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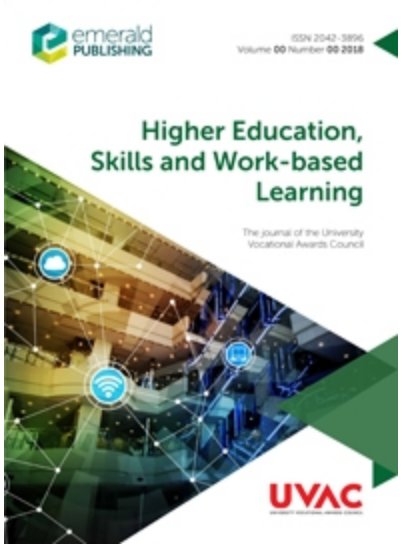

Ethical Education and its Impact on the Perceived Development of Social Entrepreneurship Competency.

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Ethical Education and its Impact on the Perceived Development of Social Entrepreneurship Competency

Purpose – The aim of this paper is to discuss the importance of multidisciplinary training in the perceived development of social entrepreneurship competence. By means of a sample of an ethics class, this study seeks to argue the relevance of new social entrepreneurs having a broad training, beyond the knowledge they receive from the business area.

Design/methodology/approach – This paper is based on a quantitative analysis methodology. Based on the application of a validated questionnaire measuring the perceived development of social entrepreneurship competence, a longitudinal measurement was carried out at two points in time, at the beginning and at the end of an ethics course, in a sample population of 132 undergraduate students. Based on these results, a multifactorial diagnosis was made using a Z-test.

Findings – Overall, the sample results did not show a significant improvement in their level of perception of students' development of the social entrepreneurship competence. However, the individual results of the perceived development of sub-competences that make up this competence did reflect some development, especially the sub-competence of social innovation. Thus, this study demonstrates that there is a measurable impact of the contribution of other disciplines, in this case the ethical education, in the training of new entrepreneurs, arguing the importance of multidisciplinary training.

Practical implications – The results of this study contribute to the work of universities in developing social entrepreneurship competence. Based on its findings, institutions will be able to recognise the relevance of multidisciplinary training in the generation of new social entrepreneurs, valuing other disciplinary areas, such as humanities and social sciences,

beyond training based exclusively on business knowledge. A key point to capitalize on in training practices for social entrepreneurship is "social innovation", due to the sense of transcendence and impact that universities should seek, precisely because of their social responsibility to create value.

Originality/value – This research provides empirical evidence of the impact of ethics education on social entrepreneurship education. It argues the importance of reflecting on multidisciplinary education as a complementary element in the perceived development of social entrepreneurship competence in students.

Keywords: Entrepreneurial education, higher education, educational innovation, social innovation, undergraduate students, social entrepreneurship competency.

Paper type Research paper

Introduction

When talking about entrepreneurship, it is inevitable to think of the business area since, traditionally, studies on entrepreneurship have been linked to administrative sciences. The teaching of entrepreneurial skills has been core in the business programs of every educational institution (Mitra et al., 2019). In terms of training, universities pay increasing attention to generating and disseminating knowledge that focuses on developing creativity and innovative ideas. Thus, entrepreneurship brings a series of deep-rooted paradigms, relating the word "entrepreneur" with management, technology, and the economic and financial areas.

However, social innovation is an aspect of entrepreneurship with a different perspective, having high humanistic, environmental, health, and social commitment (McNally et al., 2019). Social entrepreneurs must develop practical and tangible human

sensitivity, which cannot necessarily be taught in administration or business courses as easily as subjects more people-oriented and focused on ethical and civic education (Lewis and Henry, 2019).

This article aims to analyze the perception of social-entrepreneurship-competency development among a sample group of Mexican university students taking two ethics courses. Using multifactorial diagnosis, we sought significant statistical information that demonstrated students' perceived social-entrepreneurship competency development, less from a management perspective and more focused on social and human formation. Thus, our research points to universities building multi-disciplinary curricula that develop students' social entrepreneurship competencies from the general to the particular by strengthening each of its sub-competencies.

The above is the central point of this paper's research problem: There is a lack of consideration given to multi-disciplinary education in the training of social entrepreneurs, who usually receive an education based on knowledge predominantly from the business area. However, as proposed in this paper, social entrepreneurs' training must be multi-disciplinary and include theoretical considerations from the humanities and social sciences, allowing a better perception of the mastery of some of the elements comprising this competency.

This paper starts from a theoretical basis that seeks to address the importance of a broad profile in the training of social entrepreneurs. Firstly, it discusses social entrepreneurship and its own characteristics, as opposed to traditional entrepreneurship. Then, it develops the relevance that ethical education has taken on in universities, as a relevant element in the human formation of their students. Finally, it explains how this is linked to the development of the competence of social entrepreneurship, which, according to

some authors, must include the breadth of disciplines that social entrepreneurship requires, as well as the human and social vision that ethical education provides.

Subsequent to the theoretical section, we describe the quantitative methodology, the validated instrument, and the hypothesis testing used in the study. The measured results of the sub-competencies that comprise the social entrepreneurship competency are presented for the two moments of measurement, the beginning and end of the academic semester.

Although the overall results indicate that the ethics courses' students did not perceive a significant increase in their social entrepreneurship competency, they did in six of the sub-competencies that integrate it. Thus, through the analyses and discussions presented in this study, we have significant data allowing us to argue that multi-disciplinary education (specifically, ethics, in this case) impacts the formation of new social entrepreneurs.

Theoretical framework

Social entrepreneurship

Entrepreneurship is usually related to people's attitudes towards generating proposals that allow them to achieve their objectives. Nowadays, entrepreneurship is a ubiquitous topic in universities, which believe that professional training is half-baked without setting concrete objectives (Marulanda and Morales, 2016).

There is an increasing tendency to find entrepreneurial projects that aim to solve a social or human problem (Padilla et al., 2016). Therefore, when discussing entrepreneurial projects, one should not always consider only those with an economic or business focus.

The social entrepreneurship model seeks innovative solutions to existing societal problems and promotes the development of communities (Naranjo, 2015). The idea is that social entrepreneurs understand the social, economic, political, and cultural contexts of the

problems they are trying to solve and possess an external view of the proposed project or organization (Nikulin et al., 2017).

The social entrepreneurial professional profile tends to be broad because of the breadth of problems that they address, which are sometimes complex for the institutions dedicated to their training.

The transdisciplinary profile of the social entrepreneur

For Vázquez, Lanero, Raisene, and García (2012), social entrepreneurship derives from knowledge acquired while developing relevant skills, which, according to Iglesias, Hambrino, and Heras (2019), is a cardinal objective for educational institutions seeking to train new entrepreneurs. The social entrepreneur's education includes declarative, procedural, and attitudinal training designed to identify social opportunities. According to Lackéus (2014), the skills are sorted between those that are purely cognitive and those that are practical, derived from doing.

The need to understand the social entrepreneur's double profile is helped by studies like the one by Sáenz and López (2015), who included social relations, personal skills, and ethical competency as part of entrepreneurial training and development. Velasco, Estrada, Pabón, and Tójar (2019) proposed three components: the systematic, the instrumental, and the interpersonal, highlighting that social entrepreneurship competency is a skill involving acquired knowledge and also one that involves relationships and communication with other people. Thus, universities should ensure that the subjects studied by their future social entrepreneurs provide disciplinary knowledge and skills development related to their entrepreneurial interests so they can address the social problems they want to solve (Steiner et al., 2018).

Therefore, there must be contributions from several disciplines. Although the training can be framed by administrative knowledge, the entrepreneurs should receive transversal and multi-disciplinary training incorporating the arts, engineering, health sciences, humanities, social sciences, and other study areas to complement their profiles (Bögenhold et al., 2014).

The importance of ethics education for the development of a humanistic and social profile.

Today, contemporary professional training no longer focuses solely on generating a monolithic profile. Instead, it aims to train individuals with a global vision and the capacity to contribute to the environment. The determining elements of the new professional training (social, communicative, creative, and technological skills, global vision, and a humanistic approach) reconfigure how universities educate future professionals as world citizens (Nandan and London, 2013). Rather than focusing solely on acquiring knowledge, institutions pay more attention to the metacognitive elements generated in students, going beyond their roles as professionals in training to their responses as human beings (Tekin et al., 2020).

Harvard University referenced this educational trend during Derek Bok's administration (1971-1991), nourishing its students with skills that would develop their professional abilities and also allow them to become better individuals and citizens (Lovibond, 2009). Thus, an ethical education program was established that was not merely based on discrete, isolated courses. The profound curricular modification impacted young people's education, making ethics a guiding principle of the institution's professional programs. This proposal gave rise to the Edmond J. Safra Foundation Center for Ethics, a foundation currently dedicated to ethics teaching and research at the university level (Branch Jr and George, 2017).

In 1990, French educator Francis Best elevated the need to promote ethical values and citizenship in young students. She believed that the expanded national economies and the increasingly globalized world would require future professionals to have analytical skills that align with individuals' moral development (Belinova et al., 2017). This trend was also evident at the "World Conference on Education for All" in the same year. It noted that the primary goal of education in the new century would be to meet the basic learning needs of all children and young people worldwide. The conference emphasized that this notion of "basic" should consider the subject's knowledge and the cognitive skills, values, and attitudes necessary for optimal individual performance (Dolfsma and Negru, 2019).

Ethical education has been included as an essential part of contemporary education. Ethics is a transversal and interdisciplinary competency developed independently of the student's specialization. It impacts the generation of their professional profile by including the skills and sub-competencies of empathy, recognition, ethical argumentation, integrity, and civic commitment to promoting social transformation (Ezova and Kuchmurukova, 2019). They highlight the importance of teaching ethical and civic values in curricula offering transversal interventions along with specific humanistic, social, and community education courses (Poldner et al., 2019).

In this way, ethics education becomes an important element in the development of multidisciplinary profiles with a high social and human content, complementing the training of each discipline. The above seeks to argue why ethics classes have been selected for this study, as we consider that ethics education, even if it is not a business course, can demonstrate a clear impact on the perception of social entrepreneurship competence and the development of a broad entrepreneurial profile.

Multidisciplinarity in social entrepreneurship competence

When we talk about competency in education and pedagogy, we refer to the capacity people have to do or develop something in their personal, social, or professional fields. However, competencies should not be confused with mere technical knowledge acquired through repetition or memorization; but rather, they consist of thoughts, skills, knowledge, emotions, and values that provide tested, efficient tools to face daily challenges (Saxena, 2019).

In academic literature, it is possible to find many contributions regarding the social entrepreneur's ideal profile. However, García-González, Ramírez-Montoya, de León, and Aragón (2020) point out that there is no clear or unique conceptualization of the elements that constitute competency in social entrepreneurship. Gandhi and Raina (2018) state that social entrepreneurs pursue brilliant ideas to create products and services that improve people's lives. Shapovalov, Igropulo, and Arutyunyan (2019) agree, pointing out that the difference between the traditional and the social entrepreneur is the generation of social good for the less-favored. This is also in line with Sun and Cai (2013), who found that the social entrepreneur has a differentiating axis of social value.

Creating social value is one of the purposes of training institutions. In this sense, Ontiveros-Ortíz and Ramírez-Montoya (2020) propose the evaluation of university social responsibility to analyze the social and environmental impact of higher education institutions, as well as the results in the social appropriation of knowledge, at the level of the university network. Most of the interactions of universities with business and social actors are through service-learning projects, community-oriented projects, technology transfer, incubators, governments and non-profit organizations, among others that, through knowledge, benefit not only student groups, but also directly impact the actors. Lackéus (2014) considers, specifically, that social entrepreneurship competency is comprised of two skill types:

cognitive and non-cognitive. The former includes knowledge and skills such as marketing, mental models, self-knowledge, and identifying opportunities. The latter involves entrepreneurial passion, proactivity, tolerance of uncertainty, innovation, and perseverance.

Sáenz and López (2015), after an extensive review of training programs at universities working with social entrepreneurship, identified four elements of competency: task- or work-related (innovation, creativity, planning, decision-making, and time management); social relations (leadership, teamwork, communication, delegation, and people management); philosophical and ethical (ethical sense, awareness of others, and critical thinking), and personal (initiative, autonomy, adaptability, tenacity and perseverance, self-confidence, responsibility, and capacity to take risks). For their part, Orhei, Nandram, and Vinke (2015) sorted competency into three dimensions: cognitive (theoretical and practical knowledge of business activity), functional (planning, organization, communication, evaluation, recording, and other skills showing that one knows how to do something), and social (behaviors, attitudes, and knowledge that focus on interactions with other people).

Portuguez, Valenzuela, and Navarro (2018) developed an instrument to measure the attitude and behavior related to the social entrepreneur's profile, identifying three components: a passion for entrepreneurship, orientation towards sustainability, and identification of opportunities. Later, Velasco Martínez, Estrada Vidal, Pabón Figueras, and Tójar Hurtado (2019) developed another instrument. However, unlike Portuguez, Valenzuela, and Navarro, it focused on social entrepreneurship from a university perspective, considering three components: Instrumental (oral communication, decision-making, problem-solving); Interpersonal (teamwork, networking, cooperation, ethics, and social responsibility); and Systematic (identification of challenges and opportunities, design of new products, planning, and marketing).

More recently, Capella-Peris, Gil-Gómez, Martí-Puig, and Ruíz-Bernardo (2019) developed an instrument that includes three other categories: Personal and Social Traits (Leadership, responsibility, commitment, social awareness, coherence, respect, creativity, tolerance); Innovative Traits (theoretical knowledge, identification of opportunities, initiative, capacity for change, openness to learning), and Execution Traits (motivation for achievement, capacity to take risks, and confidence).

Finally, García-González, Ramírez-Montoya, de León and Aragón (2020), carried out a theoretical review of the previous studies and combined many of their proposals in their instrument, which is integrated into five dimensions:

a) personal sub-competencies (motivation, knowledge of others, perseverance, communication and persuasion).
b) leadership sub-competencies (people management, time management, and collaborative work).
c) social innovation sub-competencies (identification of new opportunities for social/environmental problems issues, learning and adaptability, creative ideas, tolerance of uncertainty and ambiguity, social involvement, evaluation of ideas, results and impacts on the environment and people, and management of limited resources and risk models in social organizations).
d) social value sub-competencies (empathy with the unmet needs of others, ethical code and sensitivity, orientation towards sustainability and ecological behavior, and entrepreneurial passion and identity).
e) entrepreneurial management sub-competencies (basis for the generation of value in social organizations, and strategic development).

For this study, we considered the proposal of García-González, Ramírez-Montoya, de León, and Aragón (2020), from which the following hypotheses are put forward:

H1. There is significant information to argue that the post-test results are different from the pre-test results regarding the perceived development of social entrepreneurship competency in a sample group of students taking an ethics subject.

H1a. There is significant information to argue that the post-test results are different from the pre-test results regarding the perceived development of personal sub-competencies in a sample group of students taking an ethics subject.

H1b. There is significant information to argue that the post-test results are different from the pre-test results regarding the perceived development of leadership sub-competencies in a sample group of students taking an ethics subject.

H1c. There is significant information to argue that the post-test results are different from the pre-test results regarding the perceived development of social innovation sub-competencies in a sample group of students taking an ethics subject.

H1d. There is significant information to argue that the post-test results are different from the pre-test results regarding the perceived development of social value sub-competencies in a sample group of students taking an ethics subject.

H1e. There is significant information to argue that the post-test results are different from the pre-test results regarding the perceived development of entrepreneurial management sub-competencies in a sample group of students taking an ethics subject.

Method

This quantitative study used a quantitative approach based on applying a validated questionnaire that measured students' perceptions of their mastery of social entrepreneurship

competency in a sample group of undergraduate students taking ethics courses. According to the literature, higher education should focus on both the professional role and the human being (Tekin et al., 2020). Education in social entrepreneurship would allow the development of projects that solve social and human problems (Padilla et al., 2016). Therefore, it is of interest to know how capable students studying an ethics course perceive themselves as social entrepreneurs. By their nature these types of classes tend to develop competencies related to social entrepreneurship: empathy, recognition, ethical argument, integrity, and civic commitment to promote social transformation (Ezova and Kuchmurukova, 2019). To measure the students' perceived increase in the development of this competency, we administered the pre and post-test instruments at a Mexican university at the beginning and end of the course, between February and June 2020

Participants

The participants comprised a convenience sample (Kam, Wilking, and Zechmeister, 2007) of N = 132 students in two courses: Ethics, Profession and Citizenship (N = 103) and Ethics, Person and Society (N = 29). However, the results and analyses were based on the population as a single group. This was a significant sample of participants, considering the total population of students taking these subjects during the semester in which the study was carried out (N = 532).

The authors aimed to know the perception of the social entrepreneur among students taking courses focused on ethics (Lewis and Henry, 2019). They also wanted to observe the students' progress in social entrepreneurship sub-competencies (Bögenhold et al., 2014). The participants were undergraduate students, ages 19 to 24. The sample had N = 70 men and N = 62 women. Although all participants were studying ethics, they were enrolled in different careers and disciplinary programs: Architecture and Design (N = 26), Business (N = 42),

Health Sciences (N = 10), Social Sciences and Government (N = 6), Engineering and Science (N = 47), and Humanities and Education (N = 1).

Measures

The research instrument was a self-completion questionnaire to measure the mastery level of social entrepreneurship skills according to the user's perception (García-González et al., 2020). This questionnaire was applied at the beginning and end of the course (pre-test and post-test) to know if the students had developed social entrepreneurship sub-competencies (H1a - H1e). The instrument consisted of 28 items on a Likert scale (1= Strongly disagree to 5 = Strongly agree). Five dimensions (sub-competencies) were assessed:

a) personal (items 1, 2, 3, 4, 5, 6);
b) leadership (items 7, 8, 9, 10):
c) social innovation (items 11, 12, 13, 14, 15, 16, 17, 18);
d) social value (items 19, 20, 21, 22, 23);
e) entrepreneurial management (items 24, 25, 26, 27, 28).

In this study, we present the results of each item's assessment indicator. The 28 items can be consulted in the study published by García-González et al. (2020). The overall internal consistency in this study was favorable for the pretest (a = .895), and the sub-competencies: personal (a = .726), leadership (a = .577), social innovation (a = .767), social value (a = .798), and entrepreneurial management (a = . 806). It was also favorable for the post-test: global consistency (a = .902); the sub-competencies: personal (a = .728), leadership (a = .528), social innovation (a = .795), social value (a = .745), and entrepreneurial management (a = .855).

Data analysis

The Z-test was used to compare group means to answer the study's hypotheses (H1a - H1e) (Zaykin, 2011) and the t-test for the overall results. The Z-test was used because it provides more convincing results than a t-test (Lind, William, and Wathen, 2014.); it provides more accurate results for the hypothesis testing of sub-competencies and their indicators. The participant responses were collected using Google Forms with a pre-established ethical protocol. The results were exported to a spreadsheet, where the corresponding statistical tests were applied per the established hypotheses to answer the research questions.

Results

The results are presented corresponding to the six hypotheses of the study. The results are presented for the beginning (pre-test) and end of the course (post-test) and the difference. A positive difference means that the perceived competency mastery increased at the end of the course, which occurred in all the instrument indicators. By applying the Z statistic, we tested the hypothesis to find out whether the increase was significant or not. The results are described below.

The overall results indicate that students in the ethics courses did perceive a significant increase in their competency development. The difference between the pre-test ($M = 3.83$, $SD = 1.02$) and the post-test ($M = 4.05$, $SD = 0.94$) did show an increase, however, the hypothesis H1 test did not show significant results (Post minus Pre = 0.22, $t = 1.85$). The critical t was 2.326. So, globally, the students did not perceive a significant increase in their performance as potential social entrepreneurs. The results of hypotheses H1a-H1e regarding mastery of the social entrepreneurship sub-competencies are presented below.

When testing H1a, we found significant differences in the perception of personal sub-competencies globally, as well as in two of the indicators (see Table 1). The students' perception of the "personal" sub-competency during the course showed a significant

increase (Post-Pre = 0.13, z = 3.672). Delving into this sub-competency's indicators where the increase occurred showed a significant increase in the "communication" indicator (Post-Pre = 0.17, z = 2.014). That item stated, "I perceive that people understand my ideas that I share them with them." Similarly, there was a significant increase in the indicator of "persuasion" (Post-Pre = 0.17, z = 1.980): "Commonly, I manage to convince others about my ideas and actions." It is interesting to note that these two indicators, in addition to showing significant differences, showed the highest increases.

[Insert Table 1 here]

The testing of the H1b hypothesis also yielded favorable overall results. The “leadership” sub-competency perception significantly increased in the overall results (Post-Pre = 0.21, z = 3.844). As with the previous sub-competency, two of the three indicators also showed significant differences. The “people management” indicator showed an increase in student perception (Post-Pre = 0.23, z = 2.213). On the other hand, "time management" presented the most significant increase of this sub-competency (Post-Pre = 0.37, z = 3.086). The item stated, "I can organize time devoted to my daily activities to maximize results." Table 2 also shows that no "collaborative work" indicator significantly increased in student perception of mastery.

[Insert Table 2 here]

In testing the H1c hypothesis, we found that the perception of "social innovation's" sub-competency showed the most significant increase (Table 3). This competency's overall results increased (Post-Pre mean = 0.34, z = 7.934). Many of the indicators of this sub-competency showed favorable results. On the other hand, the indicator "identification of new opportunities for social/environmental problems" presented a significant change (Post-Pre = 0.44, z = 3.958) for the item, "I can identify problems in the social or environmental climate

to generate innovative solutions." The next significant increase occurred in "learning and adaptability" (Post-Pre = 0.20, z = 2.245), corresponding to, "I like to look for reliable information on issues I have not yet mastered." Likewise, students' perception registered a significant increase in the "generation of creative ideas" (Post-Pre = 0.45, z = 3.871), corresponding to, "I know strategies to create new ideas or projects," having one of the highest averages in this sub-competency.

The next indicator with a significant increase was "tolerance to uncertainty and ambiguity" (Post-Pre = 0.27, z = 2.403), linked to "I am tolerant of ambiguous or uncertain situations." "Social involvement" also had a significant increase (Post-Pre = 0.25, z = 2.128): "I show a commitment to social aspects of my environment." The highest significant increase in this sub-competency was the "assessment of ideas, results, and impacts on the environment and people" (Post-Pre = 0.57, z = 4,459), corresponding to the item, "I know how to establish assessment criteria and measure the results of social impact." Finally, one of the indicators with the highest perception of mastery level was the indicator for "management of limited resources and risk models in social organizations" (Post-Pre = 0.48, z = 3.906), corresponding to the item, "I know strategies to develop a project, even with scarce resources."

[Insert Table 3 here]

Regarding the H1d hypothesis, significant results were obtained in the perception of the "social value" sub-competency, although not in the magnitude described in the previous paragraph (see Table 4). Overall, there was a significant increase in this sub-competency (Post-Pre = 0.13, z = 2.676). However, there was only a significant increase in the indicator of "passion and entrepreneurial identity" (Post-Pre = 0.27, z = 2.266), where the item reads, "I am passionate about working for social causes." Table 4 shows no increase in "empathy with the unmet needs of others, ethical code and sensitivity," and "orientation to sustainability

and ecological behavior." These are a focus of analysis, being intrinsic competencies of every social entrepreneur.

[Insert Table 4 here]

Hypothesis H1e was tested to discover any significant increase in the perception of global competency of "entrepreneurial management" and its indicators. As in the rest of the sub-competencies, globally significant results were obtained (Post-Pre = 0.25, z = 3.972). In particular, two of the indicators that are the basis for generating value in social organizations showed significant increases (Post-Pre = 0.43, z = 2.754). The first corresponds to the item, "I have sufficient accounting and financial knowledge to develop an enterprise." The second indicator also increased, although less (Post-Pre = 0.30, z = 2.016), corresponding to, "I know marketing strategies." There were no differences in the indicators for "financing and management or strategic development."

[Insert Table 5 here]

As described, all the perceptions of sub-competencies showed a significant increase, according to the students' questionnaire. The increases in the perceptions of mastery level were not the same for all sub-competencies. As shown in Figure 1, the "social innovation" sub-competency increased the most (Pre-Post = 0.34). Second, the sub-competency of "entrepreneurial management" reported a significant increase, Pre-Post = 0.25. Third, the *leadership* sub-competency posted a significant increase of Post-Pre = 0.21. Finally, both the *personal* and *social value* sub-competencies increased the least in the perception of mastery level, a tie (Post-Pre = 0.13). Although the sub-competency of social value presented the least increase, it is essential to highlight that it showed the highest results in the pre-test (x = 4.05) and the post-test (x = 4.18).

[Insert Figure 1 here]

On the other hand, the increase in each of the indicators of the sub-competencies that presented significant results. Figure 2 shows that the indicators with the most significant increases in the perception of mastery were the *assessment of ideas, results, and impact on the environment and people* (Post-Pre = 0.57), followed by *management of limited resources and risk models in social organizations* (Post-Pre = 0.48); next, the *generation of creative ideas* (Post-Pre = 0.45), followed by the *identification of new opportunities in the face of social/environmental problems* (Post-Pre = 0.44) and the *basis for the generation of value in social organizations* (Post-Pre = 0.43).

[Insert Figure 2 here]

Results Discussion

The results above show significant data to argue the perception of development of the social entrepreneurship competency in the ethics subjects, supported mainly by social and human education and less by administrative training.

Interestingly, according to the results, the perception of the sub-competency of "social innovation" is the one showing the greatest development during the semester (0.34), in line with the curriculum of the ethics courses, where the impact of the students' actions on social, humanistic, and environmental issues is addressed. This is evident when looking at the results of indicator 17, "the assessment of ideas, results, and impacts on the environment and people" (Figure 2), which was the aspect most developed during the semester (0.57); it is directly related to humanistic education.

Creating social value is a responsibility of universities. In this sense, the perception of the sub-competency of "social innovation" gives us the opportunity to locate this area with potential, where it is convenient to continue exploring new strategies that allow us to fulfill and generate alternatives that serve the welfare of the community. Ontiveros-Ortíz

and Ramírez- Montoya (2020) state the importance of evaluating responsibility in the light of the social appropriation of knowledge and networks. The social impact of universities can be reflected in their relationships with governments, non-profit organizations, communities, industry and environmental initiatives.

In contrast, we note that the perception of the sub-competency and the indicators directly focused on administrative or business issues, such as "entrepreneurial management," showed limited and insignificant development (see Table 5). These are the indicators for financing and administration. Strategic development had the least number of differences of all the results calculated between the pre and post-tests (see Figure 2).

This allows us to understand and argue the contributions made by Lackeus (2014), Sáenz and Lopez (2015), and Velasco, Estrada, Pabón, and Tójar (2019). They pointed out that the social entrepreneur's profile has transdisciplinary elements related to human, social, and ethical aspects beyond the disciplinary knowledge of administration and business. The entrepreneur becomes limited if he only focuses on the latter. This is why Steiner et al. (2018) consider it crucial that universities promote mixed profiles to develop comprehensive and broad vision in young entrepreneurs.

As pointed out previously, we believe it is essential to understand the little development shown in the perception of the sub-competency of "social value" (Figure 1), which was tied with the "personal" sub-competency for the lowest development in the sample. Although this situation might seem counterintuitive because these include aspects such as empathy, moral and ethical codes, human sensitivity, sustainability, and sustainable development, we point out two arguments to appreciate. The first is that "social value" is a sub-competency already presenting a high level of perception in the pre-test (4.05); thus, its development would not allow significant changes in perception (4.18 in the post-test).

Second, the instrument focused on students' perception, so acquiring humanistic and ethical competency development in an ethics subject may not seem innovative or interesting to the population, i.e., the students anticipated having this sub-competency.

Unlike some cognitive areas that focus more on acquiring knowledge, the cultivation of human sensitivity (compassion and empathy, for example) or ethical and social commitment can transform individuals. Seeing their reality differently, they rethink their roles as individual members of society, remaking themselves as more critical subjects of their environment (Nussbaum, 1997). This could explain the limited perception that the students in the sample had of their development. Human sensitivity modifies the perceptions that we have of ourselves as individuals, which is difficult to measure and not very perceptible in research limited to a short time.

Concerning the central hypothesis, we can point out that although the development of the competency, in general, was not sufficiently significant (H1) from the students' perception, some measured items show their perception of considerable and significant development in particular sub-competency indicators (H1a-H1e). This allows us to conclude, as stated in this research's objective, that humanistic and ethical education can be crucial for students to develop a positive perception of their mastery of social entrepreneurship.

The domains of social innovation are fundamental in the profile of the social entrepreneur; however, it is important not to neglect the transdisciplinary training that should also include financial literacy and social awareness. The sub-competence of social innovation presented the highest significant increase in students' perception (post-pre = 0.34). These findings are aligned with the fundamentals of social innovation, such as the ability to recognise opportunities, beneficiaries, generate creative responses through citizen engagement (Laukkanen, 2000). According to the ideas of Lewis & Henry (2019), the

achievements of students around social innovation allow new entrepreneurs to approach their work differently, with a focus on sustainability and the generation of shared value. However, it is necessary to pay attention to the low perception in the sub-competence of social value, since it is a fundamental part of the social entrepreneur's profile (Sáenz & López, 2015).

According to the study by Schlee et al. (2009), contemporary education requires a global vision and versatility, therefore, ethical education would find potential with the development of the social entrepreneurship competence in university education, as this would favour social competences, such as communication, creativity and global vision (Nandan & London, 2013). In this sense, although the results did not show a significant increase in global competence ($t = 1.85$), it is interesting to note how ethical training and education in social entrepreneurship favoured the development of communication skills, time and people management, persuasion, bases for management in entrepreneurship, passion, entrepreneurial identity, as well as a large part of the domains of social innovation.

Conclusions

This study is relevant because it relates to social entrepreneurship's growing use as an effective tool to address social issues, one of the major responsibilities of universities today. Educational institutions are subject to social responsibility, so their actions and tasks must be visualized to satisfy the legitimate demands that their environments make on them. Thus, proposals that improve the efficiency of acquiring and developing social entrepreneurship competency and training new social entrepreneurs are critical products that educational institutions must integrate into all academic areas.

The present study illustrates how knowledge acquired through practical application to develop social entrepreneurship can be taught and actively applied in universities. It demonstrates that this must not solely focus on administrative, financial, or business

approaches; the institutions must make transdisciplinary and transversal efforts. The transdisciplinary profile of social entrepreneurs challenges their trainers because the necessary and sufficient training programs must design comprehensive, inclusive, social and humanistic projects. This orientation is not necessarily found within traditional entrepreneurship.

We recognize that this study is limited because there is no model group to contrast, but this does not prevent developing the social entrepreneurship competency during the semester. An additional limitation is that a better result might have been achieved if an intervention with specific activities focusing on the particular development of the competency had been proposed. However, this was a pilot study. We feared that such an intervention could affect the groups' perception of the class objective, which, in the end, was ethics and not social entrepreneurship. Also, we acknowledge that the population sample is limited, but it was a large proportion of the students taking the ethics subjects during the semester. A more comprehensive application, considering students from different semesters, remains to be done.

Despite these limitations, this study sheds light and essential data on the great possibilities of developing social entrepreneurship competency from the perspective of ethical and civic education. This study does develop a broader vision of the impact that multi-disciplinary education can have on training social entrepreneurs, seeking to distinguish it from the training in business programs, which produce other types of entrepreneurs. With these results, we encourage universities to design mixed-knowledge curricula, which include administrative training but also include humanistic and social sciences elements, which, as we have seen, can be very valuable in developing social entrepreneurship competency.

Another contribution of the study to educational practice is in the need to capitalize on in training practices for social entrepreneurship is "social innovation", due to the sense of transcendence and impact that universities should seek, precisely because of their social responsibility to create value. University networks, with the public and private sectors, will help to cover this responsibility and be in tune with the "sense of transcendence" to impact the context. The context is the scenario where the formative process takes place and in each situation there are specific social, geographical, psychological, sociological and cultural characteristics, which are necessary to know in order to build and contribute, trying to transcend, through the formative experience and create value through social innovation.

Finally, we believe that this type of research not only contributes to generating knowledge on the development of students' perceptions on the development of social entrepreneurship competence in universities but can also help to broaden the perception that companies have of the profile of their entrepreneurs, considering the importance of multidisciplinary and a humanistic and social vision, in addition to profiles exclusively focused on business training. The implications for educational practice lead to contemplate the development of these social entrepreneurship competencies in subjects such as ethics education (a situation presented in this study, but not excluding other subjects), where transversal curricula are reinforced, both vertically (serialization) and horizontally (multidisciplinarity), contributing to training in reasoning for complexity and creativity to provide solutions to society.

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Ethical Education and its Impact on the Perceived Development of Social Entrepreneurship Competency

Tables and Figures

Table 1. Differences in the development of the *personal* sub-competency

	Mean pre	*Mean post*	*Post-Pre*	*z*
Global	4.18	4.31	0.13	3.672*
1. Motivation	4.59	4.68	0.09	1.517
2. Knowledge of the other	4.27	4.37	0.10	1.281
3. Perseverance	4.42	4.49	0.08	1.026
4. Communication	3.91	4.08	0.17	1.710
5. Communication	3.96	4.14	0.17	2.014*
6. Persuasion	3.92	4.10	0.17	1.980*

* a < 0.5

Source: Own elaboration

Table 2. Differences in the development of the *leadership* sub-competency

	Mean pre	*Mean post*	*Post-Pre*	*z*
Global	4.07	4.28	0.21	3.844*
7. People management	3.94	4.17	0.23	2.213*

8. Time management	3.62	3.99	0.37	3.086*
9. Collaborative work	4.17	4.33	0.16	1.591
10. Collaborative work	4.56	4.64	0.08	0.924

* a < 0.5

Source: Own elaboration

Table 3. Differences in the *development of social innovation* sub-competency

	Mean pre	*Mean post*	*Post-Pre*	*z*
Global	3.64	3.99	0.34	7.934*
11. Identification of new opportunities for social/environmental issues	3.53	3.97	0.44	3.958*
12. Learning and adaptability	4.20	4.40	0.20	2.245*
13. Learning and adaptability	4.65	4.73	0.08	1.248
14. Generation of creative ideas	3.29	3.74	0.45	3.871*
15. Tolerance of uncertainty and ambiguity	3.58	3.86	0.27	2.403*
16. Social involvement	3.66	3.91	0.25	2.128*
17. Evaluation of ideas, results, and impacts on the environment and people	3.07	3.64	0.57	4.459*

18. Management of limited resources and risk models in social organizations	3.16	3.64	0.48	3.906*

* a < 0.5

Source: Own elaboration

Table 4. Differences in the development of the *social value* sub-competency

	Mean pre	***Mean post***	***Post-Pre***	***z***
Global	4.05	4.18	0.13	2.676*
19. Empathy with the unmet needs of others	4.02	4.07	0.05	0.463
20. Ethical code and sensitivity	4.43	4.51	0.08	0.965
21. Ethical code and sensitivity	4.37	4.45	0.08	0.900
22. Sustainability orientation and ecological behavior	3.74	3.91	0.17	1.587
23. Passion and entrepreneurial identity	3.68	3.95	0.27	2.266*

* a < 0.5

Source: Own elaboration

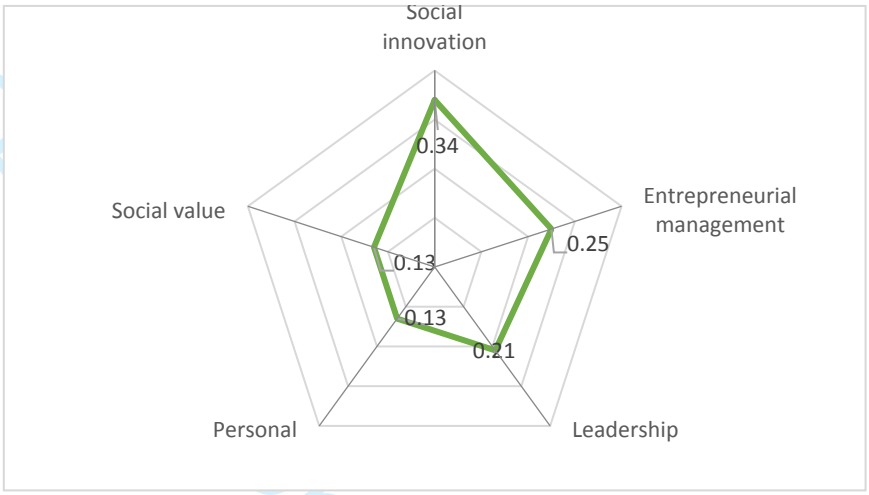
Table 5. Differences in the development of the *entrepreneurial management* sub-competency

	Mean pre	*Mean post*	*Post-Pre*	*z*
Global	3.29	3.54	0.25	3.972*
24. Bases for the generation of value in social organizations	3.00	3.43	0.43	2.754*
25. Bases for the generation of value in social organizations	3.02	3.31	0.30	2.016*
26. Bases for the generation of value in social organizations	3.12	3.38	0.26	1.953
27. Financing and administration	3.14	3.39	0.25	1.793
28. Strategic development	4.16	4.20	0.04	0.416

* a < 0.5

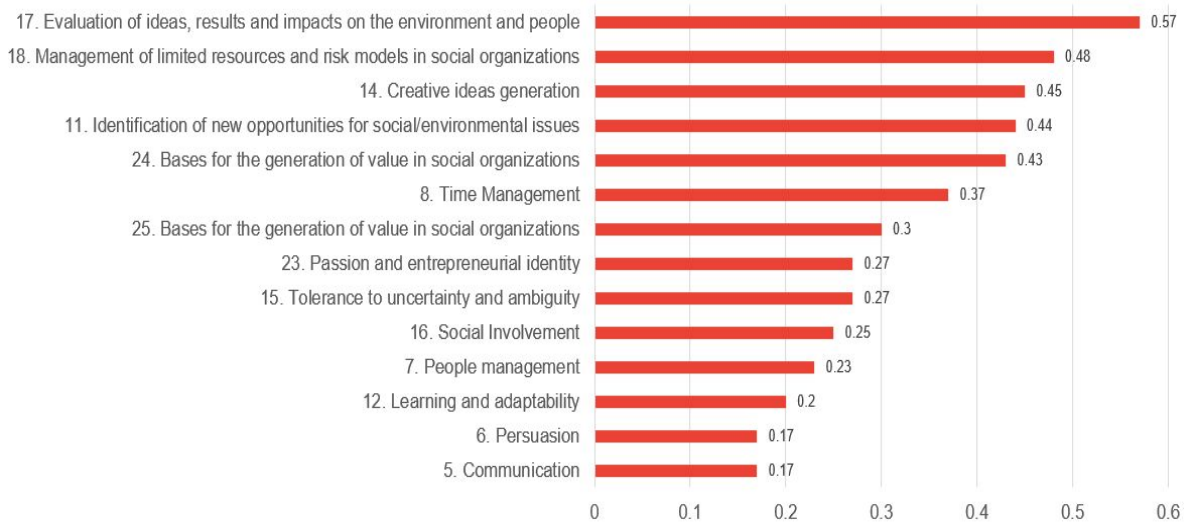
Source: Own elaboration

Figure 1. Significant increase by sub-competencies.



Source: Own elaboration

Figure 2. Significant increase by indicator



Source: Own elaboration