TITLE: Perceived versus real benefit of a Google Career Certificate in enhancing the employability of young, non-Elite Moroccan women.

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RESEARCH PLAN

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INTRODUCTION AND JUSTIFICATION OF THE TOPIC OF STUDY (50 LINE MAXIMUM):

Young women in Morocco faced a myriad of challenges in finding employment before the COVID-19 pandemic. Many of those problems have been compounded by the virus. Compared to their male counterparts, women do much worse in both urban and rural areas in finding employment. Prior to the pandemic, the unemployment rate for young women in urban areas was nearly 50 per cent, whereas it was approximately 35 per cent for young men, yet less than 12 per cent of young women were economically active in urban areas (ILO, 2018).

The Moroccan job market suffers from deficiencies in the following areas: a weak degree of inclusion of women and youth (the market is very rigid); weakness in the creation of jobs in the formal sector (most companies are old, large, and selective); and weakness in the quality of work, low productivity, and a lack of professionalism (about half of working men are salaried) (Le Marché du Travail au Maroc: Défis et Opportunités, 2017). Statistically, education is a key to enhancing one's job prospects. However, unemployment rates in Morocco go up as one's level of formal education goes up (ILO, 2018). With a competitive urban jobs market, young Moroccans stay in school longer hoping to get a better job through more education. Yet Moroccans with less education often find work easier than do graduates with higher degrees (www.AfricaEcon.org, n.d.).

What's complicated for Moroccan men becomes more complicated for women due to social mores and tradition, this despite government efforts. Families and communities often push girls to consider the fields of education, health, social services, humanities and the arts, while discouraging the pursuit of scientific or engineering-related fields (ILO, 2018). Socially acceptable careers are further reinforced and promoted by institutions designed to empower women to achieve their "full potential" through vocational training in things "that women do," i.e. culinary arts, sewing, beauty and hair-dressing. Moreover, society frowns upon the mixing of unrelated men and women in public spaces, e.g. the workplace (Ibid).

Recognized barriers to the economic empowerment of young Moroccan women include the following (Ibid):

- Largely unpaid family work, or home-based crafts, food-processing and textile making
- A skewed perception of opportunity due to the division of roles based on gender, and reinforced by stereotypes, including education beyond primary school
- A lack of information about markets, including needs and opportunities
- Limited access to context-relevant, technical, and market-driven vocational training
- Limited access to on-the-job experience and meaningful internships
- Limited access to information and job support services including technical and entrepreneurial information, local knowledge and resources
- Limited knowledge of banking and access to financial services

For women, especially young women, there is an acute need for a paradigm shift. Natalie Van Kleef Conley, product lead for the Google IT Professional Certificates, seems to claim that Grow with Google can provide that change. Grow with Google's IT Professional Certificates is part of Google's initiative to create economic opportunity globally. According to her, Google IT Professional Certificates are key to removing barriers to opportunity by addressing many of the barriers to the job market that young Moroccan women face (Google IT Support Professional Certificate, 2020).

The IT Professional Certification scheme claims to be stackable, aligned to industry needs, designed for computer novices to gain the necessary requisites for entry level IT jobs in under six months, to solve the dilemma of not having on-the-job experience through a mix of hands-on labs and other interactive assessments troubleshooting real-job situations. This program is specially conceived for nontraditional learners (Ibid).

To date, it remains unseen if the Google IT Professional Certificates can assist young Moroccan women enter the jobs market as they have in Western countries. As the certification courses can be done from home online, and as there is a growing need for IT professionals in Morocco and beyond, I propose to study the potentiality of a Google IT Professional Certification course leading to employment in three control groups of young Moroccan women.

WORKING HYPOTHESIS AND PRINCIPAL OBJECTIVES SOUGHT (50 LINE MAXIMUM):

Based on the Google claim that they created in their IT Professional Certificate program a handson online course designed for beginner learners, i.e. learners with no prior tech background, to find entry level jobs in under six months, the expected result would presumably be that successful subjects find employment within 12 months of starting the Google course. However, it is yet to be seen how the Euro-American centric professional certification course is suited to the realities of young women in Morocco. This study will endeavor to gauge to what degree this course is suited to a small segment of the Moroccan society, i.e. young women from non-elite backgrounds in entering the jobs market at qualified technicians.

Research questions:

What are general attitudes of families towards alternative training programs: i.e. online certificate programs, prior to starting a course, at different points during the course, e.g. monthly, as the completion of the course before the job search begins, and finally at the end of the six month period after the completion of the course.

These attitudes will also be asked and recorded of program participants.

Were participants successful in finding employment and IT-related field at any time during the six months after certification, and if so, what are the details about the job, and do they align with Google's claims in their promotion of the program? How many participants were successful, and how does each individual participant define success? For those who complete the course but did not find any employment in the IT sector, what do those participants attribute the lack of a job to?

What are the general impressions of the program by participants, and what are their critiques of the program?

How many study participants who finish the certification course plan to continue on to other courses, why, or why not? For any participant who does not complete the certification course in the six-month deadline, what are the reasons given from the participant, and what role did the GOOGLE IT Professional Certificate program design play, in any, in the participant's failure to complete the course in the timeline.

Other questions will arise during the course regarding cultural, social, educational, linguistic, and economic differences between the language and references used in the course, and those of the participants.

The overall objective of this research project is to see if, and how, the GOOGLE IT Professional Certificate program as is, is practical and useful for young, non-elite Moroccan women to use a gateway to working in the IT field with no other prior or concurrent IT certification.

METHODOLOGY TO BE USED (PROVIDE CONSENT FORMS/REPORTS/PROTOCOLS GUARANTEEING BIOETHICS/BIOSECURITY IF REQUIERED BY THE TYPE OF EXPERIMENTATION) (50 LINE MAXIMUM):

This study will take an explanatory approach seeking to explain observed phenomena, problems, and behaviors of the program participants. It will attempt to "connect the dots" by identifying causal factors and outcomes of the study groups (Bhattacherjee, 2012).

This unit of analysis for this study will be based on the individual first, and the group second. It proposes to collect data from 12-18 young Moroccan women grouped into the following categories: A. without a high school baccalaureate, B, 18-26 years old with a high school baccalaureate, and C, with some degree of university studies. All participants will be at least 18 years old, but not yet 27 years old at the study conclusion, i.e. 12 months from the start of the IT

Professional Certification course. No participant shall have any ICT industry recognized badge, or certification, nor shall they be in any course at the start of this study.

This study will make use of extensive questionnaires of program participants prior to the start of the certification course, weekly during it, and weekly from the successful completion of the course through the full six months after it. By having each participant respond to a set of standardized questions, patterns, if any, will be detected and analyzed. Furthermore, variance between groups will also be analyzed to see what role, if any, education level plays in the successful completion of the certification course, as well as finding a job in the six months following the course.

Because the certification program in is English, the questionnaires will be in English, with optional "additional comments" sections for participants to use English or Darija, i.e. Moroccan Arabic. Family inquires and surveys will be translated from English into Darija prior to deployment, so families will have questionnaires and program documents in the local dialect of Arabic, i.e. Darija.

As this is a research study involving human participants, care will be taken to mitigate potential risks to participants, including their physical and psychological well-being, confidentiality and privacy, and autonomy, among others. It will adhere to the Belmont Report 1979, USAL IRB guidelines for human test subjects, and the 2018 *Ethical Guidelines for Educational Research* (https://www.bera.ac.uk/researchers-resources/resources-for-researchers) of the British Educational Research Association (BERA).

This PhD thesis is developed in collaboration with the GRIAL Research Group of the University of Salamanca (García-Peñalvo, Therón, et al., 2019; GRIAL, 2019)

MATERIAL MEANS AND RESOURCES AVAILABLE (50 LINE MAXIMUM):

This work is developed in the PhD program of the Education in the Knowledge Society (García-Peñalvo, 2014, 2019; García-Peñalvo et al., 2019), accessible through its portal at http://knowledgesociety.usal.es, being the main tool of communication and visibility of its advances (García-Holgado et al., 2015; García-Peñalvo et al., 2019). It will include all the publications, stays and attendance at conferences during the course of the work.

The means and material resources available are primarily bibliographic and technological.

The bibliographic resources are abundant and are found in the libraries of the universities from which the research is carried out, as well as with on-line libraries and resources. Primary among them is:

Francisco de Vitória Library - USAL, Salamanca - Spain;

CEMUSA - Center for Women's Studies - USAL - Salamanca, Spain;

TALIM Research Library - The American Legation - Tangier, Morocco.

Among the technological resources, it is essential to mention IT resources, e.g. specific research software, general use apps. Once the field work has been carried out, the questionnaires have been collected, the data processing and analysis will be carried out through SPSS-AMOS and R. The appropriate analysis for this type of information will be mainly descriptive (measures of central tendency, deviation, position and shape). The rest of the software used will be common Google e.g. Google Forms, Microsoft Office e.g. Excel, and ZOOM.

Regarding travel, the research will be carried out in large part via telecommuting, especially given the current travel complications due to the COVID-19 pandemic. (Daniel, 2020; García-Peñalvo & Corell, 2020; García-Peñalvo, et al. 2020).

Recruiting of program participants will be aided by known networks, including, but not limited to the following NGOs and associations: Lerchundi Martil, American Language Centers, JOSSOUR, Union National des Femmes du Maroc, as well as public schools, and local governments.

TIMING SCHEDULE OVER THREE YEARS / FIVE YEARS (Part time)(50 LINE MAXIMUM):

- 1. Research the current topic and building a bibliography: June 2020 present.
- 2. Recruiting program participants, and preparing forms (including translations), and conducting initial interviews: December 2020 March 2021.
- 3. GOOGLE IT Professional Certification MOOC: spring 2021 (duration six months), followed by 6 months post-completion student tracking. During this 12-month period, there will be weekly participant surveys and regular teleconferences.
- 4. Analysis of the data using analytic software, including review by external evaluators: summer 2022 fall 2022.
- 5. Drafting of chapters of final thesis: winter 2023 fall 2023.
- 6. Presentation in conferences and impactful publications: summer 2022 fall 2023.
- 7. End of writing and review of all blocks of the thesis: fall 2023 winter 2024.
- 8. Thesis reading: spring 2024.

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