New Trends and Issues Proceedings on Humanities and Social Sciences



Volume 6, Issue 1 (2019) 091-099

www.prosoc.eu

Selected Paper of 11th World Conference on Educational Sciences (WCES-2019) 07-10 February 2019, Milano Novotel Milano Nord Ca' Granda Convention Center, Italy

Assessing and developing social entrepreneurship competencies in university subjects

Juan-Carlos Tojar-Hurtado*, Department Research Methods and Evaluation in Education, Universidad de Malaga, 29071 Malaga, Spain

Ligia-Isabel Estrada-Vidal, Department Research Methods and Evaluation in Education, Universidad de Granada, 52005 Granada, Spain

Suggested Citation:

Tojar-Hurtado, J.-C. & Estrada-Vidal, L.-I. (2019). Assessing and developing social entrepreneurship competencies in university subjects. *New Trends and Issues Proceedings on Humanities and Social Sciences*. [Online]. 6(1), pp 091–099. Available from: www.prosoc.eu

Selection and peer review under responsibility of Prof. Dr. Jesus Garcia Laborda, University of Alcala, Spain. © 2019. All rights reserved.

Abstract

Universities and other scientific and academic entities have become aware of the need to promote entrepreneurship in higher education. Social entrepreneurship and the values that it promotes are to a large extent consistent with the transversal competencies that must be taught at University. This paper presents a tool (two versions) that allows for the evaluation of social entrepreneurship competencies in university subjects. The tool permits the analysis of the degree to which these competencies are developed in a specific subject, both from the perspective of the students and educators. The two versions (students and faculty) have been validated by experts, and in the case of the student version, a statistical validation has been carried out (reliability and construct validity). The conclusions of this research highlight the relevance of working on social entrepreneurship competencies in university classrooms, as well as the way in which each educator proposes improvement strategies.

Keywords: Social entrepreneurship, competency, licker scales, reliability, factor analysis.

E-mail address: jctojar@uma.es / Tel.: +34 952132543

^{*} ADDRESS FOR CORRESPONDENCE: **Juan-Carlos Tojar-Hurtado**, Department Research Methods and Evaluation in Education, Universidad de Malaga, 29071 Malaga, Spain

1. Introduction

International organisations (UNESCO, 2009) are aiming at promoting entrepreneurial culture in higher education institutions so that they can respond to and anticipate social needs. According to UNESCO, a key indicator of the quality of universities is the ability to prepare citizens to acquire the knowledge, skills and attitudes demanded by the current labour market (Espiritu, Gonzalez & Alcaraz, 2012).

The report on the Entrepreneurial Profile of University Students (Guerrero et al., 2016) also highlights the relevant role of the University in the configuration of 'entrepreneurial ecosystems'. According to this report, universities should be a transforming agent and contribute at the same time to the creation of favourable environments that generate human capital, attract talent and create knowledge that can be transferred to society through initiatives with social and economic impact. From this perspective, the university needs to commit to innovation and interdisciplinary training.

These ideas are strengthened by the growing agreement on the need to create new business models aimed at solving the social sustainability problems of our time (Strachan, 2018). The new university model proposed in the European Higher Education Area attempts to respond to the complex and heterogeneous economic and social context of our current society. University initiatives and proposals for social entrepreneurship should be aimed at establishing new, broader and more plural business formulas that facilitate sustainable human development (Segui-Mas, Tormo-Carbo, Sarrion-Vines & Julia-Igual, 2014).

Social entrepreneurship and the values it promotes are completely consistent with the transversal competencies that are supposed to be developed in higher education (Sanchez, Ward, Hernandez & Florez, 2017). In the view of this, the competency-based approach (Saenz & Lopez-Velez, 2015) could also be a suitable model for evaluating social entrepreneurship in higher education.

At the institutional level, Spanish universities attempt to promote entrepreneurship through a series of resources and training strategies (conferences, congresses, seminars, projects, competitions, prizes, chairs, incubation areas, etc.). Some of these initiatives focus on social aspects and sustainability (Lindner, 2018). However, there is still a lack of programmes promoting social entrepreneurship in the university syllabus (Wronka-Pospiech, 2016), as well as significant gaps in support structures and promotion of these competencies in university classrooms (Melian, Campos & Sanchis, 2017).

In relation to the skills to be developed, Viloria (2017), for example, proposes that skills such as entrepreneurship, teamwork, risk perception, creativity, social responsibility and leadership should be worked on along with technological skills. Lans, Blok and Wesselink (2014) advocate an integrated framework of sustainable entrepreneurship competencies in higher education. Other studies noting the competencies that should be worked on are those by Capella, Gil, Marti and Ruiz-Bernardo (2015); Garcia-Lira, Canton & Torreblanca (2015) and Saenz and Lopez-Velez (2015) among others.

Tools to evaluate entrepreneurial skills are already available (Espiritu, Gonzalez & Alcaraz, 2012). Some of them even cover social entrepreneurship (Capella et al., 2015). However, there are no questionnaires to assess social entrepreneurship in university subjects, nor tools that at the same time allow for designing a work plan to promote the skills associated with this way of understanding entrepreneurship. This is what this study seeks to provide; a tool capable of assessing social entrepreneurship competencies in university subjects, which at the same time encourages educators to design a plan to promote these competencies in the immediate future. Research on the promotion of social and sustainable entrepreneurship can have a relevant international impact on entrepreneurship (Zahra, Newey & Li, 2017).

2. Purpose of study

The objective of this study is to validate an instrument to assess and promote social entrepreneurship in university subjects. The instrument should include a wide range of social entrepreneurship competencies that can be worked on in all types of university subjects. In the same way, the instrument should collect the opinion of faculty and students on the extent to which these competencies are worked on. The dual source of information (educator-student) helps to confirm the assessments of the competencies on the same subject from two different perspectives (educator-student, teaching-learning). After analysing each of the competencies and reflecting on the context of their subject, the teaching staff would be able to estimate the margin for improvement that each competency has in its own context. Based on this estimation, educators could select some of the competencies with a large margin and design actions to achieve improvements the next time they teach their subject.

Therefore, the specific objectives of this study are:

- i) To construct an instrument that covers a wide range of (transversal) social entrepreneurship competencies on the basis of aspects found in the related scientific literature.
- ii) To adapt the instrument to the students.
- iii) To validate the educators' version by means of expert judges.
- iv) To apply the student-adapted version and validate it statistically.
- v) Statistical validation on the basis of a pilot experience with students allows for the assessment of the structural validity of the dimensions.

3. Methods

This research applies mixed methods. The construction of the instrument based on the related scientific literature, its adaptation for the student sample, and its validation by experts was carried out using a qualitative method. The analysis of the factor structure (structural validity) of the students' version of the instrument was quantitative.

The instrument was constructed by bringing together the most relevant variables and dimensions based on a systematic study of the scientific literature on competencies and social entrepreneurship, relying mainly on Capella et al. (2015); Garcia-Lira et al. (2015); Lans et al. (2014); Saenz & Lopez-Velez (2015) and Viloria (2017). The instrument was structured in four dimensions that covered the 'social entrepreneurship' construct. Each of the four dimensions included a series of elements associated with variables related to each dimension of the construct. The dimensions were as follows:

- a) Values: involvement, commitment to different social realities, empathy and sense of ethics.
- b) Interpersonal qualities: initiative and proactivity, self-confidence, positive attitude, flexibility, constancy and dedication, responsibility and control of situations.
- c) Skills: leadership, effective relationship with others, teamwork, communication, empathetic and assertive listening and self-motivation.
- d) Appeal to action: innovative responses, idea generation, devising and building initiatives, and organising.

Based on its characteristics, the instrument was called 'Registry of Social Entrepreneurship in University Classrooms', RESEUS for short. The first version of RESEUS (v1.0) was evaluated by 14 judges who were experts in research methodology and social entrepreneurship. The judges assessed the adequacy of each element of the RESEUS in relation to the dimension and the construct, the evaluation scale (both element and margin for improvement), and instrument format. In addition to a Likert rating scale, each element would receive an estimate of potential margin for improvement in the opinion of the educator responsible for the subject (see Figure 1). In the final part of the

instrument, each educator was asked to indicate strategies to address each element with more potential for improvement.

RESEUS V1.0 Record to Evaluate Social En	trepren	eursh	ip in	Unive	ersity S	Subjects ¹
This instrument is designed to 1) assess the degree to which a subject entrepreneurship, and 2) the extent to which changes can be proposed towards each subject.						a de la companya del companya de la companya del companya de la co
Firstly, you must reflect on each item, to assess (from 0 to 4) what is curre point out the margin for improvement (0 = no or impossible to improvement).		•			11000	
			Leve	al.		
Subject:						
Subject: Degree:	- 1			Unive		
Subject:	- 1			Unive	rsity: n-mand	
Subject:	- 1	Curre		Univer	rsity: n-mand n	latory)
Subject: Degree: Name of the educator*: In my subject I encourage 1.1. Involvement and commitment to some social realities		Curre	ent val	Univer	rsity: n-mand n	latory)

Figure 1. RESEUS v1.0 detail

The student-adapted version (RESAU v2.0) was evaluated by the same judges as the faculty version (RESAU v1.0). This version was applied to a large sample of Education and Economics students from the Universities of Malaga, Granada and Seville, the three universities with the highest number of students in the region of Andalusia, Spain (n = 1,592). Students enrolled in these courses were chosen for theoretical reasons. The curricula of the Bachelor and Masters' Education degrees are the ones which include the highest level of transversal competencies training, while Economics Bachelors and Masters' degrees students are the ones that should mostly be trained on subjects related to entrepreneurship and the creation of companies—in general, not specifically related to social economy. Both groups of students added value to the sample configuration. From this initial large sample, a sub-sample was selected to make the pilot study on the reliability and validity of the instrument measurement ($n_2 = 300$).

Measurement reliability was estimated based on internal consistency, estimated with the Cronbach's alpha coefficient. Structural validity was calculated with a factor analysis and with categorical principal components analysis. All statistical calculations were carried out with SPSS Statistics V22.0.

4. Findings and results

After validation by the judges, a RESEUS v1.1 questionnaire with 34 elements was obtained. Each element went through two assessments by the teaching staff according to their subject specialisation; an initial evaluation was carried out by the educator in relation to how that element was worked on in their subject. A second assessment concerned the margin for improvement that in the educator's view this element had in the context of their subject. The elements were organised in four dimensions. The first dimension brought together elements related to 'values' (involvement and commitment to social

realities, awareness of the other, critical thinking, gender perspective, ethical sense, etc.). The second dimension was called 'interpersonal qualities' (constancy and dedication, ability to overcome adversity, self-confidence and positive attitude, and ability to control). The third dimension was called 'transversal capacities' (leadership, relating effectively with groups, teamwork, effective communication, empathetic and assertive listening). The fourth dimension was called 'appeal to action' (innovative responses, generating of ideas and identification of opportunities, initiating, constructing and making initiatives a reality). In the final part, educators were asked to select at least four elements that they themselves thought had a wide margin for improvement, and to qualitatively describe a strategy to improve them.

Table 1 shows the elements with the greatest margin for improvement in the RESEUS v1.1 questionnaires filled in by educators ($n_1 = 21$). The second column shows the median values (1–4 scale), and the third column includes an example of a strategy offered by the educators who indicated those elements having the most room for improvement.

Table 1. Elements with most room for improvement and educators' proposals

Element	Median	Improvement strategies
Teamwork	2.75	Facilitating cooperative tools on the platform for students to perform tasks and activities by working as a team and implementing methodologies to develop this competence.
Ability to overcome difficulties and failure	2.75	Individual tutorials and reflective analysis of errors and alternatives for overcoming obstacles.
Generating entrepreneurial ideas and opportunities.	2.50	Setting out real cases of entrepreneurship in the context of the subject and making students show their good practices.
Competently distribute and coordinate tasks and functions	2.50	Devise activities and dynamics that are adapted to a virtual learning environment and can develop the ability of students to perform these tasks.

The students' version (RESEUS v2.1) was applied in a pilot test to 300 participants, students of Education and Economics degrees from the Universities of Granada, Seville and Malaga (62% women and 28% men, with a mean age of 23.00 years). The Cronbach's alpha of the total test (34 elements) showed high internal consistency ($\alpha = 0.98$).

The factor analysis was proved suitable for this study: Kaiser–Meyer–Olkin = 0.97, and Barlett's sphericity test result was χ^2 = 9241.14, and p < 0.0005 (dof = 561).

This same analysis (factor analysis extraction method) provided a factor solution of four components explaining 71.93% of the variability. After applying the Varimax rotation method with Kaiser Normalisation, the factor structure exactly represented the dimensions with which the instrument had been designed. The tables below show the dimensions and factor loads of each of the elements (Tables 2–5). As additional information, the Cronbach's alpha coefficient of each dimension is included in Table 6. As is the case on this last table, the values in all cases show high internal consistency in each component/dimension.

Table 2. Component values

Element: This subject promotes:	Factor load
1.1. Involvement and commitment to different social realities	0.73
1.2. Awareness of the other (Ability to understand and act according to the personal, professional and social problems and needs of others)	0.65
1.3. Critical thinking	0.73
1.4. Gender perspective	0.66
1.5. Sense of ethics (principles and rules based on respect for people and our environment)	0.68
2.1. Initiative and proactivity (ability to promote initiatives; to introduce new	0.59

products, services or innovative technology; and to anticipate future	
problems, needs and changes)	
2.2. Autonomy (ability to seek independence and freedom of action)	0.56
2.3. Flexibility to adopt and be involved in changes	0.59

As shown in Table 2, the elements that reach saturation in this component are 1.1 (Involvement and commitment to different social realities), 1.3 (Critical thinking) and 1.5 (Ethical sense). This component has been called 'values' and, as shown in Table 6, has high internal consistency ($\alpha_2 = 0.92$). This dimension brings together the values that can be worked on in a university classroom to foster social entrepreneurship.

Table 3. Interpersonal qualities component

Element: This subject promotes:	Factor load
2.4. Constancy, dedication and determination in tasks from start to finish	0.68
2.5. Ability to overcome adversity and failure	0.70
2.6. Self-confidence and positive attitude	0.67
2.7. Responsibility (ability to be aware of obligations and to act accordingly, recognising the consequences of one's decisions)	0.71
2.8. Ability to perceive that success depends on one's own efforts, regardless of external circumstances	0.79
2.9. Ability to control oneself in difficult situations and deal with pressure.	0.74
2.10. Planning to respond in difficult, uncertain situations	0.73
2.11. Ability to accept risks and assume the responsibilities that they may involve	0.68

Table 3 shows the elements that make up the Interpersonal Qualities dimension. The elements reaching saturation in this component are 2.8 (ability to perceive that success depends on one's own efforts, regardless of external circumstances), 2.9 (ability to control oneself in difficult situations and deal with pressure.) and 2.10 (planning to respond in difficult, uncertain situations). As indicated in Table 6, the eight elements that make up this dimension have very high internal consistency ($\alpha_2 = 0.93$). The elements in this component refer to interpersonal qualities that can be promoted in class during learning activities to acquire social entrepreneurship training.

Table 4. Transversal skills component

Element: In this subject I work with my classmates on:	Factor load
3.1. Leadership	0.71
3.2. Relating effectively with other groups and/or entities outside the	0.79
class	
3.3. Teamwork	0.84
3.4. Communicating effectively with different people and in different	0.84
situations	
3.5. Empathetic and assertive listening	0.77
3.6. Interpreting emotions and giving feedback to other people	0.79
3.7. Self-motivation and motivating workmates	0.76
3.8. Selecting the people who will be part of your work group in a non-	0.74
arbitrary way	
3.9. Competently distributing and coordinating tasks and functions	0.78
3.10. Equal treatment	0.62

Table 4 shows the elements that make up the transversal skills component. These competencies have the highest factor loads. This means that they are the competencies and the dimension—contribute most to training in social entrepreneurship. In terms of factor load, the most important are:

3.3 (teamwork), 3.4. (communicating effectively with different people and in different situations), 3.2 (relating effectively with other groups and/or entities outside the class) and 3.6 (interpreting emotions and giving feedback to other people). Other competencies, such as 3.9 and 3.5, also have high factor loads. It should also be noted that the elements of this component are those with the highest internal consistency ($\alpha_3 = 0.96$), as indicated in Table 6.

Table 5. Appeal to action component

Element: The tasks in this class or directed study promote:	Factor load
4.1. Innovative and creative responses to the problems raised	0.66
4.2. Generating ideas to identify entrepreneurial opportunities	0.65
4.3. Developing, building and making initiatives a reality	0.70
4.4. Establishing clear, not simple, but achievable goals	0.71
4.5. Selecting the best alternative to act in a consistent and committed manner	0.72
4.6. Ability to organise in an orderly, coherent and pragmatic manner	0.71
4.7. Gender perspective in working groups	0.52
4.8. Inclusiveness and attention to diversity	0.63

The Appeal to action dimension is made up of eight elements, 4.5 (selecting the best alternative to act in a consistent and committed manner), 4.4 (establishing clear goals that are not simple but achievable) and 4.6 (capacity to organise in an orderly, coherent and pragmatic manner) being the ones standing out. This dimension is key when it comes to engaging in actions that foster social entrepreneurship. Further to that, this component has high internal consistency ($\alpha_4 = 0.96$), as seen in Table 6.

Table 6. Internal consistency of components/dimensions and RESEUS instrument

Component/dimension	Cronbach's alpha	Number of elements
Dimension 1: Values	0.92	8
Dimension 2: Interpersonal qualities	0.93	8
Dimension 3: Transversal skills	0.96	10
Dimension 4: Appeal to action	0.95	8
RESEUS instrument total	0.98	34

Table 6 shows the Cronbach's alpha coefficients of the different dimensions as well as the RESEUS total. This table shows the high internal consistency of all components, and also of the instrument as a whole. It is striking that the overall coefficient of the RESEUS instrument is higher than that of each separate scale (even though the latter are also very high). This fact is further evidence of the internal consistency of the RESEUS and the reliability of its measurement when applied.

5. Conclusion and recommendations

The conclusion of this research points to the relevance of working on social entrepreneurship competencies in university classrooms. Likewise, the instrument constructed is capable of showing the way in which each educator sets out strategies for improvement.

The validation by expert judges of the RESEUS version for educators has proved to be useful for assessing the degree to which educators work with different social entrepreneurship competencies. Furthermore, the instrument allows for the identification of the competencies that have the greatest margin for improvement in the context of each subject. Together with this, educators describe strategies for effectively carrying out improvement work on social entrepreneurship competencies in their own subjects.

The statistical validation, based on the RESEUS version for students, shows that the measurement obtained with this instrument is reliable and valid. The evidence of reliability was confirmed by Cronbach's alpha coefficients. All the instrument components reached very high internal consistency values. In addition to this, the overall internal consistency of the instrument was shown to be above that obtained in the four components. This fact can be taken as an added evidence of the quality of the instrument.

Evidence of validity was obtained by factor analysis. The factor model obtained explained a high percentage of the behaviour of the data. However, the most important thing is that it showed a structure highly consistent with the previous design of the instrument carried out based on the analysis of the related scientific literature. This can be taken as clear evidence of structural validity.

The factor analysis also provided highly relevant information for future related research. While all the competencies considered in the instrument are relevant in the development of social entrepreneurship in higher education, the study of factor loads allows for determining the most important elements.

According to the analyses, Transversal Skills are the component with the highest factor loads and they are also the one with the greatest internal consistency. Within this component, the most relevant elements are teamwork and effective communication (with different people and in different situations). Therefore, these two competencies play the most important role in social entrepreneurship training. Interpreting emotions and giving feedback to other people, and relating effectively to other groups and entities outside the classroom are also worth noting here.

Second, the most relevant component—for the same reasons as the previous one—is Interpersonal Qualities. All the elements that make up this dimension are relevant, as proved by the analyses. However, within this dimension, there is one element that stands out above the rest. It is the ability to perceive that success depends on one's own effort, regardless of external circumstances.

Third in order of relevance is the Appeal to Action component. All the elements are also important within this component. However, there are a few which stand out, e.g., 'selecting the best alternative to act on in a consistent and committed manner', and 'establishing clear goals that are not simple, but achievable'. Other elements with appellative functions worth noting are 'organisation in an orderly, coherent and pragmatic manner' and 'developing, building and making initiatives a reality'.

Finally, values are in fourth place. All the elements within this dimension are critical. This said, some of them that stand above the rest. The first are 'critical thinking' and 'commitment to different social realities'. These two elements together with 'sense of ethics' seem to be the fundamental values for social entrepreneurship.

The conclusions of this study and the recommendations derived from them are fundamental when it comes to providing guidelines for university classroom work. Ascertaining those elements which are most relevant for promoting social values in entrepreneurship should be of great help to higher education educators. If we take into account that some of the social entrepreneurship competencies coincide with the transversal competencies that are worked on in many university subjects, the conclusions of this study can have a great impact on higher education training.

Promoting the development of entrepreneurship skills in higher education is also a key to fostering innovative teaching. Thus, in addition to obtaining specific training in a university course, students who graduate from university can acquire further resources (skills, abilities and attitudes) that will allow them to undertake projects with social values.

References

- Capella, C., Gil, J., Marti, M. & Ruiz-Bernardo, P. (2015). Construccion de un cuestionario para medir el emprendimiento social en Educacion Fisica. *Pedagogia Social. Revista Interuniversitaria, 28*, 169–188. doi:10. sE7179/PsRi 2016.28.13
- Espiritu, R., Gonzalez, R. F. & Alcaraz, E. (2012). Desarrollo de competencias emprendedoras: Un analisis explicativo con estudiantes universitarios. *Cuadernos de Estudios Empresariales, 22*, 29–53. doi:10.5209/rev CESE.2012.v22.44644
- Garcia-Lira, A., Canton, L. C. & Torreblanca, A. (2015). Evaluacion por competencias de un programa educativo emprendedor universitario. *Revista Iberoamericana de Contaduria, Economia y Administracion, 4*(8). Retrieved from https://dialnet.unirioja.es/servlet/articulo?codigo=5263331
- Guerrero, M., Urbano, D., Ramos, A.R., Ruiz-Navarro, J., Neira, I. & Fernandez- Laviada, A. (2016). *Observatorio de Emprendimiento Universitario en Espana. Edicion 2015–2016*. Madrid, Spain: CRUE Universidades Espanolas-RedEmprendia-CISE.
- Lans, T., Blok, V. & Wesselink, R. (2014). Learning apart and together: towards an integrated competence framework for sustainable entrepreneurship in higher education. *Journal of Cleaner Production*, 62(0), 37–47. doi:10.1016/j.jclepro.2013.03.036
- Lindner, J. (2018). Entrepreneurship education for a sustainable future. *Discourse and Communication for Sustainable Education*, *9*(1), 115–127.
- Melian, A., Campos, V. & Sanchis, J. R. (2017). La educacion de postgrado en Economia Social en la universidad espanola ¿una asignatura pendiente? *CIRIEC-Espana, Revista de Economia Publica, Social y Cooperativa, 89*, 33–35.
- Saenz, N. & Lopez-Velez, A. L. (2015). Las competencias de emprendimiento social, COEMS: aproximacion a traves de programas de formacion universitaria en Iberoamerica, *REVESCO. Revista de Estudios Cooperativos*, 119, 159–182. doi:10.5209/rev REVE.2015.n119.49066
- Sanchez, J. C., Ward, A., Hernandez, B. & Florez, J. (2017). Educacion emprendedora: Estado del arte. *Propositos y Representaciones, 5*(2), 401–473. doi:10.20511/pyr2017.v5n2.190
- Segui-Mas, E., Tormo-Carbo, G., Sarrion-Vines, F. & Julia Igual, J. F. (2014). La Economia Social y la universidad emprendedora: transferir, emprender y cooperar en accion. *IECA Instituto de Estadistica y Cartografía de Andalucia*, 5, 109–118.
- Strachan, G. (2018). Can education for sustainable development change entrepreneurship education to deliver a sustainable future? *Discourse and Communication for Sustainable Education*, *9*(1), 36–49.
- UNESCO. (2009). 2009 World conference on higher education: the new dynamics of higher education and research for societal change and development. *Communique declaration. Paris,* 5–8 July 2009. Retrieved from http://unesdoc.unesco.org/images/0018/001832/183277e.pdf
- Viloria, H. (2017). Desarrollo de competencias emprendedoras en docentes de universidades publicas autonomas. *Revista Encuentros, 15*(1), 133–146. doi:10.15665/re.v15i1.815
- Wronka-Pospiech, M. (2016). The identification of skills and competencies for effective management in social enterprises. A managerial perspective. *Management*, 20(1), 40–57. doi: 10.1515/manment-2015-0023