

Social entrepreneurship education: changemaker training at the university

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Abstract

Purpose – This study aims to contribute to the body of scientific knowledge about teaching and promoting social entrepreneurship in higher education institutions (HEIs) based on a measurement before and after concluding an educational experience.

Design/methodology/approach – It tests hypotheses to draw conclusions from analyzing the pre- and post-test results of three study cases with different training experiences, to know the characteristics of the 304 participants.

Findings – The study indicated that incorporating transversal social entrepreneurship projects in various courses resulted in students feeling more capable regarding their social entrepreneurship potential.

Originality/value – The study presents the analysis of social entrepreneur training in three different curricular study cases. The information obtained adds value to social entrepreneurship education research that takes social entrepreneurship beyond business schools.

Keywords Social entrepreneurship education, Social entrepreneurship, Higher education, Educational innovation, Entrepreneurial education, Changemakers

Paper type Research paper

Introduction

Changemakers are active and resilient social entrepreneurs or innovators who can design and implement innovative solutions for social and environmental problems (Weerawardena and Sullivan Mort, 2006). Since 1980, Ashoka has been an example of a training platform for social entrepreneurs with a vision that goes beyond training, becoming a global community made up of the Ashoka Fellows (Sen, 2007; Sunduramurthy *et al.*, 2016). Higher education institutions (HEIs) have increasingly been engaged in promoting education for social entrepreneurship. In recent years, several trends and pedagogical practices for social entrepreneurs' training have emerged, bringing new challenges to the academic sector (Joos and Leaman, 2014).

HEIs are challenged to provide training in skills for the knowledge economy, develop creative thinking, promote entrepreneurship and make a social impact (Hamizan-Roslan *et al.*, 2019; Saxena, 2019; Wagner, 2012). Current university education must equip students to understand the new economy and react swiftly to its socioeconomic crises. Businesses and

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other organizations must be ready to mitigate social and environmental problems (Voronkova *et al.*, 2019). Therefore, training programs should focus on students' awareness of social welfare while developing business-and-public sector logic to implement problem-solving actions (Pache and Chowdhury, 2012). Although studies investigate university best practices in social-entrepreneurial training (Amundam, 2019; Halberstadt *et al.*, 2019; Pache and Chowdhury, 2012), more studies are still needed (Alakaleek, 2019).

Many university programs aimed to meet the training needs in social entrepreneurship rely on the foundations and teaching strategies of general or traditional entrepreneurship. However, there are conceptual and procedural differences between the two; social entrepreneurship implies also possessing "soft" (transversal) skills beyond the technical and financial teaching of business schools. In this regard, Lehner and Kansikas (2011) conceive that entrepreneurship should be developed in a transdisciplinary manner, oriented to the development of interdisciplinary profiles in social entrepreneurship students, providing them with opportunities to develop innovative social entrepreneurship competencies (Brock and Steiner, 2009; Nandan and Scott, 2013). Some studies offer evidence of efforts to provide training in social entrepreneurship outside the engineering and business areas. For example, Kummitha and Majumdar (2015) propose training professionals to solve social problems in the same way that other studies have reported in educational practices taught from a transdisciplinary perspective (Akhyadi *et al.*, 2019; Mueller *et al.*, 2015). Of the articles published from 2002 to 2020, there are 29 publications related to education in social entrepreneurship, as opposed to 1,500 publications regarding traditional or general entrepreneurship published since 1988 (Figure 1).

The objectives of the study are (1) to analyze the increase in students' perceived mastery of the social entrepreneurship competency (SEC) in the three study cases where the training experiences in social entrepreneurship were integrated into nine courses, and (2) to analyze the presence of significant differences in the perceived level of SEC mastery among the three study cases of training experiences in social entrepreneurship. The article presents a literature review of social entrepreneurship education, competencies and interdisciplinary training. Next, the methodological path for analyzing the pre- and post-test results is presented. The results obtained are then reported. The article ends with a discussion and the conclusions that contribute to the field of study.

Literature review

Social entrepreneurship education

Social entrepreneurship can refer to companies that generate economic value, but the principal purpose is social (Austin *et al.*, 2006; Martínez-Rivera and Rodríguez-Díaz, 2013; Sassmannshausen and Volkmann, 2013). Some authors call these hybrid companies because they integrate traditional companies' financial orientation with charitable or philanthropic purposes that generate social value (Alegre *et al.*, 2017; Battilana and Lee, 2014). In SE, there are usually two schools of thought: (1) the North American and (2) the European. The first is characterized by the implementation of socially innovative ventures (Bacq and Janssen, 2011), originating with the emergence of Ashoka, which has functioned as a platform for support and scaling of social entrepreneurial ventures.

Social innovation involves solving social problems collectively (Pol and Ville, 2009; Young, 2006), creating social practices that lead to social change (Cajaiba-Santana, 2014). Thus, their principal objective becomes satisfying a social need through a novel solution, changing the structure of social relations through the empowerment of diverse social actors, especially those groups that have been traditionally excluded (Portales, 2019). In thinking about social practices, novelty should not be confused with technology (Domanski *et al.*, 2020).

The profile of the social entrepreneur is traditionally established as an individual concerned with meeting the needs of vulnerable communities; they are usually represented

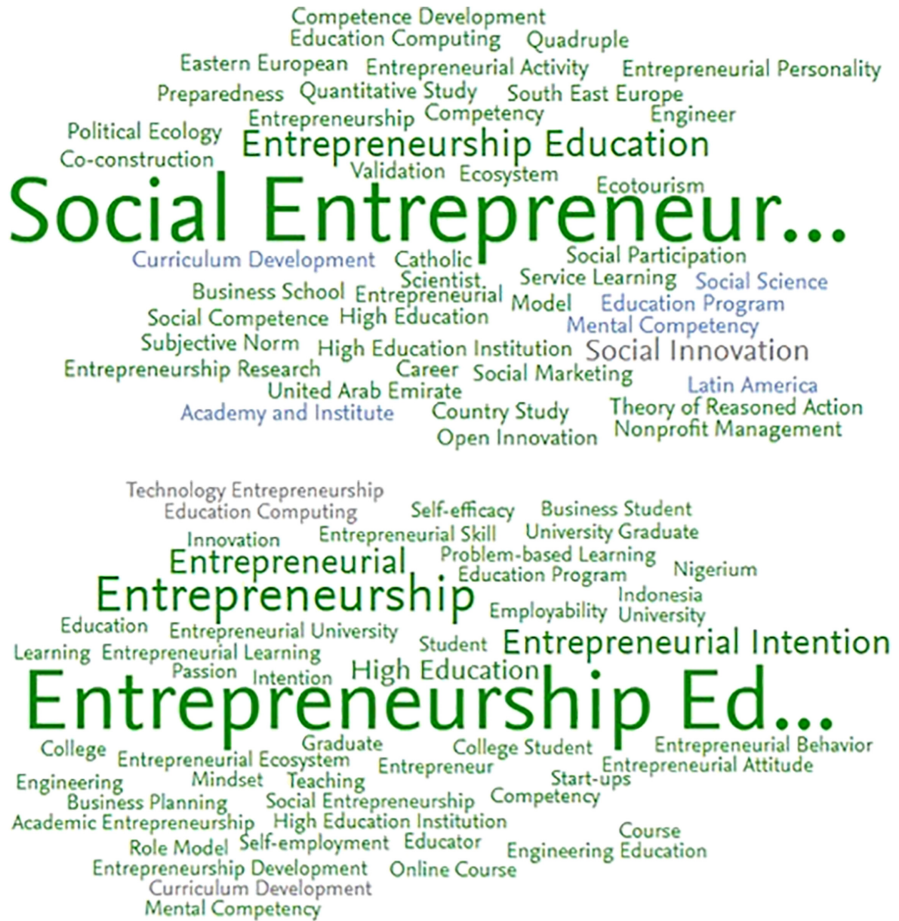


Figure 1.
Social
entrepreneurship
education vs
entrepreneurship
education

Source(s): Elsevier (2020)

as proactive, resilient and maintaining a perspective of distance from power (Vizcaíno *et al.*, 2020; Weerawardena and Sullivan Mort, 2006). The social entrepreneur has the ability and conviction to transform ideas into actions, so emotional intelligence is one of the elements contributing to their success (Winarno *et al.*, 2019; Zhou and Bojica, 2017). They combine social justice and sustainability convictions with attaining financial goals (Wry and York, 2017). Zahra *et al.* (2009) described three characterizations of the social entrepreneur: (1) social bricoleur (Hayek), (2) social constructionist (Kirzner) and (3) social engineer (Schumpeter). On the other hand, Abebe *et al.* (2020) define four archetypes of the social entrepreneur based on their life experiences and the scopes of their social engagements: (1) seasoned champions, (2) local pragmatists, (3) social activists and (4) corporate veterans.

Some studies point out that the impact of entrepreneurship education on behavior and attitudes is often affected by indirect learning that comes from the family context, personal experiences or social persuasion (Bae *et al.*, 2014; Bloemen-Bekx *et al.*, 2019; Entrialgo and Iglesias, 2016; Levie and Hart, 2011; Mari *et al.*, 2016). Other influences are gender or the university environment (Shirokova *et al.*, 2016). The intention in social entrepreneurship

can vary according to institutions and backgrounds, so educators can promote SE at the level of knowledge and support developing its skills and entrepreneurial attitudes (Salamzadeh *et al.*, 2013; Urban and Kujinga, 2017). Some studies also have highlighted the effects of personality traits, role models and specific support on SE intention (Tran and Von Korfflesch, 2016; Younis *et al.*, 2020). Others include emotional intelligence, gender and the individual's culture (Elliott, 2019; Pines *et al.*, 2012; Tiwari *et al.*, 2020).

The SECs addressed in this study included the attitudes, skills and knowledge required to generate social value through economically sustainable organizations (Sun and Cai, 2013). The SEC could be considered a meta-competency, that is, the conformation of innovation, creativity, entrepreneurship and social impact (Brown, 1994; Le Deist and Winterton, 2005; Edwards-Schachter *et al.*, 2015). Education in (social) entrepreneurship focuses on developing individual attributes to carry out the task successfully, considering that the formation of social entrepreneurs is facilitated by appropriate personal skills and values (Colom and Flores-Mendoza, 2001; Othman *et al.*, 2017).

The development and increase in SEC mastery occur through implementing a flexible curriculum, fusing theory and practice to identify social problems and design interdisciplinary solution proposals (Bloom, 2006). Educational experiences directed to (social) entrepreneurship are based on active learning practices. Students face real-world challenges, linking theoretical reflection to a transaction experienced in the environment (Awaysheh and Bonfiglio, 2017; Boyatzis and Kolb, 1991; Wu and Martin, 2018). Traditional classroom methodology is regularly incorporated, adding peer discussions, case methods, project-based learning, action research, service-learning and situated learning, among other active methodologies (Castro-Spila *et al.*, 2018; Joos and Leaman, 2014; Mueller *et al.*, 2015; Thomsen *et al.*, 2019).

Interdisciplinary training of social entrepreneurs

The university as a stakeholder is relevant in the agenda for sustainable development, leading students to find opportunities to develop their creative, innovative and entrepreneurial capacity (Bagur-Femenías *et al.*, 2020; Bokova, 2014; Byun *et al.*, 2018; Cabrera-Santacana *et al.*, 2014; Robinson, 2011; Wagner, 2012; Zamora-Polo and Sánchez-Martín, 2019). In this regard, McAdam and Debackere (2017) envision the HEI as organizations that generate social value, acting in scenarios of co-creation among sectors, leading to reflection in which formative processes incorporate critical reflection and place-based learning (Rivers *et al.*, 2015b, c). This idea coincides with the progressive pedagogy of John Dewey (González-Monteaudo, 2001).

Traditionally, entrepreneurial teaching has taken place in business schools (Smith and Woodworth, 2012); however, entrepreneurial experiences are multidisciplinary and involve developing transversal competencies. Many curricula approach entrepreneurship from a conventional capitalist business perspective (Buendía-Martínez *et al.*, 2020a). Therefore, it is important to incorporate elements of the economy and social innovation in all vocational training areas to create social change (Worsham, 2012). In the environment where SE practices and learning are encouraged, the students are aware that the economic considerations are to support community service, and not the other way around (Buendía-Martínez *et al.*, 2020b; Howorth *et al.*, 2012; Velasco Martínez *et al.*, 2019). That is why researchers like Jensen (2014) have justified the teaching of SE in humanities careers. Other research even highlights the positive benefits of learning transversal SE at the preschool and other educational levels, not just in the university (Sarıkaya and Coşkun, 2015).

Change agents' attributes coincide with 21st-century skills (Rivers *et al.*, 2015). This is because changemakers or social entrepreneurs develop soft skills of adaptation, problem identification, creative thinking and growth promotion (Daher *et al.*, 2018; Worsham, 2012; Zatl'ková and Ambrozy, 2019). Therefore, social entrepreneurship, innovation and

transversal competencies should be developed in communities of practice (Brock and Steiner, 2009; Hockerts, 2018; Lehner and Kansikas, 2011; Nandan and London, 2013; Nandan and Scott, 2013) along with self-efficacy, emotional intelligence and interpersonal skills (Byun *et al.*, 2018). Changemakers must be developed who are prepared to meet the objectives of sustainable development goals (SDG) (Zamora-Polo and Sánchez-Martín, 2019).

The literature suggests to investigate the change of attitudes toward entrepreneurship with a pre-test and post-test in quasi-experimental studies (Entrialgo and Iglesias, 2016; Thomsen *et al.*, 2019). Similarly, research is suggested for diverse contexts and environments (Joos and Leaman, 2014; Kummitha and Majumdar, 2015). New research is expected to contribute to teaching and learning social entrepreneurship in various disciplinary fields, especially education (Peterlin, 2019; Waghid, 2017).

Research methods

Participants

A quasi-experimental study was conducted, analyzing the pre- and post-test results of three study cases of entrepreneurship training having different focuses. The sample were 402 students from nine entrepreneurship courses, which were organized into three cases within the framework of the NAME OF THE PROJECT project sponsored by SPONSOR (Figure 2).

The following hypotheses were tested.

- H1a. Case A students perceived an increase in their SEC proficiency at the end of the course.
- H1b. Case B students perceived an increase in their SEC proficiency at the end of the course.
- H1c. Case C students perceived an increase in their SEC proficiency at the end of the course.
- H2a. There are significant differences in the pre-test results between Cases A, B and C.
- H2b. There are significant differences in the post-test results between Cases A, B and C.
- H2c. There are significant differences in the post-test and pre-test results between Cases A, B and C.

	Case A	Case B	Case C
Courses:	<i>Development of social Impact Companies</i> , Queretaro campus (N = 157) and Monterrey Campus (N = 21)	<i>Entrepreneurship and Innovation</i> , virtual course for a master degree in education (N = 40), <i>Ideation and prototyping</i> (N = 21)	Ethics, the Individual, and Society (N = 111), Ethics, the Profession, and Citizenship (N = 29), Didactics of Early Childhood Education (N = 23)
Course purpose:	To train social entrepreneurs	To focus on the social impact of their (general) entrepreneurial projects	In this case, projects and proposals for social entrepreneurship were developed to achieve the course's competencies

Figure 2.
Sample in three cases of the project

Measure and data analysis

The perceived level of SEC mastery was assessed using the instrument developed and validated by [García-González et al. \(2020\)](#). It assesses five sub-competencies of the SEC: (1a) *personal* (items 1–6), (2) *leadership* (items: 7–10), (3) *social innovation* (items: 11–18), (4) *social value* (items: 19–23) and (5) *entrepreneurial management* (24–28) on a 1–5 Likert scale, where 1 is “Totally disagree” and 5 = “Totally agree.” This study’s overall internal consistency was favorable for both the pre-test ($\alpha = 0.889$) and the post-test ($\alpha = 0.903$).

For [Hypotheses H1a–H1c](#), paired tests were applied for dependent groups ([Elliott and Woodward, 2011](#), p. 21); in case of non-normal distribution, the Wilcoxon test was applied ([Elliott and Woodward, 2011](#); [Valdés-Cuervo et al., 2019](#)). To test the [Hypotheses H2a–H2c](#), the ANOVA one-way test was applied ([Elliott and Woodward, 2011a](#), p. 2) and Kruskal–Wallis test for non-normal distribution results ([Elliott and Woodward, 2011](#)) ([Figure 3](#)). In the case of finding significant differences, the post-hoc test (Scheffe) was applied. The analyses were performed with the IBM SPSS.

Findings

A paired *t*-test was performed to know if there were significant increases in the perception of SEC mastery (pre-test to post-test) in each of the three cases ([Figure 4](#)). The results of the [Hypotheses 1a, 1b](#) and [1c](#) are presented in [Tables 1–3](#). On the other hand, the one-way ANOVA test was applied to find out the presence of significant differences between the three cases in the pre-test (beginning of the courses), the post-test (end of the courses) and the differences between the post- and pre-test (post-test–pre-test). We applied the Kruskal–Wallis

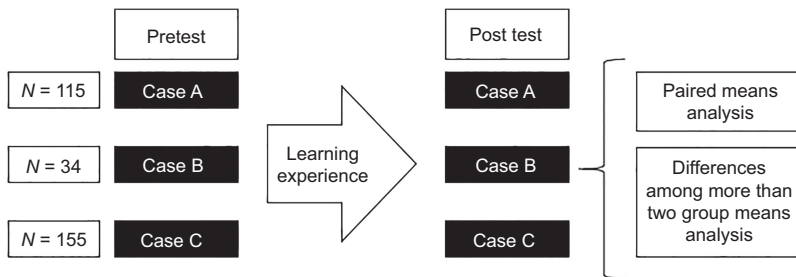


Figure 3. Research method

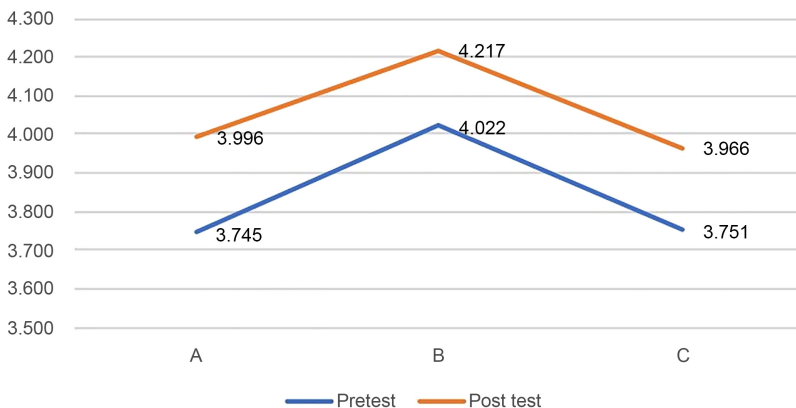


Figure 4. Scores Pre – Post test

test to analyze the latter differences because the data did not form a normal distribution. The results of [Hypotheses 2a, 2b and 2c](#) are presented in [Tables 4–8](#).

Data from [H1a](#) have a normal distribution ($z = 0.082, p = 0.054$). In [Table 1](#), it is observed that the participants in Case A ($N = 115$) perceived an increase in their SEC mastery because

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		Mean	SD	Mean of the differences	Differences SD	<i>t</i>	<i>p</i>
Table 1. Case A paired <i>t</i> -test	Post-test	3.996	0.4141	0.2503	0.3452	7.777	0.000
	Pre-test	3.745	0.4165				

		Mean	SD	Mean of the differences	Differences SD	<i>t</i>	<i>p</i>
Table 2. Case B paired <i>t</i> -test	Post-test	4.217	0.3229	0.1954	0.2183	5.220	0.000
	Pre-test	4.022	0.3711				

		Mean	SD	Mean of the differences	<i>z</i>	<i>p</i>
Table 3. Case C paired Wilcoxon test	Post-test	3.966	0.5060	0.215	-6.167	0.000
	Pre-test	3.751	0.4795			

	Cases	Median	SD	<i>H</i>	<i>p</i>
Table 4. Pre-test Kruskal– Wallis test	A. Focused on social entrepreneurship ($N = 115$)	3.786	0.4165	11.447	0.003
	B. Focused on traditional entrepreneurship ($N = 34$)	4.054	0.3711		
	C. Not focused on entrepreneurship ($N = 155$)	3.786	0.4795		

	Groups	χ^2	SD error	<i>p</i>	
Table 5. Post-hoc results at the beginning of the course	Courses focused on social entrepreneurship	Courses focused on traditional entrepreneurship	-55.197	17.152	0.004
		Courses not focused on (social) entrepreneurship	-2.065	10.814	1.000
	Courses focused on traditional entrepreneurship	Courses not focused on (social) entrepreneurship	53.132	16.640	0.004

	Cases	Median	SD	<i>F</i>	<i>p</i>
Table 6. Post-test one- way ANOVA	Focused on social entrepreneurship ($N = 115$)	3.996	0.4141	4.282	0.015
	Focused on traditional entrepreneurship ($N = 34$)	4.217	0.3229		
	Not focused on entrepreneurship (social) ($N = 155$)	3.966	0.5060		

the test indicates that the difference is significant and positive ($M = 0.2503$, $SD = 0.34$, p -value = 0.000).

For Hypothesis 1b, the pre- and post-test differences were also found to be in a normal distribution ($z = 0.136$, p -value = 0.110). The results with these participants ($N = 34$) also showed a positive and significant difference between the pre-test and post-test ($M = 0.1954$, $SD = 0.2183$, p -value = 0.000), which indicates that the students perceived an increase in their level of mastery (Table 2).

Data from Hypothesis 1c were non-normal distribution ($z = 0.114$, p -value = 0.000); therefore, the Wilcoxon test was applied (Table 3). This test showed 109 positive ranges, 41 negative ranges and 5 ties, that is, most participants in this test ($N = 155$) perceived an increase in their mastery of the SEC. The test statistic was significant ($z = -6.167$, p -value = 0.000). Although this test does not show the results of the means, they are shown in Table 3, where a positive difference is observed ($M = 0.215$, $SD = 0.215$).

To identify significant differences between the three cases at the beginning of the course (Hypothesis 2a), we applied a Kolmogorov–Smirnov normality test. In this test, we found that the Case A group did not have a normal distribution in their data ($z = 0.084$, p -value = 0.011); therefore, the non-parametric Kruskal–Wallis test was applied. The results indicated significant differences between the three groups’ medians ($H = 11,447$, p -value = 0.003) (Table 4). For this reason, a post-hoc test was carried out to know the specific groups that presented differences.

The results of the post hoc test indicated significant differences between courses focused on social entrepreneurship and those focused on general entrepreneurship (p -value = 0.004), and between courses focused on general entrepreneurship and those not focused on entrepreneurship (p -value = 0.004) (Table 5). Thus, there is evidence that students in courses focused on general entrepreneurship (Case B) ($M = 4,054$, $SD = 0.3711$) perceived a higher level of mastery than those in social entrepreneurship (Case A) ($M = 3,786$, $SD = 0.4165$) and non-entrepreneurship-focused courses (Case C) ($M = 3,786$, $SD = 0.4795$). On the other hand, although the groups of Cases A and C present similar means, an equal level of perceived mastery could not be affirmed (p -value = 1,000).

To test the results of Hypothesis 2b, we first confirmed the distribution of the data (Case A, $z = 0.065$, p -value = 0.200; Case B, $z = 0.072$, p -value = 0.200; Case C, $z = 0.045$, p -value = 0.200), which indicated normality in all three. One-way ANOVA test was used to know the significant differences. The results indicated the presence of significant differences

Groups		Mean of the differences	SD error	p
Courses focused on social entrepreneurship (case A)	Courses focused on traditional entrepreneurship (case B)	-0.2218	0.0889	0.046
	Courses not focused on (social) entrepreneurship (Case C)	0.0293	0.0560	0.872
Courses focused on traditional entrepreneurship (Case B)	Courses not focused on (social) entrepreneurship (Case C)	0.2511	0.0862	0.015

Table 7. Post-hoc results at the end of the course

Cases	Median	SD	H	p
Focused on social entrepreneurship ($N = 115$)	0.2500	0.34518		0.284
Focused on traditional entrepreneurship ($N = 34$)	0.1786	0.21826	2.516	
Not focused on entrepreneurship (social) ($N = 155$)	0.1429	0.41077		

Table 8. Post-pre differences, Kruskal–Wallis test

($F = 4.282$, p -value = 0.015) (Table 6). Therefore, a post-hoc test was performed to identify the specific groups in which such differences occurred.

In the post-hoc test, significant differences were observed between Case A and Case B courses (mean difference = -0.2218 , p -value = 0.046), that is, students in the general entrepreneurship courses felt more capable than students in the courses focused on social entrepreneurship. In contrast, no significant differences were found between participants in the social entrepreneurship courses and those not focused on entrepreneurship (p -value = 0.872). On the other hand, the courses focused on traditional entrepreneurship (Case B) did present significant differences from those groups that are not focused on any type of entrepreneurship (Case C) (mean difference = 0.2511, p -value = 0.015). In this sense, it can be stated that the participants of the general entrepreneurship courses perceived a higher mastery of SEC than the other two cases at the end of the course (Table 7).

Data from Hypothesis 2c test did not have a normal distribution ($z = 0.114$, p -value = 0.000); therefore, the non-parametric Kruskal–Wallis test was applied. The results of this statistic did not show significant differences between the post- and pre-test differences in the three cases (p -value = 0.284), so it cannot be said that there was a higher increase in the perceived SEC mastery between groups (Table 8).

Analysis and conclusions

Hypotheses H1a–H1c results could indicate new opportunities to develop competencies specific to each discipline by undertaking social enterprises. Because sustainability problems affect various sectors, social innovation requires collective solutions to achieve social change (Cajaiba-Santana, 2014; Pol and Ville, 2009; Young, 2006). HEIs are fundamental to the agenda for sustainable development (Zamora-Polo and Sánchez-Martín, 2019) and should not be limited only to business schools (Smith and Woodworth, 2012). Providing social entrepreneurship tools to all students, regardless of their disciplines, increases their perception of SEC mastery, which translates into offering them new possibilities to impact their profession's social problems.

Tables 1–3 show the significant increase in the perceived mastery between the pre- and post-tests, but they also show that the *means of the differences* of the cases vary (Figure 3). These differences can be explained within the framework of social entrepreneurship as a goal-competition (Brown, 1994; Edwards-Schachter *et al.*, 2015) serving financial and social purposes (Wry and York, 2017) and testing various skills and abilities (Vizcaíno *et al.*, 2020; Weerawardena and Sullivan Mort, 2006). Each course had its particular focus, so it is very likely that the development of competencies through the SE learning activities did not impact the indicators of the SE taxonomy we used globally. Therefore, the curricular incorporation of this meta-competency in vocational training remains challenging (Brock and Steiner, 2009; Nandan and London, 2013).

Concerning Hypothesis 2c, Table 8 shows that the post- and pre-test differences in the three cases did not present significant differences, so it cannot be affirmed that the superior perceived mastery in Case C can be generalized. This phenomenon can be explained by considering other studies that have reported how external agents influence entrepreneurial training and affect performance. For example, indirect learning from family context, personal experiences and social persuasion makes an impact (Bae *et al.*, 2014; Bloemen-Bekx *et al.*, 2019; Entrialgo and Iglesias, 2016; Levie and Hart, 2011; Mari *et al.*, 2016). In all three cases, the common elements of SE teaching led to identifying problems and designing solution proposals (Bloom, 2006; Brock and Steiner, 2009), but it cannot be said that the course design will guarantee to increase the competency. Despite not obtaining statistically significant results in this area, the data support advancing the discipline by applying social innovation in various faculties of the university (Cabrera-Santacana *et al.*, 2014; Jensen, 2014).

At the beginning of the courses, the results of the pre-test indicated significant differences where students in Case B courses perceived a higher level of mastery than those in Case A and Case C. At the beginning of an educational experience, there are always different profiles; the students' initial performance may well be due to cultural, gender and emotional factors (Elliott, 2019; Pines *et al.*, 2012; Tiwari *et al.*, 2020). Therefore, it would be relevant to zoom in specifically on those aspects that make students feel more capable even before starting the course.

In both the pre- and post-tests, Case B's students reported the highest perceived mastery level. In this regard, it is important to consider how the interrelationship of knowledge, skills and attitudes influenced by the teacher can affect the perceptions (Salamzadeh *et al.*, 2013). It is very likely that Case B students' competencies will serve them in both traditional and social enterprises. It is important to remember the value of the university environment in promoting any type of entrepreneurship (Shirokova *et al.*, 2016); the university is the context where the research was conducted, and the social impact of entrepreneurship is traditionally discussed. In this sense, the results indicate the strong influence of the institutional spirit in forming agents of change.

This study sought to explore the results of incorporating the development of SEC in various courses at an HEI, not limited to courses and students enrolled in a business school. Following the recommendations of previous studies (Entrialgo and Iglesias, 2016; Thomsen *et al.*, 2019), we carried out a quasi-experiment in three case studies in which we analyzed the differences in the students' perceived SEC mastery before and after a training experience. As mentioned in the previous sections, these cases were courses focused on social entrepreneurship (Case A), courses focused on general entrepreneurship (Case B) and courses not focused on (social) entrepreneurship (Case C). The knowledge emerging from this study allows developing the discipline by analyzing these cases' experience in diverse disciplinary contexts (Joos and Leaman, 2014; Kummitha and Majumdar, 2015). The study adds value to the body of knowledge about strengthening the social entrepreneurship teaching processes (Peterlin, 2019) and the design of training models that attend to the current needs of HEIs (Waghid, 2017).

The results presented open the door to continuing the research and teaching of social entrepreneurship at the university. The study confirms that social entrepreneurs and change agents trained in the university (and not just the business school) mitigate sustainable development problems. We conclude this because the results indicated an increase in the students' perceived SEC mastery in all three training cases presented. We also found that students taking general entrepreneurship courses can be motivated by projects having a social impact; they can feel even more capable in their entrepreneurial skills than students taking social entrepreneurship courses.

It is necessary to undertake more studies that analyze the relationship between general entrepreneurial and social entrepreneurial competencies. It is also crucial that future studies consider the students' voice to characterize their explanations about why or why not they perceive increases in SEC mastery after pedagogical interventions. This can be done through qualitative methods. The perceptions of competency may influence entrepreneurial intent; therefore, it would be appropriate to conduct studies where performance is analyzed from a more holistic perspective. Similarly, it is necessary to conduct more studies where external factors, such as personal experience, environmental context environment and gender, are considered.

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