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5.1 CAMCES QUESTIONNAIRE VERSION 0.8 IN SPANISH FOR VENEZUELA 43
1 STUDY DESCRIPTION

Project: CAMCES - GESIS Leibniz Institute for the Social Sciences
Data Collection: LACSO - Laboratorio de Ciencias Sociales

1.1 Introduction

This report reports on the cognitive interview study conducted by the Laboratorio the Ciencias Sociales (Caracas, Venezuela) for GESIS – Leibniz Institute for the Social Sciences (Mannheim, Germany) in the context of the CAMCES Project (Computer-assisted Measurement and Coding of Educational Qualifications in Surveys) during the months of January and February of 2016.

The project developed an education measurement and coding tool facilitating the measurement of educational attainment in a context-sensitive way in (especially cross-cultural) surveys. Context-sensitive means that the respondent is presented with response options relating to the educational system he/she was educated in, which may or may not be the country in which the survey is run. This was achieved by producing a database containing educational qualifications across countries, software interfaces for respondents to report their educational attainment relative to the educational system they were educated in rather than just a standard list referring to the educational system of the survey country, and a survey question module in which these interfaces can be embedded. While one interface, the Combination Box, asks respondents to type in the name of their qualification and uses text string matching on the database but also allows submitting any text as open answer, the other interface, the Search Tree, offers education categories to click on in an unfolding list view. After data collection, the resulting information can be coded into a cross-nationally comparable education scheme. This is hoped to improve relevance and data quality for cross-cultural surveys, such as internationally comparative surveys as well as (national) surveys of migrants.

1.2 Sample

Total number of cognitive interviews: 33

Type of selection of the respondent: Selection per quotas (sex, age and education)

Selection criteria: The target population was Venezuelan residents over 18 years old. Quotas were equally distributed the quotas for sex (female and male), age (18 to 30, 31 to 45 and 46 or more years old) and education (primaria o menor – primary school or less; noveno grado hasta bachillerato – middle or high school; education profesional, superior o universitaria – vocational or higher education) in order to correspond to the distribution of the Venezuelan population from the most recent census. It was emphasized to have as much diversity as possible with

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1 Since some countries have several educational systems or need to present educational qualifications in more than one language due to more than one language being used in the country, we often speak of ‘education contexts’ rather than ‘countries’.
the specific type of education within each group.

<table>
<thead>
<tr>
<th>Distribution of quotas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Primaria o menor</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>9no grado o Bachillerato</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Educación Universitaria</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overview of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interview number (PE)</td>
</tr>
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<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
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</tr>
<tr>
<td>19</td>
</tr>
<tr>
<td>20</td>
</tr>
<tr>
<td>21</td>
</tr>
</tbody>
</table>
1.3 Objectives

General research questions:

1. Do respondents understand the CAMCES questionnaire as intended by its developers?
2. Which issues, if any, do respondents encounter when reporting their educational qualifications?
   - Is the content of the CAMCES qualification database presented via the interfaces intuitive for respondents?
   - Are the user interfaces intuitive for respondents reporting educational qualifications?
   - Is the questionnaire module suitable for self-administered surveys?

General objectives:

a. Test the comprehension of the questions in the CAMCES questionnaire module and its interfaces in the Venezuelan context.

b. Test and compare the usability of the two CAMCES interfaces for reporting educational qualifications and test the overall usability of the items in the module.

c. Test the improvements made after the first cognitive interviews in Germany.

d. Test the CAMCES educational qualifications database with respondents who were educated in the Venezuelan educational system.

e. Test the Spanish translation of the questionnaire for (Venezuelan) Spanish.

f. Reflect on its more general applicability of the tool in Spanish-speaking countries, especially in Latin/Middle and South America.
1.4 Questionnaire

Questionnaire version 0.8 of the CAMCES tool in CAWI format was tested in this study (core and the optional questions). Version 0.8 incorporated some improvements made to the interfaces and an alternative routing of the questionnaire, following recommendations from the cognitive study in Germany by the GESIS pretest lab, testing version 0.7\(^2\). These elements were of special interest because they were implemented as solutions to issues documented in the first cognitive study in Germany. The question wording had been improved and in some cases simplified. Furthermore, more specific instructions were included (especially for the Combination Box interface). Hints were added to the interfaces in order to present more intuitive tasks to the respondents. Lastly, the alternative question routing for the module was tested. It sets the educational system of the survey country as the default, and only respondents who were educated abroad are routed to the question on which country they were educated in.

![Diagram of questionnaire structure]

1.5 Interview structure and techniques

The interview was conceptualized as a semi-structured interview. The phases of the interview and the probes were defined prior to the interview. Some degree of freedom was left to the interviewer to allow to probe on spontaneous or emergent topics.

The interview has the same structure as the first cognitive study in Germany and a similar interviewer guideline. Both were adapted to match the specific goals and limitations of the study in Venezuela.

A combination of techniques was used in order to provide the researchers as much information as possible regarding the process of answering the questionnaire. In order to code the behavior of the respondent and understand the cognitive process during the filling in of the questionnaire, the interviewers were equipped with a second screen mirroring the screen of the respondent. Additionally, the respondent was requested to fill in the questionnaire using the think-aloud technique. Furthermore, the interviewers implemented standardized anticipated and conditional probes in order to gain deeper knowledge of some issues or request information on topics that might not have emerged during the interview.

\[^2\] The report is available at http://pretest.gesis.org/pdf/ProjektBericht/Pretest-Projektbericht-15-05.pdf (German only).
The interview was divided into five phases. Phase 1 consisted in an introduction to the interview where the interviewer welcomed and thanked the respondent for the participation. During this phase, the interviewer explained the procedures and the document for the agreement regarding the voice, video and computer screen recording and use of the data. The phase ended when the respondent had signed the data use agreement. In phase 2, the think-aloud technique was explained to the respondent and an exercise was done based on two examples. This allowed the respondents to feel more comfortable with the tasks which they were requested to fulfill during the cognitive interview. In phase 3, the respondents were requested to fill in the CAMCES questionnaire on the computer using a web browser. Respondents were asked if they have ever used a computer before. If the respondent did not feel comfortable using the computer or when using a computer for the first time (two respondents had never used a computer before), the interviewer briefly instructed the respondent on how to use it. The screen was recorded from the first moment the browser was open onwards. The interviewer accompanied the process of answering the questionnaire and coded the behavior of the respondent with the help of the double screen and the think-aloud technique. The interviewers were instructed not to intervene in the answering process. Probing during the phase should not be done or kept to the minimum in cases of clear problems. Also, the interviewer was instructed not to help the respondent in the process of answering the questions. In case of issues, the interviewer should encourage the respondent to find a solution for themselves based on the information provided to them in the questionnaire, just as it would be in a self-completion interview. Only if a respondent clearly would not have been able to continue on his/her own, was the interviewer allowed to provide help. Phase 3 ended when the respondent concluded the CAMCES questionnaire. In phase 4 the questionnaire was discussed using standardized probes (both anticipated probes – always asked, and conditional probes – triggered by a particular behavior or problems). The main concepts in the questions were discussed first. Subsequently, usability and the clarity of the response options were brought up by the interviewer. Interviewers were also able to probe for unexpected behaviors or problems or issues that became relevant during the interview process (non-standardized probes). Lastly, in phase 5, some additional items were presented to the respondents. The interviewer probed on them after the respondent had provided their answer as was done in phase 4. The additional items included the Search Tree (if this was not shown during phase 3 due to the routing) and the ISSP education item, to obtain equivalent data using a more traditional survey instrument.

<table>
<thead>
<tr>
<th>Overview of interview phases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase 1</strong></td>
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<tr>
<td></td>
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<td></td>
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<tr>
<td><strong>Phase 2</strong></td>
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<td><strong>Phase 3</strong></td>
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<tr>
<td></td>
</tr>
<tr>
<td><strong>Phase 4</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Phase 5</strong></td>
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<tr>
<td></td>
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<tr>
<td></td>
</tr>
</tbody>
</table>
1.6 Recruitment of respondents and incentives

Respondents were recruited by a recruiting agency following the selection criteria from the study and under monitoring by the LACSO research team. During the recruitment process, respondents were informed that they were going to participate in an interview that was aimed to improve a questionnaire related to education.

In order to motivate people to participate and improve response quality, respondents were promised an incentive for a sum of 4000 Bolivares Fuertes, which they received after completing the interview.

1.7 Briefing and interview pretesting

Briefing of the team and the interview pretesting took place on the 14th and 15th of January 2016. Focus of the briefing was to present the objective, special focus and particular characteristics of the study to the researchers involved. The briefing was carried out by a researcher from GESIS working in the CAMCES project. All researchers from LACSO that were involved in the study attended the meeting (a total of 4). Following the briefing, interview pretests were conducted to simulate the interview process. The tool was tested and feedback was given in order to optimize the interview process.

1.8 Fieldwork

The fieldwork of the cognitive interviews took place from January 22 to February 11, 2016, during the weekdays, for a total of four weeks of data collection. During the first two weeks, a total of two interviews a day were made, one interview in the morning and one in the evening. Beginning in the third week, the daily interview cap was raised to three by adding one more interview to the morning session. In total, 33 interviews were conducted by two interviewers. Interviewer #1 conducted a total of 20 interviews and Interviewer #2 conducted a total of 13 interviews. The assignment of respondents to the interviewer was based on convenience with the work schedules of the interviewers.

<table>
<thead>
<tr>
<th>PE</th>
<th>Date</th>
<th>Week</th>
<th>Hour</th>
<th>Interviewer</th>
<th>PE</th>
<th>Date</th>
<th>Week</th>
<th>Hour</th>
<th>Interviewer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>18/01</td>
<td>1</td>
<td>Morning</td>
<td>1</td>
<td>18</td>
<td>01/02</td>
<td>3</td>
<td>Morning</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>19/01</td>
<td>1</td>
<td>Morning</td>
<td>1</td>
<td>19</td>
<td>01/02</td>
<td>3</td>
<td>Evening</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>19/01</td>
<td>1</td>
<td>Evening</td>
<td>1</td>
<td>20</td>
<td>02/02</td>
<td>3</td>
<td>Morning</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>20/01</td>
<td>1</td>
<td>Morning</td>
<td>1</td>
<td>21</td>
<td>02/02</td>
<td>3</td>
<td>Evening</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>20/01</td>
<td>1</td>
<td>Evening</td>
<td>1</td>
<td>22</td>
<td>03/02</td>
<td>3</td>
<td>Morning</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>21/01</td>
<td>1</td>
<td>Morning</td>
<td>1</td>
<td>23</td>
<td>03/02</td>
<td>3</td>
<td>Evening</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>21/01</td>
<td>1</td>
<td>Evening</td>
<td>1</td>
<td>24</td>
<td>04/02</td>
<td>3</td>
<td>Morning</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>22/01</td>
<td>1</td>
<td>Morning</td>
<td>1</td>
<td>25</td>
<td>04/02</td>
<td>3</td>
<td>Evening</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>22/01</td>
<td>1</td>
<td>Evening</td>
<td>1</td>
<td>26</td>
<td>05/02</td>
<td>3</td>
<td>Morning</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>25/01</td>
<td>2</td>
<td>Morning</td>
<td>2</td>
<td>27</td>
<td>05/02</td>
<td>3</td>
<td>Morning</td>
<td>2</td>
</tr>
</tbody>
</table>
1.9 Analysis

The analysis of the data was conducted by the three researchers involved in the study, who are also the authors of this report. Both independent and team approach were implemented for the analysis. Each interview was deeply analyzed independently by at least two researchers. The conclusions for each item were collected in a single document. In the case of standardized probes the answers were coded. For the analysis, all sources of data were used including voice, video and screen recording. The results were then discussed in groups and agreed upon. Recommendations were drawn out of the discussion.

1.10 Interview recordings and transcription

All interviews were documented using three different types of recording: audio, video and screen video capture. The conditions for recording were explained to all respondent and they signed consent for recording prior to the start of the interview.
## 2 Results Part I: Reported Qualifications and Concept of Educational Qualification

### 2.1 Overview of reported educational qualifications

<table>
<thead>
<tr>
<th>PE</th>
<th>CB1</th>
<th>ST1 as FB</th>
<th>Years</th>
<th>ST in Phase 5</th>
<th>ISSP</th>
<th>Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NA</td>
<td>Título de Bachiller</td>
<td>5</td>
<td>Secundaria</td>
<td>Bachiller. Gastronomía básica, sin culminar (año y medio de dos años)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Certificado de Primaria 6to Grado</td>
<td>NA</td>
<td>6</td>
<td>Primaria</td>
<td>Primaria completa. Curso de secretaria en la Academia Americana incompleto.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>NA</td>
<td>Título de Licenciado</td>
<td>20</td>
<td>Universitario</td>
<td>Título de Ingeniero</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>NA</td>
<td>Título de Técnico Superior</td>
<td>16</td>
<td>Técnico Superior</td>
<td>Técnico Superior de Aministración de Empresas</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Especialización</td>
<td>NA</td>
<td>21</td>
<td>PostGrado</td>
<td>Especialización</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Título de Licenciado</td>
<td>NA</td>
<td>8</td>
<td>Universitario y TSU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>NA</td>
<td>Sin entrada (Segundo intento 12)</td>
<td>NA</td>
<td>Técnico Superior</td>
<td>Bachiller con curso INCE</td>
<td></td>
</tr>
</tbody>
</table>

**PE:** Interview number / Code of interviewed person

**CB1:** Combination Box result (text typed by respondents in quotation marks if no database entry was found/selected)

**ST1 as FB:** Search Tree entry for highest qualification as fallback for the Combination Box

**Years:** Total years of education

**ST in Phase 5:** Search Tree entry for highest qualification if there was no fallback during phase 3

**ISSP:** Highest qualification reported using ISSP question

**Interview:** Information about educational qualification drawn from the discussion during interview

**NA:** Not applicable
<table>
<thead>
<tr>
<th>No.</th>
<th>Qualification</th>
<th>Certificate</th>
<th>Year</th>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>“Bachillerato”</td>
<td>Título de Bachiller</td>
<td>11</td>
<td>NA</td>
<td>Secundaria</td>
</tr>
<tr>
<td>9</td>
<td>“Universiaria”</td>
<td>Título de Licenciado</td>
<td>16</td>
<td>NA</td>
<td>Universitario</td>
</tr>
<tr>
<td>11</td>
<td>Bachillerato (Título de Bachiller)</td>
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<td>11</td>
<td>Título de Bachiller</td>
<td>Secundaria</td>
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<tr>
<td>12</td>
<td>Check Box: Todavía no tengo título</td>
<td>NA</td>
<td>6</td>
<td>Certificado Primaria 6to Grado</td>
<td>Básica</td>
</tr>
<tr>
<td>13</td>
<td>“Liceo Bolivariano de socopo estado barinas”</td>
<td>Certificado de Media Técnica</td>
<td>4</td>
<td>NA</td>
<td>Secundaria</td>
</tr>
<tr>
<td>14</td>
<td>Check Box: Todavía no tengo título</td>
<td>NA</td>
<td>3</td>
<td>Certificado Primaria 6to Grado</td>
<td>Primaria</td>
</tr>
<tr>
<td>15</td>
<td>“Tengo mi certificado”</td>
<td>Certificado de Media primera etapa -3ero año completo</td>
<td>6</td>
<td>NA</td>
<td>Secundaria</td>
</tr>
<tr>
<td>16</td>
<td>Check Box: Todavía no tengo título</td>
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<td>26</td>
<td>Ninguno de estos</td>
<td>Sin escolaridad formal</td>
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<tr>
<td>17</td>
<td>“t.s.u. informatica”</td>
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<td>13</td>
<td>NA</td>
<td>Secundaria</td>
</tr>
<tr>
<td>18</td>
<td>“Título de sexto grado”</td>
<td>Certificado de Primaria 6to Grado</td>
<td>8</td>
<td>NA</td>
<td>Sin escolaridad formal y Primaria</td>
</tr>
<tr>
<td>19</td>
<td>“Técnico en higienis dental de la facultad de odontología de la UCV”</td>
<td>Certificación de formación para el trabajo</td>
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<td>NA</td>
<td>Técnico Superior</td>
</tr>
<tr>
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<td>Técnico Superior</td>
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<td>Técnico Superior</td>
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<tr>
<td>22</td>
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<td>10</td>
<td>Título de Licenciado</td>
<td>Universitario</td>
</tr>
<tr>
<td>23</td>
<td>“primaria 6to grado completo”</td>
<td>Certificado de Primaria 6to grado completo</td>
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<td>NA</td>
<td>Primaria</td>
</tr>
<tr>
<td>24</td>
<td>Check Box: Todavía no tengo título</td>
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<td>6</td>
<td>Certificado Primaria 6to Grado</td>
<td>Primaria</td>
</tr>
<tr>
<td>25</td>
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<td>NA</td>
<td>9</td>
<td>NA</td>
<td>Básica</td>
</tr>
</tbody>
</table>
### 2.2 Concept of educational attainment in the question

#### ¿Cuál es su título o certificado de educación escolar, profesional o universitaria más alto?

#### 2.2.1 General understanding of the question

During the probing phase, we asked respondent to state what the question was about using their own words. This is the main question in the CAMCES questionnaire and it is intended to measure the highest qualification of the respondent. We found that all respondents were able to easily identify the intention of the question. They mention the idea of the highest level of education or the highest qualification the person has reached. The following quotes show examples from the transcription of the interviews with the respondents:

PE19:  
“Saber hasta cuando has estudiado. Saber qué nivel tienes de lo que has estudiado (…). (Saber) qué nivel tiene profesional”  
“To know how far you have studied. To know what level you have in what you have studied (…). (To know) what professional level do you have.”

---

3 The quotes have been translated from the original versions in Spanish.
Results Part I: Reported Qualifications and Concept of Educational Qualification

(Female, 20 years old, tecnico superior universitario)

PE18: “El título más alto que he obtenido”
“The highest qualification I have obtained”
(Male, 27 years old, primaria completa and certificado INCE)

PE30: “(...) hasta dónde uno llego a nivel académico”
“(…) how far someone has gotten in an academic/educational level”
(Female, 43 years old, bachiller)

Some respondents understood the question in a less abstract way. Instead, they made a specific reference to their own educational life, this means, they adjust or limit the question in a way that it makes sense to them. For instance, in the case of PE12, who did not finish primary school (primaria), the question is not so much about the highest qualification obtained in general, but more about if one has received any education or not, and for PE16, even on why he/she did not continue.

PE12: “Hasta donde llegó uno (...). Si uno estudió o no estudió.”
“How far one has gotten (...) If one was studied or not.”
(Female, 26 years old, primaria completa)

PE16: “Hasta qué grado llegué y porque no seguí estudiando.”
“How far did I get and why didn’t I keep studying.”
(Male, 40 years old, primaria incompleta)

PE24: “Me pregunta que si yo me prepare universitariamente (...) no, llegué hasta 6to grado”
“You are asking me if I went to college (...) I did not, I got to 6th grade (of school)”
(Female, 26 years old, primaria incompleta)

PE29 “Que si yo soy bachiller, es lo que yo entiendo”
“If I graduated from high school (bachiller), that’s what I understand”
(Female, 29 years old, bachiller)

Furthermore, we observed that some respondents felt that the question contained more than one question. They noted that the question text and the answer options in the check-box refer to different ideas; while the question text refers to the highest qualification obtained, the check-boxes refer to the place where they obtained this qualification or if they don’t have any qualification at all. The logic behind these elements that related them to each other was not recognized by all respondents after the first look at it.

2.2.2 Concept of educational qualification (título o certificado)

The respondents define the concept of educational qualification closely to the target concept defined by the questionnaire developers. Also, they define it similarly to each other. We summarized the definition of the respondents as following: An educational qualification validates or guarantees the
completion of a period of education. On one hand, it is important that it involves a physical object or document. This document makes reference to the content learned by the person and guarantees that this knowledge was acquired by this person. In several cases the idea of some formality given by the government is mentioned. It is implied that the individual in question must possess this document. Lastly, the respondents add a positive connotation to the concept. They describe the highest educational qualification as an accomplishment, the achievement of a goal or as a reward for one’s effort.

PE01: “Un certificado para mí es un papelito que te dice que estás certificado en tal área dependiendo de lo que tú quieras ser.”
“For me a qualification is a piece of paper that says that you are certified in certain area depending of what do you want to be.”
Male, 23 years old, bachiller

PE10: “Algo validado por el Ministerio de Educación.”
“Something validated by the Ministry of Education.”
Male, 23 years old, bachiller

PE12: “Terminas y te dan un premio (...). Cuando uno sale de preescolar, primaria y termina el bachillerato, eso es un título.”
“You finish it and you get a reward (...) when you get out of pre-school, middle school and you finish high school, that’s a degree.”
Female, 36 years old, 6to grado completo

PE13: “Es como un logro. La llegada a una meta.”
“It’s like an achievement. To reach a goal.”
Female, 47 years old, 9no grado completo

PE14: “Un papel que esta sellado por el Ministerio de Educación.”
“A piece of paper sealed by the Ministry of education.”
Male, 33 years old, 6to grado completo

PE17: “Un documento que acredita de que tu aprobase la escuela o la universidad, es un certificado.”
“A document that provides proof that you completed school or college, that’s a certificate.”
Male, 29 years old, técnico medio

PE18: “Algo que tú te ganaste (...) con tu propio esfuerzo y con la ayuda de Dios (...). Porque que tu estudiaste.”
“Something that you have earned (...) with your own efforts and God’s help (...). Because you have studied.”
Male, 27 years old, primaria completo and certificado INCE

PE23: “Un diploma que dice que uno pasó.”
“A diploma that says that you passed.”
Male, 47 years old, primaria completa and certificado de INCE

PE30: “(Es) como la prueba o garantía que obtuviste un título de cada nivel que tu hiciste.”
“(It’s) like a proof or a guarantee that you obtained a degree of every level that you did.”
Female, 43 years old, bachiller

Some respondents make a differentiation between two types of qualifications, as implied by Spanish translation of the term “qualification”. The difference is between the título (more general and relevant for people) and the certificado (more specific and less relevant). Título refers to the qualification obtained after the completion of a broad phase (for example, the school-leaving certificate). Certificado refers to the completion of a stage within each broad phase (for example, the transition from elementary school to high school, or every year of study) is made. Nonetheless, there are some relevant qualifications that are described as certificado, like certificado del INCE.

PE15: “Bueno digo yo que el título es cuando ya tu vas a salir pues (el estudio) y el certificado es cuando estas pasando de año, que te dan un certificado de que pasaste”.
“Well, I think that a título is when you are leaving (the education), and the certificado is for every year completed, you get a certificado saying that you passed”.
Female, 19 years old, 9no grado completo

Furthermore, some respondents addressed the difference between having a qualification and really knowing how to apply the acquired knowledge. Although the degree or certificate has the function of proving that some kind of education has been achieved, practical skills and competencies and the identification with the related occupation are often rather gained through work experience. This is an alternative concept in the area of education that qualifications are not able to cover.

PE03: “Son estudios que validan todos tus conocimientos, todo el conocimiento que obtuviste mientras hiciste esos estudios. (...). El título, no tanto, es una forma de demostrarlo, pero lo que realmente me hace ingeniero informático es toda esa experiencia que adquirí ,todos los desafíos que yo tome que yo digo que son lo que me hacen ingeniero”
“They are studies that validate all your knowledge, all the knowledge that you have obtained while doing such studies. (...). The degree, not so much, it’s a way to demonstrate it, but what really makes me an Informatics Engineer is all the experience that I have acquired, all the challenges I have faced. I say that’s what makes me an Engineer”.
Male, 23 years old, título universitario

2.2.3 Incomplete qualifications

Afterwards respondents were asked to express if they believe that the question also refers to educational qualifications on course or which have not been completed. Most respondents did not include educational phases that are currently being undertaken or that have been interrupted. They emphasize the need of completing these studies to get the qualification. They might lead to obtain a degree or certificate but until they get the qualification they would not include it in their answers. It is important to underline that it was not easy to make clear the purpose of the probe, probably because the idea of título or certificado is very strongly related with the idea of a completed qualification.
Results Part I: Reported Qualifications and Concept of Educational Qualification

PE01: “No, porque si no lo tienes realmente no consideras que tienes el título. Yo considero que no, porque tienes una educación en esa área, pero no completa. Entonces es como un profesional a medias y no un profesional completo, que luego con los años de trabajo aplicando eso, es que te conviertes en un verdadero profesional.”

“No, because if you don’t have it, you cannot say you have the qualification. I believe not, because you have education in that area, but it is not complete. Then is like being a halfway professional and not a complete professional, who later on with years of work you become a real professional”.

Male, 23 years old, bachiller

PE24: “Cómo vas a tener un certificado si no has terminado el 6to grado o el 5to año? (...) Si no te lo ganaste no (...) Si no te quemaste las pestañas no”

“How can you have a certificate if you have not finished 6th grade or the last year of high school? (...) You can’t if you have not earned it (...) If you did not burn the midnight oil, then not”.

Female, 26 years old, primaria completa

An exception might be made by some respondents, in special cases, such as, a person that only missed the oral test of the thesis for a university degree, in which although the study was not formally finished, it was almost completed (PE05). This can be interpreted as a result of social desirability bias, and may lead to over reporting of educational attainment given the fact that the qualification was in fact not obtained.

PE05: “No, pero en caso de sólo no tener la defensa del estudio, si lo incluiría.”

“No, but in the case of just not having the dissertation defense, yes I would include it”.

Male, 42 years old, postgrado/especialista

2.2.4 Vocational training

Respondents were asked whether they believe that vocational education or training should be included in the response. Firstly, it needs to be noted that the idea of vocational training was not easily recognized by all respondents. This is certainly related to the lower importance of vocational education and training in the Venezuelan educational system when compared to e.g. the German educational system. Usually, respondents required examples to fully understand the probe, such as the vocational training for construction workers, policemen, plumbers or hairdressers. The term *educación profesional* was not immediately associated with vocational training as intended by the questionnaire developers. Terms like *educación para una profesión*, *educación para un oficio* and *educación para el trabajo* were helpful alternatives in some cases but that did not seem to fully explain the concept to the respondents without the use of examples. Respondents also pointed out that trades like construction worker or hairdresser can also be exercised without formal education. They agree that to be included in this question the education needed to fulfill the following criteria: (a) they need to learn the trade or the profession in an educational institution; (b) they need of an official endorsement of the studies by the government; (c) the educational program should have last for a long period of time, for example, a year or more. This leads us to conclude that the concept of vocational training is not as relevant to the respondents compared to school or higher education, but

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4 The respondent later mentioned health reasons for missing the oral exam, and as a consequence not finishing the degree.
that they would report vocational training as intended if they had completed it. Respondents might however also ignore vocational training when answering the question.

PE01: “Los oficios deben tener su certificado, sea peluquero policía, pero deben provenir de una academia, un estudio, y (tener) un periodo largo de tiempo por lo menos de dos años”.

“Occupation must have a certificate, whether is a hairdresser or a police officer, must come from an academy, a study program, and (it must have) a long term period of time of at least two years”.

Male, 23 years old, bachiller

PE19: Policía, si (esta incluido). Construction worker, si lo estudió en algún curso o algo así, sí, pero si lo aprendió de sus padres o algo así, no.

Police officer, yes (it’s included). Plumber, if he studied it in any course or something like that, yes, but if he learned it from his parents or something like that, no.

Female, 20 years old, TSU

PE30: “Siempre y cuando se culmine, es una profesión más. Tiene validez y respeto”

“As long as it’s completed, it’s another profession. It has value and is respected”

Female, 43 years old, bachiller

PE32: “Qué tipo de educación eso será? Qué tipo de educación te puedo decir? Yo digo que eso no es profesión, eso es un trabajo. Eso no es formarse, creo yo.”

“What kind of education that would be? What can I say? I think that is not a profession, that’s a job. That’s not training, I think.”

Female, 58 years old, primaria incompleta

Another element that should be highlighted is the different evaluation granted to the vocational training. In some cases respondents felt that vocational training did not had the same value as academic education (for example, school). One of the reasons is that it does not allow to keep studying, for example, to go to the university. This is not a problem for the question in principle, as long as vocational qualifications would still be reported. However, it could be a problem for reporting the highest qualification, since in international education classifications the hierarchy of qualifications may be different than in the understanding of respondents, leading to an under reporting of vocational qualifications.

PE15: “M: Si comparamos, por ejemplo, el título de bachiller y este curso (certificado de peluquero), cual de los dos es más alto? El curso de peluquería o el título de bachiller?

R: El título de bachiller

M: Y si comparamos eso el certificado de 3er año con el curso de peluquería, cuál es más alto?

R: El certificado de 3er año.

M: Ok. Y si comparamos tu certificado de primaria, de 6to grado, con el curso, cuál es el más alto?

R: Yo diría que el de primaria, porque un curso es algo que tu estas realizado, no es más importante que tus estudios, que tengas la universidad. (...) Osea no es algo con lo que vas a llegar a un meta.

M: Por qué pensaste en la universidad en este caso?
R: Porque, después que tu sales de 5to año, ya vas a la universidad, y agarras tu meta, lo que tu quieres hacer en realidad”

“M: If we compare for example, a título de bachiller (school-leaving certificate) and the course (vocational education for hairdressing), which is of a higher level? Hairdressing course or the high school degree?
R: High school degree
M: And if we compare a certificate for the 3er año (end of middle school) with the hairdressing course, which is of a higher level?
R: The certificate for 3er año.
M: Ok. And if we compare your primary school certificate, the 6to grado (end of primary school) with the course, which is of a higher level?
R: I would say that primary school, because a course is something you are doing, it’s not more important than your studies, to have college. (...) I mean it’s not something that will allow you to reach a goal.
M: Why did you think of college in this case?
R: Because you go to college after you finish school, you reach for your goal, what do you really want to do”

Female, 19 years old, 9no grado completo

2.2.5 Excluded qualifications

We asked respondents whether there was any type of educational qualification that they thought was not covered in the question. In their opinion, almost all educational qualifications are included. They felt that they could report any educational qualification they have achieved. Only courses for continuing training and short courses are not included, as intended by the questionnaire designers.

PE29 “Los cursos que uno hace no están incluidos (...) yo tengo muchos cursos de preparación, y aquí no sale: contabilidad, computación, analista tributaria, cuestiones ambientales (...) estos (se) incluyen si hablamos de educación”

“The courses that one takes are not included (...) I have many courses of continuing training, and they’re not included here: accounting, computer skills, tax analysis, environmental affairs (...). They (should be) included if we talk about education”

Female, 39 years old, bachiller

Although we did not expect it to come up, some respondents mentioned at this point that being a mother as an important occupation, which implies hard work and a long learning process. They feel it is neglected in general and it is not valued. This answer was not directly related to our probe, but respondents seem to mention it as a way of explaining why they have not pursued a higher educational qualification or, respectively, why they had to give up their educational goals.

2.2.6 Continuing training

Respondents were asked whether they included non-formal continuing training in their response or not. This would allow us to understand whether respondents differentiate continuing training from formal educational attainment. Firstly, the term continuing training was not easily understood by respondents. We needed to use examples in order to clarify the idea, such as language courses. In contrast to the intention by the questionnaire designers (and respondents in the German pretest), a
few respondents felt that this type of education should be included in the response, as it is part of the education of a person. Continuing training is observed as an important part of the education for work. Nonetheless, continuing training does not have the same value as school, university or other formal educational qualifications. They sometime condition the inclusion of the courses by its length (six months to a year minimum). This is due mainly because they feel that the person needs to have a complete or extensive knowledge of what they learn. These courses are seen as something that is complementary to formal education. It is important to highlight that respondents with completed continuing training did not include them when answering the questionnaire.

PE26: “(Si, lo incluiría porque) son cursos para mejorar (...). Se utilizan para mejorar el sueldo en el país o para trabajar en el exterior”
“I would include it because) these are courses to improve (...). They are used to boost the salary in this country or to work abroad”.
Male, 47 years old, título professional universitario

PE10: “No, porque tendría que ser más amplio. Cuestión que sea todo lo que abarca el idioma, no un simple cursito (...) (tine que ser) como una formación docente, así, un poco más larga, que implique más cosas”.
“No, because it has to be broader. So it has to be everything a language covers, not a simple little course (...). (It has to be) like a training for teaching, something like that, far more prolonged, implying more stuff”.
Male, 23 years old, bachiller

PE28: “Ya con un año si me imagino (que debería incluirse) porque ya tiene un conocimiento un poco más amplio pues.”
“With a year gone by I believe (that it should be included) because you have a broader knowledge.”
Female, 26 years old, 5to grado de primaria

PE14: “Si me gradúo en Open English, me imagino que ellos te dan un certificado (...) uno puede conseguir trabajo en una embajada”.
“If I graduate from Open English, I guess they give you a certificate (...) you can get a job at an embassy.”
Male, 33 years old, primaria completa

PE17: “(No), eso sería como una formación complementaria”
“(No), that would be like a complementary formation”
Male, 29 years old, técnico medio

2.3 Conclusions and recommendations

We conclude that respondents understand the core concepts of the question and its purpose: qualification, highest qualification and formal education. The idea of vocational training is not as easy to understand as the other types of education. We believe that the main reason for this is the low relevance of vocational education and training in the Venezuelan educational system. A more specific reason is the use of the term *educación profesional*, which is sometimes seen as being
related to university education. We recommend changing the term *educación profesional* for the term *educación para una profesión, educación para un oficio* or *educación laboral*. This should more clearly point to the relevance of vocational education that is not also at the same time higher education.

We found some problems when measuring the different levels of school education. Respondent tend to see school as leading to just one qualification (*título de bachiller*), which is divided in different stages. Respondents can easily distinguish between the different stages, but when asked about their highest qualification they might feel that the intermediate stages of school do not poses the value of a full qualification (which is fine) and they are not worth mentioning (which is not intended). We recommend building a double check in the questionnaire for those respondents answering that they do not have any qualification. An idea would be to present the Search Tree to those respondents who say they do not have any qualification.

Lastly, the concept of continuing training cannot be clearly separated from formal education just only by using the terms *título o certificado*. The problem is that the word *certificado* can be used for both formal and non-formal continuing education. Nonetheless the problem is reduced due to the fact that respondents give formal education a much higher value than continuing training. Furthermore, the introduction seems to help respondents exclude continuing education, who condition the inclusion of the courses by their length (six months minimum) as intended. None of the respondents included continuing training when answering the questionnaire. We therefore recommend keeping the introduction.
3 **RESULTS PART II: CORE QUESTIONNAIRE ITEMS AND USABILITY**

### 3.1 Item: introduction

We found no major issues related to the introduction. Most respondents read the introduction and continued with the questionnaire without going into greater detail. It is not completely clear to what extent the introduction actually helped respondents, but answers related to the concept (see previous section) support its usage. For example, respondents condition continuous training to a minimum of six months in order to be able to report it. Furthermore, the respondents use the word *formal* when referring to the education. We can only assume that the fact that respondents were using ideas that appear in the introduction during the probing phase signals that the introduction helped place the respondents in the context of the questionnaire and prepared them for the scope of the questions that followed.

The introduction did not cause problems to the respondents nor did it take much time to read. Usability was an issue only in the case of some respondents with less computer experience. They thought that the introduction was a question and were a bit confused because they did not know how to answer it. Nonetheless we believe that this is an issue regarding experience with self-administered surveys and less an issue with the introduction itself.

#### 3.1.1 Recommendations

We recommend changing the word *ahora* (now) to *a continuación* (coming up). This should make clearer that the page is an introduction to the following questions. It is also possible to place an indication at the end of the paragraph which lets the respondents know that they should go to the next page to start the questionnaire, for example, *por favor continue a la siguiente página* (please continue to the next page).

### 3.2 Item: educational attainment with Combination Box interface

The results for the Combination Box are divided in five parts referring to (1) the question as a whole, (2) the instructions, which were made much more comprehensive and specific in version 0.2 of the questionnaire as a result of recommendations following cognitive interviews in Germany, (3) the check-boxes, newly implemented in version 0.2 to simplify questionnaire routing and decrease overall response times, (4) the search field, which received a ‘search’ watermark and looking glass as visual hints in version 0.2, and (5) the search results.
3.2.1 Question as a whole

The wording of the question seems clear to the respondents. No problems of translation were observed. Nonetheless the length of the text in the question, the multiple elements in the question and having respondents without any qualifications generated problems in a few cases. In these cases, respondents thought that the question referred to having an educational qualification or not, instead of which qualification they have. We found two sources of problems, one is the multiple elements in the question and the other the relevance of the question.

3.2.1.1 Multiple elements in question

PE15 (Female, 19 years old, *9no grado completo*) had problems understanding the question as one single question. For the respondent, there was more than one question on the page. This assumption was based on the fact that the question has multiple elements to cover the complexity of the different possible answers (several instructions, two check-boxes and a search field). The respondent interpreted each part as a single question. For example, instructions and the check-boxes were questions that the person felt having to answer. The respondent could not see the relationship between them or see the question as a whole. The respondent as a result gave the answer based on the idea of having an educational qualification or not.

3.2.1.2 Relevance of the question

Respondent PE32 (Female, 58 years old, *primaria incompleta*) expressed that it was hard to answer the question because she did not have any educational qualifications. Most of the information and instructions made little sense for her. The respondent did not feel that the question and its elements were at all relevant to her. She wrote down in the search field that she did not have any educational qualification because she did not finish school (instead of using the check-box, see section on the check-boxes below).

A similar situation arose for PE02, who felt she could not answer the questions because she did not attain any qualification. She finished primary schools (*education primaria completa*) but she felt this was not worth reporting because she did not finish secondary school (no school-leaving certificate is awarded in Venezuela at the end of primary education). During the interview, we also found out that she had a *certificado profesional de secretaria*, which could have been included as a vocational training. She did not include this either.
**3.2.2 Respondent instructions**

We found several problems related to the instructions in the question. Although a couple of respondents expressed that they found the instructions to be helpful, in many cases the instructions seem to either complicate the task or were not working as intended by the developers. The sources of the problems were mainly the length and layout of the instructions.

### 3.2.2.1 Understanding the web layout of the instructions

Some respondents had problems recognizing the instructions as such. They had the feeling each one of the bullet points was a question. It shows difficulties in recognizing the general layout of a questionnaire without further direction about its composition for inexperienced respondents. It is important to take into consideration that respondents were not given an overview of the layout of web surveys before answering the questionnaire, nor did they have prior experience with questionnaires like panel survey participants do.

**PE02:** “Bueno, yo creo que sí, porque dice <cuáles> y cuando tiene signo de interrogación y te ponen los puntos, yo siento y pienso que son preguntas, cada puntico son preguntas que tienes que responder”

“Well I think so, because it asks <which> and when it has a question mark and they put you the dots, I feel and think that these are questions, every little dot are questions to be answered”

Female, 49 years old, primaria completa and certificado profesional de secretaria

**PE01:** “R: Yo más o menos quitaría eso de <si no encuentra lo que corresponda>; porque considero que

### 3.2.2.2 Reading, applying and remembering instructions – too many instructions

Most respondents had problems reading the instructions. They re-read the instructions many times, misread parts of the instructions, quickly scanned the text without reading it in detail or skipped parts of the instructions completely. Some expressed that the amount of instructions was too large and that some of the instructions felt unnecessary. PE01 believes that the third instruction is not necessary because he considered the search results totally complete (which of course may not be the case for every respondent).

**PE01:** “R: Yo más o menos quitaría eso de <si no encuentra lo que corresponda>; porque considero que
cualquier persona podrá encontrarlo sin tener que buscar mucho realmente.
M: O sea que la tercera instrucción te pareció que no era necesaria.
R: Exacto, no era necesario; yo considero que allí están, en esa base de datos, todos los título que deben haber.”

“R: I would delete the part saying <if you can’t find a match>; because I believe anyone can find without really having to look for it thoroughly.
M: So the third instruction seemed unnecessary to you?
R: Exactly, it wasn’t necessary; I believe that they are there in the data base, every degree there is”

Male, 23 years old, bachiller

PE17 included the field of education in his answer. He wrote “t.s.u. informatica” which is the abbreviation of técnico superior universitario en informática. When we asked the respondent why he had included the field of education, he answer that those were the exact same words that came to his mind. When we asked the respondent if he thought that the instruction gave him a hint on how to answer, he said that he actually did not pay much attention to the instructions.

PE17: “R: Sí, estaba pensando en mi profesión. En lo que estoy estudiando (...) Cuando leí de una vez <cuál título o certificado escolar tengo o voy a tener>, se me vino a la mente lo mío, lo que estoy estudiando.
M: ¿Y qué palabras se te vinieron a la mente?
R: TSU en Informática
M: ¿Eso mismo que escribiste?
R: Exacto.”

“R: Yes, I was thinking about my profession. In what I’m studying right now (...) When I read <cuál título o certificado escolar tengo o voy a tener>, my thing came to mind, what I’m studying right now.
M: Which words came to mind?
R: TSU en Informática
M: The very thing that you wrote?
R: Exactly.”

Male, 29 years old, técnico medio

The respondents had also problems putting the instructions into practice. One of the instructions tells respondent to exclude the field of education form their entries. Nonetheless, when probing for it, some respondents showed problems naming their educational qualification without including the field of education or occupation. For some, the occupation itself is the term they know and use for expressing their qualification. This is the case of PE23, where the respondent does not find the word to express his vocational training without naming the field related to the training.

PE23 “M: Y por ejemplo en el caso del certificado que usted obtuvo en el INCE, cómo respondería en este caso? (Tomando en relación con la primera instrucción)
R: Bueno este. Sin especificar el área de estudio? Certificado de tapiceria en este caso.”

“M: For example in the case of the INCE certificate that you obtained, how would you answer in this case? (Taking as regard with the first instruction)
R: Well, without specifying the area of study? In this case, it is a certificate in tapestry work.”
Male, 47 years old, primaria completa and certificado de INCE

3.2.3 Check-boxes

The results on the check-boxes show several issues. All respondents that made use of the check-box “no qualification” used the check-boxes as intended. Six of them however had at least finished primary education (Primaria, sexto grado completo). Although not a formal qualification, this is considered a completed level of education (and in some countries, a certificate is awarded at the end of primary school). So, the respondents used the check-box in the right way in principle, but it would be impossible to know whether they have completed a valid level of education in this way.

In two other cases (PE02 and PE32), where the respondents should have used the check-boxes because they do not have any qualification, the respondents instead decided to express this by writing it down in the search field. The probing phase allowed to us establish that the respondents felt that it was better to write down this information than using the check-boxes. PE32 even expressed that the check-box was a guide for that what she wanted to write in the search field, meaning she use similar words as in the check-box to express in written form that she does not have any qualification. PE02 expressed to have been confused by the check-boxes and therefore decided not to use them.

Other cases support the idea that the check-boxes generate confusion. PE21 felt that the whole question was directed only to people who have achieved qualifications abroad because of the respective check-box. For this reason, he decided to skip the question. PE28 clicked the first check-box by mistake and got therefore the country question without needing it.

We also detected one technical error where a respondent was able to use the check-boxes and write down in the search field, which should have been technically impossible. PE07 (Male, 35 years old, bachiller and certificado INCE) clicked on the check-box, which disables the search field. Nonetheless the respondent wanted to write in the field. He therefore decided to go back and forth in the questionnaire. After this, the check-box remained checked but the search field was no longer disabled, which allowed him to write in the search field as well. The reason for this confusion was that the respondent misinterpreted the meaning of the check-box option. He understood it as not having at least one of the qualification mentioned in the response option. In his case, he wanted to express that he did not have a university degree.

3.2.4 Search field and search results

3.2.4.1 Perceptions of the search field

Respondents’ prior experiences with similar interfaces seem to determine how respondent perceive the search field and how they expect to use it. In most of the cases, the respondent understood it as a search field, and in some cases as an open text field. Nonetheless, some respondents had different expectations. For example, PE17 (Male, 29 years old, técnico medio) did not feel the need of searching by typing but by clicking. He wanted the Combination Box to work as a drop-down list. He considered that it would be easier to answer only by using the mouse and suggested to have a button for expanding a list of results within the search field. PE15 was confused by the work buscar. She had used other search engines before, such as Google, where she searches for goods. She was slightly confused when she saw the word buscar because she felt she was searching on the web for her qualification.

PE15 “Si me confundió por (la palabra) <buscar>. Puedo buscar muchas cosas como le estoy diciendo, si hubiese dicho como <escriba aquí o póngalo aquí> entiendo más”.

PE32 “Hubo problemas al escribir en el campo de texto. Cuando escribía en el campo de texto me molestaba un poco...”.

PE21 “No me entendió porque me dijo que escribiera en el cuadro de texto.”
“Yes it confused me because (the word) <search>. I can search for many things, as I am saying, if it said like <write it down here> I would have understood better.

Female, 19 years old, 9 no grado completo

3.2.4.2 Detailed information on qualification and individuality of answers

The way that respondents answer and expressed themselves about their qualification indicates that they are thinking about their qualifications in a much more detailed and individual way than what the question designers and generally surveys want to measure. This raises general doubts about using text-string matching for measuring educational attainment. Respondents often include their field of education or the institution that granted the qualification when reporting their educational attainment. They seem to have a fixed name in mind when thinking about their qualification, and they wish to report it in this specific way. This is clearly explained during the interview of PE17. During the probing phase, the respondent was asked to talk about what he had in mind when he read the questions and what he reported:

PE17: “M: ¿Y qué palabras se te vinieron a la mente?
R: TSU en Informática
M: ¿Eso mismo que escribiste?
R: Exacto.”

“M: Which words came to mind?
R: TSU en Informática
M: The very thing that you wrote?
R: Exactly.”

Male, 29 years old, técnico medio

Even when the qualifications matched perfectly with the results, the respondents felt the need to provide more details. This was the case of PE05 (Male, 42 years old, Postgrado/Especialización). He wrote Especialización, which was a perfect match with one single search result from the database being shown. He said that he saw the search result but instead he felt that a more detailed answer was a much better answer. Therefore, he added the field of education.

3.2.4.3 Field of education and institutions

The field of education and the institutions that granted the qualification are the most typical information provided with the qualification of the respondents. This usually happened in the case of respondents with higher education qualifications, e.g. PE05 “Especialización en finanzas de empresas”, PE17 “t.s.u Informática” or PE19 “Técnico en hingenes dental de la facultad de odontología de la UCV”. But respondents with school-leaving certificates also made use of field of education or institution names in order to better specify their qualifications, e.g. PE10 “Bachiller en Ciencias” or PE13 “Liceo Bolivariano de Socopo Estado Barinas”.

Information about the field of education or institutions was usually reported together with the general name of the qualification but there were a few cases where this was missing completely. This was the case of PE13 “Liceo Bolivariano de Socopo Estado Barinas”. This is based on the assumption that the by reporting the institution, the person is reporting the qualification the institution grants as well, be it the single or the most common qualification granted by the institution.
PE19 had achieved a qualification that she felt was quite rare, especially because of the field of education. She expressed that for this reason she was not expecting to find her qualification. This meant that even though the first word she entered (“Técnico...”) would have matched with a valid entry in the database for her level (Técnico Superior Universitario), she did not select it but decided to continue writing and specified the qualification as she had it in mind: “Técnico en hingenis dental de la facultad de odontologia de la UCV”. In this sense, she did not separate the qualification from the field of education and the institution, but the main reason for not providing the qualification only was the predisposition that there was not going to be a match any way and that she needed to specify the qualification as much as possible.

PE19: “Me imagine que no iban a salir lo que yo buscaba”
“I figured that the one I was looking for was not going to pop up”
Female, 20 years old, TSU

3.2.4.4 Multiple Entries

In one case, PE07 (Male, 35 years old, bachiller and certificado INCE), the respondent used the search field to report two qualifications at once (“Bachiller en ciencias y certificado ince electronica telecomunicacion”). This seems to be the results of regarding the search field as an open text field. It is important to point out that the respondent did read the whole question aloud and he knew that the question referred to the highest qualification. He expressed that he felt it was better to provide all the information at once.

3.2.4.5 Delay when loading the search results

It was possible to observe that in some cases the search results took some seconds to load into the screen. This delay has consequences for the effectiveness of the tool because some of the respondents type their qualification fairly quickly into the search field and may then click 'continue' before having seen any search results. Some felt they did not need to select a result. By the time results were shown, others have started specifying their entry too much so that the matching with the database was not possible any longer. This delay leaves only a narrow window of time to spot the search results (for example the case of PE17). Reducing the delay may stimulate respondents to select a search result rather than typing in more information than needed.

3.2.5 Recommendations

First, we recommend reducing the amount of instructions. We suggest restricting them to one single instruction or two instructions at the most. We consider that more instructions will not help the respondent. We suggest dropping the third and fourth instructions because this is what respondents already do intuitively. It seems unlikely that instructions could help effectively standardize the diversity of way respondents report their qualifications for all cases and countries. A number of open entries that deviate from the desired answer format are, therefore, to be expected and should in some way be accounted for (and they are, by the Search Tree used as the fallback interface).

Secondly, to reduce problems with participants less experienced with surveys, we suggest including the word “instructions” before the instructions are shown or have some other hint to indicate respondents the meaning of the bullet points.

Thirdly, we conclude that the check-boxes increase the complexity of the question too much to be useful. We therefore recommend avoiding the use of check-boxes and achieving their purpose in some other way. Otherwise, researcher should at least account for the possible misunderstandings
related to the use of the check-boxes, for example by having the Search Tree as fallback for the check-box "no qualification".

Lastly, respondents tend to include the field of education in the response and this reduces the chances of a match with the qualification database. Also, the delay of the search results reduces the chance of a valid entry. We suggest focusing on these two elements in order to increase the number of valid matches while using the Combination Box. If possible, researchers should account for field of education in the search algorithm or database and reduce the time it takes to show results, or find alternative ways for generating more matches.

### 3.3 Fallback

![Fallback if no valid entry](image)

No mayor problems were found in the use of the Search Tree as a fallback question for the Combination Box. Respondents understood that the Search Tree was the same question as the Combination Box. They had the same qualification in mind when answering the Search Tree as fallback as when answering the Combination Box. Also they were not bothered by the fact of having to answer the question in a different format after not finding a match in the Combination Box.

In a couple of cases, the Search Tree as fallback helped respondent recall the name of their qualification or remember that they have another qualification, too. This can have negative effects in the consistency between what was entered in the Combination Box and the Search Tree as fallback, however in a positive way overall. In two cases, when the respondents read the list, they decided to choose a different qualification, i.e. not the same they were searching for using the Combination Box. When the respondents saw the other qualifications in the list (in both cases a lower level qualification due to the hierarchical order), they selected this and continued. PE17 expressed the list help him remember that he had a Técnico Medio (as stated in the list) and not a Técnico Superior as he wrote in the search field. In the case of PE18, he changed his answer from Certificado de construcción civil de albañilería (in the Combination Box) to Certificado de primaria, 6to grado completo because he had the latter qualification as well and this one was first on the list. So here we have an issue with primacy effects, i.e. a respondent selecting the first qualification on the list that applies, rather than the highest one. So, while in some cases the Search Tree improves is likely to lead to more valid results than the Combination Box, in other cases, it is the other way around.

### 3.3.1 Recommendations

We suggest keeping the fallback. It seems important to have the Search Tree as a backup for the Combination Box. It helps to account for cases where no match is found. We found no evidence that extra instructions are needed for the fallback; respondents easily realized that it is the same question with a different format. Given the low degree of differentiation of the Venezuelan educational system, we actually consider the Search Tree to be sufficient for Venezuela, and probably also for other “less developed” countries with a relative simple educational system.
3.4 Item: educational attainment with Search Tree interface

3.4.1 Question text

We did not find any problems regarding the understanding of the question on educational qualification when presented in the Search Tree format.

3.4.2 Instructions

No mayor issues related to the instructions of the Search Tree were detected. In one case, PE11, the person did not know where to click in order to select an answer. This generated some confusion; nevertheless, the respondent was able to figure it out by herself. PE02 and PE19 thought at first that they had to select all options that applied, but ended up selecting only one (the highest). In case PE15, the respondent expressed a positive reaction to the instructions of the Search Tree by saying that it helped her understand what she was supposed to do.

PE15 “Se me hizo más fácil, porque aquí dice <por favor seleccione la siguiente lista el que mejor corresponda>”
“*It was easier for me, since here it says <please select from this list the best option from the list>”*
Female, 19 years old, 9no grado completo

3.4.3 List of qualifications in the Search Tree interface

3.4.3.1 Expandable function of list

It was expected that respondents understand the idea of the expandable categories and that the first level categories have a logical and intuitive relationship with the subordinated educational qualifications. For the respondents the expandable feature was intuitive and the relationship
between first and second level entries was clear for almost all entries. When probing about this relationship, PE26 described the second level entries as: “(Son) otras opciones (...) otro rango de opciones para los títulos que había obtenido” “(They are) other options (...) other range of option for the qualification you have attained”.

We found that one of the expandable categories was not intuitive for all respondents (*Certificación de Profesión*). Probably this has to do with the fact that the educational qualifications subordinated under this category are not very common and therefore have no generic term in the Venezuelan language. Due to the fact that *Certificación de Profesión* was an expandable category, respondents tend not to click on it and it might therefore lead to not finding the most applicable entry for them. This was the case of PE18, who received the Search Tree after not finding a match for his second entry in the Combination Box (“certificado de construcción civil de albañilería”). This was a vocational qualification from “INCE”, which he would have found if he would have expanded the category. Instead he chose “none of these” (“Ninguno de estos”).

3.4.3.2 **Highlighting of selected answer**

Respondents reacted naturally to the highlighting of the selected answer as a hint from the software indicating that they have selected a valid answer. After seeing the answer highlighted they continue to the next question.

3.4.3.3 **Entries for the Venezuelan educational system**

Respondents had difficulties reading and understanding the meaning of the following entries:

- Certificado de Básica segunda etapa – 9no grado completo,
- Certificado de Básica Técnica segunda etapa – 9no grado completo,
- Certificado de Media primera etapa – 3er año completo, and
- Certificado de Media Técnica primera etapa – 3er año completo.

Respondents needed to re-read these entries several times. They expressed that they got confused by having outdated/historical qualifications and current qualification separately, because they are perceived to be of the same level. Also, the formal denominations of the qualifications are not commonly used by lay people. These qualifications are lower level stages of the widely known “Bachillerato” and people refer to the specific stages within the school education by the levels (9no grado or 3er año).

Lastly, at the level of 9no grado or 3er año the distinction between technical and non-technical school is not clear for respondents – because there is actually none implemented in the educational system at this stage (yet). This issue does not apply at the level of *Título de Bachiller*, where technical and non-technical programs and qualifications are different. The *Título de Técnico Medio* has different content and requires one more year of education compared to the general *Título de Bachiller*.

In one case, there was confusion with “*Título de Técnico Medio*” where the respondent thought it referred to higher education and not to school. Nevertheless, this is the denomination commonly used when referring to this qualification.

3.4.3.4 **None of the above**

The answer option “none of these” in the Search Tree was used by two respondents. This happened when they were asked to answer by using the Search Tree after they had already completed the questionnaire for the first time using the Combination Box. PE16 (male, 40 years old, *primaria incompleta*) had selected the check-box for no qualification in the Combination Box. When he got the list in the next phase of the interview, he was looking for an entry in the list that was appropriate for his last level of primary school (*5to grado*). He read the list carefully and decided to select the
option for “none of these” which he felt expressed his situation the best. This suggest that the entry “none of these” could be used as an alternative way to express not having a qualification or for low unfinished qualifications. He therefore used this response option in the Search Tree exactly as intended.

PE16 “Ninguno de estos porque aquí no dice 5to grado”
“None of these because here it does not say 5th grade”
Male, 40 years old, primaria incompleta

3.4.4 Recommendations

We suggest simplifying the entries in the Venezuelan Search Tree for school qualification by focusing on the levels of the school. Differences due to historic educational school system seem little relevant for Venezuelans, therefore we suggest using Educación media – 3er año completo for this level of school education, if this still allows classifying the respective qualifications in the intended way. We also suggest keeping only the difference between technical and non-technical schools only for the “título bachiller”: “Título de Bachiller” and “Título de Bachiller Técnico Medio”.

We also suggest merging for the entries with “Certificado de Profesión” into one not-expandable entry and changing the denomination to “Certificado de Education Laboral” and included the most common vocational training qualification in a parenthesis next to it, again only if this still allows classifying the respective qualifications in the intended way.

3.5 Comparison of interfaces: pros and cons

3.5.1 Combination Box

3.5.1.1 Pros

Respondents viewed positively the fact that they could answer the question using their own words. They liked typing what they had in mind and receiving answer options that correspond to what they have typed in. PE10, 14, 18, 22, 29 and 30 commented on this element. Also, they like the fact that they can provide the qualification with their own words even if they don’t find a suitable match.

PE29 “Puedes colocar la palabra y te salen las opciones.”
“You can write the word and the options are shown to you”
Female, 39 years old, bachiller

PE30 “Así no salga en las opciones de respuesta lo puedes escribir.”
“Even if it’s not shown in the options you can write it down.”
Female, 43 years old, bachiller

Furthermore, respondents described the Combination Box as more straightforward, because they just need to start typing. (PE25: “Más directo”; “More straightforward”). They also mentioned as positive the fact that the answer options are appearing while they type (PE24).
Lastly, respondents regard as positive the fact that the questionnaire provides answer options to those respondents without any qualification or with qualifications abroad (PE27) (which however seems to have confused many others).

Here is a summary of the pros for the Combination Box:

+ The possibility of writing the answer themselves
+ The answering process is straightforward and intuitive
+ Search result appear as they type
+ People without any qualification or qualifications abroad are taken into consideration

3.5.1.2 Cons

The respondents commented that people without much experience with the internet or search fields might have difficulties to figure out how to use the Combination Box. They might not know about how exactly it works. For example, PE12 (female, 36 years old, primaria completa) mentioned she might have needed help, if she was to use the Combination Box at home. PE26 say that it should be clearer and easier to understand what you need to do in order to answer the questions. He thinks this is especially relevant for people that have little experience with computers.

PE26 “(el Combination Box) debería ser un poco más directo para personas con menos experiencia (con computadoras)”

“(the Combination Box) should be clearer for people with less experience (with computers)”

Male, 47 years old, universitario

Another of the negative characteristics of the Combination Box is that it has too many instructions and that they are too long. PE24 also describes the instructions as examples, in the sense that they exemplify how to answer the question. For her, it was too much information and it is therefore confusing. Even though the instructions are supposed to help respondents understand how they should answer, they increase the complexity of the question too much.

PE24 “Me da muchos ejemplos (instrucciones), deberían ser uno o dos”

“It gives me a lot of examples (instructions), it should be one or two”

Female, 26 years old, primaria completa

Lastly, some respondents regretted the fact that the answer options (qualifications) are as not as specific as they expected. For example, PE16 would have liked to report the last level of school he achieved, even though he did not finish primary school (Primaria, 5to grado).

Here is a summary of the cons for the Combination Box:

- More computer skills are required than for Search Tree.
- There are too many instructions and they are too long.
- Database base does not cover individual grades not leading to qualifications or field of education.
3.5.2 Search Tree

3.5.2.1 Pros

The instruction was considered to be short and easy to understand. PE15 expressed her positive reaction to the instruction of the Search Tree by saying it helped her understand what she needed to do. PE24 viewed positively that the instruction is short, which is easy for someone who has problems with her eyesight, like her. PE29 said the instruction is shorter, makes use of more ordinary language and it is more specific compared to the instructions for the Combination Box.

PE15 “Se me hizo más fácil, porque aquí dice <por favor seleccione la siguiente lista el que mejor corresponda>.”
“It was easier for me because here it says <please select from the following list the alternative best suited>”
Female, 19 years old, 3er año completo

PE24 “La pregunta no es tan larga, es corta (…) no tuve dificultad para leerla, (aunque) yo tengo problemas visuales.”
“The question is not too long, it is short (…) I did not have any difficulties reading it, (even though) I have sight problems”
Female, 26 years old, primaria completa

PE29 “Más corto (…) más coloquial (…) más específico.”
“shorter (…) more colloquial (…) more specific”
Female, 39 years old, bachiller

Also the format of the response options was viewed positively by some respondents because of its simplicity. PE03 say “lo sencillo que tiene” (“the simplicity it has”) was positive for him. Also being able to read all the answer option was positive for some respondents. PE16 said he liked the fact that all answer options are viewable from the start.

PE16 “Porque las opciones salen ahí y las puedes leer”
“Because the options are there and you can read them”
Male, 40 years old, primaria incompleta

PE22 “(Es positivo) ver las opciones. Puede ser más fácil que vaya a la opción, sea primaria, bachillerato”
“(It is positive) seeing the options. It could be easier to go to straight to the option, whether it is primaria or bachillerato”
Female, 47 years old, universitaria

Some respondents also felt that this format was easier for people with little experience with computers. PE26 explained that the positive element is the lack of a search engine, the simplicity for the people who have little computer knowledge since the options can be selected directly.
PE22  “A lo mejor a una persona se le hace más fácil si no tiene conocimientos de computadora.”
     “Perhaps it would be easier for a person who does not have any computer knowledge”
     Female, 47 years old, universitaria

Here is a summary of the pros for the Search Tree:
   + The instruction is short and easy to understand.
   + The task for answering the question is simple.
   + Answer options are viewable all the time.
   + Easy for respondents without experience with computers.

3.5.2.2  Cons
Similar to the Combination Box, some respondents regretted not being able to report their intermediate levels in school levels. This was the case of PE16.

PE16  “Que no saliera la opción de 5to grado de primaria”
     “That an option for 5th grade was not shown on the answering options”
     Male, 40 years old, primaria incompleta

PE18 was not able to find his qualification (certificado de profesión del INCE) because it was situated within an expandable category. The first level qualification category was not clear enough for him. He viewed this as a negative feature of the Search Tree. He also did not like to choose “none of these”.

PE18  “No encontraba bien en las respuestas mi título y tuve que elegir <ninguno de estos>.”
     “I could not find my qualification in the list and I had to choose <none of these>.”
     Male, 27 years old, primaria completa and certificado INCE

Here is a summary of the cons for the Search Tree:
   - Not possible to specify intermediate levels within qualifications
   - Some first level qualifications are too broad or not clear.
   - Having to choose “none of these” if you do not find your qualification is an unsatisfactory outcome.

3.5.3  Preference of interface

3.5.3.1  Preference for the Combination Box
Those who preferred the Combination Box felt that this interface and the task was familiar to them. They made associations with Internet search engines, such as Google. They are used to search and recognize the interface right away.

PE11  “(Prefiero el Combination Box) Porque si estás acostumbrado a usar una computadora, sabes que, por lo menos Google, pone el recuadrito. Uno lo asocia más o menos y uno sabe que tiene que
They also like the fact of being able to type themselves their answer or use their own words to search for a match, or because they find it easier to type, like PE18 or PE32.

**PE18**  
“Porque uno puede anotar el título más alto que ha obtenido.”  
“Because one can write down the highest degree obtained.”  
Male, 27 years old, primaria completa and certificado INCE

Others prefer the Combination Box because they feel that the answering process is more straightforward, like in the case of PE25.

### 3.5.3.2 Preference for the Search Tree

Those who preferred the Search Tree explained that they like to read the answer options and select the qualification from the list. They found this to be easier (PE10, PE12, PE13, PE16, PE18). They also feel it is clear to see the answer options.

**PE27**  
“Porque me especifica lo que yo estaba buscando, me especifica 6to grado completo.”  
“Because it specifies that I was looking for, the completed 6th grade”  
Male, 23 years old, primaria completa

**PE24**  
“Porque la pregunta era más fácil y las respuestas estaba ahí, más visibles.”  
“Because the question was easier and the answers were visible there.”  
Female, 26 years old, primaria completa

The simplicity of the instruction was also a reason for the preference of the Search Tree. PE15 felt that the instruction was clearer and the task was easier to fulfill. This is a similar explanation to the one given by PE24.

**PE24**  
“(La lectura de las instrucciones) no era tan larga (como Combination Box) y se ve rápido.”  
“It (the text in the instructions) wasn’t as long (as in the Combination Box) and you can see it pretty fast”  
Female, 26 years old, primaria completa

Finally, respondents with easy to find qualifications (very visible in the Search Tree) found that the Search Tree was better because they almost do not need to search. PE29 mention this was her case. Nonetheless he recognized that other respondents with less common qualification might have an easier time using the Combination Box.
“(Es mejor) para mí porque no tengo que buscar más nada (...) pero para los demás el otro (el Combination Box) puede resultar con más opciones” (P29).

“(It better) for me because I have nothing to search for (...) but for everybody else the other one (the Combination Box) might provide more answer options”

Female, 39 years old, bachiller

3.5.4 Recommendations

The comparison of the two interfaces showed that both have their strength and their weakness. The Combination Box seems to be more intuitive for respondents with more experience in the use of computers or other devices like smartphones or tablets. Therefore, on the one hand, we would recommend avoiding the Combination Box for populations that have little to no exposure to these devices; in this case, asking for the educational qualification means the Search Tree is recommendable. On the other hand, the Combination Box should perform better in situations where the educational system is complex or where there is a long list of educational qualifications, and the population is well accustomed to the use of search functions on computers and other devices. The strength of the Search Tree is its simplicity, but for this it depends on the simplicity of educational system itself. The Search Tree benefits if its expandable categories clearly indicate to respondents which educational qualifications are included within them. It is also easier for respondents to search for their qualification if the names of the other qualifications are familiar to them. We find no evidence to generalize the preference of one interface over the other without considering the target population, educational context and research goals. This reinforces the idea of using one interface as a fallback for the other.

The comparison of the two interfaces also reinforces the idea that reducing the instructions in the Combination Box is recommended, both the amount and the length of instructions.

3.6 Comparison with ISSP

In the International Social Survey Project (ISSP) questionnaire for Venezuela, the following questionnaire item is asked to obtain respondents’ educational attainment:

¿Cuál fue su último nivel educativo aprobado?

- Sin escolaridad formal
- Primaria
- Básica
- Secundaria
- Técnico Superior
- Universitario
- Postgrado

The amount of information is of course substantially more limited than what can be gathered using the CAMCES interfaces, but nevertheless it was regarded as a useful comparison in a cognitive interview study. After completing the CAMCES questionnaire, we asked respondents to report their
qualification using the item from the Venezuelan ISSP Survey. We then proceed to probe on this question format and asked respondents to compare the ISSP item with the CAMCES interfaces.

The ISSP had only a few answer categories (*sin escolaridad formal, primaria, básica, secundaria, técnico superior, universitario, posgrado*). The respondents expressed that they liked the simplicity of these answer categories. They did not need to read much. Those who preferred the Search Tree were also more inclined to view the ISSP interface more positively. This of course disregards researchers' potential needs for more detailed or complete information (e.g. the "Técnico Medio" and vocational training are missing entirely in the ISSP response options).

We found some problems regarding the categories “básica” and “secundaria” in the ISSP item. It was not clear to all respondents what was the difference between these two categories or which levels of school were included in each category. We had some respondents with “3er año completo” choosing “básica” and others choosing “secundaria” (PE13, PE15, PE25). “Secundaria” was selected by all respondents with school-leaving certificates. This means respondents with an intermediate school level (3er año completo) and a school-leaving certificate (título de bachiller) are in the same category (secundaria). Respondents with “técnico medio” also selected “secundaria”, adding to the diversity of qualification summarized under this single category.

We also found that respondents with vocational training were not able to report their qualifications using the ISSP item (PE18, PE23) or they report it in another category. PE07 selected the “técnico superior” because in his opinion it was the closest option to his vocational training “certificado del INCE.”
4 RESULTS PART III: OTHER ITEMS AND GENERAL ISSUES

4.1 Item: year in which the qualification was obtained

A usability issue was found in this question. There was no information for respondents about the format in which they should provide the number of years. Some respondents answer the question only by entering the last two digits of the year of the qualification (e.g. 78 for 1978). Nonetheless, the software did not allow this kind of entries. The page therefore reloaded, the respondents could not continue to the next question. The software does not have any notification built in to let respondents know that they have provided the information in the wrong format. They did not understand what was happening so they repeated the action. This was frustrating for respondents and they needed help in order continue with the questionnaire.

4.1.1 Recommendations

We recommend adding a year as an example (e.g. 1978) and including a notification/warning. Alternatively, the interface can be changed to dropdown menu with the list of the available years.

4.2 Item: years of education

Respondents did not express any problems understanding the questions or answering it. Even though they did not express any problems, in some cases they did not answer the question as intended by the questionnaire designers.
4.2.1 Question meaning and understanding

Not all answers follow the logic intended by the question. In the case of PE16, he understood this question as the number of years that he had spent without studying. Later, during the discussion, he realizes that it was about the years of studying after re-reading the question. This could have been caused by a low level of attention when reading the question for the first time. PE19 reported the time learning in general (all her life) and not the time spent in formal education. In this case, the problem was not the question text but instead that the respondent used this other logic as shortcut for calculating the number of years.

PE16 “Son 26 años que no estudio”
“It is 26 years since I last studied”
Male, 47 years old, universitario

PE19 “(Estoy estudiando) desde que tengo uso de razón estoy estudiando”
“I’ve been studying/learning for as long as I can remember”
Female, 20 years old, TSU

In some cases, it would be hard to derive the educational attainment based on the years of education, an issue which researchers are usually well aware of. The years did not correspond to the expected years of education based in the reported qualification. PE13 and PE15 reported the years they spent in school, but due to the fact that they attended special school types, they were able to complete school in less time than in a regular school. PE13 reported four years of school, nonetheless, the qualification PE13 had reported should is usually completed in after 9 years in a regular school (3er año completo). PE13 obtained it in four years because she attended a special school type called “liceo bolivariano” which belongs to a recent government program that allows adults to complete mandatory school in less time.

PE13 “Pasé dos años en la primaria y pasé dos años en la secundaria.”
“I spent two year in primary school (primaria) and two years in secondary school (primera etapa de bachillerato).”
Female, 47 years old, 3er año completo

In the case of PE15, she attended a “parasistema” which is a school type for children who are not able to complete education in a regular school.

4.2.2 Instructions for respondents

In the case of PE17, we found that the respondents wanted to answer “13.5 years” but decided to round down to 13. The respondent commented that his decision to round down to the lower number was because he spent less than 6 months in the last year. In this case, the rounding was intuitive to the respondent. It worked as intended without explicitly giving this instruction.

4.2.3 Recommendations

More consistent answers might be possible by asking the question separately for the different educational levels (for example: years in primary school, years in secondary school, years in higher
education, etc.). This would facilitate the process of answering the questions by lowering the cognitive effort and reducing the complexity of the question. However, this would substantially increase the length of the questionnaire, and not work in the same way across countries (which is one goal of the CAMCES project). Otherwise we would suggest to keep the question as it is even though there might be inconsistencies compared to the question on educational qualifications in some cases.

4.3 Computer-assisted survey and self-completion questionnaire

4.3.1 Confidence with the use of computers

Respondents showed and expressed very different levels of confidence in the use of a computer. A few had never used a computer before. Interestingly, most respondents that were less confident in computer usage had experience with smartphones. They mention using Facebook via computers or smartphones. Even though some of the respondents were not used to operating a computer, all of them were able to complete the questionnaire. All made use of the interfaces to provide an answer. Respondents with less experience with computers answered questions more slowly and were less secure about how to navigate through the questionnaire. But this did not stop them from completing the questionnaire.

4.3.2 Understanding the structure of the questionnaire

One issue that emerged during our study was that some respondents had difficulties identifying the different components of the questionnaire, especially the difference between the question and the instructions. For example, respondents needed to figure out for themselves that each page had a question. Some respondents tried to also give an answer to the instructions during the think-aloud process before realizing these were instructions to the question above. None of the respondents had prior experience with survey questionnaires, let alone a self-completion questionnaire. Figuring out the structure of the questionnaire added a cognitive task. After answering a few questions the structure seemed to become clear for respondents. This led us to think that the issue might affect answers for the first few question if the respondent has not been previously instructed.

4.3.3 Reading ability

The think-aloud technique allowed us to accompany the respondent in the reading process. Some respondents had noticeable problems when reading exactly the text as it was presented to them. Words were skipped or replaced with other words with similar spelling. Some needed to re-read the text several times. We did not notice a correlation with specific words; it was more a general issue. This could be a general problem for Venezuela where the population has a lower level of education and literacy compared to European countries like Germany.

4.3.4 Recommendations

Survey agencies using computer-assisted surveys should consider providing respondents training or instructions on the use of a computer for filling in a questionnaire. This applies to the Venezuelan population but it might also apply to migrant surveys in more developed countries. In case of CAPI, they should provide interviewers with guidelines on how to instruct respondents on the use a computer themselves, especially regarding the use of the mouse, in order to make sure the switch from CAPI to CASI mode, if required for language reasons, is successful. In the case of CAWI, survey agencies should make sure that all participant have received prior training in computer usage, or provide a paper version of the questionnaire to respondents without computer experience.
In order to facilitate the self-completion of the questionnaire, respondents could receive a brief introduction on the structure of the questionnaire and how to navigate it. For Venezuela, we would also recommend implementing the CAPI version of the tool in order to keep the reading by the respondent at its minimum.
5 APPENDIX

5.1 CAMCES Questionnaire Version 0.8 in Spanish for Venezuela

CAMCES Question module
Version 0.8
Survey country (srvctr): Venezuela (VE)
Questionnaire language (qstlng): Spanish (es)
Locale: es_VE
Questionnaire script (qstscr): Latin (Latn)
Study: Cognitive Interviewing Pretest by Laboratorio de Ciencias Sociales

1. edit "Introduction"
   {Ask all}

Ahora algunas preguntas sobre su educación formal: En esta se incluyen la educación escolar, profesional y universitaria.
No se incluyen cursos de ampliación profesional o educativa con una duración menor a 6 meses (a tiempo completo).

{Go to edqcb}
2. edqctxall “List of educational contexts”
(Ask if edqcb = “check-box: abroad”)

¿Dónde obtuvo su educación escolar, laboral o universitaria más alta?

Format: two level education context list generated from CAMCES Database

{If edqctxall = “other country”/inactive education context: go to edqopn}
{Else If edqscr = qstscr: go to edqcb}
{Else If edqscr ≠ qstscr: go to edqst}

3. edqcb “Combination Box”
(Ask all)

Educational context = Venezuela as default
If “check-box: abroad”, then educational context = eduqctxall.

¿Cúal es su título o certificado de educación escolar, profesional o universitaria más alto?
- Por favor introduzca en el buscador el título o certificado sin especificar el área de estudio o formación.
- Mientras usted escribe aparecerán resultados de búsqueda; por favor seleccione el resultado que mejor corresponda.
- Si no encuentra un resultado que corresponda, por favor introduzca el nombre completo de su título o certificado.
- Si no está seguro de cuál es su título o certificado más alto, por favor introduzca el más reciente.

[Check-box for abroad] Obtuve mi título o certificado más alto en el extranjero
[Check-box for no educational qualification] (Todavía) no tengo ningún título o certificado de educación escolar, profesional o universitaria

Format: Check-box for educational qualification abroad. Check-box for no educational qualification. Combination-box interface for educational qualifications from the CAMCES Database for the default education context or the education context selected in edqctxall2

¿Cuál es su título o certificado de educación escolar, profesional o universitaria más alto?
- Por favor introduzca en el buscador su título o certificado sin especificar el área de estudio o formación.
- Mientras usted escribe aparecerán resultados de búsqueda; por favor seleccione el resultado que mejor corresponda.
- Si no encuentra un resultado que corresponda, por favor introduzca el nombre completo de su título o certificado.
- Si no está seguro de cuál es su título o certificado más alto, por favor introduzca el más reciente.

[If check-box for abroad = true: go to edqst]
[If check-box for no educational qualification = true: go to edqyrs]
[If no DB match selected: go to edqst]
[If DB match selected: go to edqyr]
Appendix

Format: Search-tree interface for educational qualifications from the CAMCES Database for the default education context or the education context selected in edqctxall

¿Cuál es su título o certificado de educación escolar, profesional o universitaria más alto?

- Por favor seleccione en la siguiente lista el que mejor corresponda.

<table>
<thead>
<tr>
<th>Certificado de Primaria - 6to grado completo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificado de Básica segunda etapa - 9no grado completo</td>
</tr>
<tr>
<td>Certificado de Básica Técnica segunda etapa - 9no grado completo</td>
</tr>
<tr>
<td>Certificado de Media primera etapa - 3er año completo</td>
</tr>
<tr>
<td>Certificado de Media Técnica primera etapa - 3er año completo</td>
</tr>
<tr>
<td>Título de Bachiller</td>
</tr>
<tr>
<td>Título de Técnico Medio</td>
</tr>
<tr>
<td>Certificación de Profesión</td>
</tr>
<tr>
<td>Educación Universitaria o Técnica Superior</td>
</tr>
<tr>
<td>Título de Técnico Superior</td>
</tr>
<tr>
<td>Título de Licenciado o Título Profesional Universitario, Título de Pregrado</td>
</tr>
<tr>
<td>Especialización</td>
</tr>
<tr>
<td>Maestría</td>
</tr>
<tr>
<td>Título de Doctorado</td>
</tr>
<tr>
<td>Ninguno de estos</td>
</tr>
</tbody>
</table>

{If “none of these”: go to edqopn}
{If DB match selected: go to edqyr}

5. edqopn

{Ask if edqctxall = “other context”/inactive context}

¿Cuál es su título o certificado de educación escolar, laboral o universitaria más alto?

- Por favor escriba el nombre completo de su título o certificado

Format: Open text field

{Go to edqyr}
6. edqyr
   {Ask all}

¿En qué año obtuvo este título o certificado?
   • Si no lo puede decir con exactitud, por favor indique un estimado

Año ____

Format: text input field with four digits from 1900 until today

{Go to edqflt2}

7. edqflt2
   {Ask all}

¿Tiene algún otro título o certificado de educación escolar, laboral o universitaria?
   • Este título o certificado puede ser del mismo nivel o inferior.
   • Por favor recuerde no incluir cursos de ampliación profesional o educativa con una duración menor a 6 meses (a tiempo completo).
   ○ [1] Si
   ○ [2] No

{If edqflt2 = 1: go to edqcb2}
{If edqflt2 = 2: go to edqnmb}

8. edqctxall2 “List of educational contexts”
   {Ask if edqcb2 = “check-box: abroad”}

¿Dónde obtuvo su educación escolar, laboral o universitaria más alta?

Format: two level education context list generated from CAMCES Database

{If edqctxall2 = “other country”/inactive education context: go to edqopn2}
{Else If edqscr = qstscr: go to edqcb2}
{Else If edqscr ≠ qstscr: go to edqst2}
9. edqcb2 “Combination Box”
{Ask all}

Educational context = Venezuela as default
If "check-box: abroad", then educational context = eduqctxall2.

¿Cómo es este título o certificado de educación escolar, profesional o universitaria?
- Por favor introduzca en el buscador el título o certificado sin especificar el área de estudio o formación.
- Mientras usted escribe aparecerán resultados de búsqueda; por favor seleccione el resultado que mejor corresponda.
- Si no encuentra un resultado que corresponda, por favor introduzca el nombre completo de su título o certificado.

[Check-box for abroad] Obtuve mi título o certificado en el extranjero

Format: Check-box for educational qualification abroad. Combination-box interface for educational qualifications from the CAMCES Database for the default education context or the education context selected in edqctxall2.

{If check-box for abroad = true: go to edqst2}
{If no DB match selected: go to edqst2}
{If DB match selected: go to edqyr2}

10. edqst2 “Search Tree”
{Ask if edqscr ≠ qstsc or edqcb = no DB match}
Educational context = Venezuela as default
If edqcb2 = "check-box: abroad", then educational context = eduqctxall2.

¿Qué es este título o certificado de educación escolar, profesional o universitaria?
- Por favor seleccione en la siguiente lista el que mejor corresponda

Format: Search-tree interface for educational qualifications from the CAMCES Database for the default education context or the education context selected in edqctxall2

{If “none of these”: go to edqopn2}
{If DB match selected: go to edqyr2}
11. edqopn2
{Ask if edqctxall2 = “other context”/inactive context}

¿Cuál es este título o certificado de educación escolar, laboral o universitaria?
- Por favor escriba el nombre completo de su título o certificado

Format: Open text field

{Go to edqyr2}

12. edqyr2
{Ask all}

¿En qué año obtuvo este título o certificado?
- Si no lo puede decir con exactitud, por favor indique un estimado

Año ___

Format: text input field with four digits from 1900 until today

{Go to edqflt3}

If another loop is desired, {go to edqflt3} which corresponds to edqflt2 with all subsequent questions receiving suffix 3 instead of 2.
{Go to edqnmb}

13. edqnmb
{Optional question, ask all}

En total, ¿Cuántos títulos y certificados de educación escolar, profesional o universitaria ha obtenido?

Format: Drop-down list of with numbers from 0 to 20 / text input field with 2 digits from 0 to 20
14. edqyrs
{Optional question, ask all}

En total, ¿Cuántos años pasó usted en el colegio, la educación profesional y la educación universitaria?

- Por favor no incluya el preescolar
- No incluya largos periodos de práctica profesional (por ejemplo pasantías o programas de entrenamientos) si no estaba estudiando al mismo tiempo en un instituto educativo.
- Por favor calcule un doctorado con un máximo de 4 años.

__ años

Format: Drop-down list of with numbers from 0 to 99 / text input field with 2 digits from 0 to 99

{End of module}
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