

# "Showing Life Opportunities"

## 1. Name of the study:

"Showing Life Opportunities: Increasing Entrepreneurship by Opportunity and STEM Careers through Online Courses at Schools".

## 2. Purpose of the study:

The project seeks to identify the effectiveness of some online courses, as well as, certain learning strategies. Training will be offered that can improve their skills and knowledge.

We have developed all the content with the support of grants from the Innovation Growth Lab (NESTA Foundation), SIEF (World Bank), INCHER (University of Kassel). In addition, the program was designed by academics from the HEC Paris Business School, the University of Warwick, the University of Kassel and the World Bank. The content has been approved by the Ministry of Education of Ecuador and the Ethics Committee of the San Francisco de Quito University.

## 3. Location: Ecuador

## 4. Principal Investigator: Dr. Igor Asanov

BASELINE 1

I. CONTACT INFORMATION

| Nº | Question  | Additional  | Question Coding               | Aggregated Variable  |
|----|---|---|-------------------------------|--|
| 2  | Sex   | •Male [1]   | I_Gender                      | Female   |
| 3  | Birth   |   |                               |  |
|    | When were you born?   |   | I_Date_of_birth               |  |
|    | How old are you?  |   | I_Age                         |  |
| 5  | Cell phone  |   |                               |  |
|    | Do you own your own cell phone?                                     | YES/NO  | I_Have_cel                    |  |
|    | Can you use someone else's cell phone to make and receive calls?    | YES/NO  | I_Others_cel                  |  |
| 7  | What are your social media  |   |                               |  |
|    | Do not have/ Do not want to share                                   |   | I_no_Whatsapp                 |  |
|    | Do not have/ Do not want to share                                   |   | I_no_Instagram                |  |
| 8  | What language or languages do you speak?                            | <ul style="list-style-type: none"> <li>• Only native language</li> <li>• Native and Spanish language</li> <li>• Spanish only</li> <li>• Spanish and foreign language</li> <li>• Native language and foreign language</li> </ul> | I_Language                    | "I_Language_Esp_idioma_extr",<br>",<br>"I_Language_Nativa_idioma_extr",<br>",<br>"I_Language_Nativa_y_esp",<br>",<br>"I_Language_Solo_esp",                              |
| 9  | How do you identify yourself according to your culture and customs? | <ul style="list-style-type: none"> <li>• Indigenous</li> <li>• Afro-Ecuadorian or Afro-descendant</li> <li>• Mulatto</li> <li>• Montubio</li> <li>• Half Blood</li> <li>• White</li> <li>• Other _____</li> </ul>               | I_Ethnicity,I_Ethnicity_other | I_Ethnicity_Mestizo,<br>I_Ethnicity_Blanco,<br>I_Ethnicity_Indigena,<br>I_Ethnicity_Afroecuatoriano,<br>I_Ethnicity_Montubio,<br>I_Ethnicity_Mulato,<br>I_Ethnicity_Otro |
| 10 | Home characteristics (socioeconomic level)                          |   |                               | I_Income   |
|    | Washing machine   |   | I_Laundry                     |  |
|    | Air conditioning / Dryer  |   | I_Air_conditioner             |  |
|    | Flat screen TV  |   | I_TV                          |  |
|    | Family Car  |   | I_Car                         |  |
|    | Domestic Employees / Driver / Gardener                              |   | I_Employees                   |  |
|    | Number of bathrooms   |   | I_N_toilets                   |  |
|    | Number of bedrooms  |   | I_Numbers_rooms               |  |

## II. INTENTIONS AND PREFERENCES

| Nº | Question  | Additional | Question Coding   | Aggregated Variable    |
|----|---|------------|-------------------|------------------------|
| 1  | Translated: An entrepreneur is a person who starts a business with the aim of making a profit. So an entrepreneur can be from a person who sets up their first online store or a freelancer or independent professional who has just started. Moreover, the entrepreneur can be considered in more everyday tasks such as a writer, a youtuber, a shopkeeper (shop salesman) or selling products (for example, a merchant) (Ferrerira, 2018).   |            |                   |                        |
| A. | <b>Attitudes towards Entrepreneurship</b>   |            |                   | II_1A_Entr_Attitude,   |
|    | <b>On a scale from 1 to 7: In general, starting a business is...</b>  |            |                   |                        |
|    | 1. Worthless / Worthwhile   |            | II_Worthy_emp,    |                        |
|    | 2. Boring / Fun   |            | II_Bored_emp,     |                        |
|    | 3. Negative / Positive  |            | II_Negative_emp,  |                        |
|    | 4. Need/Opportunity   |            | II_Need_emp,      |                        |
| B. | <b>Entrepreneurial Intentions</b>   |            |                   | II_1B_Entr_Intentions, |
|    | <b>On a scale from 1 to 7 (how much do you agree):</b>  |            |                   |                        |
|    | 1. I often think about starting a business  |            | II_Start_emp,     |                        |
|    | 2. I have business ideas I am going to implement  |            | II_Ideas_emp,     |                        |
|    | 3. My goal is to become my own boss   |            | II_Own_boss,      |                        |
| 2  | STEM Professional<br>These are the professionals who work in the STEM knowledge areas (Science, Technology, Engineering, Mathematics). Within these four branches of knowledge there are an infinite number of university degrees, ranging from Nanoscience to Aeronautics, including Web Application Development and Medicine. Some professions catalogued as STEM are architecture, statistics, data processing (Big Data), virtual reality, the Internet of Things (IoT), Bioinformatics, etc. (Gomez, 2018) |            |                   |                        |
| A. | <b>Attitudes towards STEM</b>   |            |                   | II_2A_Stem_Attitude,   |
|    | <b>On a scale from 1 to 7: In general, starting a career in STEM (Science. Technologies, Engineering, Math)</b>   |            |                   |                        |
|    | 1. Worthless / Worthwhile   |            | II_Worthy_stem,   |                        |
|    | 2. Boring / Fun   |            | II_Bored_stem,    |                        |
|    | 3. Negative / Positive  |            | II_Negative_stem, |                        |
| B. | <b>Entrepreneurial Intentions</b>   |            |                   | II_2B_Stem_Intentions, |
|    | <b>On a scale from 1 to 7 (how much do you</b>  |            |                   |                        |

|   |  |                 |                     |  |
|---|--|-----------------|---------------------|--|
|   | 1. I often think about starting career in STEM (Science. Technologies, Engineering, Math)  |                 | II_Study_stem,      |  |
|   | 2. I have ideas in STEM (Science. Technologies, Engineering, Math) I am going to implement |                 | II_Ideas_stem,      |  |
|   | 3. My goal is to become a professional in STEM   |                 | II_Profesional_stem |  |
| 3 | <b>Do you plan to go to the University?</b>  | YES/NO/NOT SURE | II_Study_uni        |  |

### III. Beliefs/Expectations

| Nº | Question   | Additional           | Question Coding      | Aggregated Variable                     |
|----|--|----------------------|----------------------|---|
| 1  | More about you.<br>Please consider adults other than your teachers in your answers.                    |                      |                      | III_1_Stem_Adults,<br>III_2_Entr_Adults |
|    | Do you know any adults who work as scientists?   | YES/NO/NOT SURE      | III_Know_scientifics |   |
|    | Do you know any adults who work as engineers?  | YES/NO/NOT SURE      | III_Know_engine      |   |
|    | Do you know any adults who work as entrepreneurs?  | YES/NO/NOT SURE      | III_Know_ent         |   |
|    | Do you know any adults who work as mathematicians?   | YES/NO/NOT SURE      | III_Know_mathe       |   |
|    | Do you know any adults who work as technologists?  | YES/NO/NOT SURE      | III_Know_tech        |   |
| 3  | <b>Expectations Professional</b>   |                      |                      |   |
|    | How much do you agree with the next  | III_Earn_10_Years    |                      |   |
|    | • I will succeed as an entrepreneur  |                      | III_Succes_emp       | III_3_Entr_Success                      |
|    | • I will succeed as a STEM professional (Science, Technologies, Engineering,                           |                      | III_Succes_stem      | III_3_Stem_Success                      |
|    | • I will succeed as a public servant   |                      | III_Succes_public    | III_Succes_public                       |
| 4  | <b>Salary expectations</b>   |                      |                      |   |
|    | How much do you expect to earn per   |                      | III_Earn_5_Years     | III_Earn_5_Years                        |
|    | How much do you expect to earn per month in 10 years from now?   |                      | III_Earn_5_Years     | III_Earn_5_Years                        |
| 5  | <b>Specific salary expectations</b>  |                      |                      |   |
|    | Based on your knowledge, how much do you think the minimum wage per month in Ecuador?                  | Can't say/Don't Know | III_Salary_ecuador   | III_Salary_ecuador                      |
|    | How much do you think entrepreneur earn on average per month in Ecuador?                               | Can't say/Don't Know | III_Salary_entE      | III_Salary_entE                         |
|    | How much do you think STEM professional (Science, Technologies, Engineering, Math) earn on average per | Can't say/Don't Know | III_Salary_stemE     | III_Salary_stemE                        |

#### IV. PARENTS BACKGROUND

| Nº       | Question  | Additional   | Question Coding       | Aggregated Variable  |
|----------|---|--|-----------------------|--|
| <b>1</b> | <b>MOTHER</b>   |  |                       |  |
|          | Is your mother employed?  | YES/NO/Not applicable (e.g. death of mother)   | IV_Mother_work        | IV_Mother_work   |
|          | What is the highest degree obtained by your mother ?                                | <ul style="list-style-type: none"> <li>• Middle School or lower [1]</li> <li>• Diploma [2]</li> <li>• University Bachelors [3]</li> <li>• Masters degree [4]</li> <li>• PhD [5]</li> </ul> | IV_Mother_edu         | IV_Mother_edu_Bachiller, IV_Mother_edu_Licenciatura. Universidad, IV_Mother_edu_Maestria, IV_Mother_edu_PhD, IV_Mother_edu_Secundaria.o.menor      |
|          | Has your mother ever owned a business or been self employed?                        | YES/NO   | IV_Mother_business    | IV_Mother_business   |
|          | What is the largest number of employees your mother's business ever had?            |  | IV_Mothers_employees  | IV_Mothers_employees   |
| <b>2</b> | <b>FATHER</b>   |  |                       |  |
|          | Is your father employed?  | YES/NO/Not applicable (e.g. death of father)   | IV_Father_work        | IV_Father_work   |
|          | What is the highest degree obtained by your father ?                                | <ul style="list-style-type: none"> <li>•Middle School or lower [1]</li> <li>•Diploma [2]</li> <li>•University Bachelors [3]</li> <li>•Masters degree [4]</li> <li>•PhD [5]</li> </ul>      | IV_Father_edu         | IV_Father_edu_Bachiller, IV_Father_edu_Licenciatura. Universidad, IV_Father_edu_Maestria, IV_Father_edu_PhD, IV_Father_edu_Secundaria.o.menor      |
|          | Has your father ever owned a business or been self employed?                        | YES/NO   | IV_Father_business    | IV_Father_business   |
|          | What is the largest number of employees your father's business ever had?            |  | IV_Fathers_employees  | IV_Fathers_employees   |
| <b>3</b> | <b>SIBLINGS</b>   |  |                       |  |
|          | Is any of your brother(s) or sister(s) employed?                                    | YES/NO/Not applicable (no brother)   | IV_Sibling_work       | IV_Sibling_work  |
|          | What is the highest degree obtained by your brother or sister?                      | <ul style="list-style-type: none"> <li>•Middle School or lower [1]</li> <li>•Diploma [2]</li> <li>•University Bachelors [3]</li> <li>•Masters degree [4]</li> <li>•PhD [5]</li> </ul>      | IV_Sibling_edu        | IV_Sibling_edu_Bachiller, IV_Sibling_edu_Licenciatura. Universidad, IV_Sibling_edu_Maestria, IV_Sibling_edu_PhD, IV_Sibling_edu_Secundaria.o.menor |
|          | Has any of your brother(s) or sister(s) ever owned a business                       | YES/NO   | IV_Siblings_business  | IV_Siblings_business   |
|          | What is the largest number of employees your brother or sister's business ever had? |  | IV_Siblings_employees | IV_Siblings_employees  |

## V. WORKING EXPERIENCE

| Nº | Question  | Additional | Question Coding   | Aggregated Variable |
|----|---|------------|-------------------|---------------------|
| 1  | Have you ever worked in a paid job or in an unpaid job? | YES/NO     | V_Work_Experience | V_Work_Experience   |

## VI. ATTITUDES TEST

| Nº       | Question   | Additional  | Question Coding | Aggregated Variable |
|----------|--|---|-----------------|---------------------|
| <b>1</b> | <b>ATTITUDES 1</b>   | (Likert scale from 1=Totally disagree to 5=Totally agree) |                 | VI_1_Attitudes      |
|          | 1. There are times when I let others take responsibility for solving the problem.                                |   | VI_attitudes1_1 |                     |
|          | 2. Rather than negotiate the things on which we disagree, I try to stress those things upon which we both agree. |   | VI_attitudes1_2 |                     |
|          | 3. I am usually firm in pursuing my goals.   |   | VI_attitudes1_3 |                     |
|          | 4. I might try to soothe the others feelings and preserve our relationship.                                      |   | VI_attitudes1_4 |                     |
| <b>2</b> | <b>ATTITUDES 2</b>   |   |                 | VI_2_Attitudes      |
|          | To what extent do you agree with the following statements?   | (Likert scale from 1=Totally disagree to 5=Totally agree) |                 |                     |
|          | 1. Whenever something goes wrong, I look for a solution immediately.   |   | VI_attitudes2_1 |                     |
|          | 2. Whenever there's an opportunity to get actively involved, I do.   |   | VI_attitudes2_2 |                     |
|          | 3. I take the initiative immediately, even if others do not.   |   | VI_attitudes2_3 |                     |
|          | 4. I take advantage of opportunities quickly to achieve my goals.  |   | VI_attitudes2_4 |                     |
|          | 5. I usually do more than I'm asked to.  |   | VI_attitudes2_5 |                     |
|          | 6. I'm particularly good at coming up with ideas.  |   | VI_attitudes2_6 |                     |
| <b>3</b> | <b>ATTITUDES 3</b>   |   |                 | VI_3_Attitudes      |
|          | Please rate the extent to which the following items describe your behavior in the last 3 months:                 | (Likert scale from 1=Totally disagree to 5=Totally agree) |                 |                     |
|          | 1. I take initiative even when others don't.   |   | VI_attitudes3_1 |                     |
|          | 2. I work harder for my assignments than what is typically expected.   |   | VI_attitudes3_2 |                     |
|          | 3. I set myself goals that are beneficial for my learning or development.  |   | VI_attitudes3_3 |                     |
|          | 4. I independently search for new tasks.   |   | VI_attitudes3_4 |                     |
|          | 5. I actively attack problems.   |   | VI_attitudes3_5 |                     |
|          | 6. I anticipate opportunities.   |   | VI_attitudes3_6 |                     |
|          | 7. When I have set my own learning goal, I pursue it persistently.   |   | VI_attitudes3_7 |                     |
|          | 8. When I have set my own learning goal, I do not give up working on the task if something goes wrong.           |   | VI_attitudes3_8 |                     |

**VII. RISK PREFERENCES AND PERSONALITY TRAITS**

| Nº       | Question  | Additional  | Question Coding     | Aggregated Variable   |
|----------|---|---|---------------------|---|
| 1        | Are you generally a person who is fully prepared to take risks or do you try to avoid taking risks? Please tick a box on the scale, where the value 0 means: "unwilling to take risks" and the value 10 means: "fully prepared to take risks."  |   | VII_Risk_preference |   |
| <b>2</b> | <b>Willingness to act</b>   |   |                     |   |
|          | We now ask you for your willingness to act in a certain way. . Please again indicate your answer on a scale from 0 to 10. A 0 means "completely unwilling to do so," and a 10 means "very willing to do so." You can also use any number between 0 and 10 to indicate where you fall on the scale, using 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10. |   |                     |   |
|          | How willing are you to give up something that is beneficial for you today in order to benefit more from that in the future?   |   | VII_Time_preference |   |
|          | (Trust)<br>I assume that people have only the best intentions.  |   | VII_Confidence      |   |
| 3        | <b>RISK PREFERENCES AND PERSONALITY TRAITS 3</b>  |   |                     |   |
|          | I look like someone who...  | (Likert scale from 1=Totally disagree to 5=Totally agree) and additional I can't choose |                     | VII_3_BFI_Extraversion, VII_3_BFI_Agreeableness, VII_3_BFI_Conscientiousness, VII_3_BFI_Neuroticism, VII_3_BFI_Openness |
|          | he's reserved.  |   | VII_Traits_1        |   |
|          | He's usually confident  |   | VII_Traits_2        |   |
|          | does a thorough job   |   | VII_Traits_3        |   |
|          | relaxes, handles people well  |   | VII_Traits_4        |   |
|          | has an active imagination   |   | VII_Traits_5        |   |
|          | is open, sociable   |   | VII_Traits_6        |   |
|          | tends to find fault with others   |   | VII_Traits_7        |   |
|          | tends to be weak  |   | VII_Traits_8        |   |
|          | gets nervous easily   |   | VII_Traits_9        |   |
|          | has few artistic concerns   |   | VII_Traits_10       |   |

**SECTION 0. KNOWLEDGE TEST**

| Nº       | Question   | Additional   | Question Coding       | Aggregated Variable   |
|----------|--|--------------|-----------------------|-----------------------|
| 1        | Please mention the note you  |              |                       |                       |
|          | Language and Literature  | From 1 to 10 | X0_1_1_Expected_Grade |                       |
|          | English  |              | X0_1_2_Expected_Grade |                       |
|          | Statistics   |              | X0_1_3_Expected_Grade |                       |
|          | Mathematics  |              | X0_1_4_Expected_Grade |                       |
|          | Entrepreneurship   |              | X0_1_5_Expected_Grade |                       |
|          | Biology  |              | X0_1_6_Expected_Grade |                       |
|          | Physics  |              | X0_1_7_Expected_Grade |                       |
|          | Chemistry  |              | X0_1_8_Expected_Grade |                       |
| <b>2</b> | <b>STATISTICS</b>  |              |                       | X0_2_Statistics_total |
|          | Please read carefully and select the correct answer.   |              |                       |                       |
|          | What measure of Central Tendency is derived from the most common value?                                |              | X0_2_1_Statistics     |                       |
|          | How many 3-digit numbers can you do using the numbers 1, 2 and 3 without repeating?                    |              | X0_2_2_Statistics     |                       |
|          | If the dogs eat more, then they'll eat more. This sentence is an example of:                           |              | X0_2_3_Statistics     |                       |
|          | What measure of Central Trend is derived from the value of the mean or center of a data set?           |              | X0_2_4_Statistics     |                       |
|          | How many 2-digit numbers can you do using the numbers 1, 2, 3 and 4 without repeating?                 |              | X0_2_5_Statistics     |                       |
|          | A logical interpretation based on experience and prior knowledge is:                                   |              | X0_2_6_Statistics     |                       |
|          | What measure of Central Tendency is interpreted as the "breakeven point" of a data set?                |              | X0_2_7_Statistics     |                       |
|          | How many 3-digit numbers can you do using the numbers 2, 3 and 4 without repeating?                    |              | X0_2_8_Statistics     |                       |
|          | What is the definition of a hypothesis?  |              | X0_2_9_Statistics     |                       |
| <b>3</b> | <b>SPANISH</b>   |              |                       | X0_2_Spanish_total    |
|          | The means of communication currently used are:   |              | X0_3_1_Spanish        |                       |
|          | Identify the antonym of the bold word: The trial that was to be resolved is <b>postponed</b> to Monday |              | X0_3_2_Spanish        |                       |

|          |   |                 |                   |
|----------|---|-----------------|-------------------|
|          | Within the elements of communication, whoever sends a message is known as:                                      | X0_3_3_Spanish  |                   |
|          | Within the paralinguistic elements can be identified a:   | X0_3_4_Spanish  |                   |
|          | For selective reading we find several elements within them we have the introduction that deals with:            | X0_3_5_Spanish  |                   |
|          | Identify who does not correspond to the participants of the debate:   | X0_3_6_Spanish  |                   |
|          | A good journalist, should handle some important aspects, these are:   | X0_3_7_Spanish  |                   |
|          | Answer with true or false as applicable:  |                 |                   |
|          | 1.- Within the graphic organizers we have the Flowchart.  | X0_3_8a_Spanish |                   |
|          | 2.- In family relationships, comparisons are made between objects.  | X0_3_8b_Spanish |                   |
|          | 3.- Est. Unid. It is a correct abbreviation.  | X0_3_8c_Spanish |                   |
|          | 4. The paragraph is formed with a logical sequence of sentences.  | X0_3_8d_Spanish |                   |
|          | 5.- The report must include a bibliography and annexes.   | X0_3_8e_Spanish |                   |
|          | 6.- Critical reading is a simple reading  | X0_3_8f_Spanish |                   |
| <b>4</b> | <b>English</b>  |                 |                   |
|          | <b>Choose the best option to complete each sentence</b>   |                 | X0_2_Engish_total |
|          | a. She decided ___ a teacher.   |                 |                   |
|          | b. We avoid _____ cigarettes.   | X0_4_1_English  |                   |
|          | <b>Choose one of the next options to complete the sentences. There is one extra option that you don't need.</b> |                 |                   |
|          | a. She ___ to play with marbles when she was in school.   |                 |                   |
|          | b. ___ you go to Atacames on your last holiday?   | X0_4_2_English  |                   |
|          | <b>Fill in the blanks with one word in each sentence.</b>   |                 |                   |

|   |  |                |  |
|---|--|----------------|--|
| a. Quito ___ been the capital of Ecuador for many years.                  |  |                |  |
| b. People ___ visited Galapagos Islands since 1934.                       |  | X0_4_3_English |  |
| <b>Scramble the words to make a negative sentence.</b>                    |  |                |  |
| She<br>Ambato<br>will<br>visit<br>not                                     |  | X0_4_4_English |  |
| <b>Drag the next clauses and drop them in their corresponding places.</b> |  |                |  |
| a. If I visit Galapagos,<br>_____   |  |                |  |
| b. If I were the Governor of Galapagos,_____                              |  | X0_4_5_English |  |
| <b>Scramble the words to make an affirmative sentence.</b>                |  |                |  |
| is<br>prepared<br>with<br>milk<br>Fanesca                                 |  | X0_4_6_English |  |

**SECTION 1 - MAIN CONCEPTS**

**Q1: Personal Initiative I**

| Question   | Additional  | Question Coding             | Aggregated Variable        |
|--|-------------|-----------------------------|----------------------------|
| <b>Iniciativa Personal_part A</b>  |             |                             |                            |
| Please indicate in which extent the following elements describe your behaviour in the past three months:<br>(Likert scale from 1= Strongly disagree to 5 = strongly agree) |             |                             | X1_1_A_Personal_Initiative |
| 1. I face problems actively.   | From 1 to 5 | X1_1_A1_Personal_Initiative |                            |
| 2. When something goes wrong I find a solution immediately   |             | X1_1_A2_Personal_Initiative |                            |
| 3. When there is an opportunity to be actively involved, I take it.  |             | X1_1_A3_Personal_Initiative |                            |
| 4. I take the initiative immediately even when other have not.   |             | X1_1_A4_Personal_Initiative |                            |
| 5. I take advantage of opportunities quickly to achieve my goals   |             | X1_1_A5_Personal_Initiative |                            |
| 6. I usually do more than what i'm required to do.   |             | X1_1_A6_Personal_Initiative |                            |
| 7. I am particularly good at materializing new ideas.  |             | X1_1_A7_Personal_Initiative |                            |
| <b>Back translation/Traducción Inversa</b>   |             |                             |                            |
| <b>Iniciativa Personal_part B</b>  |             |                             |                            |
| Please indicate in which stent the following elements describe your behaviour in the past three months:<br>(Likert scale from 1= Strongly disagree to 5 = strongly agree)  |             |                             | X1_1_B_Personal_Initiative |
| 1. I take the initiative even when other don't.  | From 1 to 5 | X1_1_B1_Personal_Initiative |                            |
| 2. I work on my tasks with more effort than it is normally expected  |             | X1_1_B2_Personal_Initiative |                            |
| 3. I establish my own goals to benefit my development and learning.  |             | X1_1_B3_Personal_Initiative |                            |
| 4. I look for new tasks independently  |             | X1_1_B4_Personal_Initiative |                            |
| 6. I anticipate the opportunities  |             | X1_1_B5_Personal_Initiative |                            |
| 7. When I establish my on goal I pursue it persistently.   |             | X1_1_B6_Personal_Initiative |                            |
| 8. When I establish my own learning goal, I don't give up / Even when it does not turn as planned.   |             | X1_1_B7_Personal_Initiative |                            |

**Q2: Negociaciones**

- Please do not use a ranking scale but a 4-point Likert scale for each item (1 – very unlikely; 2 – unlikely; 3 – likely; 4 – very likely)

| Question  | Additional |  |  |
|---|------------|--|--|
| <b>Vignette 1</b>   |            |  |  |
| <i>The teacher asks the class to enroll in a science project. You are very excited about one particular project, but only one student can join the group dprojects of 5 persons that already exists. Anna your classmate wants to join the project too. When you sought advise from your teacher about it, she said that you should solve it on your own.</i> |            |  | X1_2_A_Negotiations_Yielding,<br>X1_2_B_Negotiations_Forcing,<br>X1_2_C_Negotiations_Compromising,<br>X1_2_D_Negotiations_Avoiding,<br>X1_2_E_Negotiations_Problem_Solving |
| <i>What to do?</i>  |            |  |  |
|   |            |  |  |

|  |             |                      |  |
|--|-------------|----------------------|--|
| <i>Order the following statements from 1: Your most probable answer to this situation to 5: Your least likely answer in this situation. Remember, there are no right or wrong answers to this question.</i>  |             |                      |  |
| A. I try not to hurt Anna. If the project is that important to her I don't want to stand in her way, there will be another opportunity for me in the future.   | From 1 to 4 | X1_2_1A_Negotiations |  |
| B. I try to convince Anna that I should be the one to join the group. I need to be firm in my position to win.   |             | X1_2_1B_Negotiations |  |
| C. I make a compromise to Anna so each one of us join half the time of the project. This is not what I want, but it is better than nothing.  |             | X1_2_1C_Negotiations |  |
| D. I don't want to antagonize Anna. I ask the teacher again to solve things since it was she that put us in that difficult situation.  |             | X1_2_1D_Negotiations |  |
| E. I need to find out more about Anna and ask her why she wants to join the project group. I am not sure but perhaps we can find a solution that works for both of us.   |             | X1_2_1E_Negotiations |  |
| <b>Vignette 2:</b>   |             |                      |  |
| <i>A friend's uncle gave him a scooter and you ask him about the bicycle that he is not using and you always wanted. But he wants to sell it for 40\$, which you can't afford.</i>   |             |                      |  |
| <i>What to do?</i>   |             |                      |  |
| <i>Organize the following 5 statements from 1 : Your most probable answer in this situation to 5 : Your least probable answer in this situation. Remember there are no right or wrong answers to this question.</i>  |             |                      |  |
| A. If this is what he is asking for, it is what he needs, after he demonstrates his good faith by charging only \$35, I don't want to take advantage of my friend more than needed. I ask my parents for money and close the deal.   | From 1 to 4 | X1_2_2A_Negotiations |  |
| B. I offer him \$10 and i show him my reluctance to make concessions. I know he might think I'm irrational. But I can only win if I stand firm in my position.   |             | X1_2_2B_Negotiations |  |
| C. I do a counter-offer of \$20 Which I think is a fair price for the bike. He offers me to split the difference in half, in \$30. This is still a little bit more than what I am willing to spend. But it is a fair solution. All the parties should compromise to negotiate and get to an agreement. |             | X1_2_2C_Negotiations |  |
| D. It is uncomfortable for me to drible with a friend like this. And I don't want to put the friendship at risk over an old bicycle. Even though I'm still interested in the bicycle, I tell him I will think about it and wait for him to make a better offer in the future.                          |             | X1_2_2D_Negotiations |  |

|   |  |                      |  |
|---|--|----------------------|--|
| E. You ask him what he wants to spend the \$40 on. You are not sure but perhaps you have something that is of value to him and that you can trade off in return for the bike. |  | X1_2_2E_Negotiations |  |
|---|--|----------------------|--|

## SECTION 2 - GENERAL COGNITIONS

### Q1: General Self-Efficacy (GSE)

| Question   | Additional  | Question Coding       | Aggregated Variable |
|--|-------------|-----------------------|---------------------|
| <i>In the last 3 months to what extent are these affirmations true to you?</i>   |             |                       |                     |
| <i>1= Not true at all 2= Hardly true 3= Moderately true 4= Absolutely true.</i>  |             |                       | X2_1_Self_Efficacy  |
| 1. I can find a way to get what I want even if someone opposes me  | From 1 to 4 | X2_1_1_Self_Efficacy  |                     |
| 2. I can solve difficult problems if I try hard enough.  |             | X2_1_2_Self_Efficacy  |                     |
| 3. it is easy for me to persist in what I have committed to until I achieve my goals.  |             | X2_1_3_Self_Efficacy  |                     |
| 4. I'm confident I could manage any unexpected events.   |             | X2_1_4_Self_Efficacy  |                     |
| 5. Thanks to my qualities and resources I can overcome unexpected events.  |             | X2_1_5_Self_Efficacy  |                     |
| 6. When I find myself in difficult moments I can remain calm because I have the necessary skills to manage difficult situations. |             | X2_1_6_Self_Efficacy  |                     |
| 7. Whatever it is, generally I'm able to handle it   |             | X2_1_7_Self_Efficacy  |                     |
| 8. I can solve most of the problems if I try hard enough.  |             | X2_1_8_Self_Efficacy  |                     |
| 9. If I find myself in a difficult situation, generally it occurs to me what to do about it.                                     |             | X2_1_9_Self_Efficacy  |                     |
| 10. When facing a problem usually I come up with different alternatives of how to solve it.                                      |             | X2_1_10_Self_Efficacy |                     |

### Q2: Youth Self-Efficacy (SEC-Q)

| Question   | Additional  |                            |                          |
|--|-------------|----------------------------|--------------------------|
| <i>In the last three months , what is your</i>   |             |                            |                          |
|  |             |                            |                          |
| <i>Each item must be rated on a scale of 5 points with 1 = not at all and 5 = very good.</i> |             |                            |                          |
| <b>Social self-efficacy</b>  |             |                            | X2_2_Youth_Self_Efficacy |
| 1. Express your opinions when your classmates don't agree with you?                          | From 1 to 5 | X2_2_1_Youth_Self_Efficacy |                          |
| 3. Maintain a conversation with a stranger?  |             | X2_2_2_Youth_Self_Efficacy |                          |
| 4. Work in harmony with your classmates?   |             | X2_2_3_Youth_Self_Efficacy |                          |

|   |  |                             |  |
|---|--|-----------------------------|--|
| 5. Tell other kids they are doing something you believe is wrong? |  | X2_2_4_Youth_Self_Efficacy  |  |
| 7. Succeed keeping a friendship with other kid?                   |  | X2_2_5_Youth_Self_Efficacy  |  |
| 8. Successfully prevent fights with other kids?                   |  | X2_2_6_Youth_Self_Efficacy  |  |
| <b>Emotional self-efficacy</b>                                    |  |                             |  |
| 1. Manage to be cheerful when an unfortunate event has occurred   |  | X2_2_7_Youth_Self_Efficacy  |  |
| 2. Being able to feel calm after being frighten.                  |  | X2_2_8_Youth_Self_Efficacy  |  |
| 3. Avoid feeling nervous?   |  | X2_2_9_Youth_Self_Efficacy  |  |
| 4. Control your feelings?   |  | X2_2_10_Youth_Self_Efficacy |  |
| 7. Repress successfully unpleasant thoughts.                      |  | X2_2_11_Youth_Self_Efficacy |  |
| 8. Stop worrying about things that could happen?                  |  | X2_2_12_Youth_Self_Efficacy |  |

**Q3: Perceived Subsidiary Self-Efficacy Scale**

| Question   | Additional  |                            |                          |
|--|-------------|----------------------------|--------------------------|
| 1 – 7: not good at all– Very good.   |             |                            |                          |
| Considering your relationship with your parents in the last three months what would be your capacity to: |             |                            | X2_3_Self_Efficacy_Scale |
| 1. Dialogue with your parents even when your relationship is tense.                                      | From 1 to 5 | X2_3_1_Self_Efficacy_Scale |                          |
| 2. Talk to your parents about personal issues.   |             | X2_3_2_Self_Efficacy_Scale |                          |
| 4. Avoiding that differences of opinions lead to a confrontation with your parents.                      |             | X2_3_3_Self_Efficacy_Scale |                          |
| 6. Make your parents understand your point of view on issues you have a different approach.              |             | X2_3_4_Self_Efficacy_Scale |                          |
| 8. Expressing your disagreement with your parents without loosing your composure.                        |             | X2_3_5_Self_Efficacy_Scale |                          |
| 9. Get that your parents pay attention to your needs even when they are busy with their own problems.    |             | X2_3_6_Self_Efficacy_Scale |                          |
| 13. Accept your parents' criticisms about you without feeling offended.                                  |             | X2_3_7_Self_Efficacy_Scale |                          |
| 14. Increase the trust and recognition to you from your parents.   |             | X2_3_8_Self_Efficacy_Scale |                          |

**Q4: Growth Mentality**

| Question   | Additional |  |  |
|--|------------|--|--|
| Read each following sentence and circle the number that shows your degree of acceptance. |            |  |  |

|  |             |                         |                       |
|--|-------------|-------------------------|-----------------------|
|  |             |                         |                       |
| <i>There are not correct or incorrect answers.</i>   |             |                         |                       |
| <i>(Strongly agree- Strongly disagree)</i>   |             |                         | X2_4_Growth_Mentality |
| 1. <i>You can learn new things, but you can't really change the level of basic intelligence.</i> | From 1 to 5 | X2_4_1_Growth_Mentality |                       |
| 2. <i>You have certain amount of intelligence and there is not much to do to change it.</i>      |             | X2_4_2_Growth_Mentality |                       |
| 3. <i>Our intelligence is something very much ours that can't be change much</i>                 |             | X2_4_3_Growth_Mentality |                       |

**Q5: Self-Concept Scale**

| Question   | Additional |                       |                                  |
|--|------------|-----------------------|----------------------------------|
| <i>This questionnaire measures a variety of feelings and behaviors in several situations. A series of statements are listed below. Read each one as if it was referred to you.</i>                         |            |                       |                                  |
| <i>According to each statement write the number that best describe your acceptance or disagreement. Please respond to all statements. Rate in a 7-point scale from strongly disagree to strongly agree</i> |            |                       |                                  |
| <b>Escala de Autoconcepto I partA</b>  |            |                       | X2_5_A_Self_Concept_Independent  |
| 1. I enjoy being unique and different from others in several aspects.  |            | X2_5_A1_Self_Concept  |                                  |
| 2. I can openly talk to a person I met for the first time, even when that person is a lot older than me.   |            | X2_5_A2_Self_Concept  |                                  |
| 3. I do my own things, no matter what others thing.  |            | X2_5_A3_Self_Concept  |                                  |
| 4. I feel it is important for me to act like an independent person.  |            | X2_5_A4_Self_Concept  |                                  |
| 5 I rather say "NO" at first than risk being misunderstood.  |            | X2_5_A5_Self_Concept  |                                  |
| 7. I rather being forward and honest when I deal with people I just met.   |            | X2_5_A6_Self_Concept  |                                  |
| 8. I feel comfortable getting compliments and rewards.   |            | X2_5_A7_Self_Concept  |                                  |
| 9. Talking during class (or reunion) is not a problem for me.  |            | X2_5_A8_Self_Concept  |                                  |
| 10. I always act the same no matter who I am with.   |            | X2_5_A9_Self_Concept  |                                  |
| 14. I behave the same in my house and at school.   |            | X2_5_A10_Self_Concept |                                  |
| 15. I try to do what's best for me , no matter how that affect others.   |            | X2_5_A11_Self_Concept |                                  |
| <b>Escala de Autoconcepto I partB</b>  |            |                       | X2_5_B_Self_Concept_Intdependent |

|   |  |                       |  |
|---|--|-----------------------|--|
| 1. Even when I disagree completely with the members of the group I avoid a discussion.            |  | X2_5_B1_Self_Concept  |  |
| 2. I respect the authority figures that I interact with.  |  | X2_5_B2_Self_Concept  |  |
| 3. I respect people that are modest about themselves  |  | X2_5_B3_Self_Concept  |  |
| 4. I would sacrifice my own interests in benefit of the group that I belong to.                   |  | X2_5_B4_Self_Concept  |  |
| 5. I must consider my parents advice when making educations and career plans.                     |  | X2_5_B5_Self_Concept  |  |
| 9. Sometimes I feel like my relationship with others are more important than my own development.  |  | X2_5_B6_Self_Concept  |  |
| 10. I would offer my seat to my teacher on a bus  |  | X2_5_B7_Self_Concept  |  |
| 11. I feel happy when people around me are happy.   |  | X2_5_B8_Self_Concept  |  |
| 12. I would stay in the group if they need me , even when I'm not happy with the group.           |  | X2_5_B9_Self_Concept  |  |
| 14. It is important for me that everybody gets along in the group.                                |  | X2_5_B10_Self_Concept |  |
| 15. In general, I agree with what others want to do even when I prefer to do something different. |  | X2_5_B11_Self_Concept |  |

#### Q6: Self-Regulatory Focus

| Question   | Additional |                         |                                   |
|--|------------|-------------------------|-----------------------------------|
| <i>and circle the number that shows your degree of acceptance. There are not right or wrong answers. (strongly agree</i> |            |                         |                                   |
| <b>Self-Regulatory Focus I partA (Enfoque de Prevención)</b>   |            |                         |                                   |
| <i>Prevention Focus</i>  |            |                         | X2_6_A_Self_Regulatory_Prevention |
| 1. I generally focus in prevent negative events to happen in my life.  |            | X2_6_A1_Self_Regulatory |                                   |
| 2. I feel anxious about not being able to achieve my responsibilities and obligations.                                   |            | X2_6_A2_Self_Regulatory |                                   |
| 3. I often think in the person I'm afraid I would become in the future   |            | X2_6_A3_Self_Regulatory |                                   |
| 4. I worry often about not achieving my academic goals.  |            | X2_6_A4_Self_Regulatory |                                   |
| 6. I often think of how to prevent making mistakes in my life.   |            | X2_6_A5_Self_Regulatory |                                   |
| 8. My main goal in school at the moment is to avoid being incompetent academically.                                      |            | X2_6_A6_Self_Regulatory |                                   |
| <b>Self-Regulatory Focus I partB (Enfoque de Promoción)</b>  |            |                         |                                   |
| <i>Promotion focus</i>   |            |                         | X2_6_B_Self_Regulatory_Promotion  |

|   |  |                         |  |
|---|--|-------------------------|--|
| 1. Frequently, I think in how to achieve my hopes and aspirations.            |  | X2_6_B1_Self_Regulatory |  |
| 2. I often think in the person that I would like to be in the future.         |  | X2_6_B2_Self_Regulatory |  |
| 3. Normally I focus on the success I hope to achieve in the future.           |  | X2_6_B3_Self_Regulatory |  |
| 4. I often think on how to achieve academic success.                          |  | X2_6_B4_Self_Regulatory |  |
| 5. My main goal at school in this moment is to achieve my academic ambitions. |  | X2_6_B5_Self_Regulatory |  |
| 8. I often imagine myself experimenting good things that I hope happen to me. |  | X2_6_B6_Self_Regulatory |  |

**Q7: Short Grit Scale (Grit-S)**

| Question  | Additional  |             |             |
|---|-------------|-------------|-------------|
| <i>Likert scale of 5 points that goes from 1 (Strongly disagree) to 5 (Strongly agree)</i>                |             |             | X2_7_Grit_S |
| 1. I often set a goal but later chose to pursue a different one.  | From 1 to 5 | X2_7_1_Grit |             |
| 2. I have been obsessed with certain idea or project for a short period of time but later I lose interest |             | X2_7_2_Grit |             |
| 4. The new ideas or projects often distract me from the prior ones.                                       |             | X2_7_3_Grit |             |
| 5. I rarely finish what I begin.  |             | X2_7_4_Grit |             |
| 6. Setbacks discourage me.  |             | X2_7_5_Grit |             |
| 8. I am not a very diligent student.  |             | X2_7_6_Grit |             |

**SECTION 3 - ENTREPRENEURIAL COGNITIONS (ENTREPRENEURIAL MINDSET)**

**Q1: Business Self-Efficacy**

| Question  | Additional | Question Coding           | Aggregated Variable    |
|---|------------|---------------------------|------------------------|
| <b>How interested are you in:</b>                                       |            |                           | X3_1_Bus_Self_Efficacy |
| Start a company.  |            | X3_1_A1_Bus_Self_Efficacy |                        |
| Work on your own.   |            | X3_1_A2_Bus_Self_Efficacy |                        |
| Detect business opportunities.  |            | X3_1_A3_Bus_Self_Efficacy |                        |
| Overcome any problems you might have in the beginning of your business. |            | X3_1_A4_Bus_Self_Efficacy |                        |
| Negotiate appropriately with other entrepreneur .                       |            | X3_1_A5_Bus_Self_Efficacy |                        |
| Maintain an appropriate overview of financial affairs.                  |            | X3_1_A6_Bus_Self_Efficacy |                        |
| Prepare and adequate business plan.                                     |            | X3_1_A7_Bus_Self_Efficacy |                        |
| Get the financial capital to start the business.                        |            | X3_1_A8_Bus_Self_Efficacy |                        |
| <b>How confident are you that you could...</b>                          |            |                           |                        |
| Start a company.  |            | X3_1_B1_Bus_Self_Efficacy |                        |
| Work on your own.   |            | X3_1_B2_Bus_Self_Efficacy |                        |
| Detect business opportunities.  |            | X3_1_B3_Bus_Self_Efficacy |                        |
| Overcome any problems you might have in the beginning of your business. |            | X3_1_B4_Bus_Self_Efficacy |                        |
| Negotiate appropriately with other entrepreneur .                       |            | X3_1_B5_Bus_Self_Efficacy |                        |
| Maintain an appropriate overview of financial affairs.                  |            | X3_1_B6_Bus_Self_Efficacy |                        |
| Prepare and adequate business plan.                                     |            | X3_1_B7_Bus_Self_Efficacy |                        |
| Get the financial capital to start the business.                        |            | X3_1_B8_Bus_Self_Efficacy |                        |

**Q2: Identifying Opportunities**

| Question   | Additional |                  |                |
|--|------------|------------------|----------------|
| (Answer in whole numbers)  |            |                  | X3_2_Bus_Oport |
| 1. How many opportunities to create a company have you detected in the last three months.  |            | X3_2_1_Bus_Oport |                |
| 2. Of all those opportunities, in your opinion how many of them were promising to create profitable business.                    |            | X3_2_2_Bus_Oport |                |
| 3. How many opportunities to create a company you have started, that you compromise time and resources in the last three months. |            | X3_2_3_Bus_Oport |                |

**Q3: Business Attitudes**

| Question   | Additional |                       |                    |
|--|------------|-----------------------|--------------------|
| <i>Start a new company</i>   |            |                       | X3_3_Bus_Attitudes |
| <i>(Likert scale from 1= Strongly disagree<br/>5 = Strongly agree)</i> |            |                       |                    |
| 1. It is a good opportunity to make a living.                          |            | X3_3_1_Bus_Attitudes  |                    |
| 2. It is financially attractive.                                       |            | X3_3_2_Bus_Attitudes  |                    |
| 4. It is a safe and stable source of income.                           |            | X3_3_3_Bus_Attitudes  |                    |
| 5. It means to have control  |            | X3_3_4_Bus_Attitudes  |                    |
| 6. It means to have authority  |            | X3_3_5_Bus_Attitudes  |                    |
| 7. It involves a lot of work.  |            | X3_3_6_Bus_Attitudes  |                    |
| 8. It means less time available to do other things.                    |            | X3_3_7_Bus_Attitudes  |                    |
| 10. Very exciting.   |            | X3_3_8_Bus_Attitudes  |                    |
| 12. It is an opportunity to make your dreams come true.                |            | X3_3_9_Bus_Attitudes  |                    |
| 13. It means freedom.  |            | X3_3_10_Bus_Attitudes |                    |
| 14. You obtain respect from others.                                    |            | X3_3_11_Bus_Attitudes |                    |
| 15. You obtain admiration from others.                                 |            | X3_3_12_Bus_Attitudes |                    |

**Q4: Social Entrepreneurship Standards**

| Question   | Additional |                     |                   |
|--|------------|---------------------|-------------------|
| <i>and friends. In what extent they would agree if you decided to create</i> |            |                     | X3_4_Social_Norms |
| 1. My immediate family (parents and siblings)                                |            | X3_4_1_Social_Norms |                   |
| 2. Closest friends   |            | X3_4_2_Social_Norms |                   |
| 3. My teachers.  |            | X3_4_3_Social_Norms |                   |