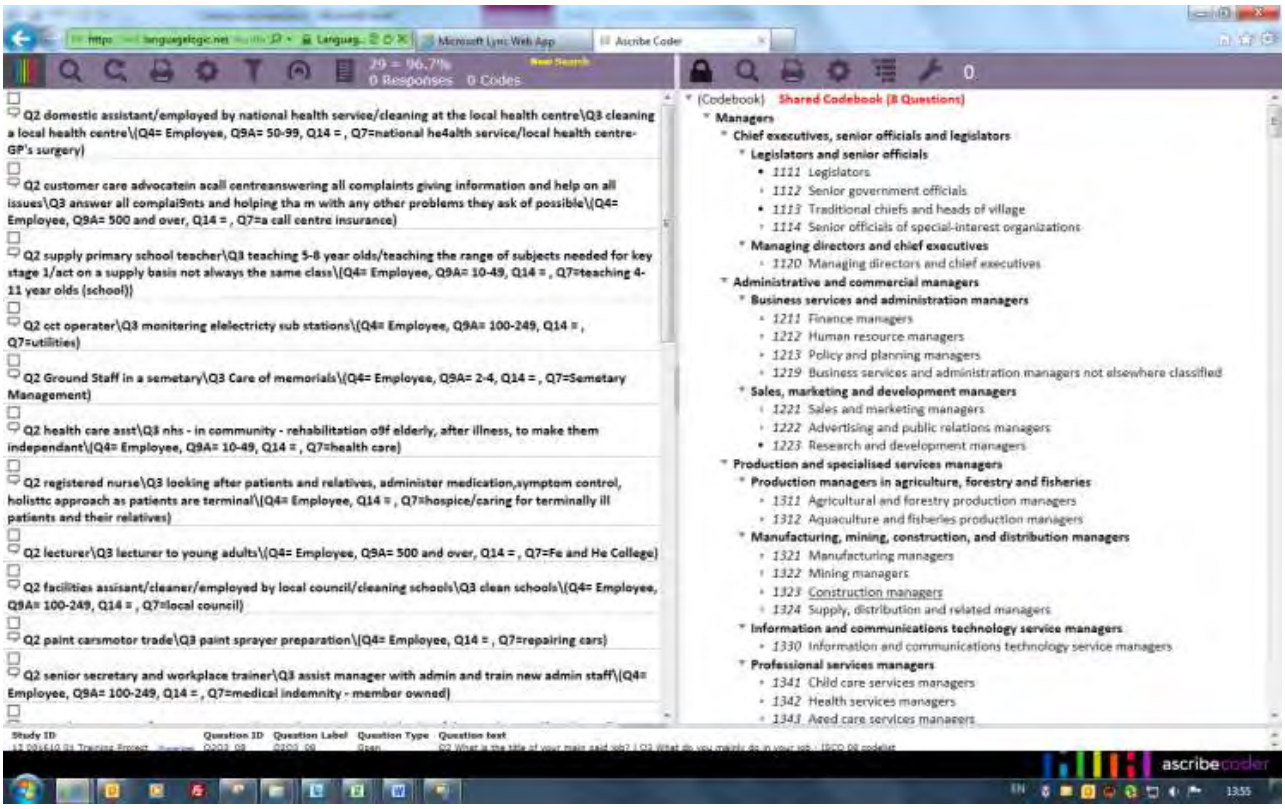
These documents had been prepared by International Coordination Center and validated by Eurofound.

4. The uniform coding software Ascribe

The Ascribe software is a standard in the market research industry and is used very successfully all over the Ipsos network. Using a common system ensured that all coders use the same type of information for coding. Ascribe displays all the information the coders need in one place as shown in the following screenshot.



The Ascribe coder screen is divided in two. On the left, the coder sees the responses and on the right, the code book. At the bottom of the screen the coder can see which question(s) the verbatims are for:

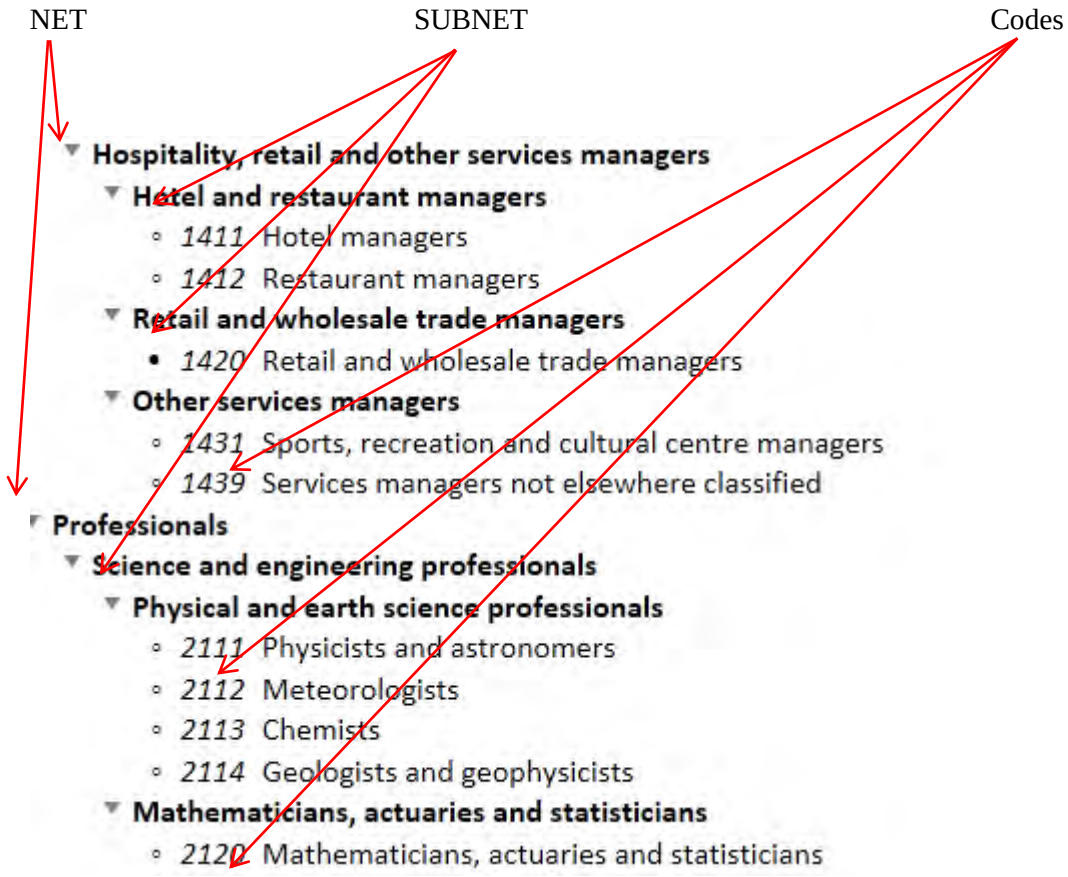


The actual coding can be done in different ways:

- By selecting any number of responses and click on a code;
- By dragging a code to a response; or
- By selecting a code and dragging it to the selected responses.

The coding system contained all the information and data needed for coding:

- Open ended responses (Q5, Q6, Q13) plus additional information (Q13-Employment status "Are you working as an employee or are you self-employed?"; Q16a-Number of people at local site ("How many people in total work at your workplace, that is at the local site where you work?"; Q23 "How many people work under your supervision, for whom pay increases, bonuses or promotion depend directly on you?").
- In Ascribe, ISCO and NACE, 4-digit and 3-digit codebooks were uploaded only in English, (except for France where it was uploaded in French). However, the coders were separately provided the coding list in their local language where it was available. Ascribe codebooks were structured with Nets and Subnets to make it clear and to make the coding process more efficient. Nets and Subnets were not used as codes. Only the items assigned with numbers on the left could be actually selected as codes. The coders were instructed to read the code list(s) through before starting with each question, as this would give them an overview of the available codes. It was also recommended that they had a printed version of the code list(s) during coding. Below is an example of the code list (for Q5Q6):



- NACE Rev. 1.1 and NACE Rev.2 English codebooks.

For further detail on coding in Ascribe, please see the Annex C and Annex D:

- *Coding Instructions (see Annex C)*
- *Coding in Ascribe (see Annex D)*

5. Selection of coding teams and coder training

Network agencies put together a small team of experienced coders for the project. Where possible they selected coders who were familiar with ISCO and NACE coding and had worked on similar projects before.

In countries where ISCO 08 and NACE V2 were available in the local language (all EU member state official languages except Croatian), the coders were also provided the coding list in their native language. In countries where ISCO 08 and NACE V2 were only available in English, the coders had a sufficient level of English. In countries where ISCO 08 and NACE V2 was only available in English (Albania, Croatia, Macedonia, Montenegro, Norway, Serbia and Turkey), the coders had a sufficient level of English.

Training materials, FAQs and continuous support were provided to the network agencies who were responsible for training all the coders involved in the study by the Ipsos ICC. The training sessions were carried out between 20th and 27th of January 2015 for all countries; and refresher training was carried out in the IPA countries between 3rd and 10th of September 2015. The head of coding department and / or coding supervisors provided the training.

Summary of coder training by country			
Country/territory	**Number of coders**	**Language**	**Training date**
EU MEMBER STATES			
Austria	2	German	20 - 27 Jan 2015
Belgium	2	Dutch/French	20 - 27 Jan 2015
Bulgaria	2	Bulgarian	20 - 27 Jan 2015
Czech Republic	2	Czech	20 - 27 Jan 2015
Denmark	2	Danish	20 - 27 Jan 2015
Germany	2	German	20 - 27 Jan 2015
Estonia	2	Estonian	20 - 27 Jan 2015
Ireland	2	English	20 - 27 Jan 2015
Greece	3	Greek	20 - 27 Jan 2015
Spain	4	Spanish	20 - 27 Jan 2015
France	2	French	20 - 27 Jan 2015
Croatia	2	Croatian	20 - 27 Jan 2015
Italy	2	Italian	20 - 27 Jan 2015
Cyprus	3	Greek	20 - 27 Jan 2015
Latvia	2	Latvian	20 - 27 Jan 2015
Lithuania	2	Lithuanian	20 - 27 Jan 2015
Luxembourg	2	Luxembourgish	20 - 27 Jan 2015
Hungary	3	Hungarian	20 - 27 Jan 2015
Malta	3	Maltese/English	20 - 27 Jan 2015
Netherlands	2	Dutch	20 - 27 Jan 2015
Poland	2-4	Polish	20 - 27 Jan 2015
Portugal	3	Portuguese	20 - 27 Jan 2015
Romania	3	Romanian	20 - 27 Jan 2015
Slovenia	2	Slovenian	20 - 27 Jan 2015
Slovakia	2	Slovak	20 - 27 Jan 2015
Finland	2	Finnish	20 - 27 Jan 2015
Sweden	2	Swedish	20 - 27 Jan 2015
United Kingdom	3	English	20 - 27 Jan 2015

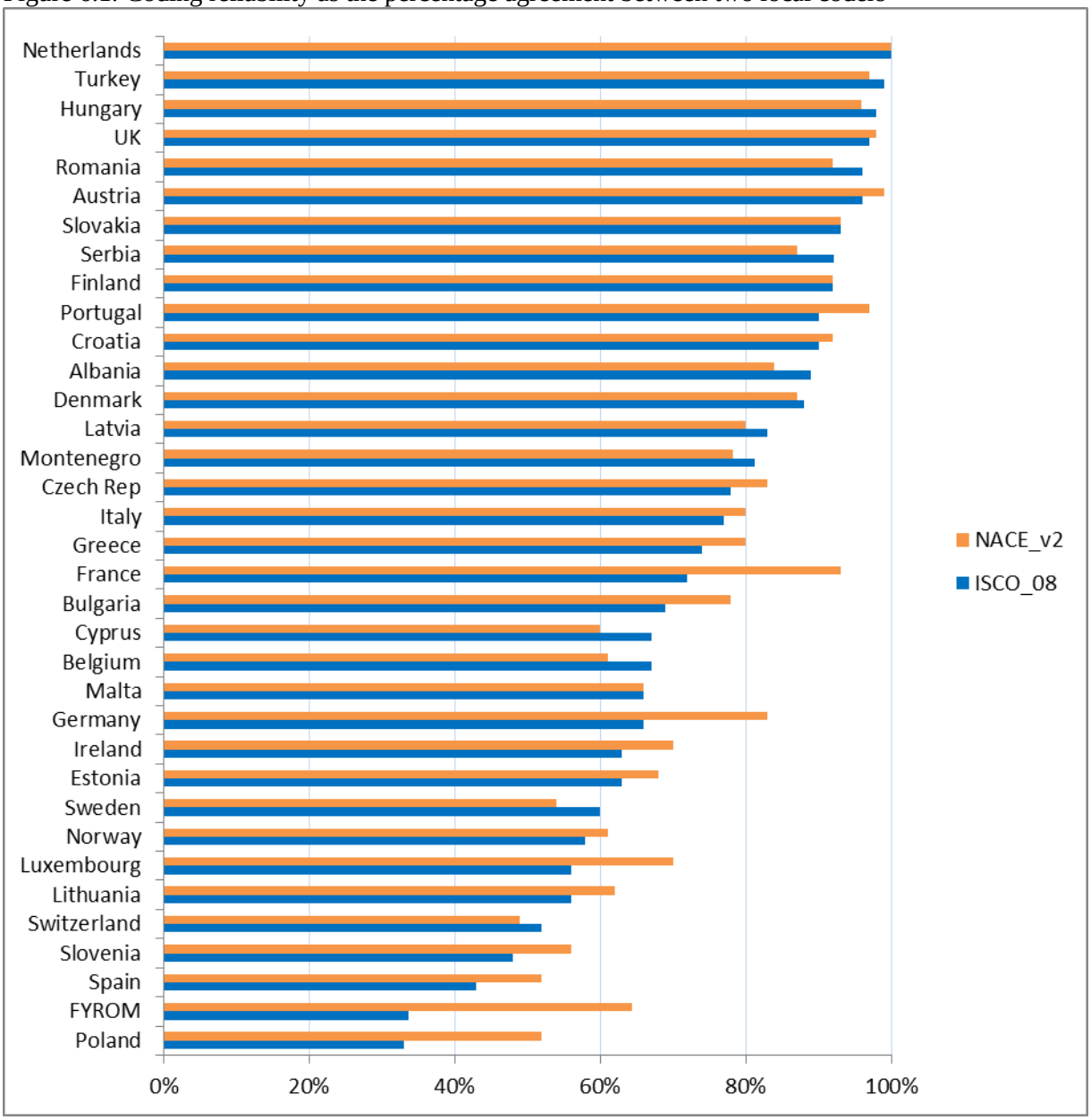
CANDIDATE COUNTRIES			
Albania	2	Albanian	20-27 Jan; refresher training 3 - 10 Sept 2015
Former Yugoslav Republic of Macedonia (FYROM)	2	Macedonian	20-27 Jan; refresher training 3 - 10 Sept 2015
Montenegro	2	Montenegrin	20-27 Jan; refresher training 3 - 10 Sept 2015
Serbia	2	Serbian	20-27 Jan; refresher training 3 - 10 Sept 2015
Turkey	2	Turkish	20-27 Jan; refresher training 3 - 10 Sept 2015
OTHER COUNTRIES			
Norway	2	Norwegian	20 - 27 Jan 2015
Switzerland	2	Italian/French/German/English	20 - 27 Jan 2015

6. Coding implementation

6.1. Test phase

As described in the coding process, the coding in the EWCS was performed in three stages: test phase, adjudication, and coding phase. This section reports the results from the test phase. Figure 6.1 shows the inter-coder reliability for the two local coders. On average, the local coders assigned the same code in 74% of the cases for ISCO 4 digit and in 78% of the cases for NACE 3 –digit. Overall, the reliability of coding in terms of local coder agreement ranged between 33% to 100% for ISCO, and 49% to 100% for NACE across the survey countries.

Figure 6.1: Coding reliability as the percentage agreement between two local coders



Triple-coding

Triple-coding was carried out for ISCO 08 and NACE v.2 based on the English translations of the questions Q5, Q6 and Q13. Table 6.1 compares verified coding and triple coding by the Ipsos global coding team. There was higher agreement between verified and triple coding than between the local coders shown in figure 6.1. On average, verified and triple coding agreed for 87% of the cases for ISCO and for 90% of the cases for NACE across the countries.

The triple coding differed from verified coding for various reasons including country specific occupation categories, insufficient information or hard to classify occupations, and information loss due to translation. In some cases the codes were matching at a higher level, but lacked precise information to code at 4-digit or 3-digit level.

Table 6.1: Inter-coder reliability in triple coding (compared to fourth verified coding)

Country/territory	ISCO 08	NACE V2
EU MEMBER STATES		
Austria	98%	100%
Belgium	78%	75%
Bulgaria	77%	90%
Croatia	94%	94%
Cyprus	81%	85%
Czech Rep	89%	93%
Denmark	94%	92%
Estonia	81%	84%
Finland	98%	98%
France	77%	94%
Germany	76%	89%
Greece	84%	89%
Hungary	99%	100%
Ireland	73%	77%
Italy	84%	88%
Latvia	88%	98%
Lithuania	84%	87%
Luxembourg	82%	80%
Malta	78%	82%
Netherlands	100%	100%
Poland	79%	79%
Portugal	91%	99%
Romania	98%	95%
Slovakia	97%	97%
Slovenia	66%	74%
Spain	71%	82%
Sweden	93%	77%
United Kingdom	99%	100%
CANDIDATE COUNTRIES		
Albania	99%	100%

Table 6.1: Inter-coder reliability in triple coding (compared to fourth verified coding)		
Country/territory	**ISCO 08**	**NACE V2**
Former Yugoslav Republic of Macedonia (FYROM)	99%	81%
Montenegro	89%	100%
Serbia	100%	100%
Turkey	91%	90%
OTHER COUNTRIES		
Norway	88%	88%
Switzerland	80%	81%

6.2. Adjudication and coder agreement

As planned the test phase was followed by adjudication. The codes assigned by local coders, the Ipsos global coding team and the verified code were compared by calculating percentage agreement between different coders illustrated in table 6.1 and figure 6.1. The coding comparisons were performed using excel tables. The tables contained the list of original verbatims, English translations, and the codes assigned by four different coders (two local coders, Ipsos global coding team and the verified code).

When the two local codes agreed, the coinciding code is used as the final code. On average, this was the case for about 74% of all coding for ISCO_08 and 78% of NACE_v2 across all countries (see figure 6.1). When the two local codes did not agree, a fourth verified code was assigned by the local coding manager and Ipsos global coding team using information from all three independent coders including triple coding.

The conversation between Ipsos global coding team and the local agencies while assigning a verified code in the test phase allowed coders to respond more efficiently to problems encountered during the rest of the coding process. The Ipsos global coding team kept close contact with local coding teams during the fieldwork and facilitated the process.

As illustrated by table 6.2 below, the verified coding was re-evaluated where it differed from the three independent codings, and corrections were made before a final code was assigned. In a few instances, triple coding was preferred over verified coding, particularly in cases where one of the local coders agreed with triple coding, and where verified coding was incorrect due to typos or dragging of an adjacent wrong code.

Table 6.2: Corrections made to the fourth coding in the verification step				
Country/territory	**Code corrected**	**Verified coding**	**Triple coding**	**Comments**
EU MEMBER STATES				
Spain	ISCO_08	4322	4323	Dragged the wrong code
Spain	ISCO_08	862	682	Typo -numbers are mixed up
Germany	NACE_V2	889	619	Occupation was coded instead of sector
Greece	ISCO_08	9332	9334	Dragged the wrong code
Malta	NACE_V2	477	781	Wrong code
United Kingdom	ISCO_08	1322	1323	Wrong code

Challenges faced during coding and adjudication

In some cases, the 4-digit ISCO codes were too specific and some verbatims actually covered different codes. For example, in some countries there was a position called hospitality manager, which includes both hotel and restaurant management. In the ISCO 08 code list, this position corresponds to two different codes: 1411-Hotel managers and 1412-Restaurant managers. This was resolved by assigning the right code for what seemed to be the main part of the respondent's work.

6.3. Coding phase

6.3.1. ISCO 08 and NACE V2 coding

The final stage of the coding process was the actual coding of the rest of the verbatims in the EWCS. Tables 6.3.1 and 6.3.2 below show the total number of verbatims loaded to *Ascribe*, and coded by the local interviewers in the 1st and the 2nd steps of coding. On average, above 99% of verbatims for occupation and economic activity across all countries were coded successfully in the main stage. When readability or comprehension problems of verbatims arose, the questionnaire was returned to the field department for checking and clarification. The fieldwork department was able to contact the interviewer and/or the interviewee to resolve the issue. The ISCO and NACE were coded as "impossible to code", where the attempt for gathering more information from the interviewer/interviewee was unsuccessful.

Table 6.3.1: Verbatims coded in the first step, by country.

	ISCO_08			*NACE_V2*		
Country/territory[3]	**Total # of verbatim uploaded**	**Insufficient information**	**Coded at 4-digit level**	**Total # of verbatim uploaded**	**Insufficient information**	**Coded at 4-digit level**
EU MEMBER STATES						
Austria	1028	1	99.9%	1028	1	99.9%
Belgium	2587	41	98.4%	2587	69	97.3%
Bulgaria	1064	4	99.6%	1064	5	99.5%
Croatia	1012	13	98.7%	1012	23	97.7%
Cyprus	1003	7	99.3%	1003	17	98.3%
Czech Republic	1002	2	99.8%	1002	2	99.8%
Denmark	1002	0	100.0%	1002	2	99.8%
Estonia	1015	10	99.0%	1015	18	98.2%
Finland	1001	0	100.0%	1001	3	99.7%
France	1527	0	100.0%	1527	0	100.0%
Germany	2093	10	99.5%	2093	15	99.3%
Greece	1007	2	99.8%	1007	9	99.1%
Hungary	1023	14	98.6%	1023	27	97.4%
Ireland	1057	1	99.9%	1057	32	97.0%
Italy	1402	0	100.0%	1402	3	99.8%
Latvia	1004	6	99.4%	1004	22	97.8%
Lithuania	1004	0	100.0%	1004	0	100.0%
Luxembourg	1003	0	100.0%	1003	0	100.0%

[3] The table considers only the valid complete interviews excluding verbatims from interviews dropped due to quality issues.

Table 6.3.1: Verbatims coded in the first step, by country.						
	ISCO_08			*NACE_V2*		
Country/territory[3]	**Total # of verbatim uploaded**	**Insufficient information**	**Coded at 4-digit level**	**Total # of verbatim uploaded**	**Insufficient information**	**Coded at 4-digit level**
Malta	1004	0	100.0%	1004	0	100.0%
Netherlands	1028	0	100.0%	1028	1	99.9%
Poland	1203	15	98.8%	1203	9	99.3%
Portugal	1037	0	100.0%	1037	0	100.0%
Romania	1063	4	99.6%	1063	5	99.5%
Slovakia	1000	7	99.3%	1000	7	99.3%
Slovenia	1607	7	99.6%	1607	28	98.3%
Spain	3364	2	99.9%	3364	3	99.9%
Sweden	1002	6	99.4%	1002	3	99.7%
United Kingdom	1623	1	99.9%	1623	9	99.4%
CANDIDATE COUNTRIES						
Albania	1002	0	100.0%	1002	0	100.0%
Former Yugoslav Republic of Macedonia (FYROM)	1011	3	99.7%	1011	5	99.5%
Montenegro	1005	0	100.0%	1005	0	100.0%
Serbia	1033	3	99.7%	1033	2	99.8%
Turkey	2000	22	98.9%	2000	55	97.3%
OTHER COUNTRIES						
Norway	1028	5	99.5%	1028	6	99.4%
Switzerland	1006	2	99.8%	1006	0	100.0%

6.3.2. ISCO 88 and NACE V1 Coding

In the second step, the software *Ascribe* automatically assigned most of the ISCO_08 codes to ISCO_88 and NACE_V2 codes to NACE_V1.1. The remaining cases were left blank or assigned multiple codes. Local coders assigned a final code for these remaining cases. Below table 6.3.2 shows the distribution of automatically and otherwise coded responses.

Table 6.3.2: Verbatims coded in the second step, by country						
	ISCO 08 ->ISCO 88			*NACE V2 ->NACE V1*		
Country/territory	**Records with 1 code assigned by system**	**No codes assigned (coder had to code)**	**Several codes assigned by the system (coder had to select code)**	**Records with 1 code assigned by system**	**No codes assigned (coder had to code)**	**Several codes assigned by the system (coder had to select code)**
EU MEMBER STATES						
Austria	75%	1%	24%	60%	3%	37%
Belgium	72%	2%	27%	56%	4%	39%

Table 6.3.2: Verbatims coded in the second step, by country						
	ISCO 08 ->ISCO 88			*NACE V2 ->NACE V1*		
Country/territory	**Records with 1 code assigned by system**	**No codes assigned (coder had to code)**	**Several codes assigned by the system (coder had to select code)**	**Records with 1 code assigned by system**	**No codes assigned (coder had to code)**	**Several codes assigned by the system (coder had to select code)**
Bulgaria	74%	0%	26%	60%	3%	37%
Croatia	69%	3%	28%	67%	9%	24%
Cyprus	75%	2%	23%	67%	9%	24%
Czech Republic	79%	1%	21%	60%	4%	35%
Denmark	71%	0%	29%	59%	1%	40%
Estonia	67%	2%	32%	56%	7%	38%
Finland	65%	0%	35%	49%	1%	49%
France	73%	0%	27%	64%	0%	36%
Germany	76%	2%	22%	55%	7%	37%
Greece	78%	1%	21%	62%	2%	36%
Hungary	74%	2%	24%	62%	7%	31%
Ireland	70%	3%	27%	61%	9%	30%
Italy	79%	2%	18%	64%	3%	33%
Latvia	72%	2%	26%	59%	12%	29%
Lithuania	76%	0%	23%	58%	6%	36%
Luxembourg	68%	0%	32%	69%	1%	30%
Malta	64%	0%	36%	63%	0%	37%
Netherlands	68%	0%	32%	57%	1%	42%
Poland	73%	1%	26%	63%	2%	35%
Portugal	84%	0%	16%	61%	0%	38%
Romania	72%	2%	26%	64%	6%	31%
Slovakia	75%	3%	22%	62%	4%	33%
Slovenia	67%	2%	31%	58%	10%	32%
Spain	77%	0%	23%	59%	1%	40%
Sweden	66%	3%	32%	54%	6%	39%
United Kingdom	67%	1%	32%	56%	7%	37%
CANDIDATE COUNTRIES						
Albania	64%	0%	36%	76%	0%	24%
Former Yugoslav Republic of Macedonia (FYROM)	68%	0%	32%	66%	1%	33%
Montenegro	68%	1%	31%	72%	0%	28%
Serbia	67%	0%	33%	71%	1%	28%
Turkey	78%	5%	17%	58%	9%	33%
OTHER COUNTRIES						
Norway	75%	1%	23%	57%	3%	40%
Switzerland	71%	1%	29%	62%	3%	36%

6.4. Summary and Conclusion

As a result of these coding steps, the verbatims for occupation and economic activity were integrated in the main data set. The coding was successfully implemented cross-nationally, consistent with the previous waves and brought up to date with developments over the last five years.

Interviewers played a key role in the coding process by the quality of information they gathered from the respondents. Inconsistencies between the coders often followed from lack of detailed information on the respective questions. The 4-digit ISCO and 3-digit NACE coding demands that interviews are well aware of the coding process and the code list to be able to probe and gather the required information for coding. In the future waves of EWCS, a feedback session with interviewers to discuss the results from triple coding can help interviewers better understand the level of detail required for ISCO and NACE coding.

7. Education categories

The nationally relevant levels of completed education categories were proposed by the national agencies. These categories were recorded in a country specific closed question and were converted (recoded) during the data processing phase) into ISCED1 first digit categories to reach harmonised education categories across the whole dataset. No manual coding of the education level was involved.

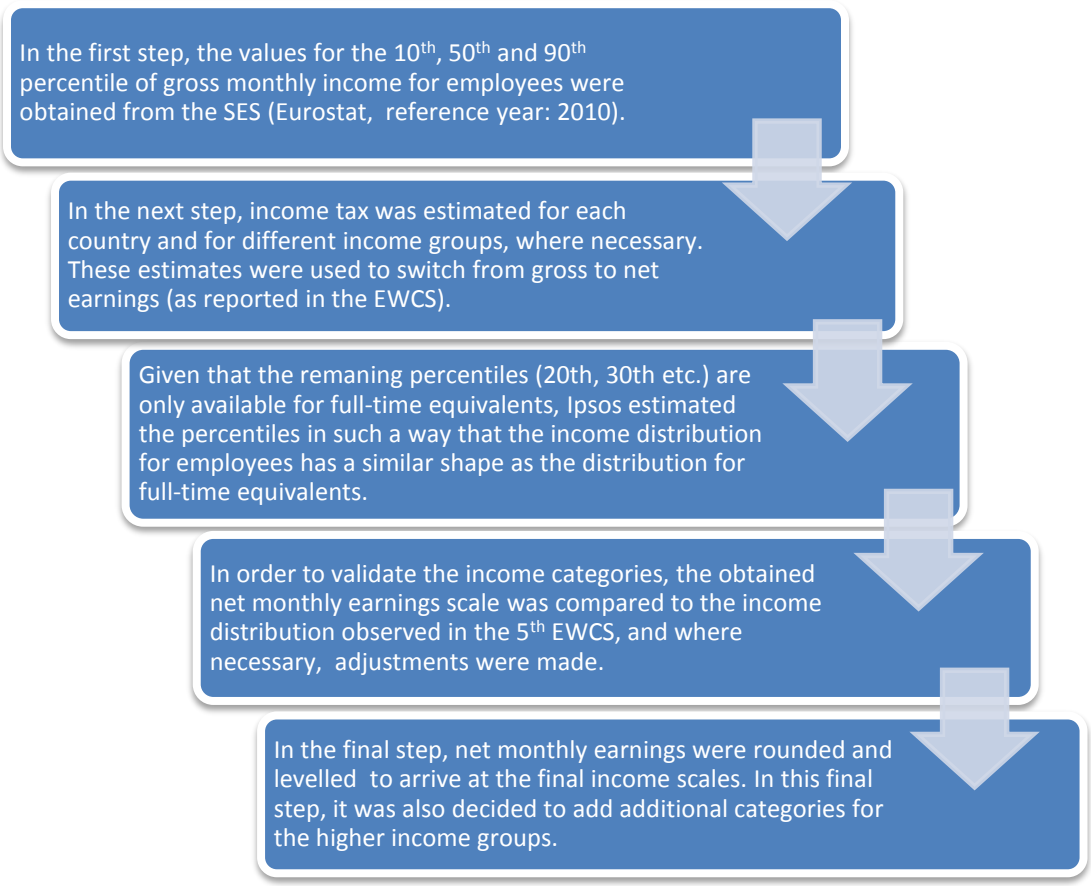
8. Income question, currency conversion

The monthly earnings in the 6th EWCS were measured using two income questions Q104 and Q105. Q104 asked respondents about their net monthly earnings without prompting, whereas Q105 asked which income category best matches their net monthly earnings if the respondent did not answer Q104.

In the case of Q105, Ipsos constructed the income scale by using information from the Structure of Earnings Surveys (SES)[4] in combination with the results of the 5th EWCS. While this was a valid approach for most of the survey countries, some countries were missing information from EWCS5 and/or SES. Specifically, Switzerland missed information from 5th EWCS, while Albania and Montenegro were missing information from SES (Eurostat). For one country, Serbia, there was no information available. In these countries, information from countries with similar income levels were used to construct the scales; Ipsos consulted with local agencies to collect the necessary income information.

The construction of income scales followed the process detailed below. In the final step, the highest income categories were further divided into smaller intervals (i.e. more income brackets) to reflect the fact that the income scale used in 5th EWCS did not allow respondents with a high income to report this with enough precision.

[4] Detailed tables on the results of the four-yearly Structure of Earnings Survey (SES) provide comparable information at EU-level on relationships between the level of earnings, individual characteristics of employees (sex, age, occupation, length of service, educational level) and their employer (economic activity, size of the enterprise, etc.) for reference years 2002, 2006 and 2010 (next survey: reference year 2014).



Please see Annex G for the final income scales for each country.

The obtained data from the income questions (Q104 and Q105) were then converted into euro figures in the final dataset. The exchange rates used for the conversion were those valid on the median date of fieldwork for each country, which were as follows:

Table 8.1: National currency converted into Euro

Country/territory	Currency	Median date of fieldwork	Exchange rate[5]
EU MEMBER STATES			
Bulgaria	Bulgarian lev	29/03/2015	0.5113
Croatia	Croatian Kuna	13/04/2015	0.1321
Czech Republic	Czech Koruna	14/04/2015	0.03657
Denmark	Danish Krone	20/04/2015	0.134043
Hungary	Hungarian Forint	28/04/2015	0.003318
Poland	Polish Zloty	20/04/2015	0.2507
Romania	Romanian Leu	22/04/2015	0.2258
Sweden	Swedish Krona	1/06/2015	0.1067
United Kingdom	British Pound	6/05/2015	1.3557

[5] Source: European Central Bank

Table 8.1: National currency converted into Euro			
Country/territory	**Currency**	**Median date of fieldwork**	**Exchange rate[5]**
CANDIDATE COUNTRIES			
Albania	Albania Leke	27/09/2015	0.00718
Former Yugoslav Republic of Macedonia (FYROM)	Macedonian Denar	07/10/2015	0.01625
Serbia	Serbian Dinar	14/10/2015	0.00832
Turkey	Turkish Lira	29/10/2015	0.31153
OTHER COUNTRIES			
Norway	Norwegian Kroner	1/06/2015	0.1149
Switzerland	Swiss franc	4/05/2015	0.9587

Annex

Annex A: Guidance for interviewers on probing at Q2/Q6 and Q13

Annex B: Examples of answers found not sufficiently detailed to code according ISCO 88 code list - Q2/Q6 OCCUPATION

Annex C: Coding Instructions

Annex D: Coding in Ascribe

Annex E: Additional Guidelines to Occupation Coding

Annex F: FAQ – Practical examples of occupations difficult to classify

Annex G: Income scales in EWCS 2015

Annex A: Guidance for interviewers on probing at Q5/Q6 and Q13

The purpose of this document is to assist you with collecting the appropriate level of information required for colleagues who will be coding the open-ended questions after the survey to complete their work accurately. This has been one of the main issues identified during previous waves of the project, and will prevent any need to contact interviewers with follow-up queries.

- Q5 and Q6: Occupation
- Q13: Sector of economic activity

Although occupations and sectors might appear obvious, the internationally-used classifications ISCO (for occupation) and NACE (for economic sectors) go into much more detail than the average person might expect in terms of ensuring that similar occupations (and sectors) are broken down into more precise and discrete categories. These breakdowns will be vital when the survey data is analysed.

Although it is unrealistic to know in advance all potential types of occupation or sector that you will encounter, please familiarise yourself in as much detail as you are able to with the full classifications.

Occupation (ISCO):
http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_172572.pdf

Sector of economic activity (NACE):
http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Business_economy_by_sector_-_NACE_Rev._2

Q5 / Q6 Occupation

As stated in the interviewer manual, the interviewer needs to extract as much information as they can from the respondent regarding his/her job title, description and duties, so that the appropriate detailed (**4-digit**) ISCO classification can be assigned. In general this includes **sector, function/context within the organisation, daily activities, and skills/training required**.

Respondents must first express themselves (at Q5) spontaneously in terms of their occupation.

At Q6, the focus is on the person's own function and everyday activity inside the organization. Always ask the person to answer as precisely as he/she can, sharing all of the contextual information about his/her job. Remember that we are asking about the respondent's **job function**, and not their work tasks which might be more general.

In the table on page 2, you can see the less-detailed **1-digit** and **2-digit** headings used in the ISCO classification to give you a general idea of how ISCO works. There is insufficient space to include all of the **4-digit** ISCO codes that fit under each of the 2-digit headings, but please familiarise yourself with some examples using the link above.

It is particularly important to be aware of some of the differences between the trickier occupations.
The table on pages 3-5 gives specific examples of probes to be used for such complex occupations (e.g. with general, non-descriptive titles or where there could be perceived overlaps between ISCO codes).

ISCO 1-digit	ISCO 2-digit	Description
1		**Managers**
	11	Chief Executives, Senior Officials and Legislators
	12	Administrative and Commercial Managers
	13	Production and Specialised Services Managers
	14	Hospitality, Retail and Other Services Managers
2		**Professionals**
	21	Science and Engineering Professionals
	22	Health Professionals
	23	Teaching Professionals
	24	Business and Administration Professionals
	25	Information and Communications Technology Professionals
	26	Legal, Social and Cultural Professionals
3		**Technicians and Associate Professionals**
	31	Science and Engineering Associate Professionals
	32	Health Associate Professionals
	33	Business and Administration Associate Professionals
	34	Legal, Social, Cultural and Related Associate Professionals
	35	Information and Communications Technicians
4		**Clerical Support Workers**
	41	General and Ketboard Clerks
	42	Customer Services Clerks
	43	Numerical and Material Recording Clerks
	44	Other Clerical Support Workers
5		**Services and Sales Workers**
	51	Personal Services Workers
	52	Sales Workers
	53	Personal Care Workers
	54	Protective Services Workers
6		**Skilled Agricultural, Forestry and Fishery Workers**
	61	Market-oriented Skilled Agricultural Workers
	62	Market-oriented Skilled Forestry, Fishing and Hunting Workers
	63	Subsistence Farmers, Fishers, Hunters and Gatherers
7		**Craft and Related Trades Workers**
	71	Building and Related Trades Workers (excluding Electricians)
	72	Metal, Machinery and Related Trades Workers
	73	Handicraft and Printing Workers
	74	Electrical and Electronics Trades Workers
	75	Food Processing, Woodwork, Garment and Other Craft and Related Trades Workers
8		**Plant and Machine Operators and Assemblers**
	81	Stationary Plant and Machine Operators
	82	Assemblers
	83	Drivers and Mobile Plant Operators
9		**Elementary Occupations**
	91	Cleaners and Helpers
	92	Agricultural, Forestry and Fishery Labourers
	93	Labourers in Mining, Construction, Manufacturing and Transport
	94	Food Preparation Assistants
	95	Street and Related Sales and Services Workers
	96	Refuse Workers and Other Elementary Workers
0		**Armed Forces Occupations**
	01	Commissioned Armed Forces Officers
	02	Non-commissioned Armed Forces Officers
	03	Armed Forces Occupations, Other ranks

Job/Occupation	Probe
Manager / Deputy Manager / General Manager / Senior Official	Clarify if respondent is general manager of the organisation **or** the head of a department. If Department Manager or Deputy head of department, clarify main area/activity: *Finance and administration / Personnel and industrial relations / Sales and marketing / Advertising and public relations / Supply and distribution / Research and development / Computing services / Other departments not classified elsewhere* Does the respondent work in…? *Private enterprise / Government / Non-Government Organisation / Interest group / Political organisation* For government (and related) workers, clarify: • Seniority of position • If central or local government • The name of the department For other types of worker, clarify industry or sector the enterprise operates in: *Agriculture, forestry and fishing / Manufacturing / Construction / Wholesale and retail trade / Restaurants and hotels / Transport, storage and communications / Business services / Personal care, cleaning and related services / Other industry not classified elsewhere*
Administrator / Clerk / Assistant / Junior Official	As above, whether the respondent is working for: *Private enterprise / Government / Non-Government Organisation / Interest group / Political organisation* For government workers, clarify: • Seniority of position • If central or local government • The name of the department For other types of worker, clarify the type of business, company or office: *Accounting and bookkeeping / Statistical and finance / Stock / Production / Transport / Library and filing / Mail carriers and sorting / Coding, proof-reading and related / Scribes and related /Cashier or ticket clerk / Tellers and counter clerks / Receptionists and information / Travel agency and related*
Information Technology / Computer worker	Clarify whether the respondent is a professional (usually managers, developers or analysts) or associate professional (usually technicians, assistants or operators). Clarify which of the following fits best if it is not clear from the respondent's job title. • IT manager • System administrator and/or analyst • Computer systems designer and/or analyst • Computer programmer • Computer assistant • Computer equipment operator
Engineering / Engineer / Technician	For engineers, clarify the type: *Civil / Electrical / Electronics and telecommunications / Mechanical / Chemical / Ships' engineer / Mining engineer, metallurgist or related professional* For technicians, clarify the type of science or engineering the respondent works in: *Chemical and physical science / Civil engineering / Electrical engineering / Mechanical engineering / Electronics and telecommunications / Chemical engineering / Mining and metallurgical / Agronomy or forestry*
Teacher / Teaching / Education work	If unsure, clarify whether the respondent is a professional or associate professional: *Professional: Teachers, Lecturers, Tutors, Methods specialists, Inspectors, Education managers*

Job/Occupation	Probe
	Associate Professional: Teaching assistants and support staff Within these categories check the level of education the respondent works in: *College, university and higher education / Secondary education / Primary education / Pre-primary education / Special education / Education methods specialist / Education inspectors*
Health / Healthcare / Healthcare Assistant	If unsure, clarify whether the respondent is a professional or associate professional: *Professional: Dentists, Medical doctors and nursing/midwifery professionals, Paramedics, Pharmacists.* *Associate Professional: Ambulance workers, Community health workers, Dispensing opticians, Medical technicians and assistants, Nursing/midwifery associate professionals* For Healthcare Assistants, clarify type (e.g. medical, dental, veterinary, pharmaceutical).
Finance / Accountant / Bookkeeper	Clarify whether the respondent is working as an Accountant, Bookkeeper or Accounting and bookkeeping clerk. *Accountant: Reports financial results (for a company or individual), in accordance with government and regulatory authority rules. Accountants typically supervise bookkeepers.* *Bookkeeper: Systematically records a company's financial transactions. In small businesses a freelancer (a contract accountant or full charge bookkeeper) often performs all accountancy and bookkeeping roles for a company. They may consider themselves as 'accountants' as it is a more prestigious title.* *Accounting and bookkeeping clerk: Responsible for bookkeeping and reporting of financial results.*
Inspector	Clarify type of inspector: *Building and fire inspector / Health, safety and quality inspector / School inspector / Police inspector / Customs and border inspector*
Sales / Salesperson	Clarify the type of salesperson, product or service: *Door-to-door or telephone / Shop salesperson or demonstrator / Stall or market salesperson / Street vendor, non-food*
Mechanic	Ask for type of mechanic and try to find closest fit: *Motor vehicle mechanic or fitter / Aircraft engine mechanic or fitter /* *Electrical mechanic or fitter /Electronics fitter / Electronics mechanic or servicer /* *Agricultural or industrial machinery mechanic or fitter /* *Machine-tool setter or setter-operator / Metal wheel-grinder, polisher or tool sharpener /* *Telegraph and telephone installer or servicer / Electrical line installer, repairer or cable jointer*
Driver / Driving work	Clarify type of driver (see also below for Power machine operators): *Car, taxi and van driver / Bus and tram driver / Heavy truck or lorry driver / Motorcycle driver or courier / Locomotive engine driver / Railway braker, signaller or shunter / Hand or pedal vehicle driver / Ship crews / Driver of animal-drawn vehicles / Machinery freight handler*
Machine operator / Plant operator /	First clarify if necessary whether the respondent operates 'industrial'-type machines or 'office'-type machines.

Job/Occupation	Probe
Operator	***Office-type machine jobs****: Word processor or related operator, Date entry operator, Calculating machine operator, Telephone switchboard operator.* For all other machine operators, clarify if necessary that the respondent operates the machine and is not an Assembly worker (see below). For machine operators, clarify the industry and machine type as necessary: ***Industrial-robot operator:*** *Automated assembly line operator* ***Power machine operator:*** *Earth-moving and related plant operator / Crane, hoist and related plant operator / Lifting truck operator / Motorised farm and forestry plant operator* ***Chemical machinery operator:*** *Crushing, grinding and chemical mixing machine /* *Chemical heat-treating plant operator / Chemical filtering and separating equipment operator /* *Chemical still and reactor operator (except petroleum and natural gas) / Pharmaceutical and toiletry products* ***Raw material plant industry operator****: Metal heat treating plant operator / Wood processing plant operator /* *Paper-pulp plant / Papermaking plant / Ore and metal furnace / Glass, ceramics and related plant operator /* *Glass and ceramics kiln and related / Power-production plant / Steam engine and boiler operator* ***Products, textiles and consumable goods*** *– following types of machine operator:* *Ammunition and explosive products / Metal finishing, plating and coating / Photographic products /* *Chemical products not classified elsewhere / Rubber products / Plastic products / Wood projects /* *Printing machine / Bookbinding machine / Paper products machine /* *Fibre preparing, spinning and winding machine / Weaving and knitting machine / Sewing machine /* *Bleaching, dyeing and cleaning / Fur and leather preparing / Shoemaking / Textile, fur and leather products* ***Food, drink and tobacco:*** *Meat and fish processing machine / Dairy products machine /* *Grain and spice milling machine / Baked goods, cereal and chocolate products /* *Fruit, vegetable and nut processing machine / Sugar production / Tea, coffee and cocoa production / Brewers-wine and other beverages / Tobacco production machine*
Assembly worker	Clarify the type of assembly work (the type of product): *Mechanical or machinery assembler / Electrical equipment assembler / Metal, rubber and plastic products /* *Wood and related product / Paperboard, textile and related products assembler /* *Assembling labourer / Hand pickers and other manufacturing labourers*
Builder / Building work	Clarify the type of building work: *Builder, traditional materials / Bricklayer and stonemason / Concrete placer, concrete finisher or related worker* *Carpenter or joiner / Building frame and related trades worker not classified elsewhere /* *Varnisher and related painter / Building structure cleaner / Well driller or borer and related workers /* *Construction and maintenance labourer: roads, dams or similar constructions / Building construction labourer*
Agriculture / Farmer / Farm work / Gardener / Work with animals	Clarify type of farm (crop, plant or vegetable grower or raises animals/livestock). For Gardeners, clarify type (market gardener or horticultural/nursery grower) For forestry or fishery workers, if unsure clarify whether work is skilled or subsistence.
Cleaners / Cleaning work	Clarify whether the respondent is a domestic cleaner or not. If not, clarify type of cleaning work: *Cleaner in offices, hotels and other establishments / Vehicle, window or related cleaner /* *Hand-launderer or presser / Shoe cleaner or other street services / Sweeper or related labourer*
Seasonal worker	Collect the industry the respondent works in: *Agriculture / Road construction / Building construction / Food catering / Travel etc.*

Q13: Sector of economic activity

Similarly, the information collected at Q13 (main activity of the company or organisation where the respondent works) will be used to assign the appropriate **3-digit** NACE classification. The information already collected above in Q5/Q6 should assist with this, but please include these details again as Q13 may be coded separately from Q5/Q6. Please clarify with the respondent the exact industry or sector s/he is talking about, and within that industry what exactly the organisation does. Please familiarise yourself with the 3-digit NACE codes below (together with the higher-level NACE codes A, B, C etc.). Probe for sufficient information on the **economic activity** of the organisation or business for which the respondent works.

A	**AGRICULTURE, FORESTRY AND FISHING**
1	**Crop and animal production, hunting and related service activities**
011	Growing of non-perennial crops
012	Growing of perennial crops
013	Plant propagation
014	Animal production
015	Mixed farming
016	Support activities to agriculture and post-harvest crop activities
017	Hunting, trapping and related service activities
2	**Forestry and logging**
021	Silviculture and other forestry activities
022	Logging
023	Gathering of wild growing non-wood products
024	Support services to forestry
3	**Fishing and aquaculture**
031	Fishing
032	Aquaculture
B	**MINING AND QUARRYING**
5	**Mining of coal and lignite**
051	Mining of hard coal
052	Mining of lignite
6	**Extraction of crude petroleum and natural gas**
061	Extraction of crude petroleum
062	Extraction of natural gas
7	**Mining of metal ores**
071	Mining of iron ores
072	Mining of non-ferrous metal ores
8	**Other mining and quarrying**
081	Quarrying of stone, sand and clay
089	Mining and quarrying n.e.c.
9	**Mining support service activities**
091	Support activities for petroleum and natural gas extraction
099	Support activities for other mining and quarrying
C	**MANUFACTURING**
10	**Manufacture of food products**
101	Processing and preserving of meat and production of meat products
102	Processing and preserving of fish, crustaceans and molluscs
103	Processing and preserving of fruit and vegetables
104	Manufacture of vegetable and animal oils and fats
105	Manufacture of dairy products
106	Manufacture of grain mill products, starches and starch products
107	Manufacture of bakery and farinaceous products

108	Manufacture of other food products
109	Manufacture of prepared animal feeds
11	**Manufacture of beverages**
110	Manufacture of beverages
12	**Manufacture of tobacco products**
120	Manufacture of tobacco products
13	**Manufacture of textiles**
131	Preparation and spinning of textile fibres
132	Weaving of textiles
133	Finishing of textiles
139	Manufacture of other textiles
14	**Manufacture of wearing apparel**
141	Manufacture of wearing apparel, except fur apparel
142	Manufacture of articles of fur
143	Manufacture of knitted and crocheted apparel
15	**Manufacture of leather and related products**
151	Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur
152	Manufacture of footwear
16	**Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials**
161	Sawmilling and planing of wood
162	Manufacture of products of wood, cork, straw and plaiting materials
17	**Manufacture of paper and paper products**
171	Manufacture of pulp, paper and paperboard
172	Manufacture of articles of paper and paperboard
18	**Printing and reproduction of recorded media**
181	Printing and service activities related to printing
182	Reproduction of recorded media
19	**Manufacture of coke and refined petroleum products**
191	Manufacture of coke oven products
192	Manufacture of refined petroleum products
20	**Manufacture of chemicals and chemical products**
201	Manufacture of basic chemicals, fertilisers and nitrogen compounds, plastics and synthetic rubber in primary forms
202	Manufacture of pesticides and other agrochemical products
203	Manufacture of paints, varnishes and similar coatings, printing ink and mastics
204	Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations
205	Manufacture of other chemical products
206	Manufacture of man-made fibres
21	**Manufacture of basic pharmaceutical products and pharmaceutical preparations**
211	Manufacture of basic pharmaceutical products
212	Manufacture of pharmaceutical preparations
22	**Manufacture of rubber and plastic products**
221	Manufacture of rubber products
222	Manufacture of plastic products
23	**Manufacture of other non-metallic mineral products**
231	Manufacture of glass and glass products
232	Manufacture of refractory products
233	Manufacture of clay building materials
234	Manufacture of other porcelain and ceramic products
235	Manufacture of cement, lime and plaster

236	Manufacture of articles of concrete, cement and plaster
237	Cutting, shaping and finishing of stone
239	Manufacture of abrasive products and non-metallic mineral products n.e.c.
24	**Manufacture of basic metals**
241	Manufacture of basic iron and steel and of ferro-alloys
242	Manufacture of tubes, pipes, hollow profiles and related fittings, of steel
243	Manufacture of other products of first processing of steel
244	Manufacture of basic precious and other non-ferrous metals
245	Casting of metals
25	**Manufacture of fabricated metal products, except machinery and equipment**
251	Manufacture of structural metal products
252	Manufacture of tanks, reservoirs and containers of metal
253	Manufacture of steam generators, except central heating hot water boilers
254	Manufacture of weapons and ammunition
255	Forging, pressing, stamping and roll-forming of metal; powder metallurgy
256	Treatment and coating of metals; machining
257	Manufacture of cutlery, tools and general hardware
259	Manufacture of other fabricated metal products
26	**Manufacture of computer, electronic and optical products**
261	Manufacture of electronic components and boards
262	Manufacture of computers and peripheral equipment
263	Manufacture of communication equipment
264	Manufacture of consumer electronics
265	Manufacture of instruments and appliances for measuring, testing and navigation; watches and clocks
266	Manufacture of irradiation, electromedical and electrotherapeutic equipment
267	Manufacture of optical instruments and photographic equipment
268	Manufacture of magnetic and optical media
27	**Manufacture of electrical equipment**
271	Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus
272	Manufacture of batteries and accumulators
273	Manufacture of wiring and wiring devices
274	Manufacture of electric lighting equipment
275	Manufacture of domestic appliances
279	Manufacture of other electrical equipment
28	**Manufacture of machinery and equipment n.e.c.**
281	Manufacture of general-purpose machinery
282	Manufacture of other general-purpose machinery
283	Manufacture of agricultural and forestry machinery
284	Manufacture of metal forming machinery and machine tools
289	Manufacture of other special-purpose machinery
29	**Manufacture of motor vehicles, trailers and semi-trailers**
291	Manufacture of motor vehicles
292	Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers
293	Manufacture of parts and accessories for motor vehicles
30	**Manufacture of other transport equipment**
301	Building of ships and boats
302	Manufacture of railway locomotives and rolling stock
303	Manufacture of air and spacecraft and related machinery
304	Manufacture of military fighting vehicles
309	Manufacture of transport equipment n.e.c.
31	**Manufacture of furniture**

310	Manufacture of furniture
32	**Other manufacturing**
321	Manufacture of jewellery, bijouterie and related articles
322	Manufacture of musical instruments
323	Manufacture of sports goods
324	Manufacture of games and toys
325	Manufacture of medical and dental instruments and supplies
329	Manufacturing n.e.c.
33	**Repair and installation of machinery and equipment**
331	Repair of fabricated metal products, machinery and equipment
332	Installation of industrial machinery and equipment
D	**ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY**
35	**Electricity, gas, steam and air conditioning supply**
351	Electric power generation, transmission and distribution
352	Manufacture of gas; distribution of gaseous fuels through mains
353	Steam and air conditioning supply
E	**WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES**
36	**Water collection, treatment and supply**
360	Water collection, treatment and supply
37	**Sewerage**
370	Sewerage
38	**Waste collection, treatment and disposal activities; materials recovery**
381	Waste collection
382	Waste treatment and disposal
383	Materials recovery
39	**Remediation activities and other waste management services**
390	Remediation activities and other waste management services
F	**CONSTRUCTION**
41	**Construction of buildings**
411	Development of building projects
412	Construction of residential and non-residential buildings
42	**Civil engineering**
421	Construction of roads and railways
422	Construction of utility projects
429	Construction of other civil engineering projects
43	**Specialised construction activities**
431	Demolition and site preparation
432	Electrical, plumbing and other construction installation activities
433	Building completion and finishing
439	Other specialised construction activities
G	**WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES**
45	**Wholesale and retail trade and repair of motor vehicles and motorcycles**
451	Sale of motor vehicles
452	Maintenance and repair of motor vehicles
453	Sale of motor vehicle parts and accessories
454	Sale, maintenance and repair of motorcycles and related parts and accessories
46	**Wholesale trade, except of motor vehicles and motorcycles**
461	Wholesale on a fee or contract basis
462	Wholesale of agricultural raw materials and live animals
463	Wholesale of food, beverages and tobacco
464	Wholesale of household goods

465	Wholesale of information and communication equipment
466	Wholesale of other machinery, equipment and supplies
467	Other specialised wholesale
469	Non-specialised wholesale trade
47	**Retail trade, except of motor vehicles and motorcycles**
471	Retail sale in non-specialised stores
472	Retail sale of food, beverages and tobacco in specialised stores
473	Retail sale of automotive fuel in specialised stores
474	Retail sale of information and communication equipment in specialised stores
475	Retail sale of other household equipment in specialised stores
476	Retail sale of cultural and recreation goods in specialised stores
477	Retail sale of other goods in specialised stores
478	Retail sale via stalls and markets
479	Retail trade not in stores, stalls or markets
H	**TRANSPORTATION AND STORAGE**
49	**Land transport and transport via pipelines**
491	Passenger rail transport, interurban
492	Freight rail transport
493	Other passenger land transport
494	Freight transport by road and removal services
495	Transport via pipeline
50	**Water transport**
501	Sea and coastal passenger water transport
502	Sea and coastal freight water transport
503	Inland passenger water transport
504	Inland freight water transport
51	**Air transport**
511	Passenger air transport
512	Freight air transport and space transport
52	**Warehousing and support activities for transportation**
521	Warehousing and storage
522	Support activities for transportation
53	**Postal and courier activities**
531	Postal activities under universal service obligation
532	Other postal and courier activities
I	**ACCOMMODATION AND FOOD SERVICE ACTIVITIES**
55	**Accommodation**
551	Hotels and similar accommodation
552	Holiday and other short-stay accommodation
553	Camping grounds, recreational vehicle parks and trailer parks
559	Other accommodation
56	**Food and beverage service activities**
561	Restaurants and mobile food service activities
562	Event catering and other food service activities
563	Beverage serving activities
J	**INFORMATION AND COMMUNICATION**
58	**Publishing activities**
581	Publishing of books, periodicals and other publishing activities
582	Software publishing
59	**Motion picture, video and television programme production, sound recording and music publishing activities**
591	Motion picture, video and television programme activities
592	Sound recording and music publishing activities
60	**Programming and broadcasting activities**

601	Radio broadcasting
602	Television programming and broadcasting activities
61	**Telecommunications**
611	Wired telecommunications activities
612	Wireless telecommunications activities
613	Satellite telecommunications activities
619	Other telecommunications activities
62	**Computer programming, consultancy and related activities**
620	Computer programming, consultancy and related activities
63	**Information service activities**
631	Data processing, hosting and related activities; web portals
639	Other information service activities
K	**FINANCIAL AND INSURANCE ACTIVITIES**
64	**Financial service activities, except insurance and pension funding**
641	Monetary intermediation
642	Activities of holding companies
643	Trusts, funds and similar financial entities
649	Other financial service activities, except insurance and pension funding
65	**Insurance, reinsurance and pension funding, except compulsory social security**
651	Insurance
652	Reinsurance
653	Pension funding
66	**Activities auxiliary to financial services and insurance activities**
661	Activities auxiliary to financial services, except insurance and pension funding
662	Activities auxiliary to insurance and pension funding
663	Fund management activities
L	**REAL ESTATE ACTIVITIES**
68	**Real estate activities**
681	Buying and selling of own real estate
682	Rental and operating of own or leased real estate
683	Real estate activities on a fee or contract basis
M	**PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES**
69	**Legal and accounting activities**
691	Legal activities
692	Accounting, bookkeeping and auditing activities; tax consultancy
70	**Activities of head offices; management consultancy activities**
701	Activities of head offices
702	Management consultancy activities
71	**Architectural and engineering activities; technical testing and analysis**
711	Architectural and engineering activities and related technical consultancy
712	Technical testing and analysis
72	**Scientific research and development**
721	Research and experimental development on natural sciences and engineering
722	Research and experimental development on social sciences and humanities
73	**Advertising and market research**
731	Advertising
732	Market research and public opinion polling
74	**Other professional, scientific and technical activities**
741	Specialised design activities
742	Photographic activities
743	Translation and interpretation activities
749	Other professional, scientific and technical activities n.e.c.

75	**Veterinary activities**
750	Veterinary activities
N	**ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES**
77	**Rental and leasing activities**
771	Rental and leasing of motor vehicles
772	Rental and leasing of personal and household goods
773	Rental and leasing of other machinery, equipment and tangible goods
774	Leasing of intellectual property and similar products, except copyrighted works
78	**Employment activities**
781	Activities of employment placement agencies
782	Temporary employment agency activities
783	Other human resources provision
79	**Travel agency, tour operator and other reservation service and related activities**
791	Travel agency and tour operator activities
799	Other reservation service and related activities
80	**Security and investigation activities**
801	Private security activities
802	Security systems service activities
803	Investigation activities
81	**Services to buildings and landscape activities**
811	Combined facilities support activities
812	Cleaning activities
813	Landscape service activities
82	**Office administrative, office support and other business support activities**
821	Office administrative and support activities
822	Activities of call centres
823	Organisation of conventions and trade shows
829	Business support service activities n.e.c.
O	**PUBLIC ADMINISTRATION AND DEFENCE; COMPULSORY SOCIAL SECURITY**
84	**Public administration and defence; compulsory social security**
841	Administration of the State and the economic and social policy of the community
842	Provision of services to the community as a whole
843	Compulsory social security activities
P	**EDUCATION**
85	**Education**
851	Pre-primary education
852	Primary education
853	Secondary education
854	Higher education
855	Other education
856	Educational support activities
Q	**HUMAN HEALTH AND SOCIAL WORK ACTIVITIES**
86	**Human health activities**
861	Hospital activities
862	Medical and dental practice activities
869	Other human health activities
87	**Residential care activities**
871	Residential nursing care activities
872	Residential care activities for mental retardation, mental health and substance abuse
873	Residential care activities for the elderly and disabled

879	Other residential care activities
88	**Social work activities without accommodation**
881	Social work activities without accommodation for the elderly and disabled
889	Other social work activities without accommodation
R	**ARTS, ENTERTAINMENT AND RECREATION**
90	**Creative, arts and entertainment activities**
900	Creative, arts and entertainment activities
91	**Libraries, archives, museums and other cultural activities**
910	Libraries, archives, museums and other cultural activities
92	**Gambling and betting activities**
920	Gambling and betting activities
93	**Sports activities and amusement and recreation activities**
931	Sports activities
932	Amusement and recreation activities
S	**OTHER SERVICE ACTIVITIES**
94	**Activities of membership organisations**
941	Activities of business, employers and professional membership organisations
942	Activities of trade unions
949	Activities of other membership organisations
95	**Repair of computers and personal and household goods**
951	Repair of computers and communication equipment
952	Repair of personal and household goods
96	**Other personal service activities**
960	Other personal service activities
T	**ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS; UNDIFFERENTIATED GOODS- AND SERVICES-PRODUCING ACTIVITIES OF HOUSEHOLDS FOR OWN USE**
97	**Activities of households as employers of domestic personnel**
970	Activities of households as employers of domestic personnel
98	**Undifferentiated goods- and services-producing activities of private households for own use**
981	Undifferentiated goods-producing activities of private households for own use
982	Undifferentiated service-producing activities of private households for own use
U	**ACTIVITIES OF EXTRATERRITORIAL ORGANISATIONS AND BODIES**
99	**Activities of extraterritorial organisations and bodies**
990	Activities of extraterritorial organisations and bodies

Annex B: Examples of answers found not sufficiently detailed to code according ISCO 88 code list - Q5/Q6 OCCUPATION

Overview of answers found not sufficiently detailed to code at 4 digit level, ISCO 88 code list			
Job description and other relevant information	**Level of coding**	**ISCO-88 title**	**Coders input/feedback on the quality of the answer registered by the interviewer**
Q5 Student / Q6 Study (Q4 DK Q4B= Other, Q14 = , Q13=University of Tartu)	uncoded		If the respondent has been identified as an eligible respondent than he/she would need to have worked. **=>In case of students, please register the job description and not their status as a student**
Q5/Q6: Motorway operator/Q13: motorway	uncoded		I am not able to code it as I do not understand the profession as such. Insufficient information in order to know if it is someone working on the state of motorways, or if it is someone that works at a border point when crossing a country? **=>Always ask the person to answer as precisely as he/she can, sharing all of the contextual information about his/her job and the economic activity of the organization he/she is working for. The latter can help me to code the occupation.**
Q5 media worker \ Q6 media organization (Q4 = Self-employed, Q4B= Sole director of own business, Q14= , Q13= media organization)	2000	Professionals	The answer provided by the respondent lead to many different codes. See below all possible codes. Although we have the information on the sector (media) and the activity, it seems that the only thing I could be sure of is that he/she is a professional. **2 Professionals** 2166 Graphic and multimedia designers 25 Information and communications technology professionals 2513 Web and multimedia developers 264 Authors, journalists and linguists 2641 Authors and related writers 2642 Journalists 2643 Translators, interpreters and other linguists 265 Creative and performing artists 2651 Visual artists 2652 Musicians, singers and composers 2653 Dancers and choreographers 2654 Film, stage and related directors and producers **=>Always ask the person to answer as precisely as he/she can, sharing all of the contextual information about his/her job and the economic activity of the organization he/she is working for. The**

			latter can help me to code the occupation.
Job description and other relevant information	**Level of coding**	**ISCO-88 title**	**Coders input/feedback on the quality of the answer registered by the interviewer**
Farmer (unspecified)	6000	Skilled agricultural, forestry and fishery workers	There is no information provided as to what type of farmer the respondent is. There are different possible codes: 1221 Production Department manager in Agriculture 1311 General Managers in Agriculture 6100 Market Oriented Skilled Agriculture Workers 6200 Subsistence Agriculture workers 9200 Agriculture Labourers 6310 Subsistence farmer **=>Clarify the type of farm and ask in general about the activities of the farmer as well. Ask about the time spent on managing the business versus production related tasks so I can make the distinction between farmers that go in [1311] and farmers that go in [6100].**
Q5 shopper \Q6 logistics, material procurement *(Q4=Employee, Q14=40, Q13=manufacturing)*	7000	Craft and related trades workers	With the answer registered I was not able to determine in which domain the respondent purchased material. **7 Craft and Related Trades Workers** 71 Building and Related Trades Workers (excluding Electricians) 72 Metal, Machinery and Related Trades Workers 73 Handicraft and Printing Workers 74 Electrical and Electronics Trades Workers 75 Food Processing, Woodwork, Garment and Other Craft and Related Trades Workers The answer on the economic activity did not help me in this regard. **=>Always ask the person to answer as precisely as he/she can, sharing all of the contextual information about his/her job and the economic activity of the organization he/she is working for. The latter can help me to code the occupation.**
Q5 employee\ Q6 material expenditure \ *(Q4= Employee, Q9A=10-49, Q14=, Q13=materials management)*	7000	Craft and related trades workers	

Job description and other relevant information	Level of coding	ISCO-88 title	Coders input/feedback on the quality of the answer registered by the interviewer
Q5Q6: Operator with machinery/Q13: services	8000	Plant and machine operators, and assemblers	With the answer registered I was not able to determine which type of worker the respondent was. **8 Plant and Machine Operators and Assemblers** 81 Stationary Plant and Machine Operators 82 Assemblers 83 Drivers and Mobile Plant Operators **=>Clarify if the respondent operates 'industrial'-type machines or 'office'-type machines. Clarify if the respondent operates the machine and is not an assembly worker. Clarify the industry and machine type.**
Q5Q6: Assembly operator pieces/Q13: services	8000	Plant and machine operators, and assemblers	
Q5 Semi-skilled workers\ Q6 product line worker *(Q4=Employee, Q9A=10-49, Q14= , Q13= manufacturing)*	8000	Plant and machine operators, and assemblers	
Q5 [Term that covers both laying and clearing mines]\Q6 Searching for and laying explosive devices *(Q4= Employee, Q9A= 10-49, Q14 = , Q13=Guarding sovereignty of state.)*	*0000*	Armed forces occupations	The respondents says at Q13 he is "Guarding sovereignty of state" and also state that his job is laying mines, then he probably isn't employed in one of the private demining agencies operating in Croatia. I would guess that he is a soldier in Army, but I cannot determine if he is an officer or non-commissioned. **0 Armed forces occupations** *01 Commissioned armed forces officers* 011 Commissioned armed forces officers 0110 Commissioned armed forces officers *02 Non-commissioned armed forces officers* 021 Non-commissioned armed forces officers 0210 Non-commissioned armed forces officers *03 Armed forces occupations, other ranks* 031 Armed forces occupations, other ranks 0310 Armed forces occupations, other ranks **Examples "Commissioned armed forces officers"**: *admiral air commodore air marshal brigadier (army) captain (air force) captain (army) captain (navy) colonel (army) field marshal flight lieutenant, (air force) flying officer (military) general (army) group captain, (air force) lieutenant (army) major (army) midshipman naval officer (military) navy commander officer cadet (armed forces) second lieutenant (army) squadron leader sublieutenant (navy) wing commander)*

Job description and other relevant information	Level of coding	ISCO-88 title	Coders input/feedback on the quality of the answer registered by the interviewer
			Examples Non-commissioned armed forces officers: *boatswain (navy) flight sergeant sergeant (army) sergeant major warrant officer* **Examples Armed forces occupations, other ranks:** *airman bombardier corporal (air force) corporal (army) coxswain (navy) gunner infantryman/woman paratrooper rifleman/woman seaman/woman (navy)*
Q5Q6= Head of department \ Q13 = logistics	1300	Production and specialised services managers	The term 'logisitics' answered at Q13 (economic activity) does not provide sufficient additional information to determine the type of specialised service manager the respondent is: 13 Production and specialised services managers 131 Production managers in agriculture, forestry and fisheries 132 Manufacturing, mining, construction, and distribution managers 133 Information and communications technology service managers 134 Professional services managers **=>Always ask the person to answer as precisely as he/she can, sharing all of the contextual information about his/her job and the economic activity of the organization he/she is working for. The latter can help me to code the occupation.**

Job description and other relevant information	Level of coding	ISCO-88 title	Coders input/feedback on the quality of the answer registered by the interviewer
Q5 pedagogue\educator\ Q6 education (Q4= Employee, Q14=, Q13=education)	2300	Teaching professionals	Teacher, professor, pedagogue are too general answers for me to code at the detailed level: **23 Teaching professionals** 231 University and higher education teachers 2310 University and higher education teachers 232 Vocational education teachers 2320 Vocational education teachers 233 Secondary education teachers 2330 Secondary education teachers 234 Primary school and early childhood teachers 2341 Primary school teachers 2342 Early childhood educators 235 Other teaching professionals 2351 Education methods specialists 2352 Special needs teachers 2353 Other language teachers 2354 Other music teachers 2355 Other arts teachers 2356 Information technology trainers 2359 Teaching professionals not elsewhere classified **=>Clarify whether the respondent is a professional or associate professional. Always check the level of education the respondent works in.**
Q5/Q6: Teacher/Q13: Teaching	2300	Teaching professionals	
Q5 = Professor /Q6 = teaching kids	2300	Teaching professionals	

Examples of answers found not sufficiently detailed to code according NACE V2 code list – Q13 Economic activity of business/organisation

Overview of answers found not sufficiently detailed to code at 4 digit level, ISCO 88 code list			
Job description and other relevant information	**Level of coding**	**NACE V2 description**	**Coders input/feedback on the quality of the answer registered by the interviewer**
Q13= Logistics (Q5 employee\ Q6 logistics specialist performers Q4 = Employee, Q9A =10-49 ,Q14)	uncoded		**=>Always ask the person to answer as precisely as he/she can, sharing all of the contextual information about his/her job and the economic activity of the organization he/she is working for. All three questions are important for the coding of both ISCO and NACE.**
Q13 = Logistics (Q5-Q6= head of department)	uncoded		
Q13= Industry unspecified (Q5= Mechanical Engineers)	uncoded		
Q13= Services (Q5-Q6: Operator with machinery)	uncoded		
Q13= Services (Q5-Q6: Assembly operator pieces)	uncoded		
Q13= Motorway (Q5-Q6: Motorway operator)	uncoded		
Q13= Mechanical engineering (Q5= Technician)	uncoded		
Q13= Manufacturing (Q5 shopper \Q6 logistics, material procurement\(Q4=Employee, Q14=40)	100	Manufacturing	Manufacturing is a very detailed NACE category: 10-12 Manufacture of food products, beverages and tobacco products 13-15 Manufacture of textiles, wearing apparel and leather products 16 Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials 17 Manufacture of paper and paper products 18 Printing and reproduction of recorded media 19 Manufacture of coke and refined petroleum products 20 Manufacture of chemicals and chemical products 21 Manufacture of basic pharmaceutical products and pharmaceutical preparations 22 Manufacture of rubber and plastics products 23 Manufacture of other non-metallic mineral products 24 Manufacture of basic metals 25 Manufacture of fabricated metal products, except machinery and equipment 26 Manufacture of computer, electronic and optical products 27 Manufacture of electrical equipment
Q13= Manufacturing (Q5 semi-skilled workers\ Q6 product line worker\ (Q4=Employee, Q9A=10-49)	100	Manufacturing	

Overview of answers found not sufficiently detailed to code at 4 digit level, ISCO 88 code list			
Job description and other relevant information	**Level of coding**	**NACE V2 description**	**Coders input/feedback on the quality of the answer registered by the interviewer**
			28 Manufacture of machinery and equipment not classified elsewhere. 29 Manufacture of motor vehicles, trailers and semi-trailers 30 Manufacture of other transport equipment 31-32 Manufacture of furniture; other manufacturing 33 Repair and installation of machinery and equipment **=>Clarify the type of manufacturing**
Q13= Construction activities \ Q6 'painting, varnishing, scraping and decoration of walls \ (Q4 = Employee, Q9A = 5-9, Q14 = 3)	400	Construction	Respondents saying they work for a construction company are being to general. It does not allow me to code the answer in one of the 3 possibilities: 41 Construction of buildings 42 Civil engineering 43 Specialised construction activities **=>Probe for more information**
Q13= Construction companies / Q6 prepare iron reinforcement for reinforced concrete \ (Q4 = Employee, Q9A = 10-49)	400	Construction	
Q13= Shop (Q5= Shop sale assistant)	450	Wholesale and retail trade and repair of motor vehicles and motorcycles	Respondents saying they work in a shop, as a trader are being too general. It does not allow me to code the answer in one of the 3 possibilities: 45 Wholesale and retail trade and repair of motor vehicles and motorcycles 46 Wholesale trade, except of motor vehicles and motorcycles 47 Retail trade, except of motor vehicles and motorcycles **=>Probe for more information**
Q13= Wholesale, retail, sale of goods (Q5=stock clerk)	450	Wholesale and retail trade and repair of motor vehicles and motorcycles	
Q13= Trade	450	Wholesale and retail trade and repair of motor vehicles and motorcycles	
Q13 = Service (Q5 specialist IT \ Q6 a mix of work with computer \ (= Employee Q4))	620 or 630	Computer programming, consultancy and related activities	62 Computer programming, consultancy and related activities 620 Computer programming, consultancy and related activities 63 Information service activities 631 Data processing, hosting and related activities; web portals 639 Other information service activities

Overview of answers found not sufficiently detailed to code at 4 digit level, ISCO 88 code list			
Job description and other relevant information	**Level of coding**	**NACE V2 description**	**Coders input/feedback on the quality of the answer registered by the interviewer**
Q13= Education (Q5 \Q6 \(Q4= Employee)	850	Education	85 Education 851 Pre-primary education 852 Primary education 853 Secondary education 854 Higher education 855 Other education 856 Educational support activities **=>Always check the level of education the respondent works in.**
Q13= Teaching	850	Education	
Q13= Education (Q5 pedagogue\educator\ Q6 education (Q4= Employee)	850	Education	
Q13= Service (Q5-Q6 ‘service in a playground’)	960 or 563	‘Other personal service activities’ or ‘Beverage serving activities’	In Q5-Q6 mentions ‘service in a playground’, but does not specify what type of service. This could be taking care of children or it could be a waiter as well. In case of a waiter, it would be: 563 Beverage serving activities In case of taking care of children, it would be: 960 Other personal service activities **=>Always ask the person to answer as precisely as he/she can, sharing all of the contextual information about his/her job and the economic activity of the organization he/she is working for. All three questions are important for the coding of both ISCO and NACE.**

Annex C: Coding Instructions

General information

- The data will be loaded in Ascribe in separate projects, one project per country.
- The different codings/translation will be done in questions labeled as follows:

1) Main coding (100%) -> Q5Q6_08, Q13_V2 (1st phase)
Q5Q6_88, Q13_V11 (2nd phase)

2) Double coding (10%) -> Q5Q6_08**C1**, Q13_V2**C1** (1st phase)
Q5Q6_88**C1**, Q13_V11**C1** (2nd phase)

3) Translation (10%) -> Q5Q6_08**C2** Q13_V2**C2** (1st phase) (Please note: Coding of these questions will be done centrally and not by local markets)

- The coding will be done in two phases:
  - 1st phase: coding with code list ISCO 08 and NACE V2 (questions Q5Q6_08, Q13_V2)
  - 2nd phase: coding with code list ISCO 88 and NACE 1.1 (questions Q5Q6_88, Q13_V11)

The data will be exported after the 1st phase has been coded and the codes matched to those in ISCO 88 (and NACE1.1). The system will do this automatically and will assign "0", "1" or more codes to each response. The code(s) assigned will be displayed next to the verbatim.

A closed numerical value showing the number of pre-codes which have been added can be used for filtering the responses that need to be coded.

During the coding, the coder should use this information as shown below.

- records with 0 (zero) codes assigned by the system: all these records should be coded from scratch in the 2nd phase.
- records with 1 code assigned by the system: these records should not be coded at all. These have received 1 correct code through data manipulation.
- records with more than 1 code assigned by the system: these records should finally receive only 1 code in the 2nd phase. The coder should select the best code out of the range of available codes.

Code list

The code list will be delivered in English only. It is structured with Nets and Subnets to make it clear and to make the coding process more efficient.

Nets and Subnets are not used as codes. Only the items assigned with numbers on the left can be actually selected as codes. Please read the code list(s) through before starting with each question, as this will give you an overview of the available codes. We recommend having a printed version of the code list(s) during coding.

Below is an example of the code list (for Q5Q6):

NET **SUBNET** **Codes**

PLEASE NOTE: If a response is too vague and there is not enough information to be able to assign a code, one will have to be added. There is a strict procedure to do this. If you come across a verbatim you cannot code due to insufficient information, please inform us about it and you will receive instructions on how to proceed. **Under no circumstances can codes be added by a coder.**

Once the 1st phase has been coded, a data export will be done and the assigned codes will be automatically matched to codes in Code list ISCO_88. Then the second phase of the coding can take place.

1st phase Coding (code lists ISCO _08 and_NACE V2)

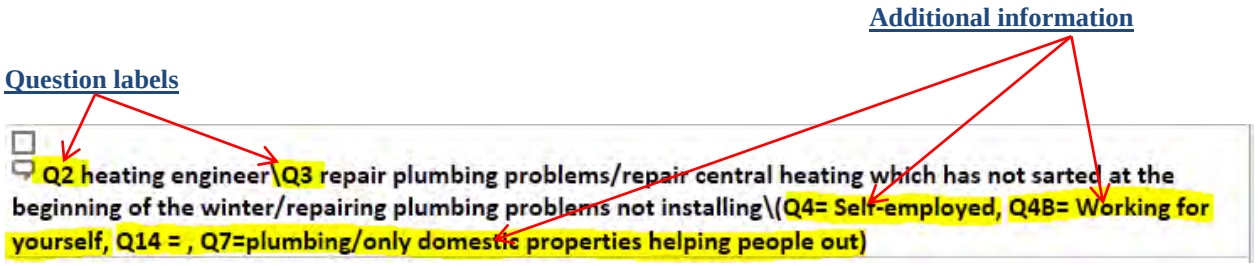
Questions to be coded are:

Q5Q6 – What is the title of your main paid job? | What do you mainly do in your job?

Q13 - What is the main activity of the company or organisation where you work?

PLEASE NOTE: In all questions, only one code should be assigned per verbatim.

The question labels will be clearly indicated in the verbatim, as in the example below. Responses from all questions will be included, as they contain information which could be useful for coding. This additional information can be helpful for selecting the most appropriate code and should always be taken into account.

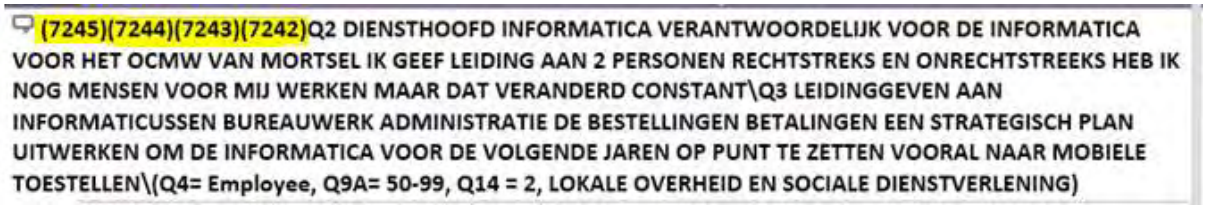


2nd phase Coding (code lists ISCO 88 and NACE_V1.1)

The same verbatim as those in the first coding will be loaded, but labelled as: Q5Q6_88 instead of Q5Q6_08, and Q13_V11 instead of Q13_V2.
The code(s) assigned by the system will be added to the verbatim. (This is shown in the example below, highlighted in yellow.)

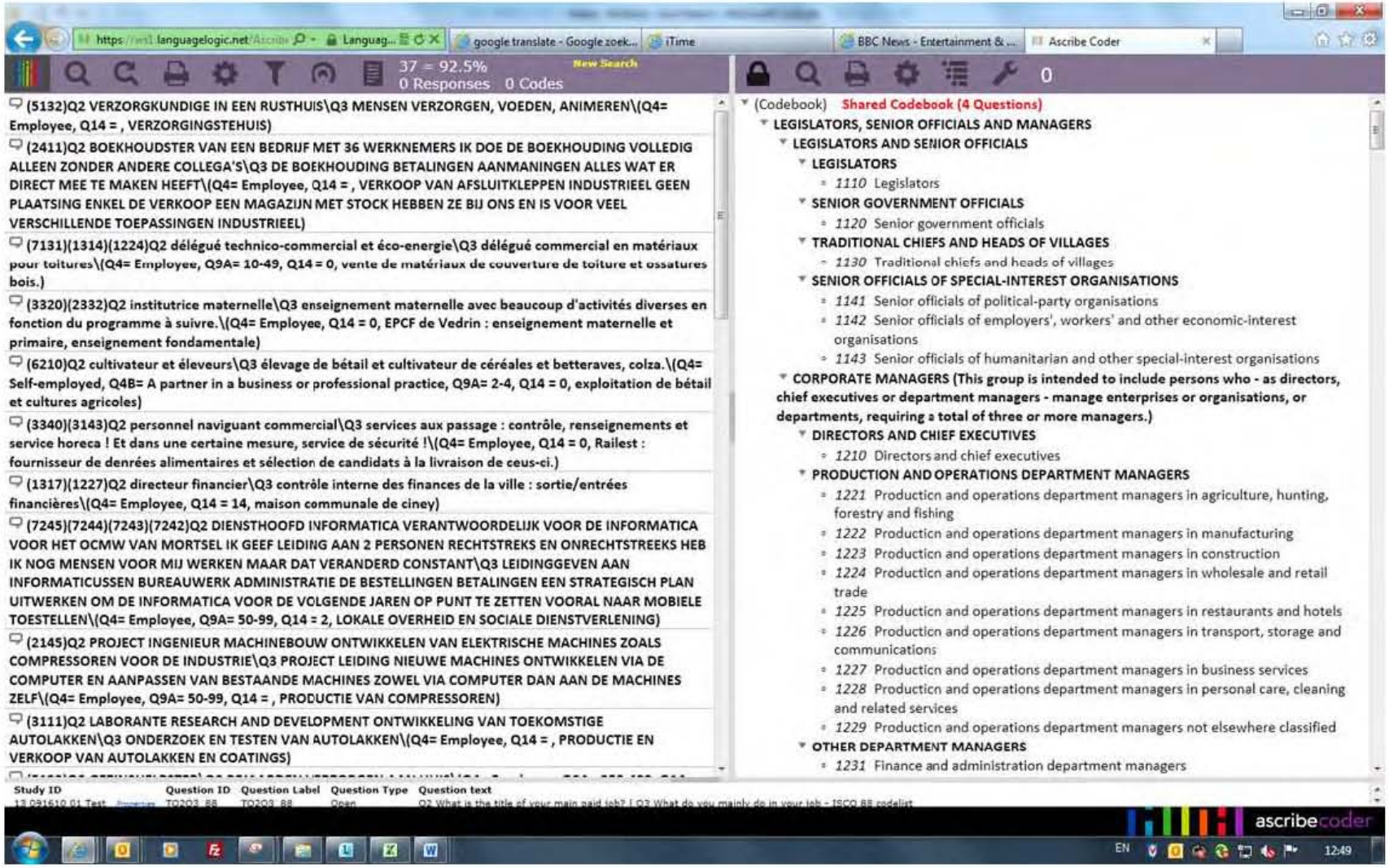
At the end of the 2nd phase all responses should only have one code assigned.

To proceed with the coding, the verbatim should be filtered according to the following information:
- verbatim with NCQ5Q6_88 = 0 → should be coded from scratch
- verbatim with NCQ5Q6_88 = 1 →These do not need a manual coding. Nothing should be done with these.
- verbatim with NCQ5Q6_88 > 1 → should be coded with the most appropriate code from those already chosen in the first phase. These codes can be seen in front of the verbatim. (see below)



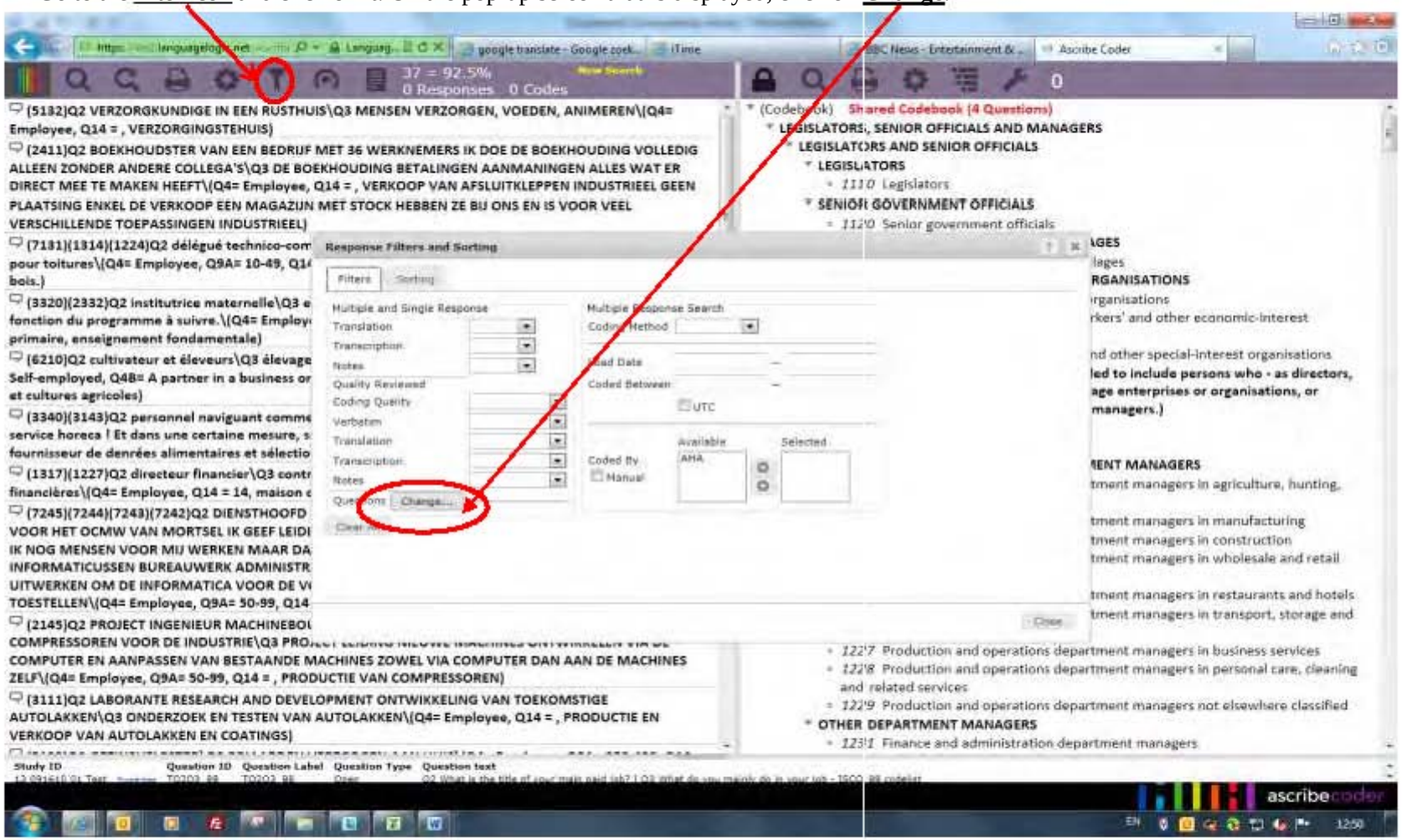
PLEASE NOTE: the verbatim has to be coded with one of the codes mentioned in front of the verbatim. No new codes can be selected. If the codes assigned by the system don't seem to apply to the response, please inform me and we will see what should be done.

All coded responses from the 1st phase will be loaded and displayed as follows:

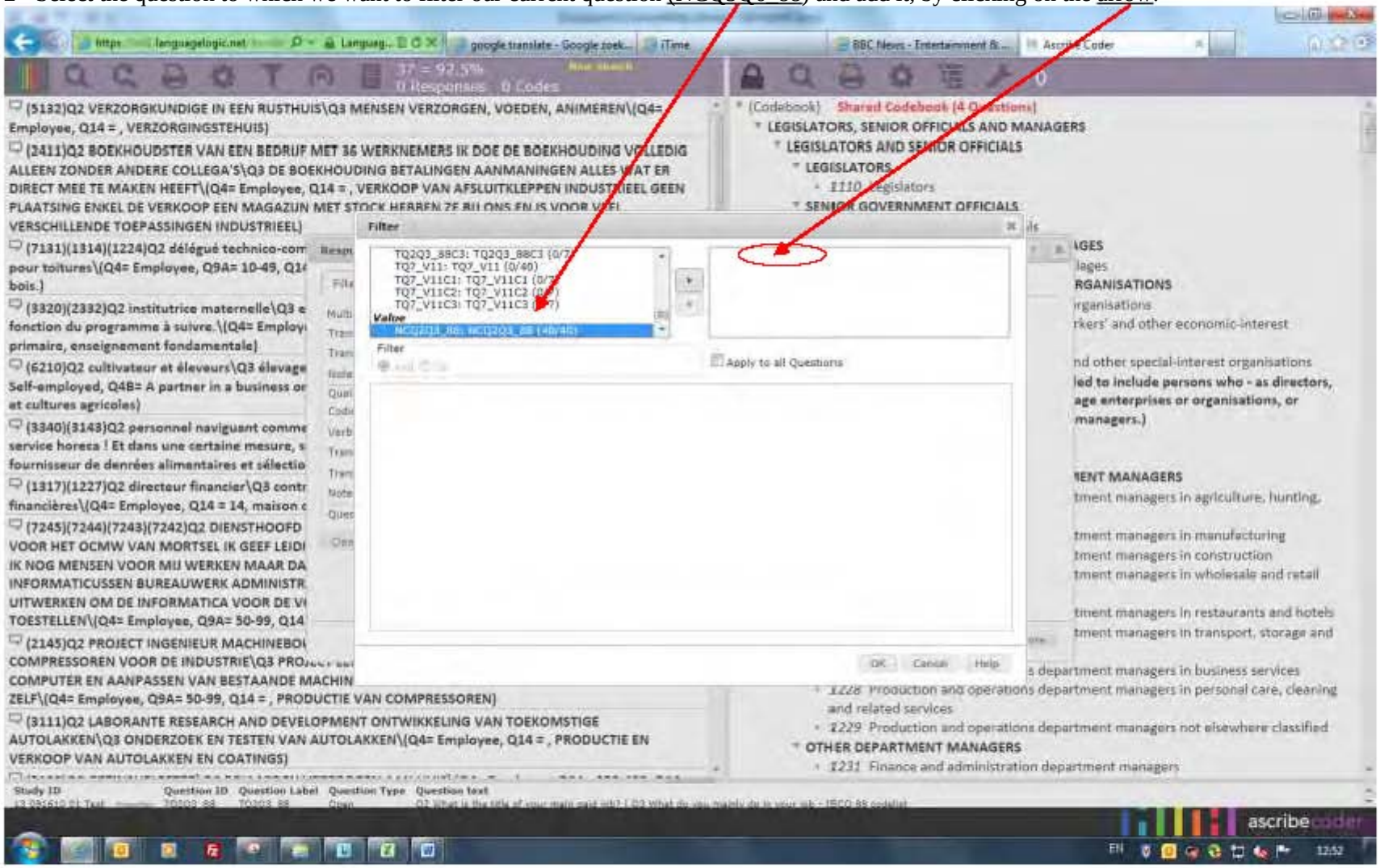


Before starting to code, filter out the verbatim that have been assigned 1 code (as these do not have to be coded). To do this, follow the next steps:

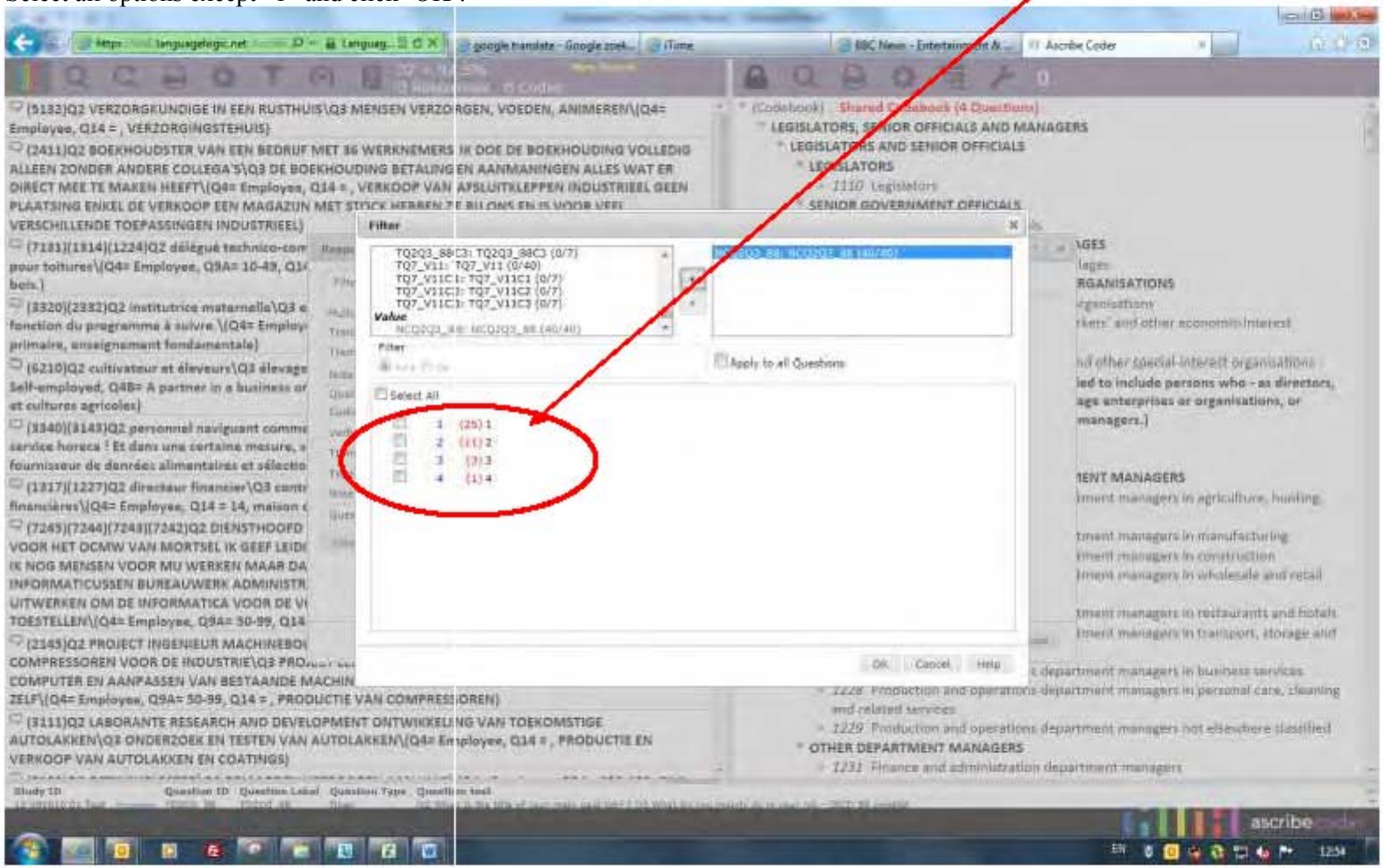
1- Go to the filter icon and click on it. On the pop-up screen that is displayed, click on **Change**.



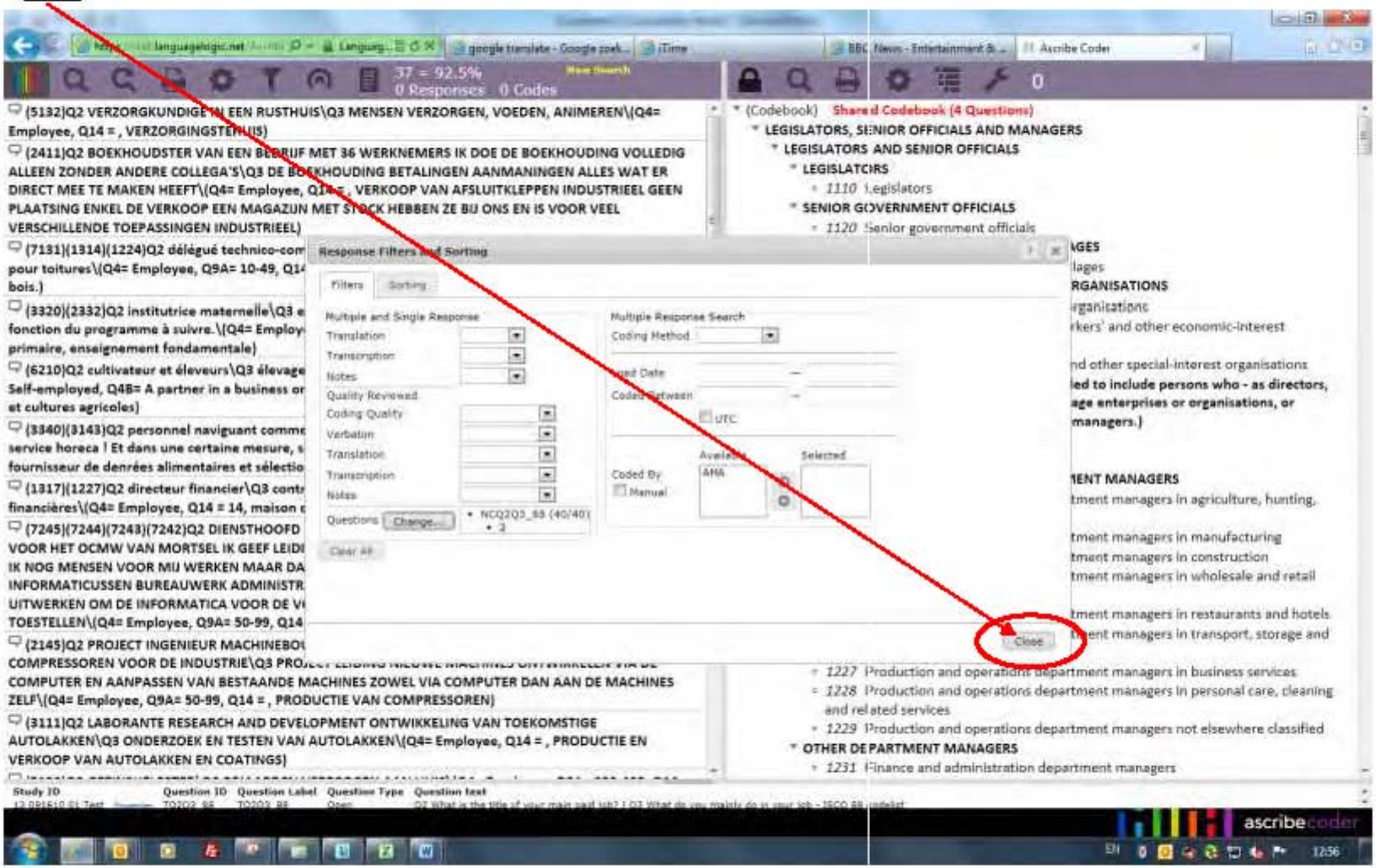
2 - Select the question to which we want to filter our current question (NCQ5Q6_88) and add it, by clicking on the arrow:



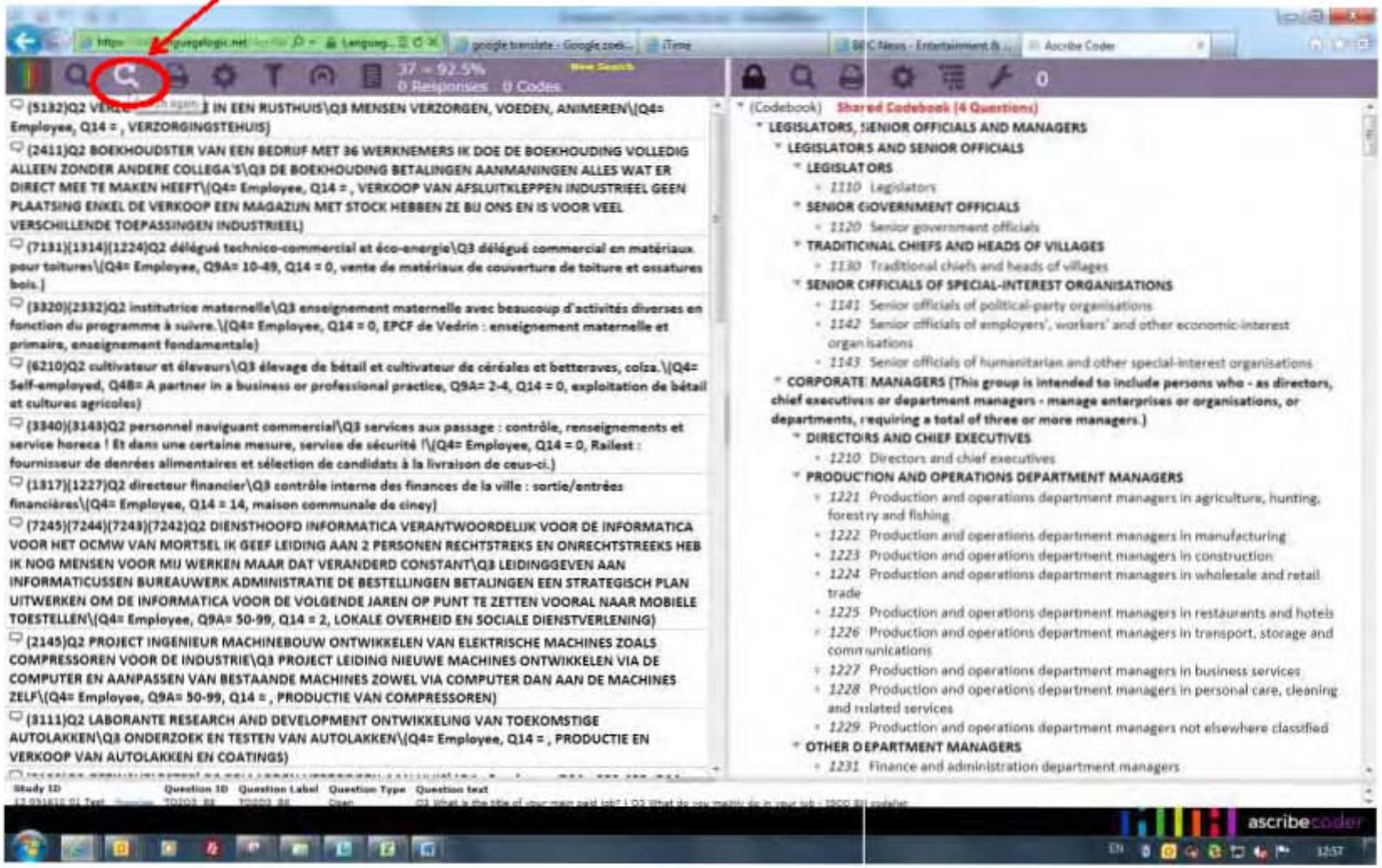
3- When this is done the number of codes given per verbatim will appear. The number of responses for each number of codes is displayed in red, between brackets. (so, in the example below there are 11 verbatim with 2 codes). Filter out responses with 1 code as those do not need to be coded. Select all options except "1" and click 'OK'.



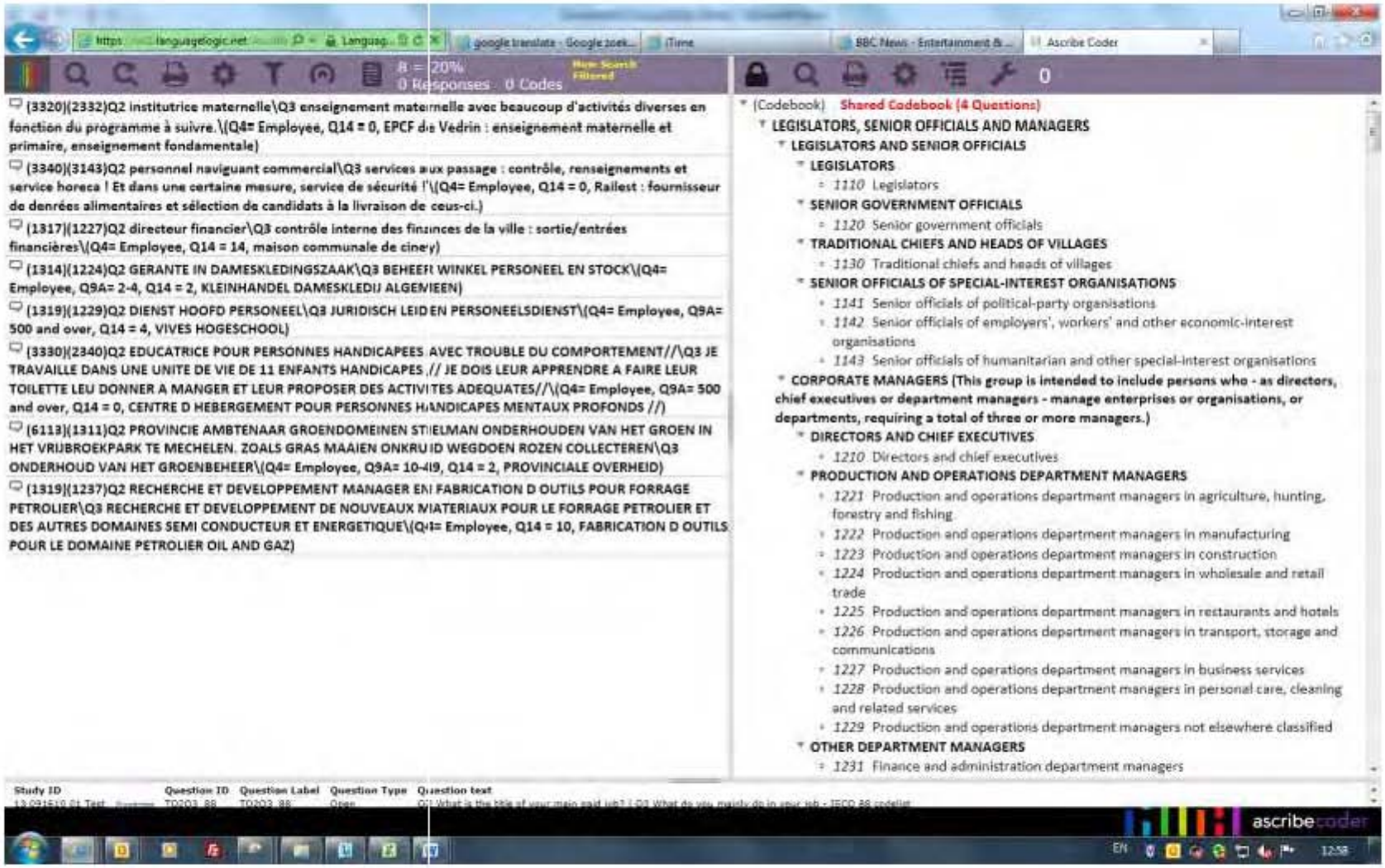
4- Close the filter screen:



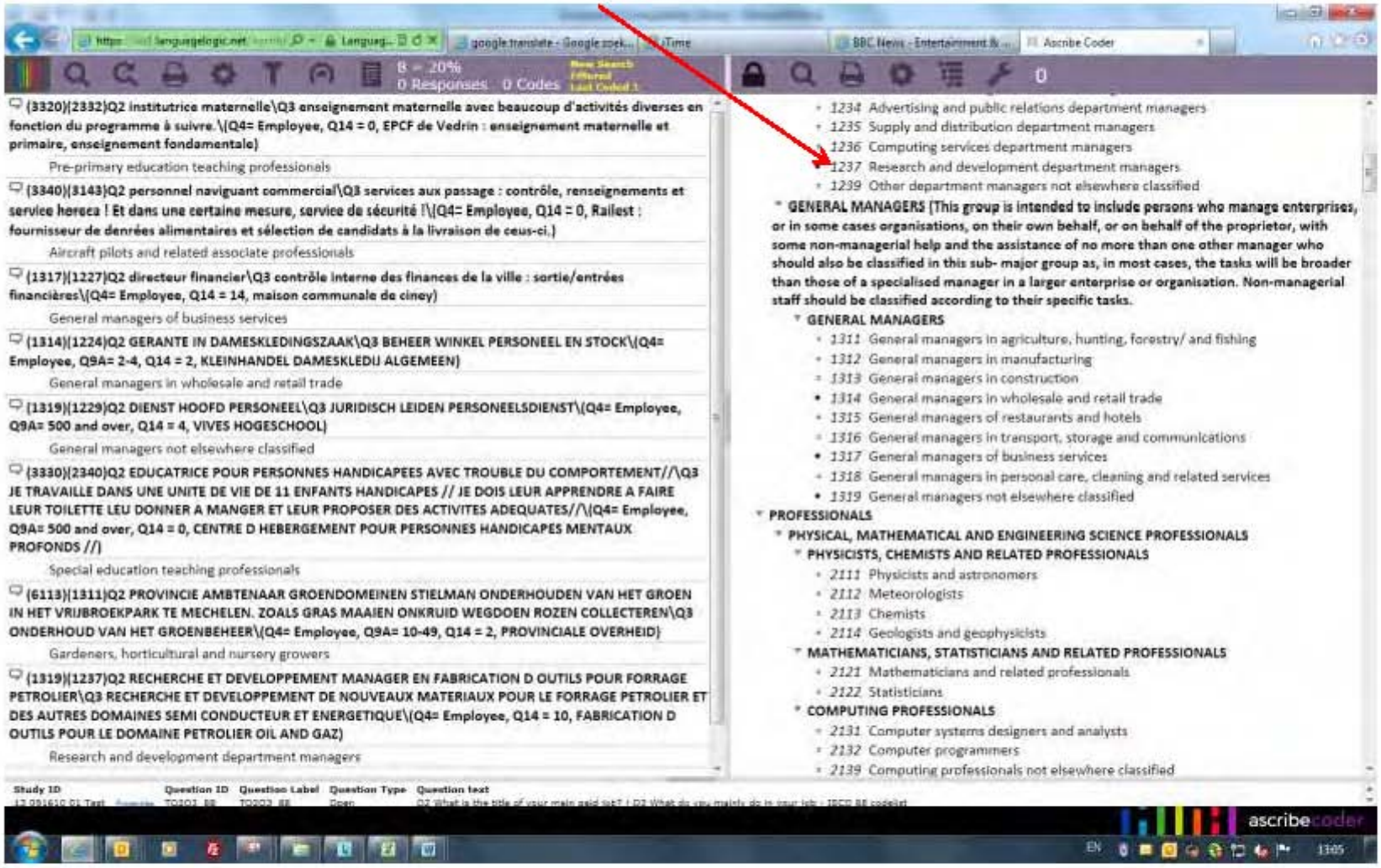
5- Click on the Search again icon to load the responses for coding:



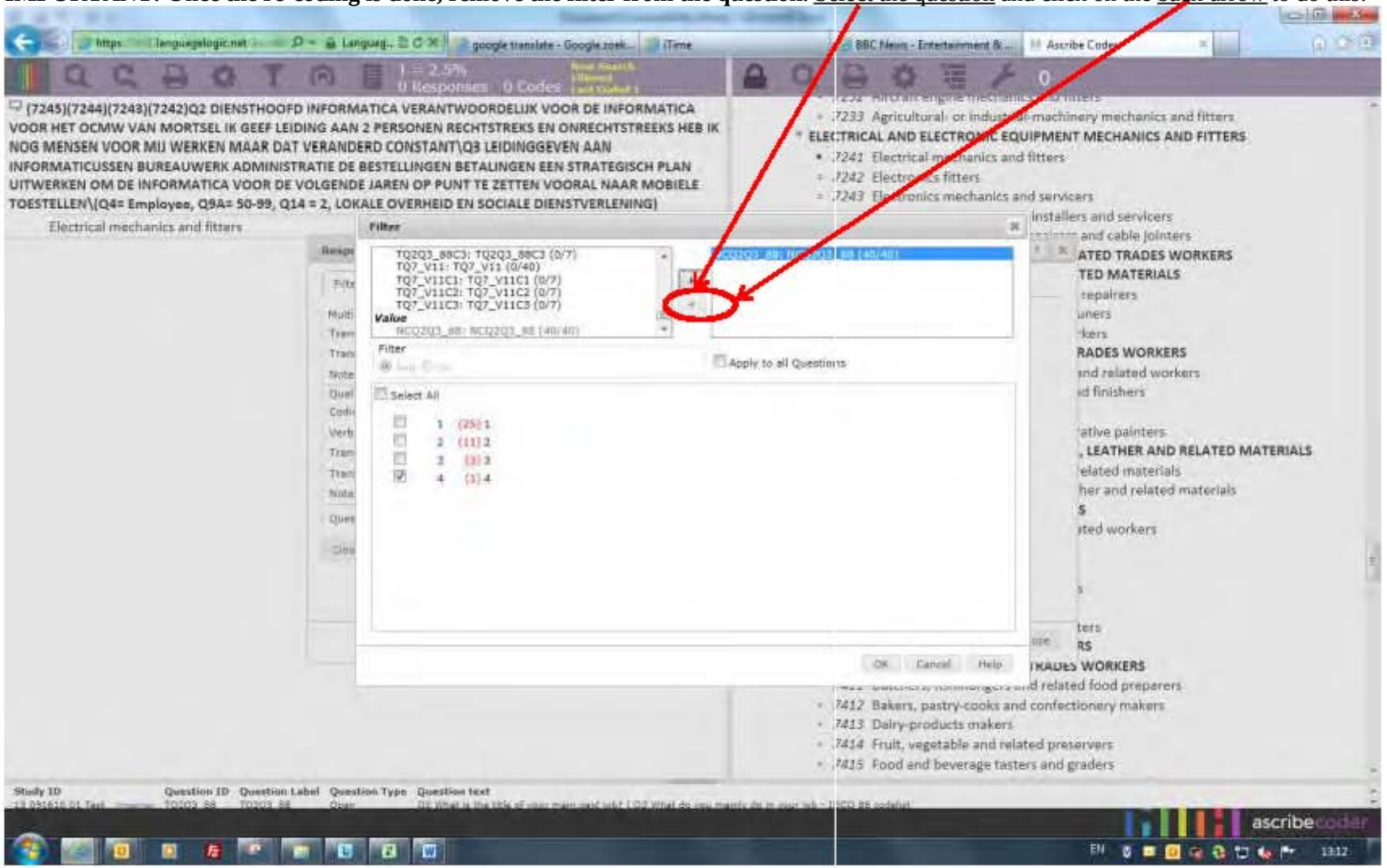
Only the responses with 0 or more than 1 code will be displayed:

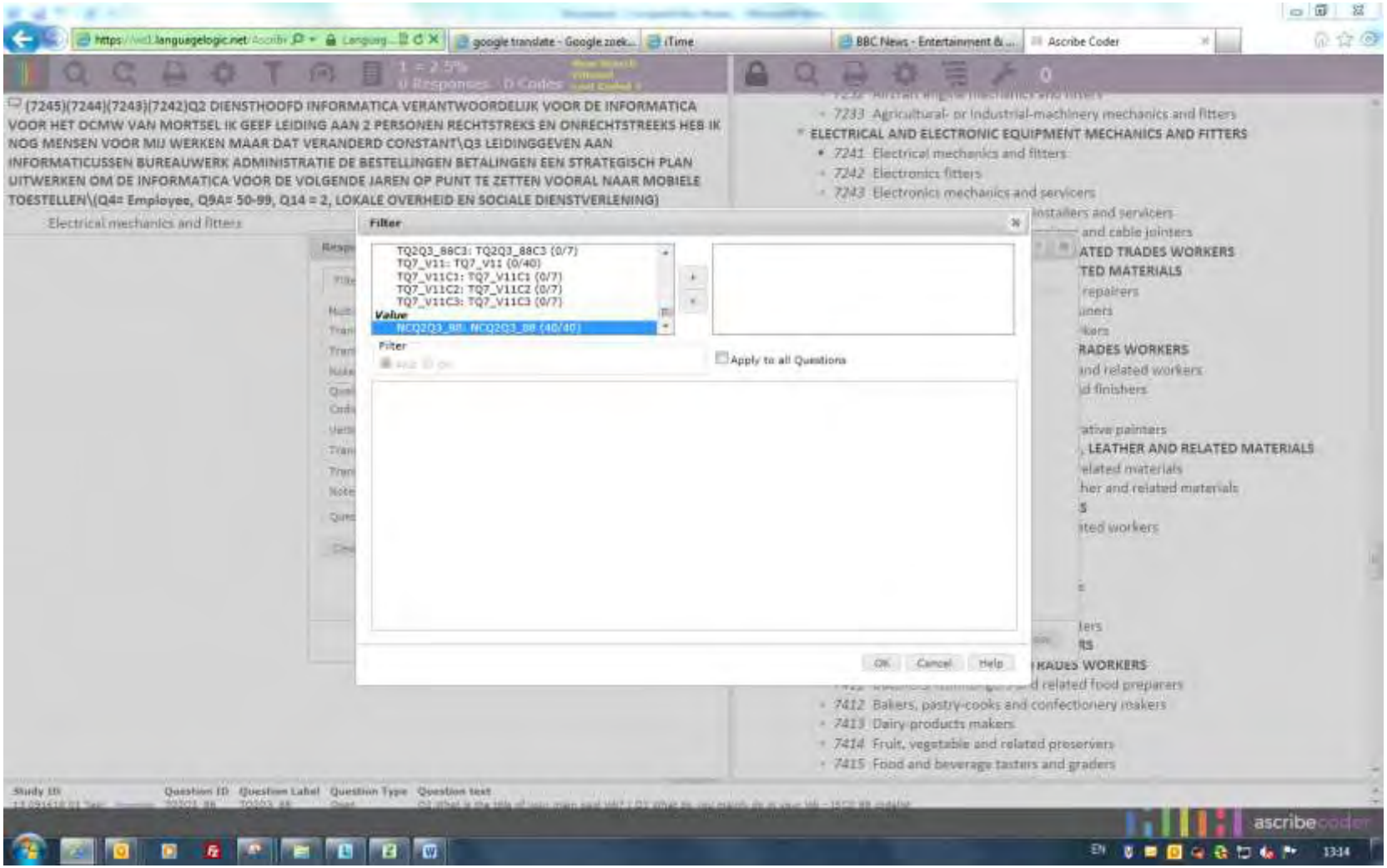


6 - Code with the correct option from the (_88) code list:



IMPORTANT: Once the re-coding is done, remove the filter from the question. Select the question and click on the back-arrow to do this:




(7245)(7244)(7243)(7242)Q2 DIENSTHOOFD INFORMATICA VERANTWOORDELIJK VOOR DE INFORMATICA VOOR HET OCMW VAN MORTSEL IK GEEF LEIDING AAN 2 PERSONEN RECHTSTREKS EN ONRECHTSTREEKS HEB IK NOG MENSEN VOOR MIJ WERKEN MAAR DAT VERANDERD CONSTANT\Q3 LEIDINGGEVEN AAN INFORMATICUSSEN BUREAUWERK ADMINISTRATIE DE BESTELLINGEN BETALINGEN EEN STRATEGISCH PLAN UITWERKEN OM DE INFORMATICA VOOR DE VOLGENDE JAREN OP PUNT TE ZETTEN VOORAL NAAR MOBIELE TOESTELLEN\(Q4= Employee, Q9A= 50-99, Q14 = 2, LOKALE OVERHEID EN SOCIALE DIENSTVERLENING)
Filter
Apply to all Questions
OK
Cancel
Help
ELECTRICAL AND ELECTRONIC EQUIPMENT MECHANICS AND FITTERS
7241 Electrical mechanics and fitters
7242 Electronics fitters
7243 Electronics mechanics and servicers
7412 Bakers, pastry-cooks and confectionery makers
7413 Dairy-products makers
7414 Fruit, vegetable and related preservers
7415 Food and beverage tasters and graders

Important points to keep in mind

- when coding, always look at the additional information contained in other questions to be able to code correctly. You can also easily access other questions for one respondent to check how were coded with the function "*All responses for this respondent*" (for instructions on how to do this, refer to the screenshots below)

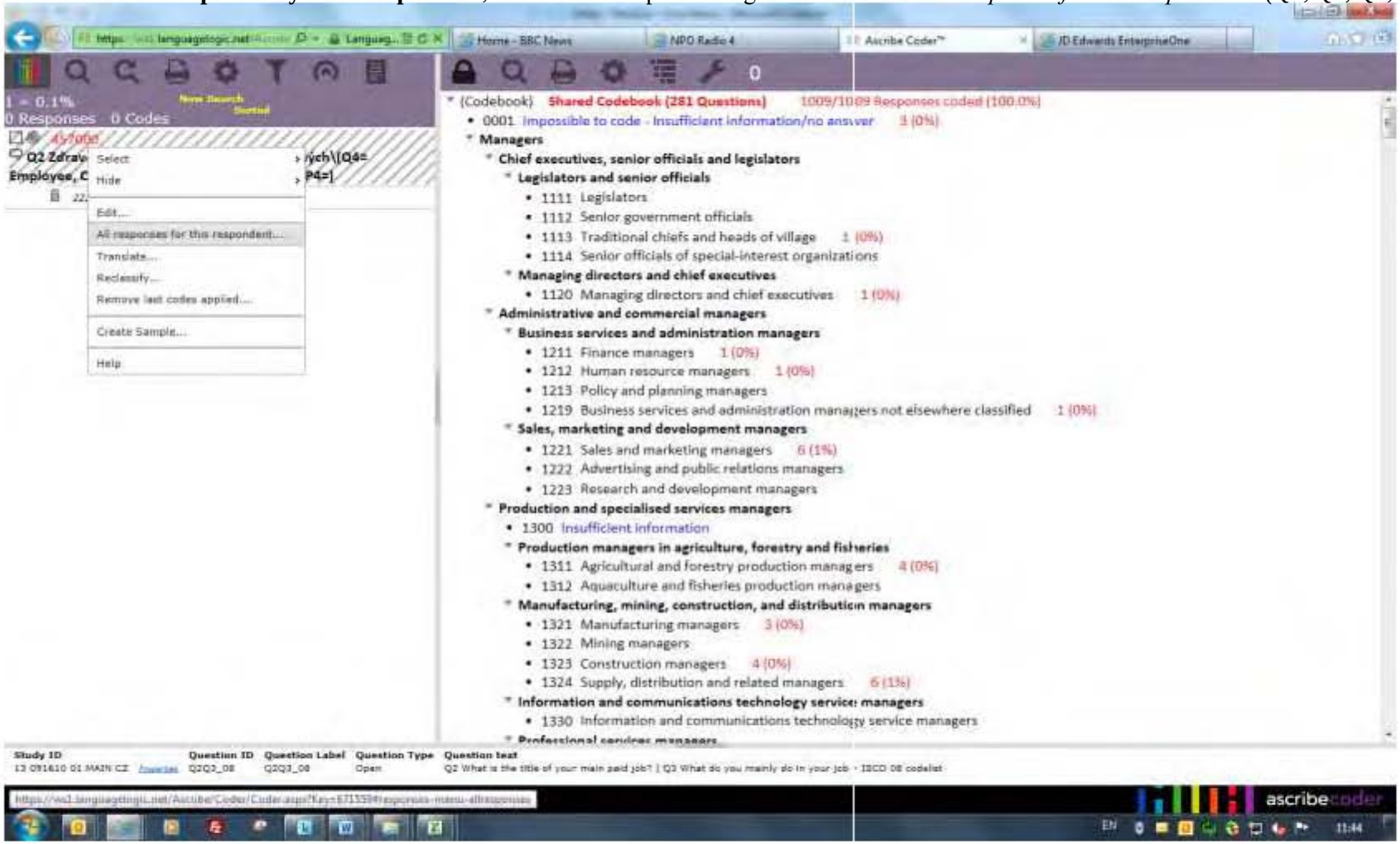
- once the data has been prepared for coding the 2nd phase (Q5Q6_88 and Q13_V11), the responses coded in the 1st phase (Q5Q6_08 and Q13_V2) should not be changed, as this will cause a mismatch between the 1st and 2nd phases.

- under no circumstances can codes be added by coders. If there is no suitable code for a response, please contact me for instructions.

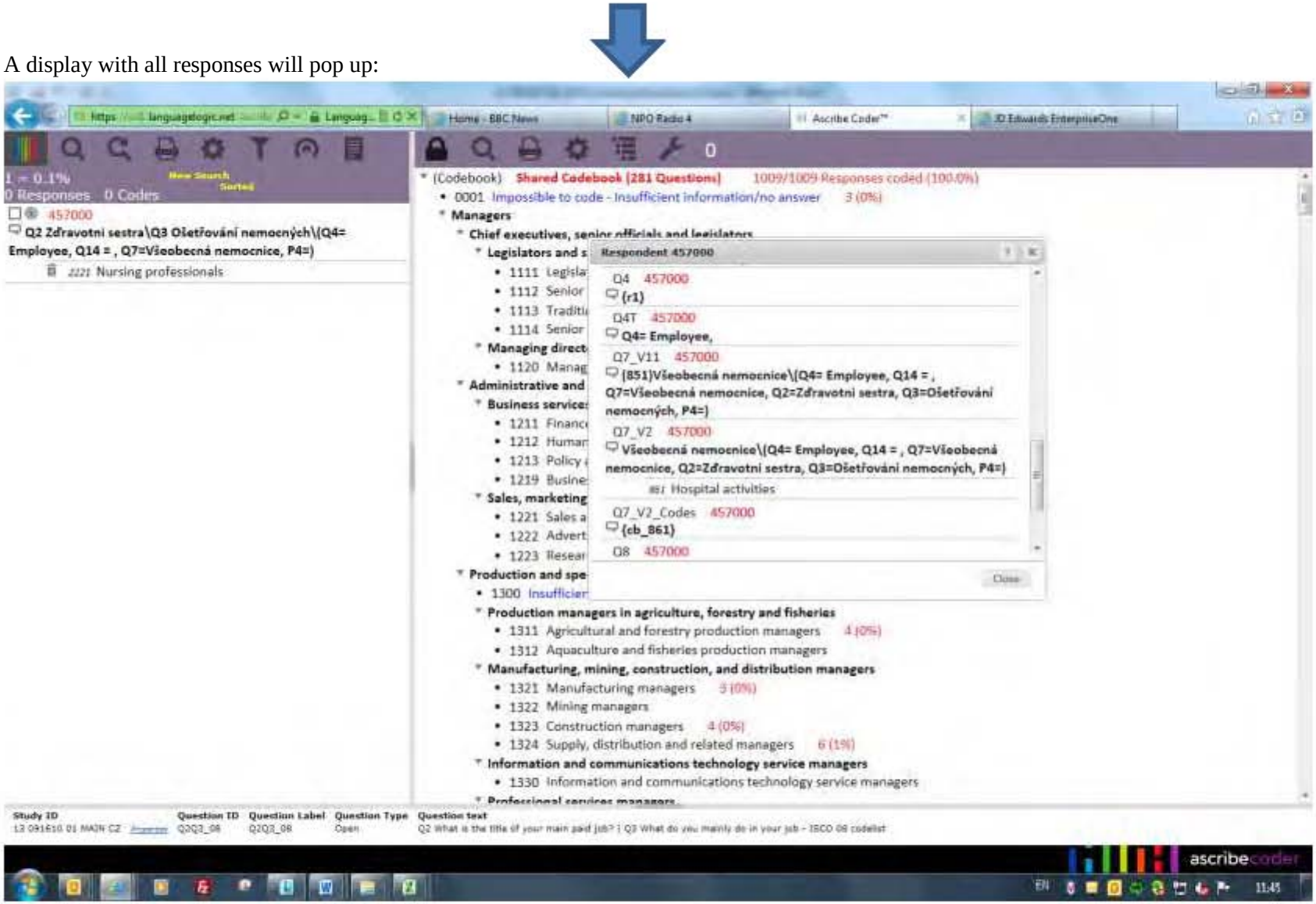
- when in doubt on how to code please refer to the document "Additional Guidelines to Occupation Coding in EWCS 2015", or ask me.

- regarding the translations, these should be done in questions labeled **C2** only. No coding is needed in these questions. When translating, please translate all information displayed.

To access other responses by same respondent, stand on the response > right click > select "*All responses for this respondent" (Q5, Q6, Q4, Q13, Q14)*



A display with all responses will pop up:



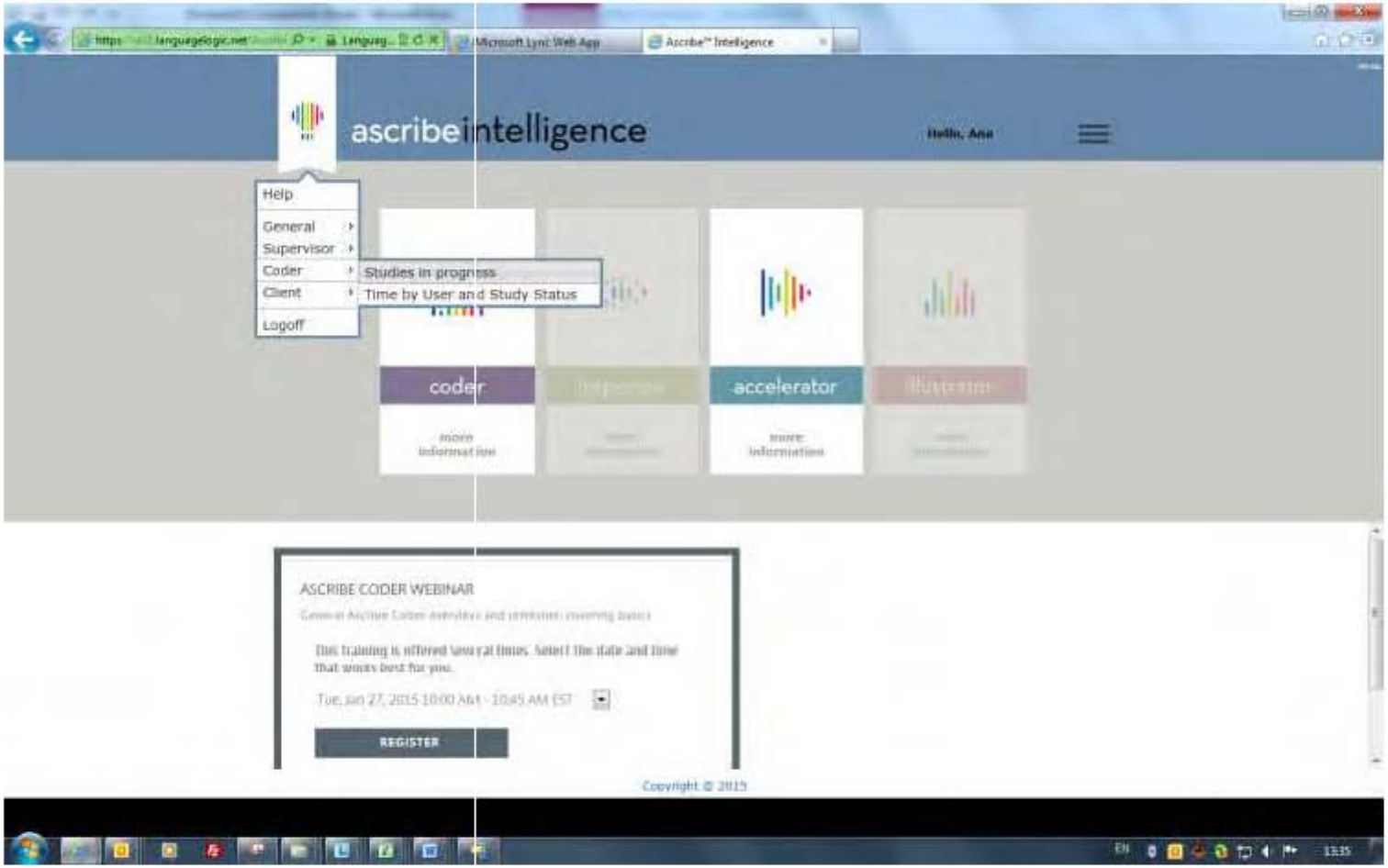
Annex D: Coding in Ascribe

Ascribe will be the platform used for coding. The *basic instructions* for coding will be covered in the following section.

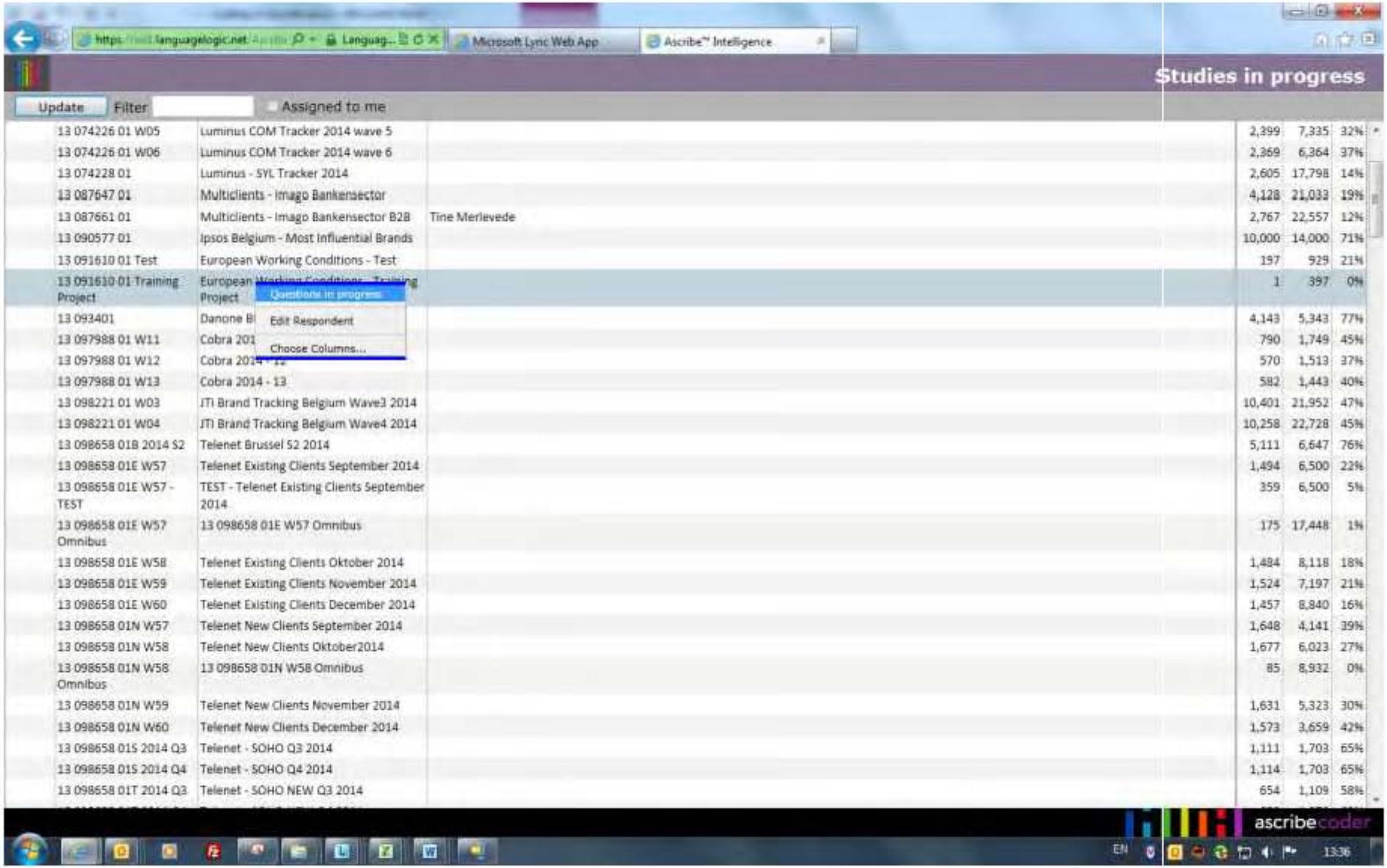
Login

Go to Ascribe using the link:
https://ws1.languagelogic.net/Ascribe/Supervisor/Studies.aspx
In the begin screen, enter your username and password:

To access the project , in the homescreen, click on the Ascribe icon:
Choose Coder > Studies in progress



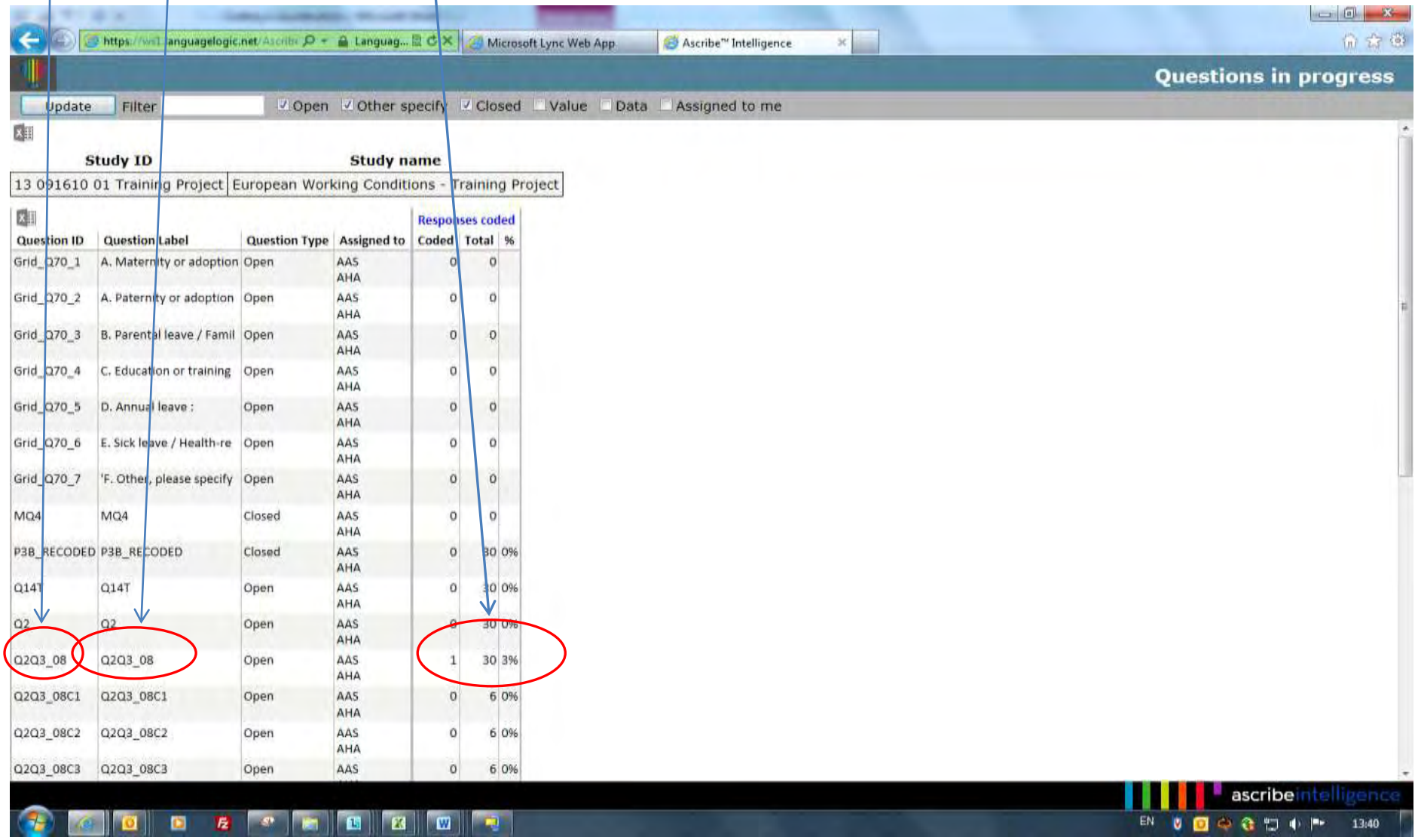
The data will be loaded in separate projects, one project per country, for this study. Scroll to the project and Right-click. Then click on Questions in progress:



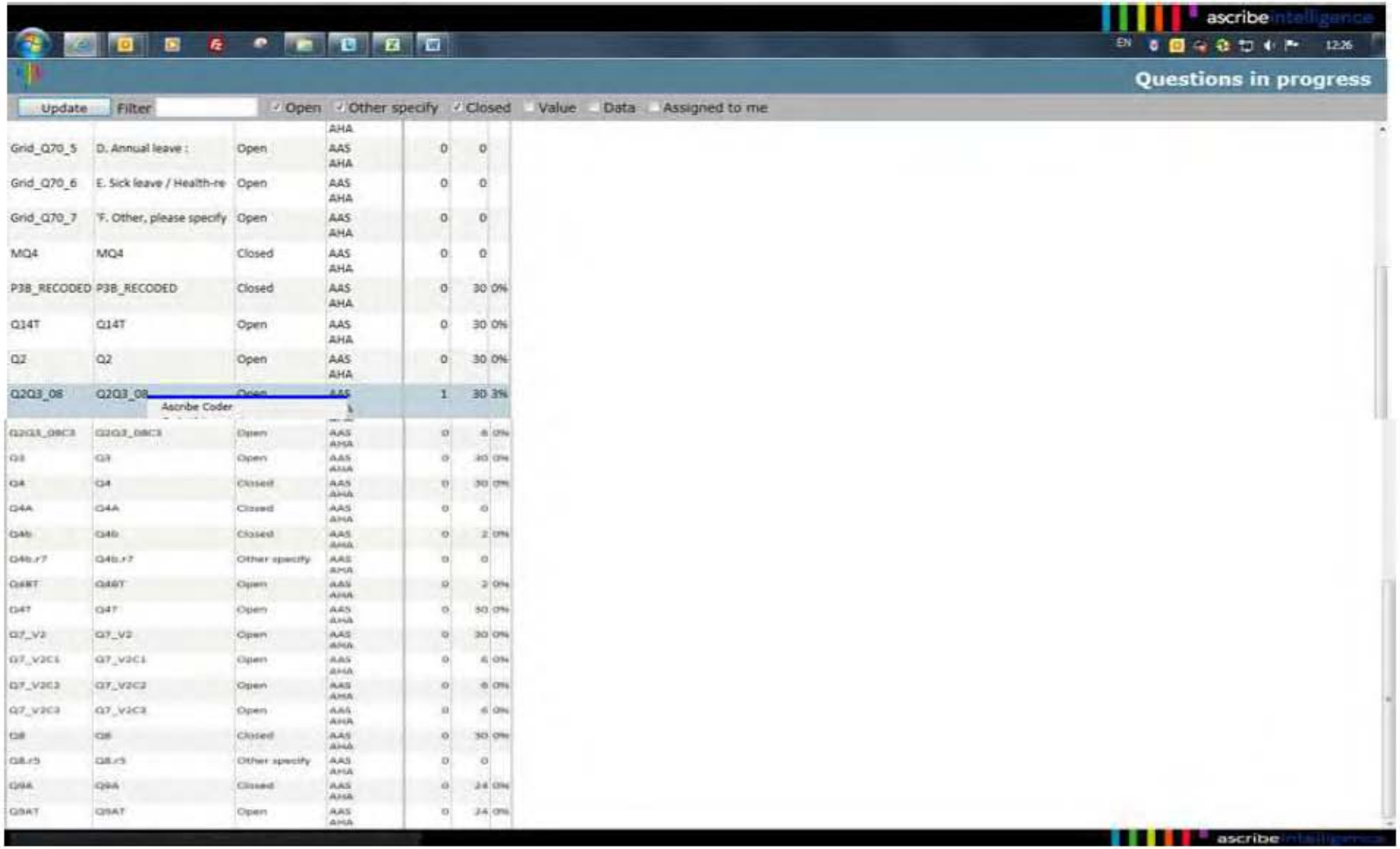
13 074226 01 W05	Luminus COM Tracker 2014 wave 5		2,399	7,335	32%
13 074226 01 W06	Luminus COM Tracker 2014 wave 6		2,369	6,364	37%
13 074228 01	Luminus - SYL Tracker 2014		2,605	17,798	14%
13 087647 01	Multiclients - Imago Bankensector		4,128	21,033	19%
13 087661 01	Multiclients - Imago Bankensector B2B	Tine Merlevede	2,767	22,557	12%
13 090577 01	Ipsos Belgium - Most Influential Brands		10,000	14,000	71%
13 091610 01 Test	European Working Conditions - Test		197	929	21%
13 091610 01 Training Project	European Working Conditions - Training Project		1	397	0%
13 093401	Danone Bi		4,143	5,343	77%
13 097988 01 W11	Cobra 201		790	1,749	45%
13 097988 01 W12	Cobra 2014 - 12		570	1,513	37%
13 097988 01 W13	Cobra 2014 - 13		582	1,443	40%
13 098221 01 W03	JTI Brand Tracking Belgium Wave3 2014		10,401	21,952	47%
13 098221 01 W04	JTI Brand Tracking Belgium Wave4 2014		10,258	22,728	45%
13 098658 01B 2014 S2	Telenet Brussel S2 2014		5,111	6,647	76%
13 098658 01E W57	Telenet Existing Clients September 2014		1,494	6,500	22%
13 098658 01E W57 - TEST	TEST - Telenet Existing Clients September 2014		359	6,500	5%
13 098658 01E W57 Omnibus	13 098658 01E W57 Omnibus		175	17,448	1%
13 098658 01E W58	Telenet Existing Clients Oktober 2014		1,484	8,118	18%
13 098658 01E W59	Telenet Existing Clients November 2014		1,524	7,197	21%
13 098658 01E W60	Telenet Existing Clients December 2014		1,457	8,840	16%
13 098658 01N W57	Telenet New Clients September 2014		1,648	4,141	39%
13 098658 01N W58	Telenet New Clients Oktober2014		1,677	6,023	27%
13 098658 01N W58 Omnibus	13 098658 01N W58 Omnibus		85	8,932	0%
13 098658 01N W59	Telenet New Clients November 2014		1,631	5,323	30%
13 098658 01N W60	Telenet New Clients December 2014		1,573	3,659	42%
13 098658 01S 2014 Q3	Telenet - SOHO Q3 2014		1,111	1,703	65%
13 098658 01S 2014 Q4	Telenet - SOHO Q4 2014		1,114	1,703	65%
13 098658 01T 2014 Q3	Telenet - SOHO NEW Q3 2014		654	1,109	58%

When clicking on Questions in progress, the content screen below will be displayed. In this screen, a list of all questions in the project is included. Information on the total number of responses per question, as well as responses coded is available.

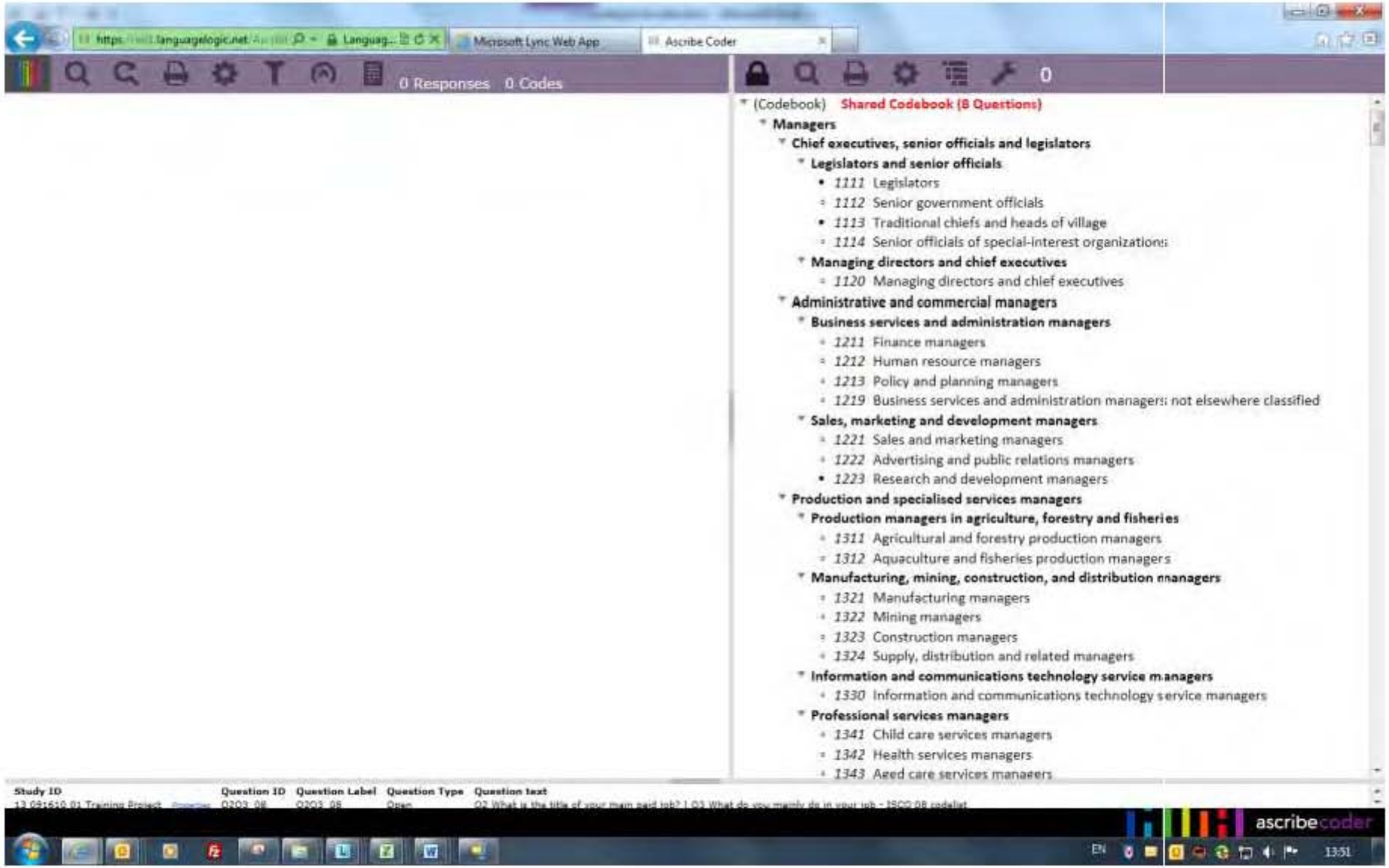
Question ID **Question label** **Responses Coded & Total**



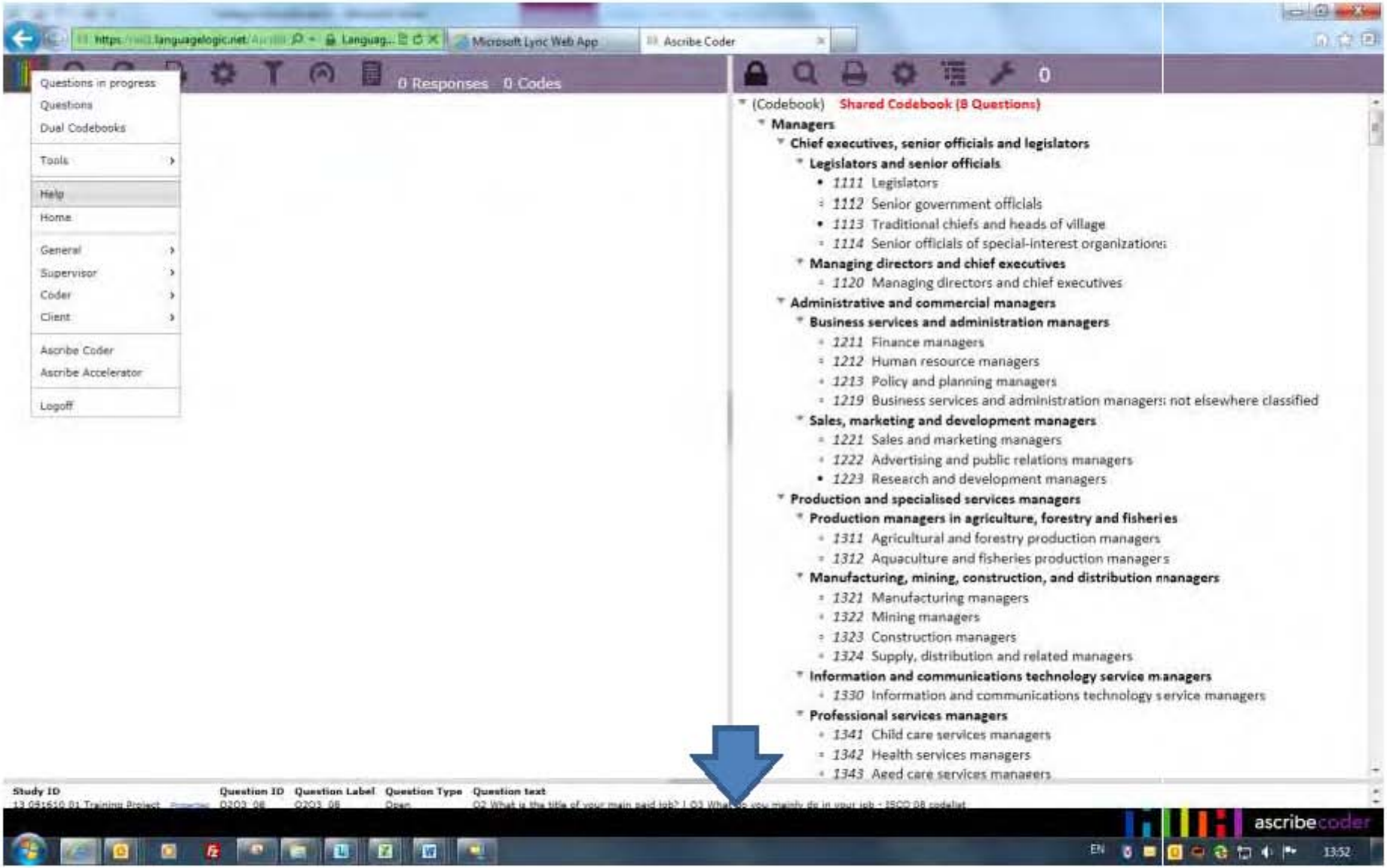
Scroll to the question you want to code, right-click, select Ascribe Coder



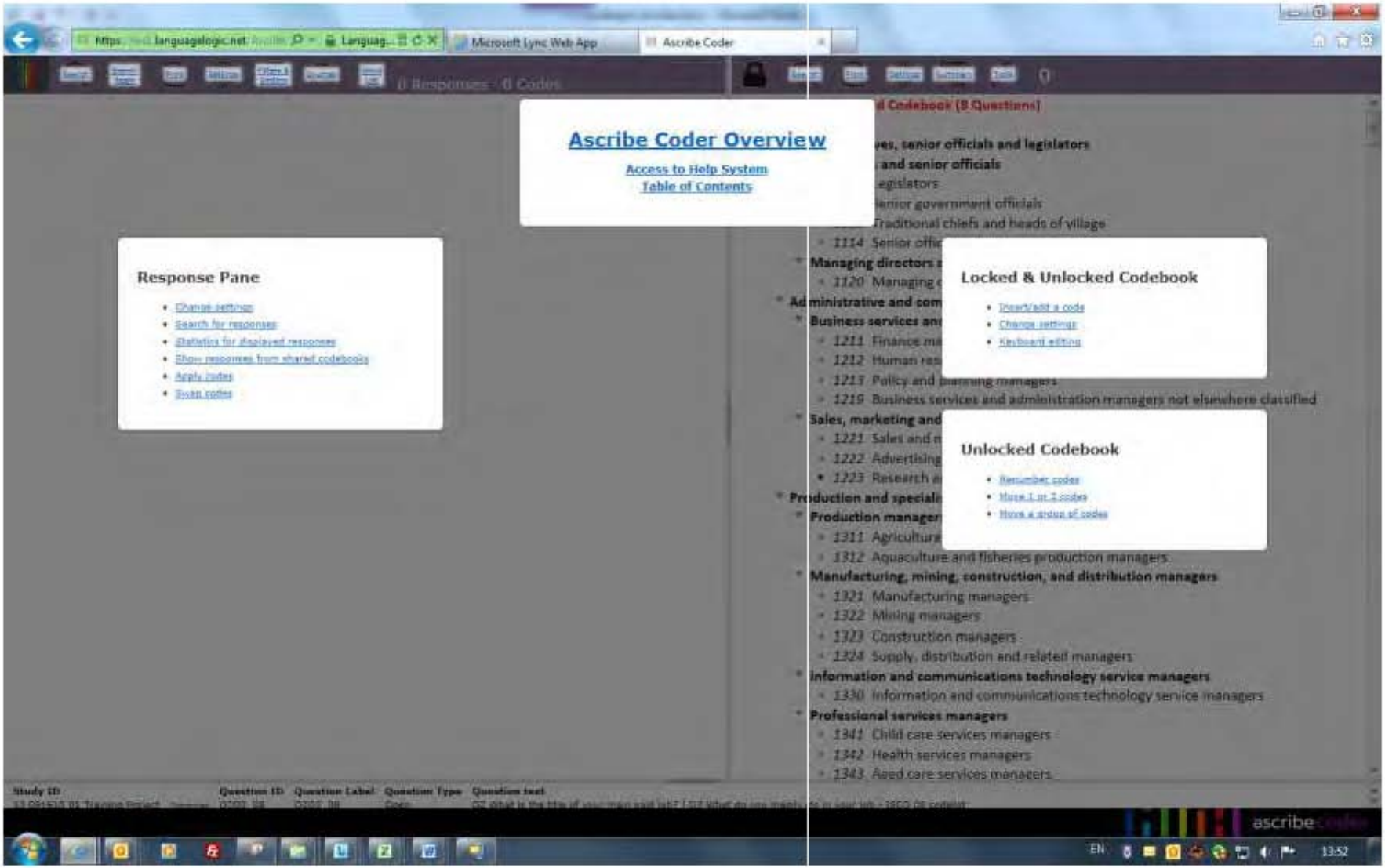
The Ascribe coder screen is divided in two. On the left, you will see the responses and on the right, the code book.



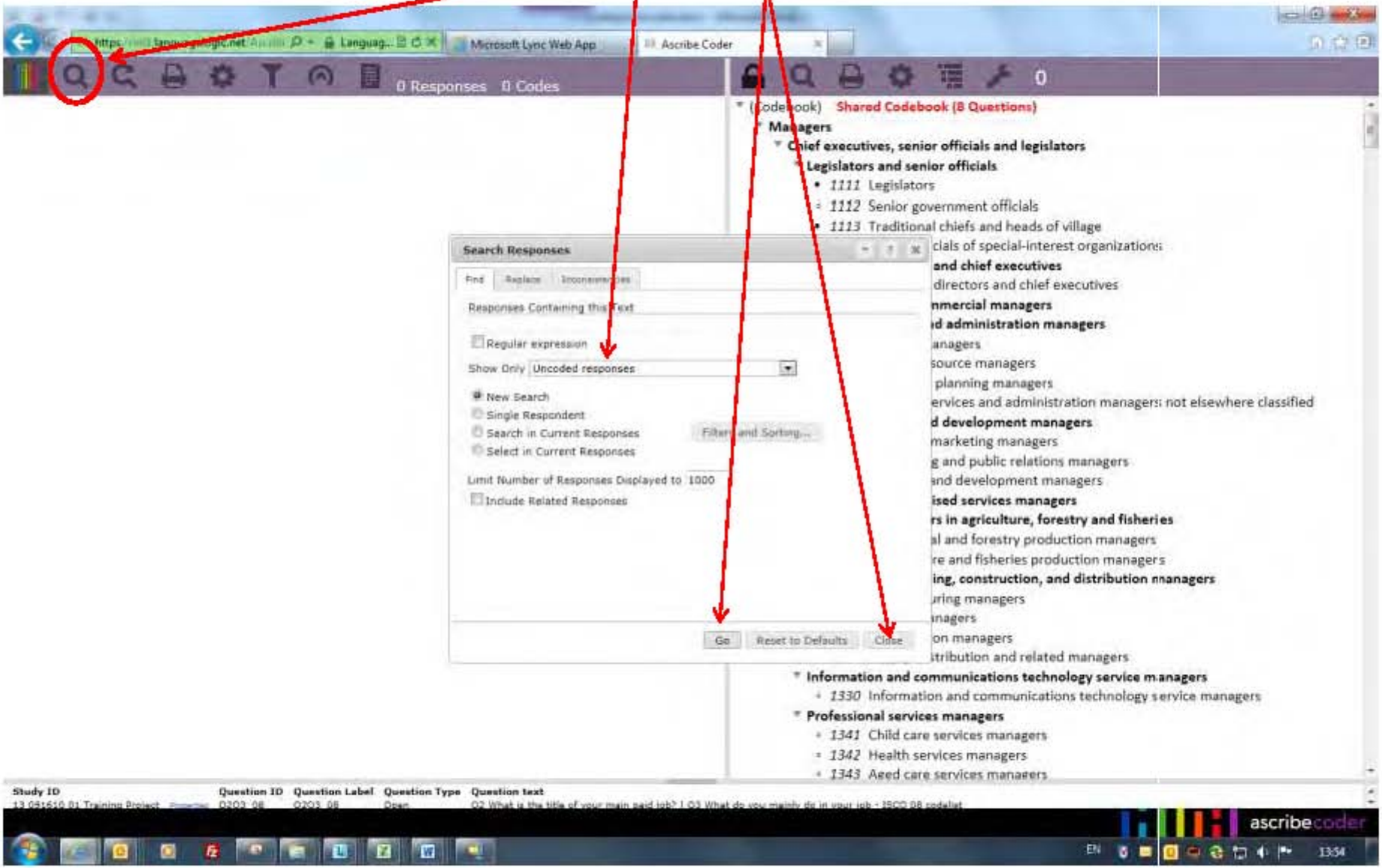
If you click on the logo and choose help, an explanation of the icons and help options will be displayed (second screenshot below)



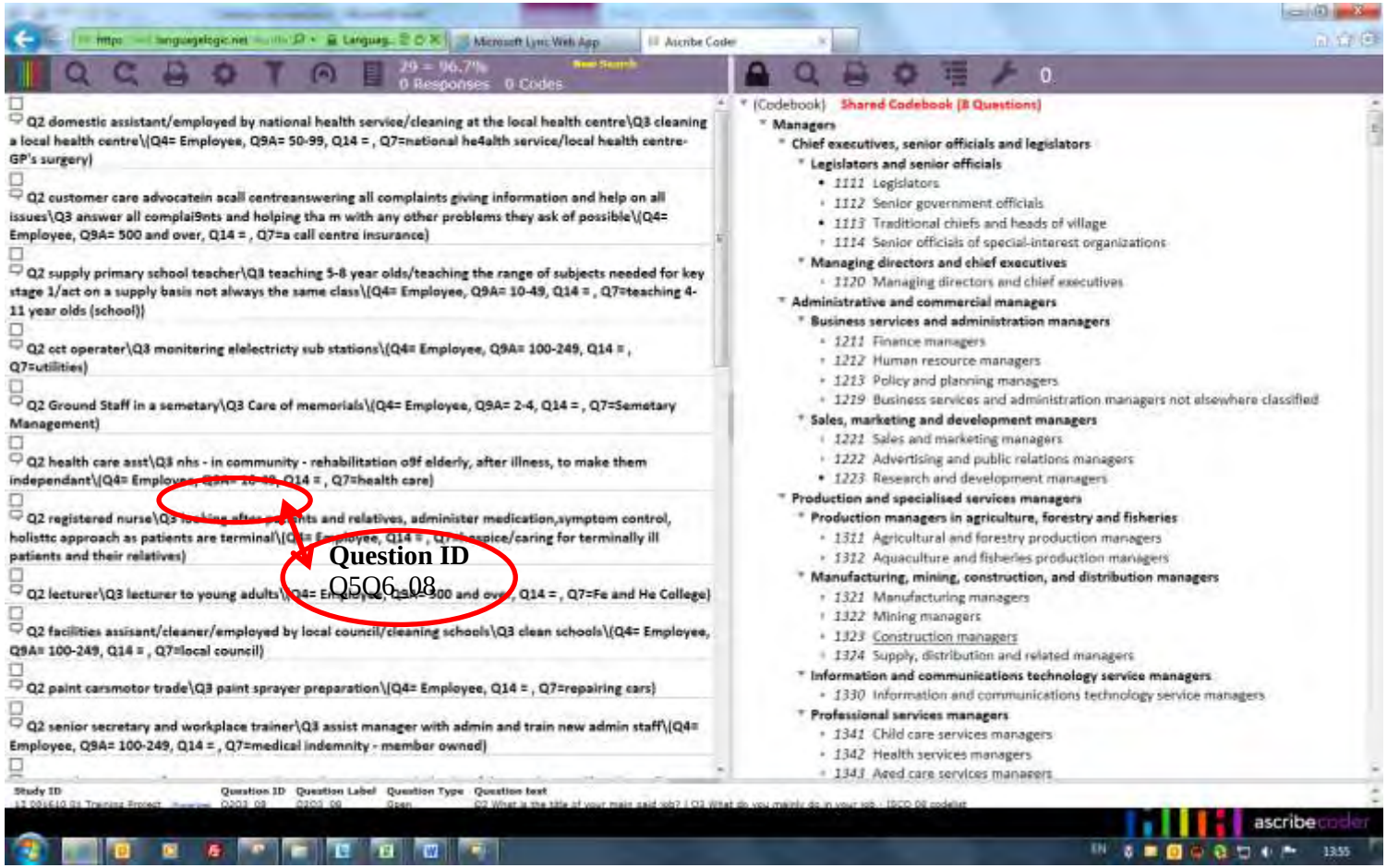
Click anywhere on the screen to hide the help options again.



In order to display the verbatim, click on the Search Icon, make a selection > Go (and Close)

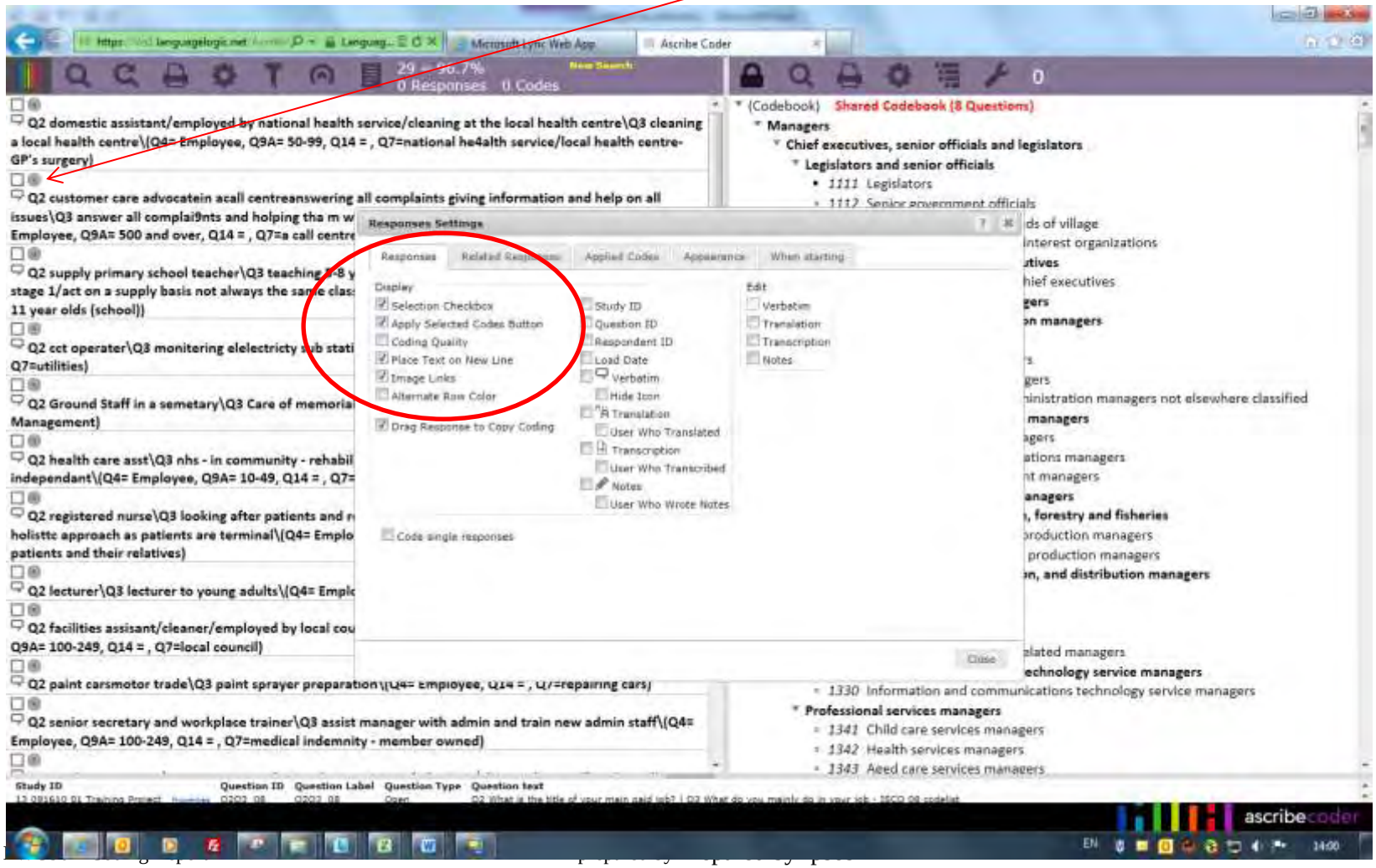


You will then see the responses. At the bottom of the screen you see which question(s) the vbm are for (it is very important that you check you are in the correct question before you start coding):



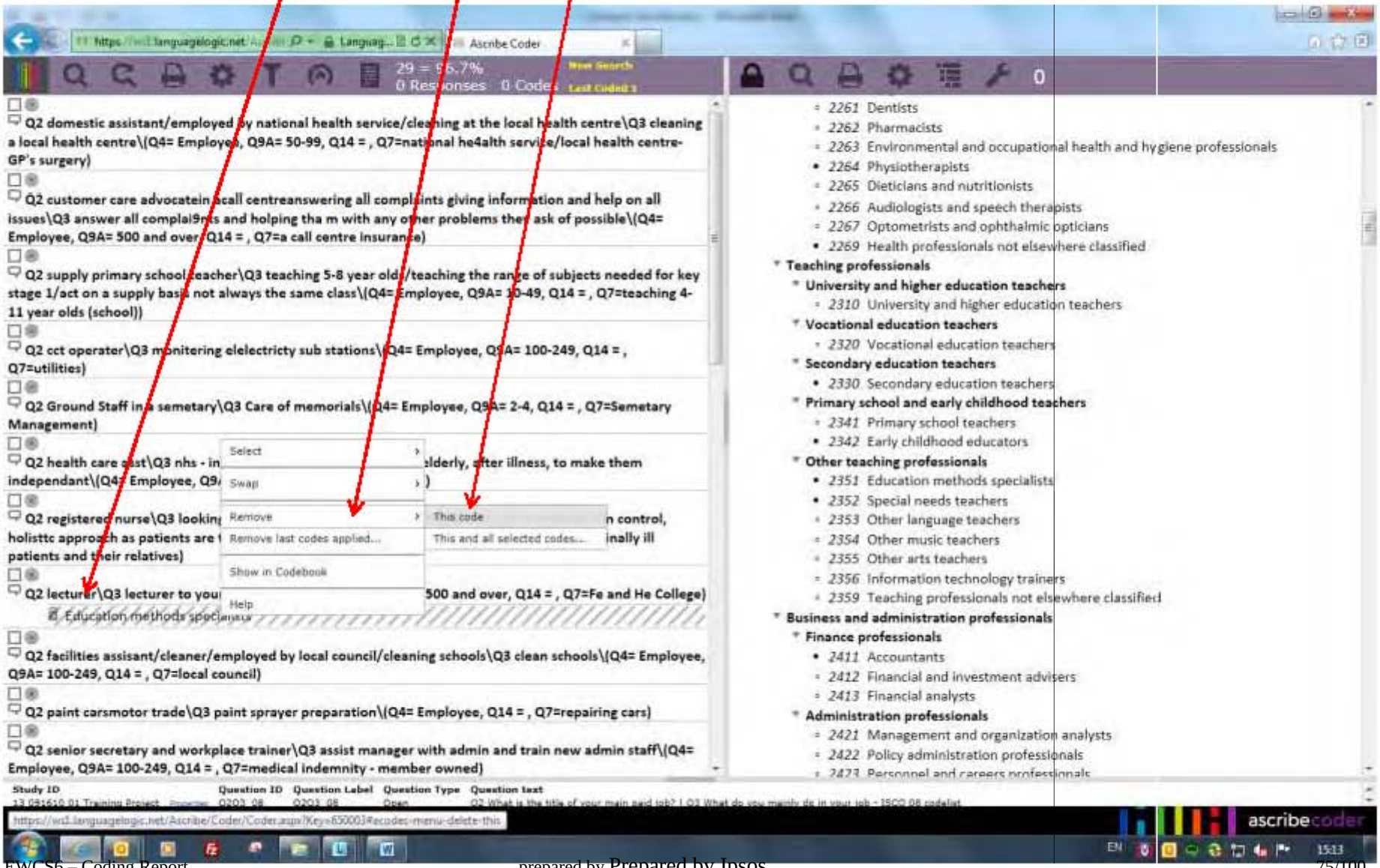
The actual coding can be done in different ways:

- Select any number of responses and click on a code. Remember to deselect them afterwards or alternatively click on the search again button to remove them from the Coded responses
- Drag a code to a response.
- Select a code and drag it to the selected responses (through Apply Selected Codes Button; shown below). Buttons can be added or removed from the Responses settings screen:

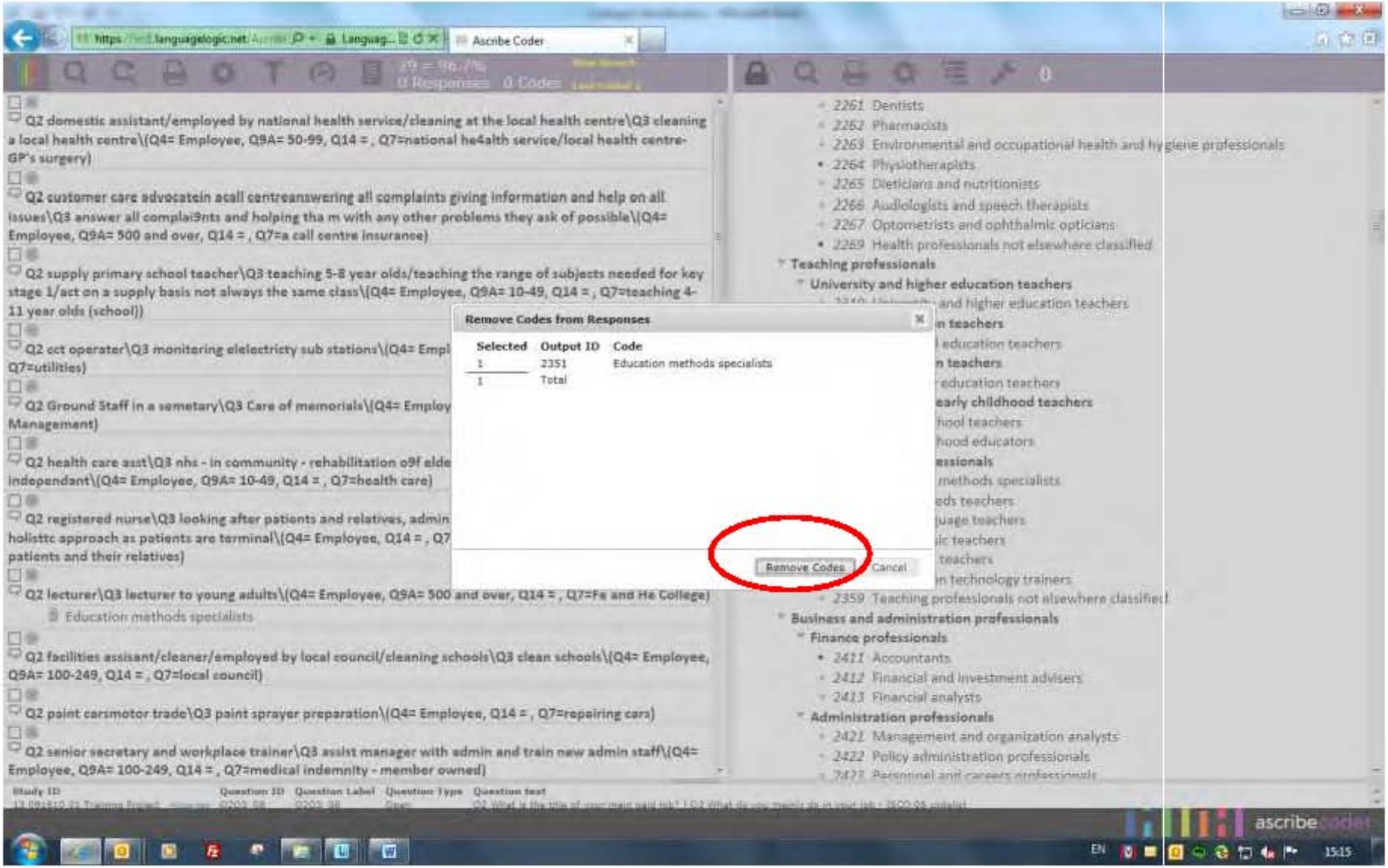


Removing codes can be done in 2 ways:

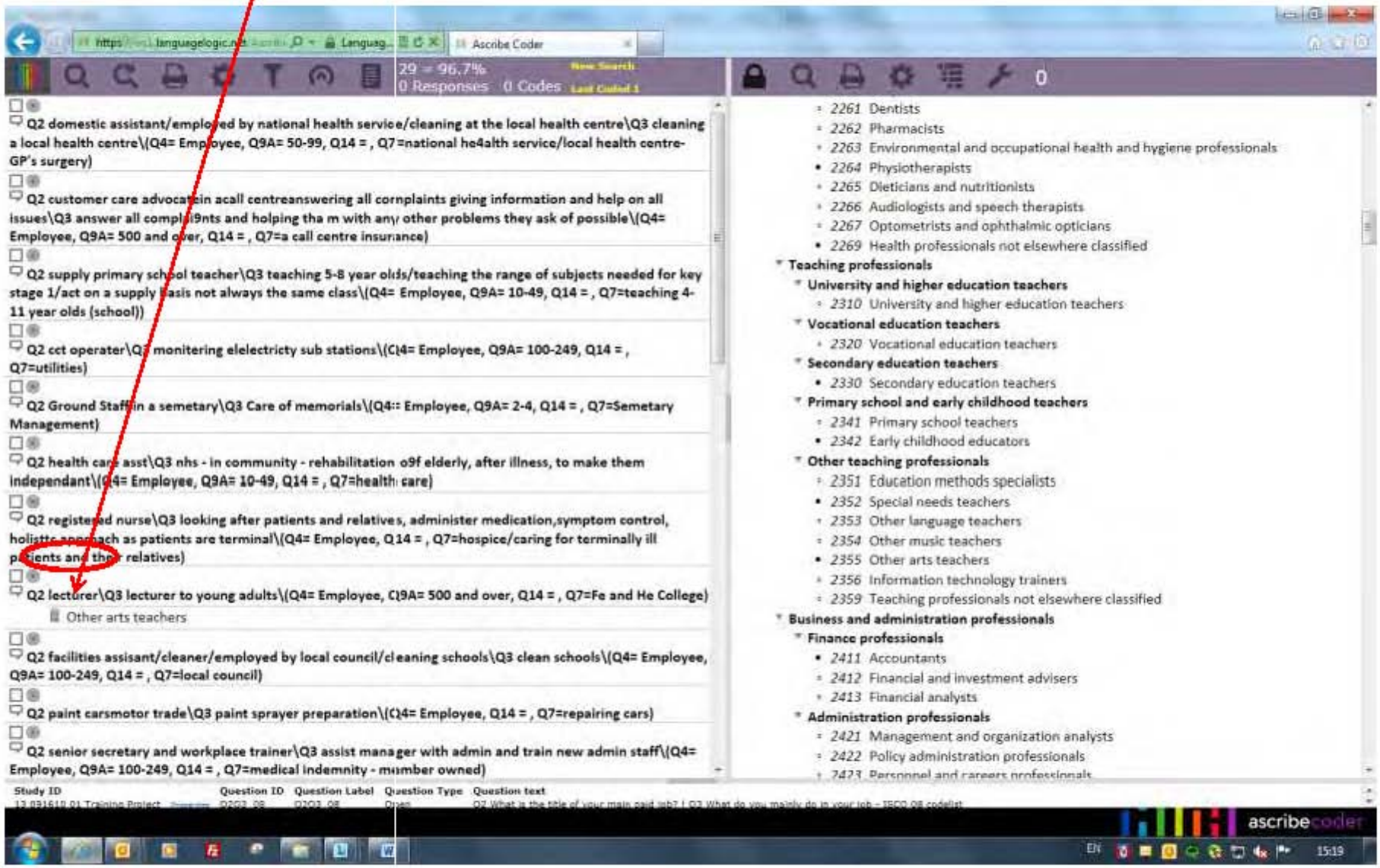
1) right-clicking on the selected code > click on Remove > This code:



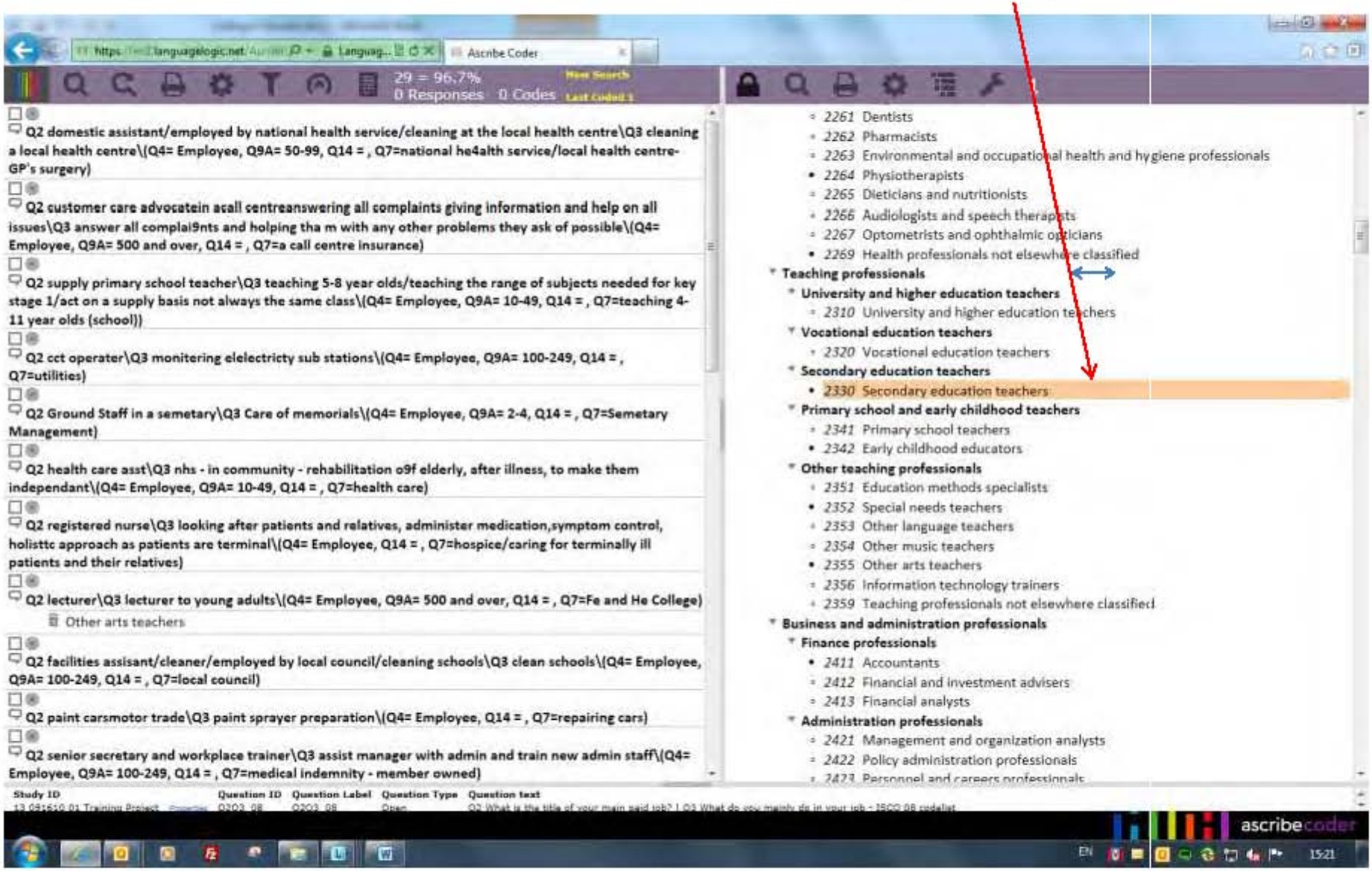
A confirmation request will be displayed. Once you click on Remove Codes, the selected code(s) will be removed:

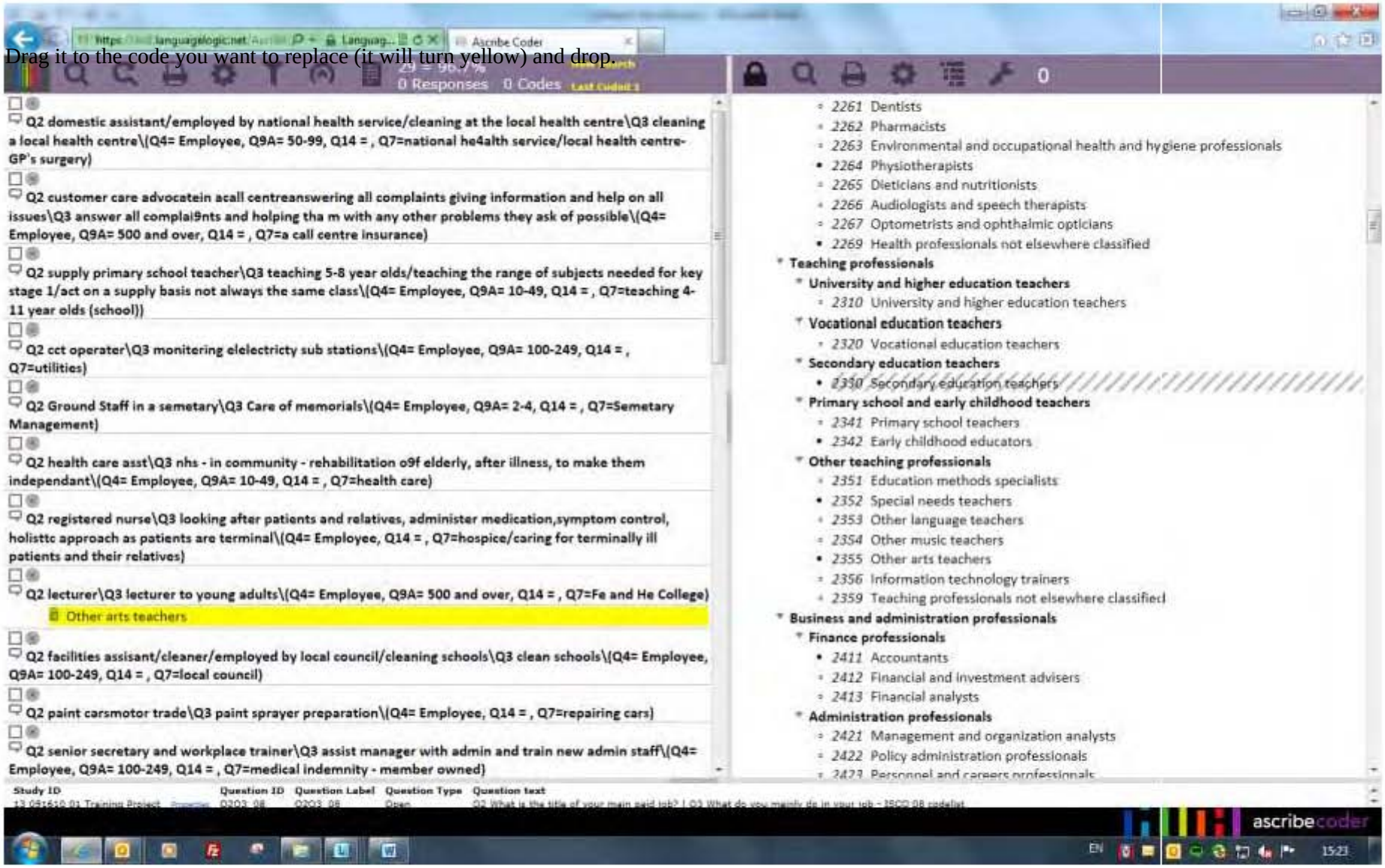


2) clicking on the Remove code icon, next to the code

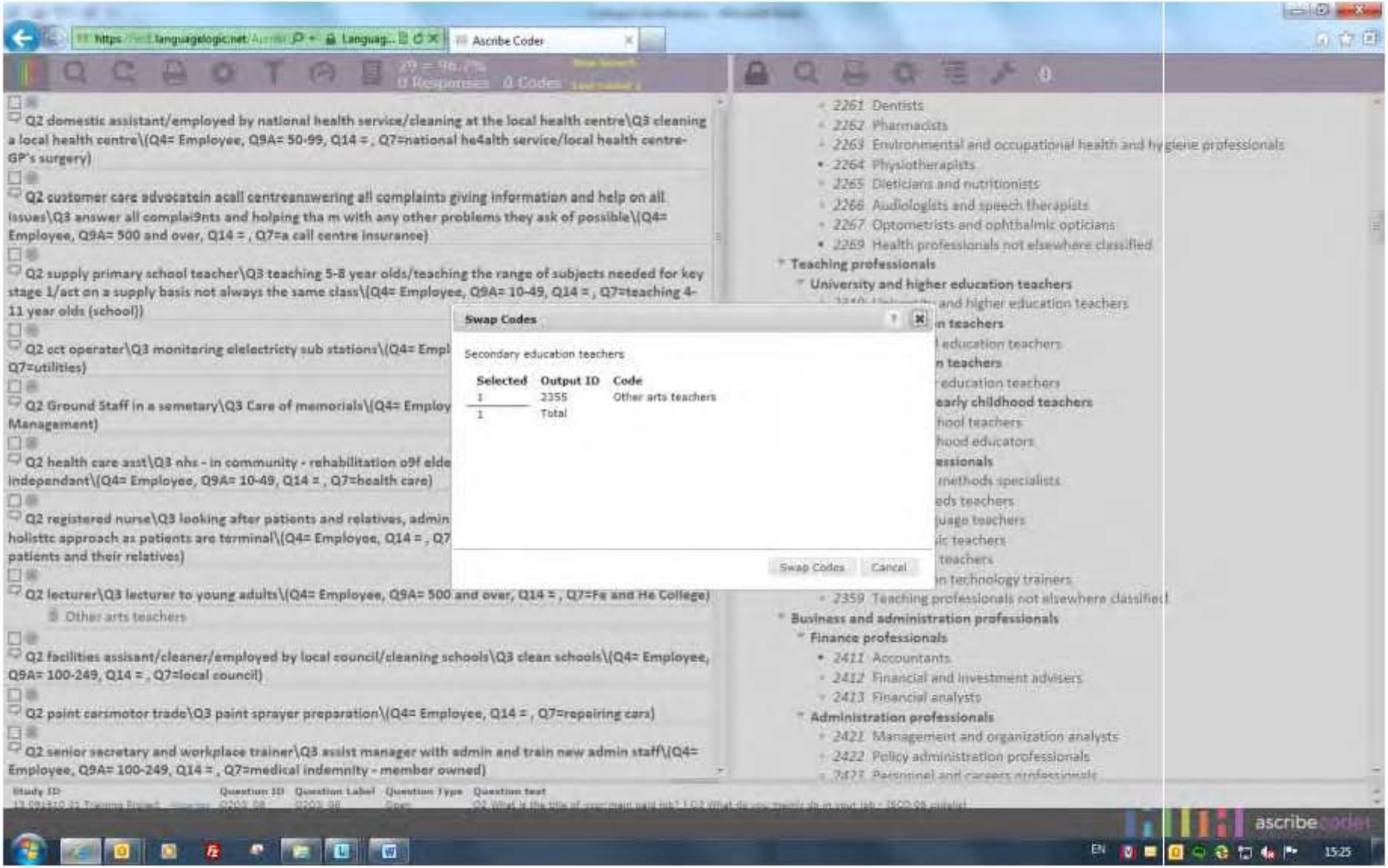


There is also the possibility of swapping codes. For this, stand next to the code on the codebook panel. A double arrow appears:

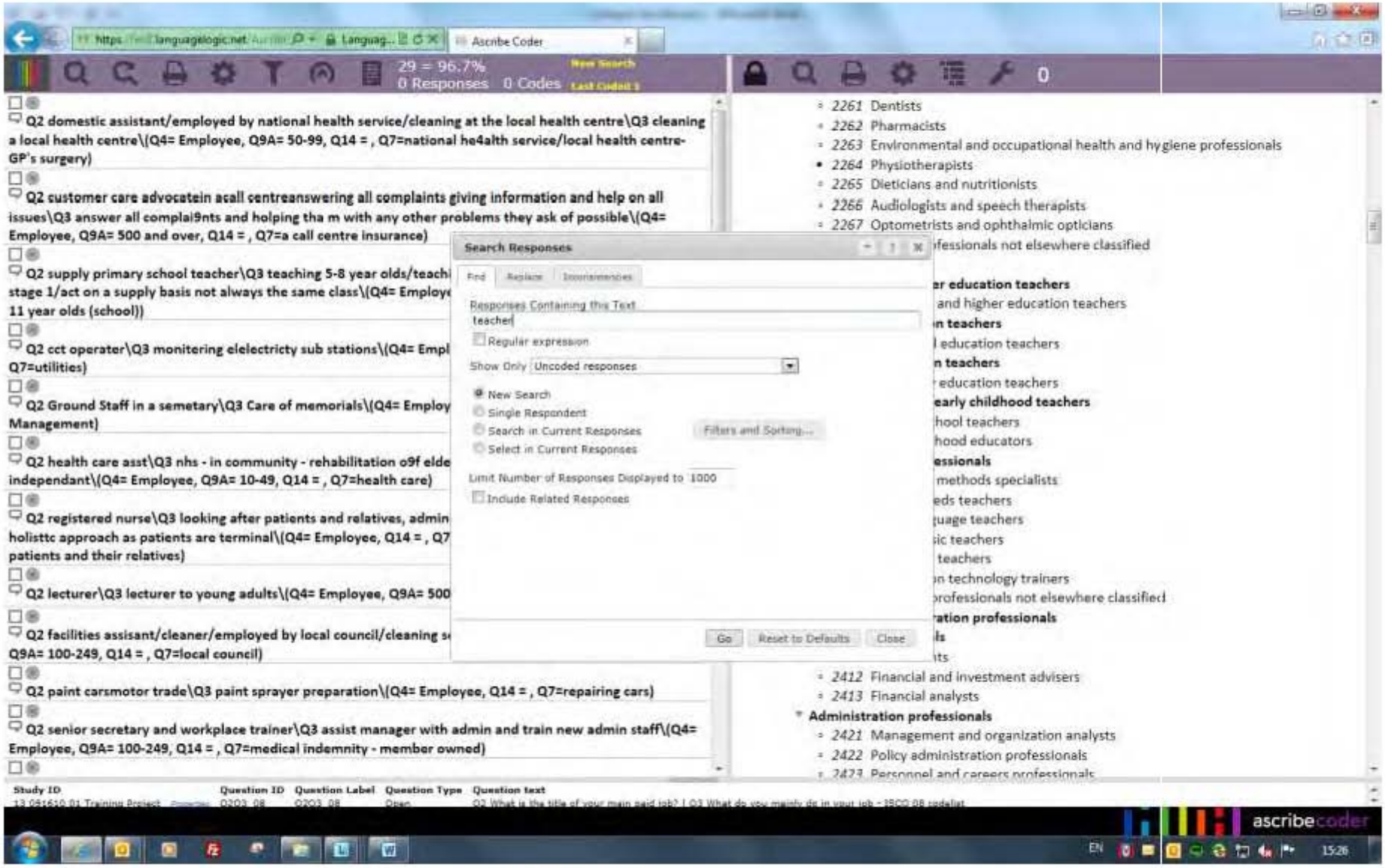



Drag it to the code you want to replace (it will turn yellow) and drop.
Ascribe Coder
0 Responses 0 Codes
Q2 domestic assistant/employed by national health service/cleaning at the local health centre\Q3 cleaning a local health centre\(Q4= Employee, Q9A= 50-99, Q14 = , Q7=national he4alth service/local health centre-GP's surgery)
Q2 customer care advocatein acall centreanswering all complaints giving information and help on all issues\Q3 answer all complai9nts and holping tha m with any other problems they ask of possible\(Q4= Employee, Q9A= 500 and over, Q14 = , Q7=a call centre insurance)
Q2 supply primary school teacher\Q3 teaching 5-8 year olds/teaching the range of subjects needed for key stage 1/act on a supply basis not always the same class\(Q4= Employee, Q9A= 10-49, Q14 = , Q7=teaching 4-11 year olds (school))
Q2 cct operater\Q3 monitering elelectricty sub stations\(Q4= Employee, Q9A= 100-249, Q14 = , Q7=utilities)
Q2 Ground Staff in a semetary\Q3 Care of memorials\(Q4= Employee, Q9A= 2-4, Q14 = , Q7=Semetary Management)
Q2 health care asst\Q3 nhs - in community - rehabilitation o9f elderly, after illness, to make them independant\(Q4= Employee, Q9A= 10-49, Q14 = , Q7=health care)
Q2 registered nurse\Q3 looking after patients and relatives, administer medication,symptom control, holisttc approach as patients are terminal\(Q4= Employee, Q14 = , Q7=hospice/caring for terminally ill patients and their relatives)
Q2 lecturer\Q3 lecturer to young adults\(Q4= Employee, Q9A= 500 and over, Q14 = , Q7=Fe and He College)
Other arts teachers
Q2 facilities assisant/cleaner/employed by local council/cleaning schools\Q3 clean schools\(Q4= Employee, Q9A= 100-249, Q14 = , Q7=local council)
Q2 paint carsmotor trade\Q3 paint sprayer preparation\(Q4= Employee, Q14 = , Q7=repairing cars)
Q2 senior secretary and workplace trainer\Q3 assist manager with admin and train new admin staff\(Q4= Employee, Q9A= 100-249, Q14 = , Q7=medical indemnity - member owned)
2261 Dentists
2262 Pharmacists
2263 Environmental and occupational health and hygiene professionals
2264 Physiotherapists
2265 Dieticians and nutritionists
2266 Audiologists and speech therapists
2267 Optometrists and ophthalmic opticians
2269 Health professionals not elsewhere classified
Teaching professionals
University and higher education teachers
2310 University and higher education teachers
Vocational education teachers
2320 Vocational education teachers
Secondary education teachers
2330 Secondary education teachers
Primary school and early childhood teachers
2341 Primary school teachers
2342 Early childhood educators
Other teaching professionals
2351 Education methods specialists
2352 Special needs teachers
2353 Other language teachers
2354 Other music teachers
2355 Other arts teachers
2356 Information technology trainers
2359 Teaching professionals not elsewhere classified
Business and administration professionals
Finance professionals
2411 Accountants
2412 Financial and investment advisers
2413 Financial analysts
Administration professionals
2421 Management and organization analysts
2422 Policy administration professionals
Study ID
Question ID
Question Label
Question Type
Question text
ascribecoder

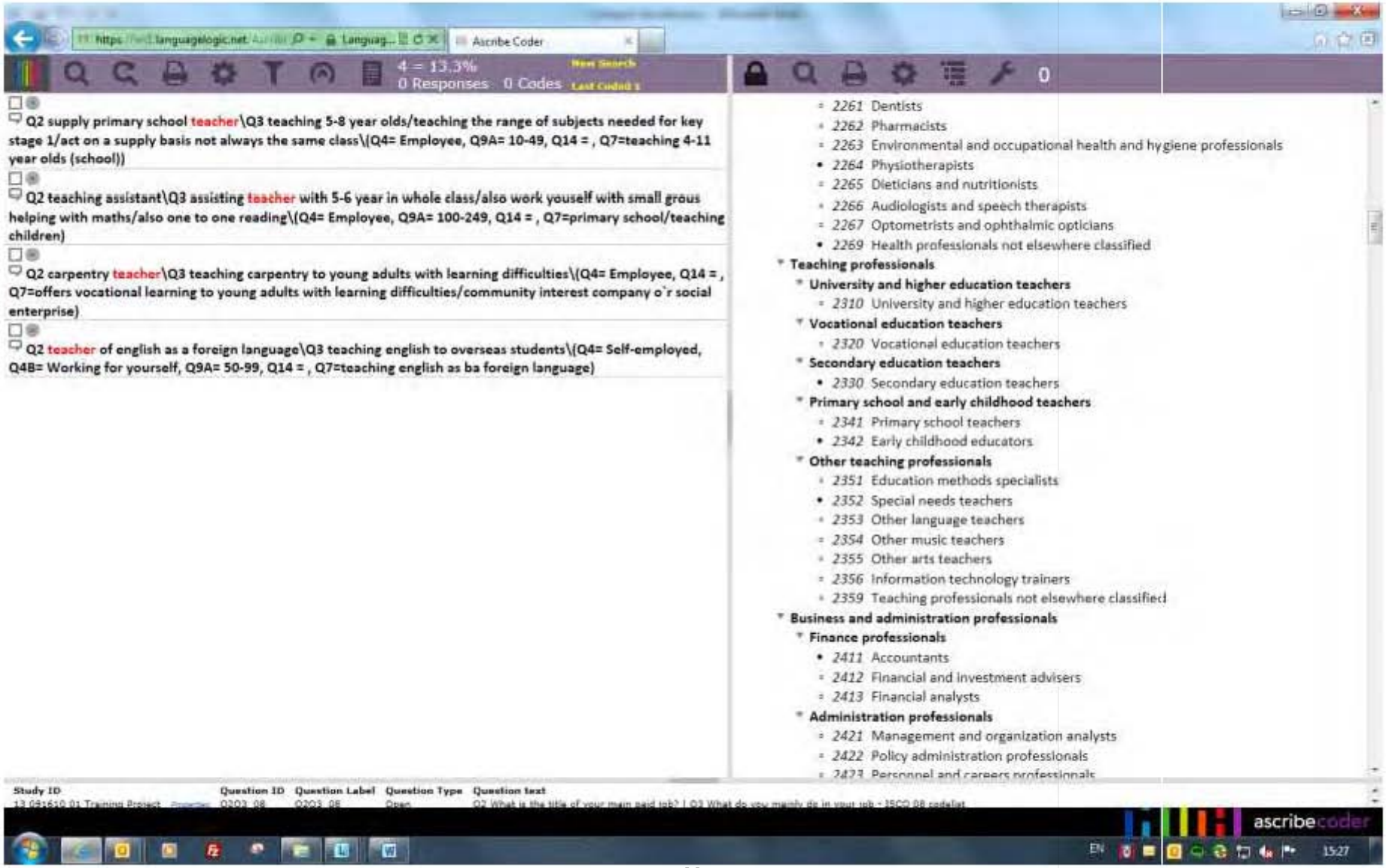
A confirmation request will be displayed. Once you confirm this, the codes will be swapped:



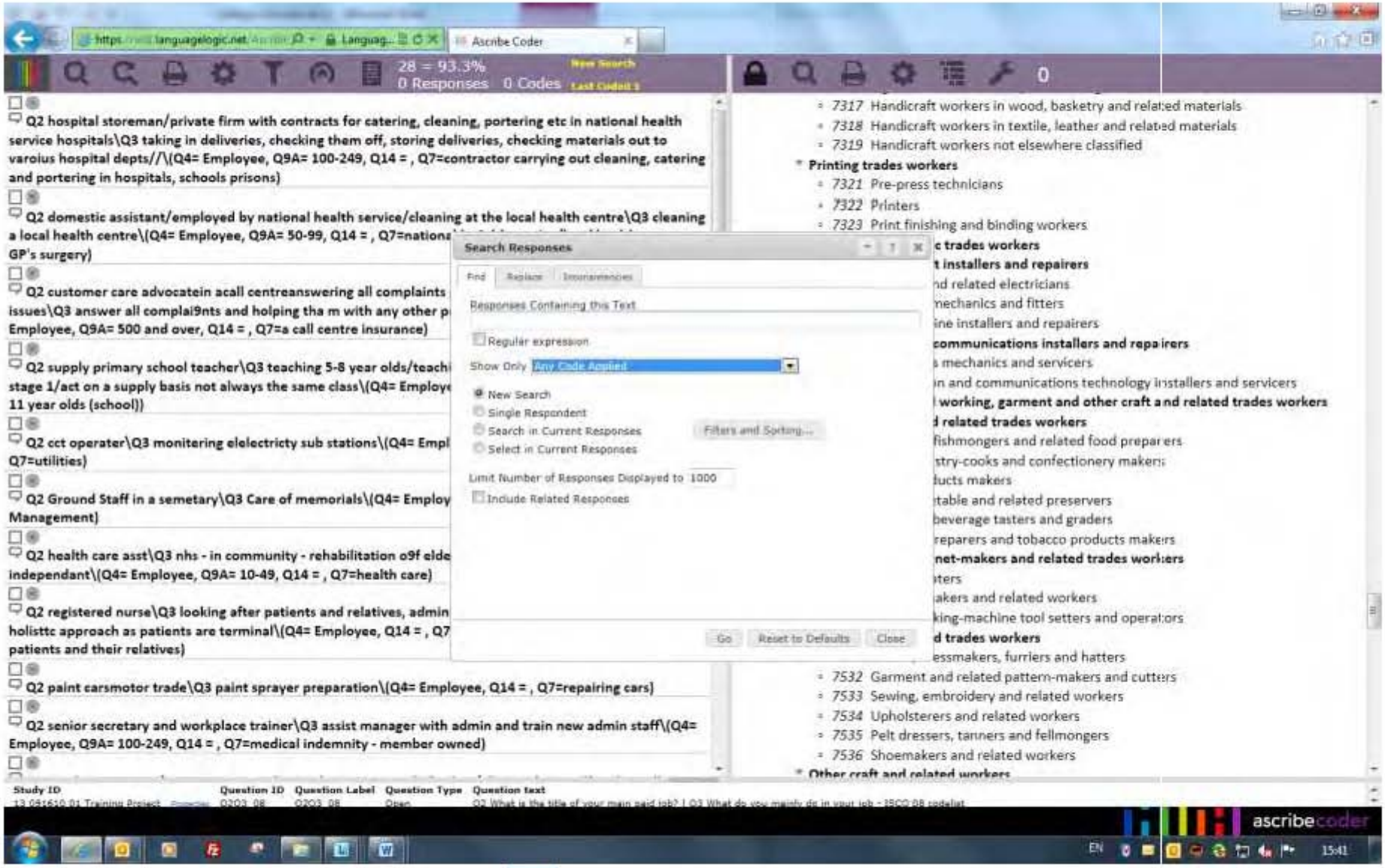
To look for responses using key terms go to Search and enter the term in ‘Responses containing this text’, > Go:



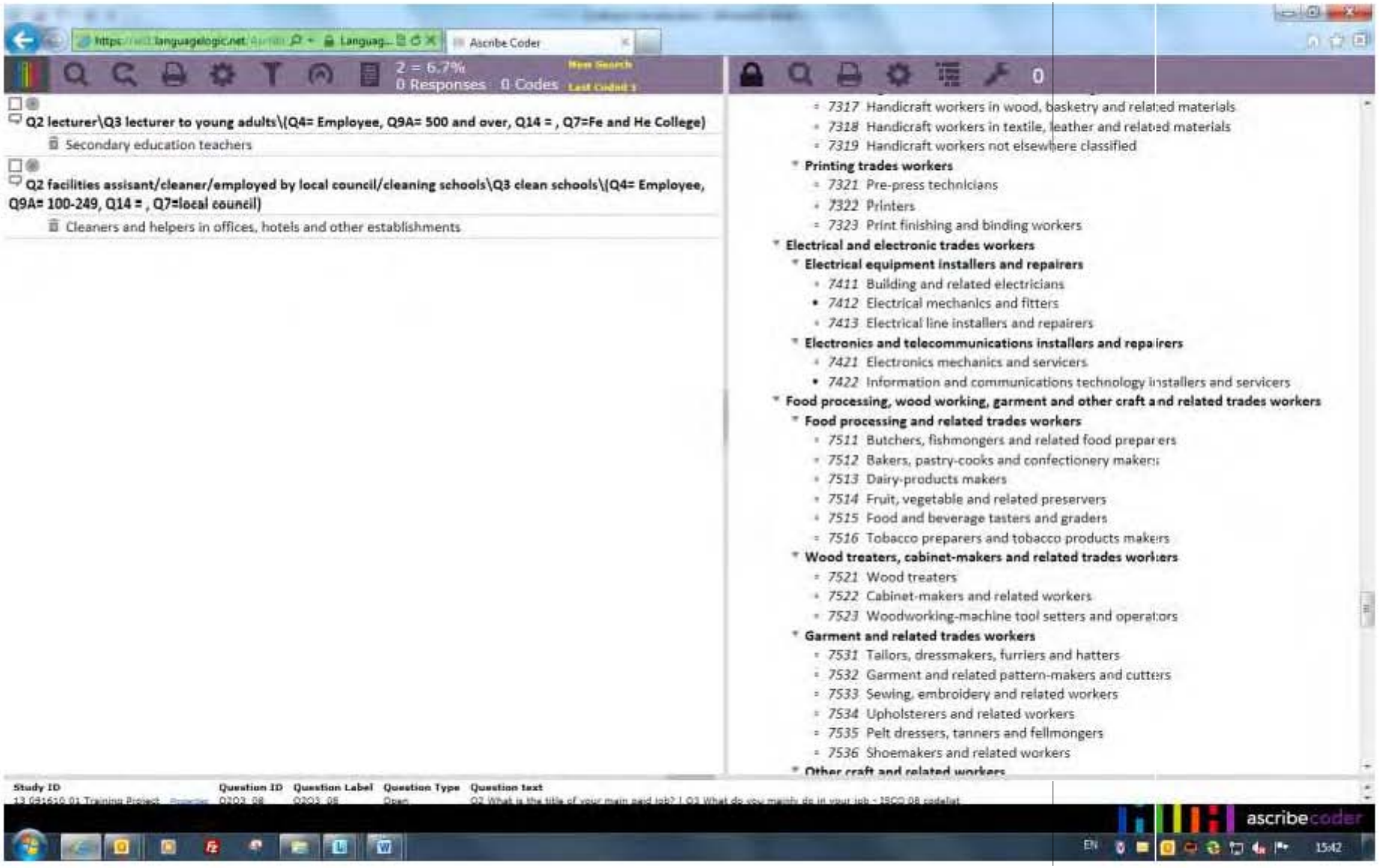
You will then see the responses with the term highlighted. Then you can code in one go by selecting these and clicking on the code; however, it could be that the same code doesn't apply to all these. Always double check before applying a code.



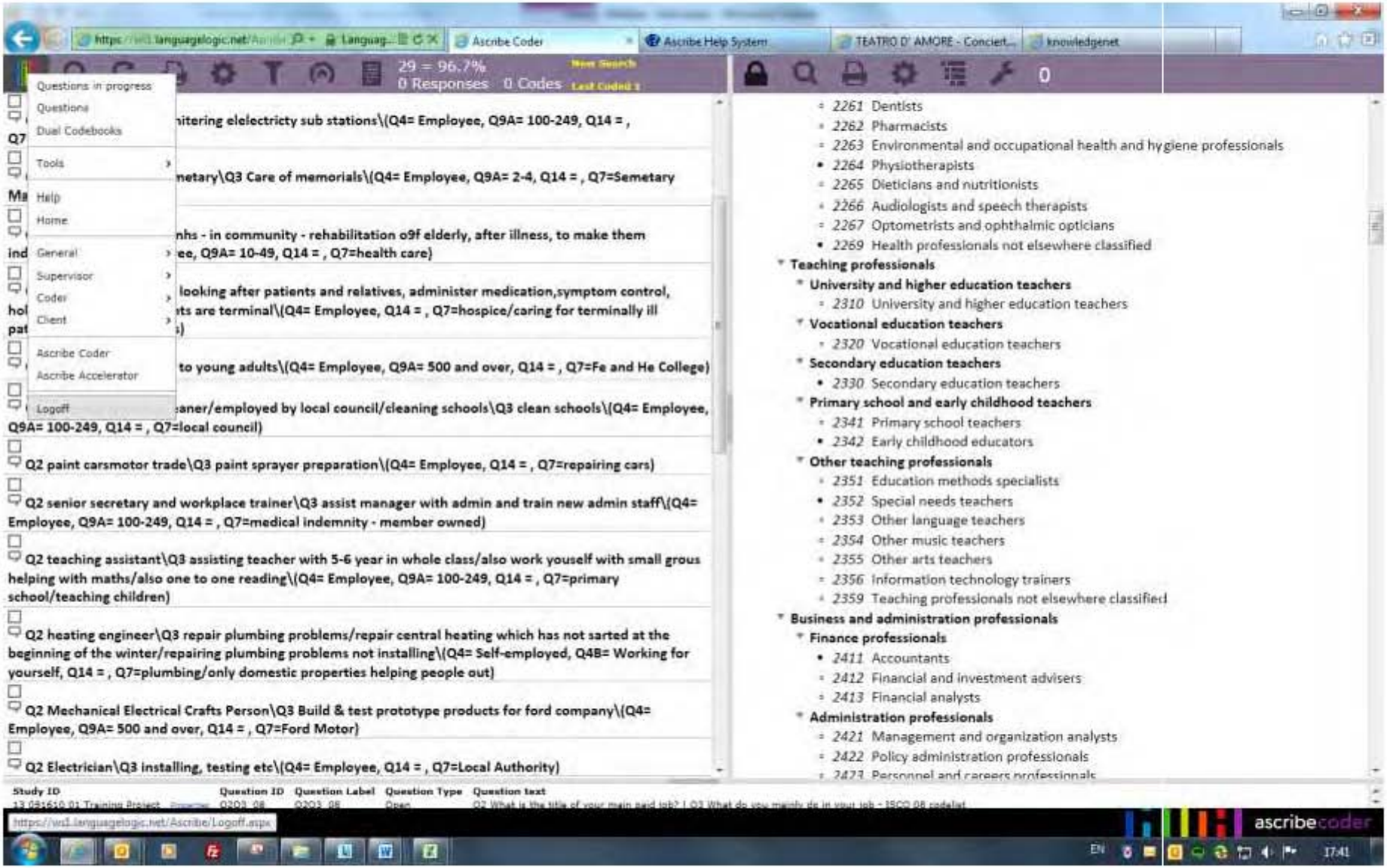
For revising the coding, go to Search > Any Code Applied > Go



All responses that have been coded will be displayed:



For logging off, go to the Ascribe Icon:



For any additional questions you can refer to the Ascribe Help: https://ws1.languagelogic.net/Help/Ascribe_Help_System.htm#>>pan=2, or alternatively you can always send an email to Ana Harari (ana.harari@ipsos.com).

Annex E: Additional Guidelines to Occupation Coding in EWCS 2015

(adapted for the purposes of EWCS 2015 coder training from OCCUPATION CODING: DO'S AND DONT'S by Harry Ganzeboom http://home.fsw.vu.nl/hbg.ganzeboom/Pdf/index.htm and "A guide for users" by Peter Elias and Margaret Birch (1994)

Before you start…

• As a coder of the 6th EWC survey, you should make use of the ISCO-88 manual. Apart from the useful introduction (11 pages) and the classification itself (10 pages) it contains over 400 pages of definitions, examples, indexes and guidance that will be useful to you as a coder.

• Please familiarize yourself in particular with the hierarchical digit structure of the ISCO classification. Look first at the structure of ISCO using only the first two digits (see guidance sheet on probing)

• If you are working with other coders on this task, **DO NOT** consult your colleague coders. We are looking for independent information!

• You will be confronted with vague and difficult information. This is not your fault, but unfortunately the interviewer did not register sufficient information. If the answer is too vague, contact the interviewer. If the interviewer cannot give any additional information, the respondent should be contacted. If still not 100% clear, please make the best guess.

• Please remember to be patient, willing to look up information and honest!

Job title vs Job description

Information given in Q5 (job title) should be assessed very carefully and taken with a pinch of salt. Sometimes job titles are very clear – e.g. medical doctors, university professors, artists, lorry drivers – but in other cases they can be very misleading – for example, a manager of a small plumbing company might describe himself as a CEO, or, at the other end of the scale, he might say something along the lines of "we are all plumbers", depending on personality/subjective factors.

In such cases, care must be taken to determine as objectively as possible from Q6 (job description) the type of work the person actually performs, and this should be used as the basis of the coding decision even if the resulting category is very different from the one that would have resulted if the job title information had been used mechanically and uncritically.

Other examples:

• Somebody states that s/he is a clerk at a university, and it turns out that s/he actually authors textbooks, and teaches at university level

• Professionals (major group two) often state the field of their degree (e.g. chemist, economist) as their job title. If they work in applied research (e.g. in a pharmaceutical company) or in any other function that is not directly related to their degree (e.g. economist teaches at secondary school level or works as an IT systems administrator), they should be classified according to their job description, not according to their degree.

Skill level

ISCO-88's primary logic of classification is the skill levels of occupations. However, this point of view is not consistently maintained.

Major groups 2000, 3000, 4000, 7000, 8000 and 9000 are in clear order by skill levels, but the skill levels in major groups 1000, 5000 and 6000 are ambiguous.

People should be categorized as labourers into major group 9000 only if it is clear that

- they have very low schooling (or the education they do have is totally irrelevant for their job)
- the work they do does not require any specific skill

There is no connection between skill levels and the ordering of sub-major groups within major groups.

Ambiguous and multiple descriptions

Often respondents give information that can be interpreted in multiple ways, because a job has multiple components. The Introduction to ISCO provides a set of rules that can be adapted to this situation.

Code the information using the following rules in sequence:

• **Numerical dominance rule**: when one activity dominates, or one interpretation is the far more plausible one given the distribution of activities in the population, code accordingly.

• **Skill level rule**: if a set of activities involves a mix of skill levels, choose the most skilled one.

• **Production rule:** if a set of activities involves production next to sales and/or management, choose the production occupation.

Managers, supervisors, proprietors

There are **two sub-major groups of managers**:

[1200] Corporate Managers
[1300] General Managers

Corporate Managers work in large – multi-department – companies that have at least 2 other managers.

General Managers work in small firms with at most one other manager.

In practice, the distinction will have to be made by title and/or firm size, but the number of employees actually supervised is not relevant.

There are **two kinds of department managers**:

[1220] Production and Operations Department Managers
[1230] Other Department Managers

So, [1220] manage the departments that do the **core business**, [1230] head **support departments**.
One will often have to look at industry to make the distinction.

Working proprietors (small firm) go into general managers [1300].

They are workers who are self-employed and also work in their own activity: the owner controls and supervises all activities within the company, however small it is (owners of a shop, a news' stand, a farm, etc.).

Work supervisors (Foreman) go into
[1200] if supervising is their only task,
[1300] if it is their dominant task, but when they still work along with their subordinates,
[coded with their subordinates] if they are only a 'lead worker'.

If someone classifies himself as a "foreman", but he/she works along with his/her colleagues, and he/she supervises only very few people, we do not consider the person's position, but encode only according to his/her working tasks.

Professionals and associate professionals in teaching and nursing

[3230] Associate Professionals in Nursing
[3300] Associate Professionals in Teaching are associate (=assistant) to [2230] Nursing Professionals
[2330]-[2340] Teaching Professionals

The classification assumes that there are at least **two levels in these fields of work** and leaves it to the coders to make the distinction.

If there is no such differentiation in your country, choose the highest (professional) alternative.

Primary and pre-primary teachers always have to be coded as Professionals, even if you feel that they are not at the same skill level as, say, university professors.

Related lower skill level categories:
[5131] Child-care workers, and the other unit groups in [5130].

Additional help to classification of nurses:
We encode these professions in [2230] if the person has a college/university education; in [3230], if he/she has secondary-level schooling, and in the [5100] subgroup, if he/she performs tasks related to nursing, but not requiring any special skills (cleaning, washing patients, etc.).

Computing professionals and associate professionals

[*2131]-[2139] Computing Professionals*
[3121]-[3123] Computer Associate Professionals

Many job descriptions can be very ambiguous between these groups. The highest level of education (EF12) information and the skill level rule should be used for guidance.

Accountants vs Bookkeepers vs Accounting and bookkeeping clerks

[2411] Accountants
[3433] Bookkeepers
[4121] Accounting and bookkeeping clerks

Here as well, the decision should be made on the basis of the highest level of education (EF12) information and the skill level rule.

People working for big accounting firms are probably best classified as accountants even if they work in a junior position. Self-employed people, on the other hand, without a university degree and keeping the records of several smaller companies, should be coded as bookkeepers.

2nd ISCO skill level office workers who have duties related to bookkeeping belong in [4121].

Chemical science associate professionals vs Life science associate professionals

[3111]-[3119] Physical and engineering science technicians
[3211]-[3213] Life science technicians and related associate professionals

Chemistry-related technicians are the most difficult in this group. If a job description is very ambiguous between Chemical science/Chemical engineering technician and Life science technician, choose from [3111]-[3119].

Farmers and farm workers

Farmers and farm workers can be coded in 4 places in ISCO-08:

[1311] General Managers in Agriculture
[6100] Market Oriented Skilled Agricultural Workers
[6200] Subsistence Agricultural Workers
[9200] Agricultural Labourers

The choice between [6100] and [1311] is hard to make, the distinction is a matter of judgement. The coding decision should be made on the basis of time spent with general management vs production related tasks (the numerical dominance rule). If this is of little help (i.e. about equal management and production time), choose on the basis of the production rule.

The resulting category descriptions look roughly like:
[1311] for those who spend most of their time managing the business
[6100] for those self-employed farmers who spend substantial amount of their time with directly production-related tasks
[9200] should be used for people with ISCO 1st skill level. If there is any doubt about this (i.e. some of the tasks they perform require higher skills), they should be classified in the [6100] categories on the basis of the skill level rule.

That is, the [6100] sub-major group includes those workers who provide a detailed description of their tasks, and it seems that they need to have certain skills to perform those tasks.

Agricultural laborers are categorized in main group [9000] only if they have very low schooling and the work they do does not require higher than ISCO 1st level (i.e. very basic) skills.

Craft workers and machinery workers

At the major group level, ISCO distinguishes between

[7000] Craft-Trades Workers
[8000] Machine Operators

While related, the distinction is not the same as between skilled workers and semi-skilled workers. Coding problems arise because many related occupations have parallels in the two major groups:

[7110] and [8110] Miners
[7200] and [8200] Machinery workers
[7340] and [8250] Printers
[7410] and [8270] Food Producers
[7420] and [8140] Wood Treaters
[7430] and [8260] Textile Producers

If no further evidence is available, the advice is to use the [7000] variant on the basis of the skilllevel rule. Distinction between subgroup [7200] “Metal, machinery and related trades workers”, and [8200] “Machine operators and assemblers”:

At a first glance, these categories are similar, and seem to be overlapping. The easiest way to find out which category to chose is first looking at the material the person works with:
[7200] is ONLY for workers working with metal or metal construction (incuding machinery). You will find in this category all professions that produce metal or metallic parts which are not final products.
[8200] will include all workers who work on machinery or plants to produce non-metallic products.

However, there are a few entries in this list as well of workers working on machinery producing metal. These can be distinguished from the [7200] subgroup by looking at the product, which, in the [8200] subgroup are final products.

Industrial packing and packaging workers on 2nd ISCO skill level

Quite often these jobs are complex enough for the workers to need skills on the 2nd ISCO level. Therefore, they should not be classified in major group [9000]. However, since major group [8000] does not have an appropriate category for packing workers, they should be classified in [8290] Other machine operators not elsewhere classified

In these cases, please put a brief comment in the comment section saying “packaging worker”.

Warehouse and storage workers

Workers occupied with storage, warehouse jobs may enter in 3 different categories according to their job description and skills:

[4131] Stock clerks
[8334] Lifting-truck operators
[9333] Freight handlers

We classify warehouse or related workers as “stock clerks”, if they have administrating tasks as well, and their education is high enough to have administration/clerk skills.

We apply the category “freight handler”, if the person has low schooling and has no administrating tasks.
If the person uses a fork-lift or other type of lifting-truck to move the goods in the warehouse, we classify the worker as a “lifting truck operator”.

Industrial robot operators and Operators on car manufacturing assembly lines

Industrial robots are computer controlled programmable machines

(http://en.wikipedia.org/wiki/Industrial_robot#Technical_description). So we classify those people into *[8170] Industrial robot operators*, who programme and supervise these machines.
Assemblers belong to minor group [8280] “Assemblers”. Unfortunately ISCO does not have a category for composite products assemblers, so machine operators on car assembly lines can only be classified into [8281] Mechanical-machinery assemblers

In these cases, please put a brief comment in the comment section saying “car assembly line”.

All-round public works as needed at City Councils etc. (handymen)

People doing all kinds of public works – such as park maintenance, all-round repairing, cleaning, garbage collecting, etc., generally helping out where needed – should be classified in [9132] Helpers and cleaners in offices, hotels and other establishments.

Annex F: FAQ – Practical examples of occupations difficult to classify

Job description ISCO-	Possible ISCO-88 codes	88 title	Guidelines used for coding
Work supervisors	1200	Corporate managers	if supervising is their only task
	1300	Managers of small enterprises	if it is their dominant task, but when they still work along with their subordinates
	[coded with subordinates]		if they are a 'lead worker'
Nurses	2230	Nursing and midwifery professionals with university/	college degree
	3230	Nursing and midwifery associate professionals	post-secondary education
	5130	Personal care and related workers	assistants to the above, ISCO 2nd skill level related occupations
Kindergarten teachers	2332	Pre-primary education teaching professionals	with university/college degree
	3320	Pre-primary education teaching associate professionals	post-secondary education
	5131	Child-care workers assistants to the above	ISCO 2nd skill level related occupations
Computer related jobs	2130	Computing professionals	with university/college degree
	3121	Computer assistants	post-secondary education, more people focused
	3122	Computer equipment operators	post-secondary education, more equipment focused
Accountants, bookkeepers	2411	Accountants	university degree, big accounting firms
	3433	Bookkeepers	post-secondary education, keeping the financial records of several smaller firms
	4121	Accounting and book-keeping clerks	assistants to the above, office clerks whose tasks are related to accountancy/bookkeeping

Job description ISCO-	Possible ISCO-88 codes	88 title	Guidelines used for coding
Chemistry-related technicians	3116	Chemical engineering technicians	the preferred category for technicians at pharmaceutical companies
	3211	Life science technicians	the preferred category for more scientific type of work, i.e. not applied research
Farmers	1221	Production and operations managers in agriculture, hunting, forestry and fishing	department managers at large farms
	1311	Managers of small enterprises in agriculture, hunting, forestry and fishing	small farms, most of the time spent managing the business/workers
	6100	Skilled agricultural and fishery workers	self- employed farmers with mostly production- related tasks are included in this category
	9200	Agricultural, fishery and related labourers	low education level/no special skills
Metal and machinery workers	7200	Metal, machinery and related trades workers	production of metal or metallic parts, often not a final product
	8200	Machine operators and assemblers	production of metallic or non- metallic final products using machines
Industrial packaging workers	8290	Other machine operators not elsewhere classified	this category is more appropriate than 9322 for workers on approx. ISCO 2nd skill level
	9322	Hand packers and other manufacturing labourers	1st skill level workers
Warehouse and storage workers	4131	Stock clerks	administrative tasks, approx. secondary education
	8334	Lifting- truck operators	fork- lift operators in warehouses
	9333	Freight handlers	no administrative tasks, physically moving the

Job description ISCO-	Possible ISCO-88 codes	88 title	Guidelines used for coding
			goods not using fork- lifts or similar machines
Car assembly-line workers	8170	Industrial robot operators	those who programme/monitor the machines (robots) which perform the actual assembly
	8281	Mechanical-machinery assemblers	other car assembly- line workers go into this category
Handymen at City Councils etc.	9132	Helpers and cleaners in offices, hotels and other establishments	people doing all- round elementary public works as needed are categorized here by agreement
	9140	Building caretakers, window and related cleaners	more specific tasks covered by the category
	9150	Messengers, porters, doorkeepers and related workers	more specific tasks covered by the category
	9160	Garbage collectors and related labourers	more specific tasks covered by the category
Cashiers in supermarket	4211	Cashiers and ticket clerks	only those who indicate specifically "cashier" in their job title are classified here
	5220	Shop, stall and market salespersons and demonstrators	supermarket workers with broader job descriptions
Cashiers in post office	4211	Cashiers and ticket clerks	specifically cashiers are classified here
	4142	Mail carriers and sorting clerks	people in this group may have additional tasks, such as answering the telephone as long as it is not their main job
Trainer (e.g. at Red Cross)	2359	Other teaching professionals not elsewhere classified	trainers and other teaching occupations outside the education system (with university degree)
	3340	Other teaching associate professionals	trainers and other teaching occupations outside the education system (without university degree)

Job description ISCO-	Possible ISCO-88 codes	88 title	Guidelines used for coding
Bank clerks (possibly with degree)	3439	Administrative associate professionals not elsewhere classified	possibly with college degree, but still administrative type of work
	4212	Tellers and other counter clerks	approx. secondary education, more customer service oriented
Dental technicians	3225	Dental assistants	assistant type of work, i.e. helping the dentist during the treatment of patients
	7311	Precision-instrument makers and repairers	technicians actually making the instruments/working with the instruments themselves, e.g. orthodontist technicians are categorized here
Consultants, advisors	1220	Production and operations managers	if they have a managerial role in a department whose work belongs to the core activity of their company
	1230	Other specialist managers	if they have a managerial role in a supporting department
	2419	Business professionals not elsewhere classified	consultants, advisors without management responsibilities
Wood-products workers	7423	Woodworking machine setters and setter-operators	not working with wood directly, the object of their work are the machines themselves
	8240	Wood- products machine operators	usually working with a machine which performs a specific stage in the production of the wood- product
	8285	Wood and related products assemblers	usually finishing workers not working with such large machines as machine operators

Annex G: Income scales in EWCS 2015

Austria				Belgium				Bulgaria			
lowest to	600			lowest to	800			lowest to	200		
from	601	to	800	from	801	to	1,000	from	201	to	250
from	801	to	1,000	from	1,001	to	1,200	from	251	to	300
from	1,001	to	1,200	from	1,201	to	1,400	from	301	to	350
from	1,201	to	1,400	from	1,401	to	1,600	from	351	to	400
from	1,401	to	1,600	from	1,601	to	1,800	from	401	to	500
from	1,601	to	1,800	from	1,801	to	2,000	from	501	to	600
from	1,801	to	2,000	from	2,001	to	2,200	from	601	to	700
from	2,001	to	2,500	from	2,201	to	2,400	from	701	to	900
	2,501	to	highest		2,401	to	highest	from	901	to	1,100
								from	1,101	to	1,400
									1,401	to	highest

Croatia				Cyprus				Czech Republic			
lowest to	2,000			lowest to	800			lowest to	1,000		
from	2,001	to	2,500	from	801	to	900	from	1,001	to	1,500
from	2,501	to	3,000	from	901	to	1,000	from	1,501	to	2,000
from	3,001	to	3,500	from	1,001	to	1,100	from	2,001	to	2,500
from	3,501	to	4,000	from	1,101	to	1,200	from	2,501	to	3,000
from	4,001	to	4,500	from	1,201	to	1,400	from	3,001	to	3,500
from	4,501	to	5,000	from	1,401	to	1,600	from	3,501	to	4,000
from	5,001	to	6,000	from	1,601	to	2,000	from	4,001	to	4,500
from	6,001	to	7,000	from	2,001	to	2,500	from	4,501	to	5,500
from	7,001	to	9,000			to	highest	from	5,501	to	6,500
from	9,001	to	11,000					from	6,501	to	7,500

Denmark				Estonia				Finland			
lowest to	5,000			lowest to	250			lowest to	1,000		
from	5,001	to	10,000	from	251	to	300	from	1,001	to	1,200
from	10,001	to	12,500	from	301	to	350	from	1,201	to	1,400
from	12,501	to	15,000	from	351	to	400	from	1,401	to	1,600
from	15,001	to	17,500	from	401	to	500	from	1,601	to	1,800
from	17,501	to	20,000	from	501	to	600	from	1,801	to	2,000
from	20,001	to	22,000	from	601	to	700	from	2,001	to	2,200
from	22,001	to	24,000	from	701	to	800	from	2,201	to	2,400
from	24,001	to	28,000	from	801	to	900	from	2,401	to	3,000
from	28,001	to	32,000	from	901	to	1,100		3,001	to	highest
from	32,001	to	36,000	from	1,101	to	1,300				
	36,001	to	highest		1,301	to	highest				

France				Germany				Greece			
lowest to	800			lowest to	500			lowest to	600		
from	801	to	1,000	from	501	to	800	from	601	to	700
from	1,001	to	1,200	from	801	to	1,000	from	701	to	800
from	1,201	to	1,400	from	1,001	to	1,200	from	801	to	900
from	1,401	to	1,600	from	1,201	to	1,400	from	901	to	1,100
from	1,601	to	1,800	from	1,401	to	1,600	from	1,101	to	1,300
from	1,801	to	2,000	from	1,601	to	1,800	from	1,301	to	1,500
from	2,001	to	2,200	from	1,801	to	2,000	from	1,501	to	1,700
from	2,201	to	2,800	from	2,001	to	2,600	from	1,701	to	2,000
	2,801	to	highest		2,601	to	highest		2,001	to	highest

Hungary				Ireland				Italy			
lowest to	55,000			lowest to	800			lowest to	800		
from	55,001	to	65,000	from	801	to	1,100	from	801	to	900
from	65,001	to	75,000	from	1,101	to	1,400	from	901	to	1,000
from	75,001	to	85,000	from	1,401	to	1,700	from	1,001	to	1,100
from	85,001	to	95,000	from	1,701	to	2,000	from	1,101	to	1,200
from	95,001	to	105,000	from	2,001	to	2,300	from	1,201	to	1,300
from	105,001	to	120,000	from	2,301	to	2,600	from	1,301	to	1,500
from	120,001	to	140,000	from	2,601	to	3,200	from	1,501	to	1,800
from	140,001	to	180,000	from	3,201	to	3,800	from	1,801	to	2,100
from	180,001	to	220,000		3,801	to	highest		2,100	to	highest
from	220,001	to	260,000								
	260,001	to	highest								

Latvia				Lithuania (in Euros)				Luxembourg			
lowest to	150			lowest to	200			lowest to	1,200		
from	151	to	200	from	201	to	250	from	1,201	to	1,500
from	201	to	250	from	251	to	300	from	1,501	to	1,800
from	251	to	300	from	301	to	350	from	1,801	to	2,100
from	301	to	350	from	351	to	400	from	2,101	to	2,400
from	351	to	400	from	401	to	450	from	2,401	to	2,800
from	401	to	450	from	451	to	500	from	2,801	to	3,200
from	451	to	500	from	501	to	600	from	3,201	to	3,800
from	501	to	650	from	601	to	700	from	3,801	to	4,800
from	651	to	800	from	901	to	800		4,801	to	highest
from	801	to	1,000	from	801	to	1,000				
	1,001	to	highest		1,001	to	highest				

Malta				Netherlands				Poland			
lowest to	600			lowest to	500			lowest to	800		
from	601	to	700	from	501	to	800	from	801	to	1,000
from	701	to	800	from	801	to	1,100	from	1,001	to	1,200
from	801	to	900	from	1,101	to	1,300	from	1,201	to	1,400
from	901	to	1,000	from	1,301	to	1,500	from	1,401	to	1,700
from	1,001	to	1,100	from	1,501	to	1,700	from	1,701	to	2,000
from	1,101	to	1,200	from	1,701	to	2,000	from	2,001	to	2,300
from	1,201	to	1,400	from	2,001	to	2,300	from	2,301	to	2,700
from	1,401	to	1,800	from	2,301	to	2,800	from	2,701	to	3,200
	1,801	to	highest		2,801	to	highest	from	3,201	to	3,700
								from	3,701	to	4,200
									4,201	to	highest

Portugal				Romania				Slovakia			
lowest to	500			lowest to	300			lowest to	300		
from	501	to	600	from	301	to	500	from	301	to	400
from	601	to	700	from	501	to	600	from	401	to	500
from	701	to	800	from	601	to	700	from	501	to	600
from	801	to	900	from	701	to	800	from	601	to	700
from	901	to	1,000	from	801	to	1,000	from	701	to	800
from	1,001	to	1,100	from	1,001	to	1,200	from	801	to	900
from	1,101	to	1,200	from	1,201	to	1,400	from	901	to	1,000
from	1,201	to	1,500	from	1,401	to	1,700	from	1,001	to	1,100
	1,501	to	highest	from	1,701	to	2,000			to	highest
				from	2,001	to	2,600				
					2,601	to	highest				

Slovenia				Spain				Sweden			
lowest to	400			lowest to	600			lowest to	9,000		
from	401	to	500	from	601	to	800	from	9,001	to	14,000
from	501	to	600	from	801	to	1,000	from	14,001	to	15,500
from	601	to	700	from	1,001	to	1,200	from	15,501	to	17,000
from	701	to	800	from	1,201	to	1,400	from	17,001	to	18,500
from	801	to	900	from	1,401	to	1,600	from	18,501	to	20,000
from	901	to	1,000	from	1,601	to	1,800	from	20,001	to	21,500
from	1,001	to	1,200	from	1,801	to	2,000	from	21,501	to	23,000
from	1,201	to	1,400	from	2,001	to	2,200	from	23,001	to	25,000
		to	highest		2,201	to	highest	from	25,001	to	28,000
								from	28,001	to	33,000
									33,001	to	highest

United Kingdom				Norway				Switzerland			
lowest to	400			lowest to	8,000			lowest to	1,000		
from	401	to	600	from	8,001	to	12,000	from	1,001	to	1,500
from	601	to	800	from	12,001	to	16,000	from	1,501	to	2,000
from	801	to	1,000	from	16,001	to	18,000	from	2,001	to	2,500
from	1,001	to	1,200	from	18,001	to	20,000	from	2,501	to	3,000
from	1,201	to	1,500	from	20,001	to	22,000	from	3,001	to	3,500
from	1,501	to	1,800	from	22,001	to	25,000	from	3,501	to	4,000
from	1,801	to	2,100	from	25,001	to	28,000	from	4,001	to	4,500
from	2,101	to	3,000	from	28,001	to	32,000	from	4,501	to	5,500
		to	highest	from	32,001	to	36,000	from	5,501	to	6,500
				from	36,001	to	42,000	from	6,501	to	7,500
					42,000	to	highest		7,501	to	highest

Albania				Montenegro				FYROM			
lowest to	15,000			lowest to	200			lowest to	6,000		
from	15,001	to	17,000	from	201	to	250	from	6,001	to	8,000
from	17,001	to	20,000	from	251	to	300	from	8,001	to	10,000
from	20,001	to	25,000	from	301	to	350	from	10,001	to	12,000
from	25,001	to	30,000	from	351	to	400	from	12,001	to	15,000
from	30,001	to	35,000	from	401	to	450	from	15,001	to	18,000
from	35,001	to	40,000	from	451	to	500	from	18,001	to	21,000
from	40,001	to	45,000	from	501	to	600	from	21,001	to	27,000
from	45,001	to	50,000	from	601	to	750	from	27,001	to	34,000
from	50,001	to	75,000	from	751	to	900	from	34,001	to	42,000
from	75,001	to	100,000	from	901	to	1,100	from	42,001	to	50,000
	100,001	to	highest		1,101	to	highest		50,001	to	highest

Turkey				Serbia			
lowest to	400			lowest to	12,000		
from	401	to	500	from	12,001	to	16,000
from	501	to	600	from	16,001	to	20,000
from	601	to	700	from	20,001	to	24,000
from	701	to	800	from	24,001	to	30,000
from	801	to	900	from	30,001	to	36,000
from	901	to	1,000	from	36,001	to	42,000
from	1,001	to	1,100	from	42,001	to	54,000
from	1,101	to	1,400	from	54,001	to	68,000
from	1,401	to	1,800	from	68,001	to	84,000
from	1,801	to	2,200	from	84,001	to	100,000
	2,201	to	highest		100,001	to	highest