

LEARNING THROUGH MICRO-CREDENTIAL EXPERIENCES IN PUERTO RICAN STUDENTS: AN EXPLORATION OF BANK OF AMERICA JOBS INITIATIVE (BOFA) PERCEIVED VALUE

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Full Paper
Experiential Track

ABSTRACT

This study uncovers students, professors, and employers' perceived value of micro-credential certification programs. Using a phenomenological methodology, we unveiled the meaning of participants' shared experiences. We performed a narrative analysis of students' written assessments and built a robust information-gathering structure with professors'/employers' interviews. The construction of the certification perceived value is mainly based upon the affective domain of learning, producing connected representations from participant students, employers, and professors. For students, those representations include power, effort, nourishment, and closeness. For employers, themes are benefit and construction/deconstruction, whereas professors emphasized the figure of the teacher and freedom. Those representations build a figure of value perceived of the micro-credential consisting of knowledge, development tools, and affective connections in the context of deinstitutionalization processes.

Keywords: *Micro-credentials, affective domain, student learning, active learning, personal and professional relevance*

INTRODUCTION

A Puerto Rican student participating in the Bank of America Jobs Initiative (BofA) micro-credentials program described his experience in BofA as “a feeling of empowerment; I describe it as strength, power, hope”¹. This quote is representative of the impact that micro-credentials can have on the students. Micro-credentials offer participants an alternative approach to career and professional development because of the increased demand for cognitive and soft skills in the workplace (Ruddy & Ponte, 2019). Consequently, universities are increasingly adopting micro-credentials as an alternative to reinforce or build those competencies (Hansen, 2021; Rudy & Ponte, 2019; Brown and Mhichil, 2022). These workshops are usually structured with the support of the industries' feedback, recommendations, experiences, and college professors' expertise in the needed areas.

The School of Business Administration of the University of Puerto Rico, Río Piedras Campus (UPRRP), with the financial support of the Bank of America Jobs Initiative (BofA), provided a micro-credential workshop program to students throughout the public higher education system. From August 2021 to December 2022, 149 participants completed their BofA certification. Workshop offerings were created around the following topics: 1) leadership and oral communication in English, 2) critical and creative thinking, 3) negotiation and conflict management, 4) financial perspicacity and personal finance, 5) project management, and 6) technology skills. Student participation was voluntary and did not lead to a degree.

As educational institutions envision their routes, it is essential to examine how the participants in these programs perceive micro-credentials. However, researchers focusing on this topic have all agreed on the need for more literature and studies on micro-credentials impact. Thus, this study explores the perceived value of BofA micro-credentials based on the portrait presented by participating undergraduate students, professors, and employers employing a phenomenological methodology. Specifically, we aim to examine the target population's perception through the following general research question: What is the perceived value of BofA micro-credentials for undergraduate business students, professors, and employers who participated in the experience? Understanding how participants perceive the value of this certification will pave the way for continuous improvement of the initiative. This will facilitate providing students with specific sets of knowledge, skills, and abilities in their transition to the job market, aiming in the long term to foster social mobility. At the same time, exploring the BofA micro-credential perceived value may unveil clues on institutional change processes within our public educational system.

In line with the aim of this study, the construction of BofA perceived value is mainly based upon the affective domain of the learning taxonomy (Krathwohl *et al.*, 1964). Learning aspects created intertwined representations from participant students, employers, and professors. For students, those representations include power, effort, nourishment, and closeness. For

¹ Es un sentimiento de empoderamiento, lo describo como fuerza, poder, esperanza.

employers, themes are benefit and construction/deconstruction, whereas professors emphasize the figure of the teacher and freedom. Finally, traces of deinstitutionalization (Scott, 2008) were revealed

LITERATURE REVIEW

Voices supporting micro-credential programs *Higher education and employability*

According to Hansen (2021), universities must provide students with the necessary skills to compete in local and global career markets. Accordingly, higher education institutions can collaborate with industry executives to align the university academic curriculums and identify skills leading to employability (Chamorro & Frankiewicz, 2019). Employers seek candidates with strong, soft skills, such as empathy, communication, interpersonal and people skills, resilience, and integrity, which are seldom taught in university curricula. As a result, entry-level professionals often find themselves with knowledge gaps, placing them at a competitive disadvantage in the job market. Given these skills gaps, higher education institutions increasingly provide training with micro-credential programs. Thus, the education system is being reevaluated and is evolving to increase the connection between higher education and employability (Hansen, 2021).

Effectiveness of micro-credentials

Coursera (2023) conducted a study with nearly 5,000 students and employers in 11 countries. The study uncovered that 90% of the participating students agreed that micro-credentials would secure them a job in the future; 88% of the employers agreed that a micro-credential program helped candidates stand out in the workforce, and 72% of the employers were more likely to hire candidates with both a degree and an industry micro-credential. Coursera (2023) also showed that 95% of university leaders in the U.S. agreed that industry micro-credential programs would be critical in higher education.

According to Ahn *et al.* (2014), micro-credentials have proven to be effective in building soft skills, among other competencies, and simultaneously have engaged and motivated students because of the activities' perceived benefits, dynamism, and short-term character. Micro-credential programs offer training in various fields to enhance participants' skills and knowledge and add practicality to students' academic experience (Ghasia *et al.*, 2019). These programs can include learning-specific needs, digital badges, micro-certifications, or nano degrees (Fisher & Leder, 2022; Gish-Lieberman *et al.*, 2021). The goal of micro-credential programs is to provide more support to self-regulated learning. According to Copenaver and Pritchard (2017), micro-credential programs aim to display the value and variety of specialized skills to improve job performance.

Opposing views to micro-credentials

Deinstitutionalization and Privatization

One big concern of those opposing micro-credentials is the deinstitutionalization and privatization of public higher education. Scott (2008) discusses the conceptual framework of deinstitutionalization, which refers to the processes where institutions weaken and disappear. Deinstitutionalization is a response to the growing recognition that higher education patterns have become increasingly ineffective when compared to micro-credentials, new increasing trends in higher education, and a highly technological generation focus on fast learning and vocational education (Scott, 2008; Wheelaha & Moodie, 2022; Woods & Woods, 2021; Ruddy Ponte, 2019; Melesse *et al.*, 2022). Another observation made by opposing views on micro-credentials is the rising trend of privatization of higher education services. Public universities' most important mission is to make themselves available to all social classes and to provide opportunities to the most disadvantaged. Many micro-credentials entail a partnership between universities and for-profit entities to deliver education (Wheelaha & Moodie, 2022). The relationship between the private sector and public education systems can encourage the blurring of the line between public and private, thus privatizing educational services.

Solving workplace demand instead of serving society at large

Micro-credential opponents claim that higher education systems serve society, not just private corporations and industries (Wheelaha & Moodie, 2022; Ralston, 2021). Higher education's vision is to prepare individuals to meet life's demands, not the skills demanded by jobs. This means that universities providing micro-credentials are reorienting educational purposes to employment, as teaching skills have become a credential to mainly solve the problem of work demand. The rich experience and transformative effect of education are being slowly lost to profit-oriented and amplifying efficiency in corporate efforts.

Lack of Accreditations

Another argument presented against micro-credentials is the accreditation processes. Accreditations add value to educational programs. They also provide a uniform, stable structure to academic programs. Still, micro-credential programs are rarely accredited (Ralston, 2021). Skeptics of micro-credentials often question the stability and uniformity of these programs. Thus, many claim that potential or future employers can determine which certification or degree has more validity and is more challenging to earn: a university degree or a micro-credential certificate in specific disciplines (Doran, 2017).

Domains of learning

We used a theoretical framework on dimensions of learning to understand the perceived value of micro-credential programs. The learning domains have been categorized as cognitive, psychomotor, and affective, as discussed by the Taxonomy of Learning Domains (Bloom *et al.*, 1956). The cognitive domain includes levels of knowledge, whereas psychomotor refers to those aspects related to movement/coordination, and the affective domain outlines how education affects attitudes, behaviors, feelings, and emotions (Bloom *et al.*, 1956; Krathwohl *et al.*, 1964; Hoque, 2016). The affective domain is of particular importance for the learning process. Researchers have underlined the significance of providing students with a teaching approach that increases their satisfaction levels but, most importantly, that produces an emotional and affective connection throughout their educational experience (Nix *et al.*, 2021; Urrutia *et al.*, 2019; Korbela & Paulusa, 2018; Dean *et al.*, 2020; Rasiah *et al.*, 2019; Mura *et al.*, 2021). Students positively impacted by affective teaching approaches will display increased emotional intelligence. This, in turn, will produce a workforce with high and effective performance, highly developed social awareness, self-management, empathy, and interpersonal skills (Rasiah *et al.*, 2019; Mura *et al.*, 2021). Weekly formative assessment activities and incorporating feedback reduced adverse emotional effects and thus increased students' satisfaction levels (Nix *et al.*, 2021; Venkata & Veerraghava, 2022; Mura *et al.*, 2021). Urrutia *et al.* (2019) found active teaching techniques can significantly impact students' cognitive and affective development. Korbela and Paulusa (2018) uncovered a connection between innovative teaching strategies and increased socio-emotional impact on students by demonstrating that providing small group dynamics increased students' emotional connection, self-confidence, and motivation. Dean *et al.* (2020) explored the learning journeys and strategies for increasing student affective bonds. The authors identified that courses providing students with academic advice, intellectual stimulation, and supportive relationships with professors increased students' emotional levels. Mentorship is also an important component, and Holloway-Friesen (2021) found that mentoring students can enhance confidence, self-esteem, and academic self-efficacy. Arboleda and Alonso (2017) established a strong connection between positive emotions and the affective approach provided by the institution and its service, and students' loyalty and emotional state. James & Yun (2017) and Luo *et al.* (2019) found that the most critical factors in achieving student satisfaction and a positive emotional state were the overall academic experience and quality of instruction.

METHODOLOGY

Research Design

This research is based upon a qualitative paradigm, employing a phenomenological methodology. According to Creswell (2007), a phenomenological approach is adequate for education when studying a group of individuals sharing an experience. This methodology looks for the structure of the concrete experiences lived by the participants in their life world (Husserl, 1965; Stewart & Mickunas, 1974; Aoki *et al.*, 2022). Phenomenological research is a valuable approach to studying the affective dimension of learning because it focuses on subjective experiences and meanings. It allows one to gain a deep understanding of how emotions influence the learning process since its focus is to understand the essence of the lived phenomenon. The background consists of six micro-credential courses on the BofA Certification. The six courses were repeated four times using different modalities: hybrid (August–December 2021), in-person (January – May, and August - December 2022), and online (Summer 2022). The justification for employing this approach is because its focus is providing a philosophy for the lived experience of the BofA certification to answer the research question: What is the perceived value of BofA micro-credentials for undergraduate business students, professors, and employers that participated in the experience?

Information Sources

Information was collected from three sources. The first source consisted of a written assessment of the 149 students who successfully completed the certification during the mentioned period. The participating students' profile is predominantly young women (64%) from the UPRRP (82%), majoring in Business Administration (61%). About half of the students live in the northeastern area of Puerto Rico (52%). Most are enrolled at the UPRRP (83%), and 54% have a GPA of 3.5 and higher. The students answered two questions upon completing the Certification: (1) What did you like best about the Bank of America Jobs Initiative Professional Certificate? (2) What was the most difficult aspect of this Bank of America Jobs Initiative Professional Certificate? The analyzed narrative was the students' final written assessments of the certification. The second

source of information came from interviews with four professors (all men) teaching the courses. The third and last source of information was interviews with three participants (one woman and two men) who were employers involved with the certification planning. A semi-structured questions interview protocol was performed on each participant to unveil meanings and interpretations of the phenomena (see Appendix #1 for the list of questions). The professors' and employers' testimony provided another dimension of the experience that, although student-centered, can enrich perspectives and offer a robust construction to answer the research question (Creswell, 2007).

Analysis Procedure

We used a modified version of Giorgi & Giorgi's (2009) method to analyze the written assessment of students and the interviews. First, we took a general look at the information presented in the whole text of the written assessment for a first impression to gain a preliminary sense of the content. Second, we highlighted the essential phrases within the text, line by line. Third, we grasped specific themes from those phrases. Fourth, we derived general themes. Fifth, we categorized broad themes and subthemes according to the relative importance of other topics mentioned in the experience. We also divided the analysis into two groups following the questions protocol of (1) what students liked the most and (2) the most significant challenge in intending to identify the essence of the experience through a standard discursive line (Yin, 2011; Creswell, 2007). Finally, we inserted another analytical step that marks the difference from Giorgi & Giorgi (2009) methodology. Based on Creswell (2007), we made a frequency analysis to compare the three specific modalities of the workshops (online, hybrid, and face-to-face) and verify if there were variations in discourse.

DISCLOSURE STATEMENT

The authors reported no potential conflict of interest.

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APPENDIX #1

List of semi-structured questions for participating professors and employers

- Tell me the story of how you got involved in this experience
- Why did you agree to participate?
- What effects do you think this micro-credential will have on participating students?
- Which advantages and disadvantages do you consider this type of certification may have?
- What is the value you perceive of this certification?
- Do you have any recommendations to improve or expand the micro-credential certifications?