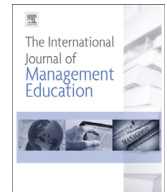




ELSEVIER

Contents lists available at ScienceDirect

The International Journal of Management Education

journal homepage: www.elsevier.com/locate/ijme

Research Notes

Student organizations and Communities of Practice: Actions for the 2030 Agenda for Sustainable Development

Julio Cesar Borges ^{a,*,1}, Luciana Oranges Cezarino ^{b,2},
 Tamiris Capellaro Ferreira ^{a,1}, Otávia Travençolo Muniz Sala ^{a,1},
 Delton Lehr Unglaub ^{a,1}, Adriana Cristina Ferreira Caldana ^{a,1}

^a School of Economics, Business Administration and Accounting at Ribeirão Preto (FEA-RP), University of São Paulo (USP), Av. Bandeirantes, 3900, Ribeirão Preto, São Paulo, 14040-900, Brazil

^b School of Business and Management (FAGEN), Uberlândia Federal University (UFU), Av. João Naves de Ávila, 2121, Bloco 1F, Sala 206 - Campus Santa Mônica, Uberlândia, Minas Gerais 38400-902, Brazil

ARTICLE INFO

Article history:

Received 29 November 2016

Received in revised form 8 February 2017

Accepted 28 February 2017

Available online xxx

Keywords:

Student organizations

Communities of practice

2030 agenda

Sustainable development goals

College of management

Content analysis

ABSTRACT

This paper presents an analysis of student perspectives in a public college of management, signatory of the Principles for Responsible Management Education (PRME) and demonstrates how these students are able to promote the 2030 Agenda of the Sustainable Development through their student organizations. Student organizations may be considered Communities of Practice (CoPs) since they are dynamic, interactive and not controlled by the institution. Thus, an exchange of knowledge and participants' engagement occurs naturally through shared values and practices. The proposed research question is "What are the values and practices shared in student organizations that are interpreted as CoPs in a public college of management that has concrete actions and potential to promote the 2030 Agenda for Sustainable Development?" A questionnaire was sent to all of the members of the nine student organizations, and it contained six open-ended questions as well as profile questions. The answers to the open-ended questions were submitted to qualitative and quantitative content analysis. The results show that there is evidence that student organizations connect people by their beliefs, passions and shared values to achieve several goals, acting as CoPs, and have concrete actions and potential to promote the Sustainable Development Goals (SDGs).

© 2017 Published by Elsevier Ltd.

1. Introduction

The university environment provides a stage for social transformation through education, research and extension. Students play a central role in these changes, as they do not satisfy their personal desires by only being present in the classroom or by attending lectures with low class interaction; many students seek more. They search for fulfilment, personal growth and

* Corresponding author.

E-mail addresses: juliorp@usp.br (J.C. Borges), lcezarino@gmail.com (L.O. Cezarino), tamiris.ferreira@usp.br (T.C. Ferreira), otaviat@gmail.com (O.T.M. Sala), delton.unglaub@gmail.com (D.L. Unglaub), caldana@fearp.usp.br (A.C.F. Caldana).

¹ Av. Bandeirantes, 3900, Ribeirão Preto, São Paulo, Brazil, zip code 14040-900.

² Av. João Naves de Ávila, 2121, Bloco 1F, Sala 206 - Campus Santa Mônica, Uberlândia, Minas Gerais, Brazil, zip code 38400-902.

active participation in the social changes of their time. According to Baker (2008), students who engage in extracurricular activities during their time at university can outperform those who only attend classes.

In fact, in this context, student organizations emerge due to the students' search for "something more" (Castellanos, 2016; Talbert, Larke Jr., & Jones, 1999). Their performance is historically known and apparent in several universities around the world (Castellanos, 2016; Eklund-Leen & Young, 1997; Frieze & Blum, 2002; Talbert et al., 1999).

In a society that is less resigned, Communities of Practice (CoPs) unite people in mutual engagement and a value-sharing environment, thus turning practice into transforming actions (Wenger, 1998). CoPs may have different formats (Aljuwaiber, 2016; Brown & Duguid, 1991; Iverson & McPhee, 2002; Morley, 2016; Wenger, 1998, 2000), but they represent the expansion of student associations in live organizations with non-profit purposes and social goals. The concept of CoPs was developed by Wenger, McDermott, and Snyder (2002, p. 4) as groups of *people who share a concern, a set of problems, or a passion about a topic and who deepen their knowledge and expertise in this area by interacting on an on-going basis*.

It is important to study this term because the understanding of the values of student organizations can clarify whether there is an association between the characteristics of CoPs and the student organizations. This knowledge will allow us to describe how these organizations are built and to observe their similarities.

Moreover, it is important to observe the contemporary context of the claims for responsible leadership in a society that is surrounded by financial scandals, crises, environmental degradation and social inequalities. The Principles for Responsible Management (PRME), created in 2007 by the UN Global Compact (UN Global Compact, 2007), established an agenda for the training of responsible leaders during their pursuit of higher education with the aim of Sustainable Development. The students play a central role in the achievements of the Sustainable Development Goals (SDGs) for the 2030 Agenda (United Nations, 2015).

In the public college management school observed in this paper, there are approximately 1300 undergraduate students, and some of the students are enrolled in nine different student organizations. They practice sports, entrepreneurship, consulting, financial education, etc. Since PRME began operating in this business school in 2012, the presidents of these student organizations were invited to compose the PRME committee. In this way, a great part of the PRME principles and 2030 Agenda have been applied in this business school through the efforts and projects of the student organizations.

Thus, the objective of this study is to associate the values and practices of the student organizations at this specific management school with the CoPs characteristics in the context of social development. Therefore, the research question is "What are the values and practices shared in student organizations that may be interpreted as Communities of Practice in a public college of management that has concrete actions and potential to promote the 2030 Agenda for Sustainable Development?"

A self-administered questionnaire containing six open-ended questions and profile questions (i.e., gender, age, class, semester, course and student organization) was distributed over the Internet to the members of these student organizations. The answers to the open-ended questions were submitted to qualitative and quantitative content analysis according to the methodologies and techniques in Krippendorff (2004). Additionally, Nvivo Pro content analysis software, version 11.3 for Windows, was used to support the text organization analysis and the manual content coding.

The study is focused only on the development of Agenda 2030 by student organizations, but we understand that there are also other motivations for students to participate in these student organizations not addressed in this paper. At the end of this manuscript, we present the results, the limitations and future research suggestions.

2. Theoretical perspectives

2.1. United Nations' call for action

Human beings are drastically changing the planet, and scientists have adopted the new term *Anthropogenic* to denote the human-driven age of the planet (Griggs et al., 2013; Sachs, 2012). In higher education, faculty and students were called upon by the United Nations to fulfil the Sustainable Development agenda in the 21st Century, which was created in 2007 by the Initiative Principles for Responsible Management Education (PRME) through the UN Global Compact (Alcaraz & Thiruvattal, 2010; Buono, Haertle, & Kurz, 2015; Sobczak & Mukhi, 2016; UN Global Compact, 2007).

The first time that the United Nations addressed education was in 1948 with Article 26 of the UN Declaration on Human Rights. Other milestones are the United Nations Millennium Development Goals (MDGs) developed in 2000 and, more recently, the SDGs developed in 2015 (King, 2016).

The MDGs were a positive experience, and important achievements have been made in the 15 years between 2000 and 2015 (Griggs et al., 2014, 2013; Hák, Janoušková, & Moldan, 2016); however, the SDGs need the unprecedented mobilization of global knowledge operating across many sectors and regions (Sachs, 2012).

The document "Transforming Our World: The 2030 Agenda for Sustainable Development", which covers 17 SDGs and 169 targets, was formally adopted at the special session of the United Nations General Assembly (UNGA) on 25 September 2015 (United Nations, 2015), and was addressed to both developed and developing economies; however, the principal focus of the SDGs is still on 'developing countries' and 'least developed countries' (King, 2016). SDGs need concerted global efforts and good governance at all levels, including local, national, regional, and global levels (Sachs, 2012). As a result, the higher education students are natural stakeholders, leaders in training, and immediate agents of change for the achievement of the 2030 Agenda.

2.2. Student organizations

It is hard to build a successful organization, but to achieve this goal in a student's organization is even harder because of high student turn over that happens frequently (Banks & Combs, 1989). Eklund-Leen and Young's (1997) studies suggest that students who do not engage in activities outside the classroom or in student organized activities, such as practical activities on campus, are less mature in their development than students who do participate. Additionally, a student's participation in university activities provides a greater sense of capacity, improves competence in school and increases general knowledge, academic performance and freedom of expression (Baker, 2008).

A student organization can provide an informal support structure, guidance and friendship. It is centred on a series of social events. Such events are essential to the success of a student organization, in addition to university, college and institutional department support (Frieze & Blum, 2002).

Student organizations contribute to future career preparation because they provide a professional development environment as well as teamwork and practical learning experiences (Peltier, Scovotti, & Pointer, 2008). They are also perceived by students as a means of seeking professional qualifications and developing skills across a highly demanding and competitive market (Barth, Godemann, Rieckmann, & Stoltenberg, 2007; Frieze & Blum, 2002; Scott et al., 2016).

Student organizations also have the ability to mitigate effects on academic experiences that generate stress, such as culture shock, transportation difficulties, daily expenses, language barriers and difficulties in adapting to a new academic system (Lin, 2006). According to a study conducted by Lin (2006) on a Chinese community in an American university, student organizations can naturally provide support to the student through its members. This support includes informational, emotional, intellectual and material support. Among the wide repertoire of activities undertaken by student organizations, there are events and collective actions that provide excellent networking opportunities to make new friends (Brown & Kant, 2009).

Scientific investigations of Passino (2009) suggest that student organizations have the ability to engage students enthusiastically, provide opportunities for practical learning, generate a new learning environment, help students overcome curricular barriers, encourage student independence and engage students in productive extracurricular activities.

Participation in a student group is a good way to ignore position and power hierarchy, which are replaced by collegiality and dedication to achieve academic and professional success. Since many members belong to some of the same organizations, they share similar experiences and attend some common classes, which provides an additional and vital support mechanism to improve their academic success (Talbert et al., 1999). This creates a respectful environment, female self-affirmation, mutual support, foreigner support, integration and friendship (Castellanos, 2016; Roelofsen & Peters, 2015).

Some students may perceive a deficit in the university because they understand that it is necessary to use extracurricular elements (e.g., participation in a student organization) to achieve a fully developed labour profile for their future work career (Ansala, Uusi-autti, & Määttä, 2016).

As for academic negligence, especially on sustainability issues, Ghoshal (2005) writes that *in the desire to create and protect the pretence of knowledge—in our venture to make business studies a science—we may have gone too far in ignoring the consequences not only for our students but also for society.*

Krasny and Delia (2015) writes about student organization involvement in sustainable projects on campus, where environmental stewardship and recreational activities appeared to contribute to a student's sense of place, including place attachment and place meanings as well as the desire to give back to the university and broader society and professional choices.

A student organization is a powerful environment to create sustainable projects in order to contribute to the broader community outside of campus walls, even internationally (Jablonski & Reisel, 2013), so that the students become potential stakeholder in the achievements of the 2030 Agenda for the SDGs.

Since 2012, the college where this research was conducted is signatory of the PRME, and the student organizations have been represented in all of the Sustainability Office's meetings and projects.

2.3. Communities of Practice (CoPs)

CoPs are groups of people who share a concern, a set of problems, or a passion about a topic and who deepen their knowledge and expertise in this area by interacting on an on-going basis (Wenger et al., 2002, p. 4).

Wenger (1998) discussed three characteristics of CoPs: mutual engagement, joint enterprise negotiation and shared repertoire. Mutual engagement comes with the interaction of members. Therefore, by interrelation, members are encouraged to negotiate their practices and meanings of actions. Negotiation of joint venture gives a feeling of coherence and community purpose in their practice. Members interact to find meaning, shape their practices and react to a wider context.

CoPs are difficult to control externally by an organization because they are dynamic, interactive and fluid. Their management or their knowledge production cannot be transformed in a controlled field. Instead, managers should accept that CoPs engage members, negotiate meanings and share knowledge naturally (Iverson & Mcphee, 2002).

Organizations (colleges and universities) are not fully capable of managing CoPs, but they can provide the right environment for the CoPs to succeed. According to Wenger et al. (2002), some CoPs spontaneously grow while others may require

special attention; hence, the organizations can do a lot to create an environment in which they can prosper (valuing, providing resources, encouraging participation and removing barriers).

The theory of CoPs offers a complex conceptual structure that enlightens connections and knowledge processes based on a communication centres model in knowledge management (Aljuwaiber, 2016). In addition, the mutual engagement, the joint enterprise negotiation and the shared repertoire offer insights into the social implications of knowledge management for the organization (Iverson & McPhee, 2002).

For Brown and Duguid (1991), the concept of “learning and working” represents the fluid progress of learning by practice and learning can be viewed as a bridge between work and innovation. To understand the work, learning must focus on training and perhaps even change in communities where work has space. Through its constant adaptation of members' turn over and changes in circumstances, CoPs are fertile environments for learning, work and innovation. In this sense, the wealth a social learning environment and collaborative learning environment results in many opportunities, planned and unplanned, for learning (Morley, 2016).

For Blasco (2012), the theory of CoPs explains in part that the socialization process shapes the moral learning in business schools, both within and outside the formal curriculum. Through their participation in these cumulative processes of socialization, students learn what it means to be business students and future professionals committed to the values of sustainability.

2.3.1. Characteristics of CoPs

According to the definition of CoPs, Wenger et al. (2002) identify that the first characteristic of CoPs are the values that involve participants around the same cause. However, it is not just a dream or something abstract; CoPs also require the use of the experience and knowledge of the members who share these values in an on-going activity. Thus, an initial dimension of the values is highlighted, indicating love/passion and professionalism.

Morley (2016) and Aljuwaiber (2016) show the relationships and the development of friendship networks in their research. Contacts even for entertainment are relevant to the process of community building. For Brown and Kant (2009) meeting people and making friends are part of this initiative.

Another issue addressed in this paper is the knowledge acquisition that happens when someone joins a CoP. Wenger (1998); Eklund-Leen and Young (1997) and Passino (2009) confirm the idea that learning by doing can lead to a more consolidated form of learning, according to the meanings created when the concepts are operationalized.

For Castellanos (2016); Lin (2006) and Roelofsen and Peters (2015), communities go beyond theoretical learning; they allow for an awareness of each other's position. When contacting a difficult reality, even chaotic, practitioners can use their experience for social transformation. In Iverson and McPhee's (2002) view, when good intentions with professional experience are united, the results are the best possible for society's welfare.

Blasco (2012) argues that not only social practices but also professionalism of the sustainable development principles can be incorporated, which are given for the projects evaluation, teams of social responsibility, actions and timely interventions in this case study, replacing paper for digital content, specialized NGOs support, lectures, volunteering, philanthropic actions, consumption awareness, attendance in the college's Sustainability Office, development of thematic events, ethics activities and economic projects involvement, social and environmental sustainability.

Some other authors describe direct relationships between CoPs and action for Sustainable Development as sustainable urban transformation (Radywyl & Bigg, 2013), development of indicators (Breil, 2011), inclusive development (Gupta, Pouw, & Ros-Tonen, 2015), environmental sustainable construction (Rydin, Amjad, & Whitaker, 2007), education for sustainable development (Barth & Michelsen, 2013), environmental values (Hards, 2011), disaster risk and climate change impacts (Schipper & Pelling, 2006).

Finally, the literature also mentions some characteristics of CoPs. These characteristics are mutual support among members, emotional and intellectual support, transportation and carpooling, financial support, training, friendship, knowledge exchange, personal and professional support, advice and job tips (Baker, 2008; Castellanos, 2016; Frieze and Blum, 2002; Lin, 2006; Roelofsen and Peters, 2015).

3. Methods

3.1. Participants

The public college of management studied in this paper was established in the one of the most significant universities in Latin America and has nine student organizations. The communities mentioned herein are known as “organization” 1 to 9. They have significant student participation ($\Sigma = 432$) compared to the total number of students in undergraduate courses ($\cong 1.300$). Some members are students from other universities.

A survey link was sent to the student organizations presidents and vice-presidents, and they pledged to send the link to all of the members of the organization ($\Sigma = 432$). The presidents reported the quantity of members of each organization as follows: “organization 1” ($n = 47$), “organization 2” ($n = 36$), “organization 3” ($n = 42$), “organization 4” ($n = 35$), “organization 5” ($n = 102$), “organization 6” ($n = 46$), “organization 7” ($n = 51$), “organization 8” ($n = 31$) and “organization 9” ($n = 42$).

Sample collection occurred on July 10, 2016. The student's responses were ($n = 109$), which is approximately 25% of the total openings for participation offered to student organizations ($\Sigma = 432$). The ages of the students range between 17 and 25

years, and most of the students are between the ages of 17–20 years ($n = 76$); the number of students with ages ranging from 21 to 25 years is less numerous ($n = 33$). The gender of the respondents is balanced between male ($n = 55$) and female ($n = 54$). Students taking daytime courses ($n = 64$) are more frequent than those taking evening courses ($n = 45$). As for the undergraduate courses of the respondents, Business Administration is the most common course ($n = 54$), followed by Economics and Accounting ($n = 20$), Economics ($n = 16$) and Accounting ($n = 11$). Some students ($n = 6$) did not declare the courses they are taking or reported attending graduate school at other colleges of the campus.

3.2. Data collection instrument

We list some characteristics that the literature reviewed proposes in [Table 1](#). These characteristics are the guidelines for the creation of the research instrument questions.

The questionnaire profile includes gender, age, period, semester, course and student organization. It also includes six open-ended questions, which are as follows: 1. "What are the values that unite the participants of your student organization?"; 2. "What are your relationship interests with other people to join a student organization?"; 3. "What is the use of your student organization to enhance the formation of a graduate student, practicing the theoretical concepts learned in the course?"; 4. "What is the use of your student organization to the community? Explain."; 5. "Do you perceive that the values of sustainable development are incorporated in your student organization? Explain."; and 6. "What are the opportunities for mutual support among members of a student organization? For example, finance, emotional and intellectual support, transportation facilities, housing, alimentation, among others."

3.3. Procedures

To proceed with the content analysis, the categories were retrieved from the literature review ([Table 1](#)), and then the procedures described by [Krippendorff \(2004, p. 305\)](#) and [Sreejesh, Mohapatra, and Anusree \(2014, pp. 168–170\)](#) were followed. A content analysis was conducted on the answers to the open-ended questions, and the responses for each open-ended question (1–6) were analysed as a separate set, with the support of NVivo software, version 11.3 for Windows. The answers were manually coded and grouped in subcategories. As suggested by [Krippendorff \(2004, p. 85\)](#), the content analysis must deductively infer contextual phenomena from texts bridging the gap between descriptive accounts of texts and what they mean, refer to, entail, provoke, or cause.

4. Findings

The six guiding categories of content analysis were defined, and the results were processed by the software and manual coding. This data observation created subcategories that answered the inquiries of this research.

The quantitative values presented in the subcategories may appear in two ways, sometimes representing the respondents count and other times representing the counting and grouping of words found to provide better inductive evidence of the research question answered by this work. [Table 2](#) offers an overview of the categories, subcategories and statements that were counted.

Category 1 - Values that unite the participants of the student organization

Subcategory 1 - Love and passion for a cause, the student organization, the college or manner not specified

A set of 35 statements shows that the values that unite the student body participants are love and passion for a cause, the student organization, the college or in a manner not specified. This result strongly corroborates the claims of [Wenger \(1998\)](#).

Passion, commitment, respect and to be always willing to help (student of the 5th semester Accounting, evening).

Subcategory 2 - Professionalism and teamwork

We note that 20 statements from the student body are about professionalism and teamwork, and these results are widely reported in the literature ([Ansala et al., 2016](#); [Brown and Duguid, 1991](#); [Eklund-Leen and Young, 1997](#); [Iverson and McPhee, 2002](#); [Peltier et al., 2008](#)).

Dedication, professionalism, unity and sense of ownership (student of the 5th semester, Economics).

Subcategory 3 - Union, respect, friendship and integration

During the analysis, we found 47 confirmations that the student organization is a place for union, respect, friendship and integration, which is supported in the literature ([Roelofsen and Peters, 2015](#); [Wenger, 1998](#)).

Table 1

Categories extracted from the literature for this research.

Question 1/Category 1	Values that unite the participants of the student organization
Question 2/Category 2	Relationship interests with other people to join a student organization
Question 3/Category 3	Utility of the student organization to the practice of theoretical concepts
Question 4/Category 4	Utility of the student organization to the community
Question 5/Category 5	Incorporated values of sustainable development
Question 6/Category 6	Mutual support among student organization members

Source: Authors

Table 2
Categories, subcategories and statements counted.

Categories	Subcategories	Statements counted (responses = 109)
1. Values that unite the participants of the student organization	1. Love and passion for a cause, the student organization, the college or manner not specified	35
	2. Professionalism and teamwork	20
	3. Union, respect, friendship and integration	47
	4. Will, commitment and dedication	35
2. Relationship interests with other people to join a student organization	1. People, networking, contacts and friendships	102
	2. Learning, knowledge development and experience exchange	42
	3. Professional and work experience	33
3. Utility of the student organization to the practice of theoretical concepts	1. Concepts learned in the classroom	95
	2. Practice in development project and Jobs	82
	3. Leadership, organization, marketing, entrepreneurship and responsibility	35
4. Utility of the student organization to the community	1. Inside campus community	20
	2. Outside campus community	43
	3. Broad community	34
5. Incorporated values of sustainable development	1. Yes	68
	2. Not	27
6. Mutual support among student organization members	Emotional and intellectual support, transportation and carpooling, material support, training, housing, friendship, sharing opportunities, knowledge exchange, personal and professional support, counselling, spending splitting and job tips	overlapping distributions

Source: Authors

Subcategory 4 - Will, commitment and dedication

We found 35 claims stating that values unite the student body participants. These values are willingness, commitment and dedication, and this result corroborates with the available studies on CoPs (Passino, 2009; Talbert et al., 1999; Wenger, 1998).

Category 2 - Relationship interests with other people to join a student organization

Subcategory 1 - People, networking, contacts and friendships

The second open question content analysis showed 102 claims from nine student organizations seeking to meet people, to make new friends and to create a network of contacts (Brown and Kant, 2009; Frieze and Blum, 2002; Wenger, 2000).

Subcategory 2 - Learning, knowledge development and experience exchange

We found 42 statements pointing out that the students' relationship interests are learning, knowledge development and experience exchange. This finding confirms the reports available in scientific papers (Aljuwaiber, 2016; Brown and Duguid, 1991; Morley, 2016; Peltie et al., 2008; Wenger, 2000).

I wanted to improve my communication, and there I can do this in a corporate level and the public events that the entity performs, I learned to communicate with people who need a special approach (student of the 3rd semester, Economics and Accounting).

Subcategory 3 - Professional and work experience

Students responded 33 times about the interest in professional and work experience as a motivation to participate in a student organization. These statements are consistently supported in the literature (Ansala et al., 2016; Brown and Duguid, 1991; Iverson and Mcphee, 2002; Peltier et al., 2008).

Category 3 – Utility of the student organization to the practice of theoretical concepts

Subcategory 1 - Concepts learned in the classroom

In the third open-ended question content analysis, we found 95 statements relating the student organization as a practical field to practice the content learned in the classroom. The students not only exercise what they learn in class during the course, but they develop new content, which is not provided in the formal curriculum. To put into practice the knowledge they have is one of the central ideas of CoPs described by Wenger (1998).

We apply theoretical knowledge learned in class and exercise in practice on the organization. We work as a team and deal with the public. We learn to deal with different ideas and get to deal with problems in a stress-free way. Because then, we know what to do in times of stress. I think I can basically say that graduation brings you the knowledge and the entity brings you the application of them. You learn in class and apply in the organization. The class teaches you, the practice leaves you ready to go out into the labour market (student of the 3rd semester, Economics and Accounting).

Subcategory 2 - Practice in development project and jobs

Students develop several types of projects and work experience in a student organization. We found 82 statements reporting practice and effective work in the student organization. They develop, implement, manage and evaluate projects. In other words, to participate in this type of organization it is not only just for a credential but also an action. We find similar notes in the literature on projects and students work on campus (Eklund-Leen and Young, 1997; Passino, 2009; Scott et al., 2016).

Subcategory 3 - Leadership, organization, marketing, entrepreneurship and responsibility

The research's content analysis also provided the discovery of specific learning and the practice of traditional content offered in the courses of Economics, Economics and Accounting, Business Administration and Accounting. We found 35 claims that are learned and practiced in student organizations at the same time. The concepts are leadership, organization, marketing, entrepreneurship, and responsibility, among others. Some topics that were less mentioned included *development of areas, such as, human relations, organizational behaviour, marketing, ethics and so on* (student of the 3rd semester, Business Administration).

Category 4 – Utility of the student organization to the community

The subdivision of this category has been organized according to the perception of each of the 109 respondents, as the intervention of the student organization in the development of the inside the community (e.g., college and campus) and outside the campus community or the inside and outside communities simultaneously. In response to the fourth open question, 12 students had no opinion or inconclusive answers.

Subcategory 1 - Inside campus community

Analysing the content of each answer, we found 20 student statements that found that the student organization as an articulator of actions that supports the internal campus community. Additionally, the organization promotes the university internationalization because they receive foreign students or guide colleagues when they exchange international experiences. The student's integration, sports practice, college admiration, critical sense training, personal and professional growth, and student representation are also positively mentioned.

The literature confirms the report of similar cases, especially on internationalization, critical thinking training, mutual support and student representation (Castellanos, 2016; Lin, 2006; Roelofsen and Peters, 2015).

The organization catalyses the internationalization at the university, receive exchange students and supports to study abroad (student of the 3rd semester, Business Administration).

United Nations (2015) SDGs experienced:

Global Goal 4.7 – *By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development*

Subcategory 2 - Outside campus community

Additionally, 43 students perceived the student organization activities as contributing to the community outside of campus. These are activities that can be assimilated as a primary university objective, namely university extension courses and projects. Students demonstrated engagement in social welfare projects, vulnerable communities empowerment, and environmental knowledge empowerment, which were all imparted to the community. One important point is that this action is a public investment that the university returns to the community in many ways, such as training entrepreneurs, consultancy at low-cost to small or medium-sized enterprises, support for Non-Governmental Organizations (NGOs), gathering goods, blood donation campaigns, popular financial education training and even hospital administration consultancy.

Our two projects are very important for the community. Both are about financial education, which is very rare in schools, and everyone will handle or handles already some money. When the community has some knowledge, certainly helps a lot the project (...) The project has reached more than 2500 people and every year grows further (...) the project has served eight families who were heavily indebted and helped them to organize their finance plan and to pay off these debts (student of the 7th semester, Accounting).

The statements disregard some specific details, but strong support is found in the literature related to CoPs and sustainable development (Blasco, 2012; Ghoshal, 2005; Iverson and McPhee, 2002; Wenger, 1998, 2000), thus reinforcing the desire to have students participate and develop sustainable projects for the community (Jablonski & Reisel, 2013; Krasny & Delia, 2015) and feel a sense of contribution from the university through these projects (Krasny & Delia, 2015).

United Nations (2015) SDGs experienced:

Global Goal 4.4. – *By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.*

Global Goal 8.3. – *Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.*

Global Goal 17.17 – *Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnership.*

Subcategory 3 – Broad community

According to 34 students' answers, the student organization plays a developmental role in internal and external communities. They empower people, provide cultural enrichment, awake the entrepreneurial spirit, promote sports, integrate the campus with other colleges and other campuses, generate teaching and learning, train responsible managers, promote university internationalization, promote entertainment, train social agents of change, and increase the quality of life in these

communities. This emerging classification of content analysis is the intersection of the two subclasses previously analysed in this fourth category and is similar to the study conducted by of Jablonski and Reisel (2013) on student organizations developing sustainable projects in the broader community.

Especially in fostering entrepreneurial activity in the city, projects help to train members to be committed and capable (student of the 7th semester, Business Administration).

United Nations (2015) SDGs experienced:

Global Goal 4.3 – *By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university*

Global Goal 4.7 – *By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.*

Global Goal 10.2 – *By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.*

Category 5 - Incorporated values of sustainable development

Subcategory 1 – “Yes” and subcategory 2 – “Not.”

Based on the content analysis of the 5th open-ended question, we can clearly see the sustainable development values. They are embodied into the student organizations' actions. There are 68 students that claimed “yes” versus 27 students that claimed “not”. A group of 14 students did not respond clearly or did not have conclusive opinions. These findings are described in studies by Blasco (2012), Radywyl and Bigg (2013), Breil (2011), Gupta et al. (2015), Rydin et al. (2007), Barth and Michelsen (2013), Hards (2011) and Schipper and Pelling (2006), demonstrating the promising potential of CoPs in sustainable development.

After the selection and grouping of students' opinions, it was found that the embodiment of sustainable development values by student organizations happens during the formation of projects, social responsibility teams, events and interventions, replacing paper for digital content, and while supporting specialized NGOs, lectures, volunteering, philanthropic work, consumption awareness, college's Sustainability Office participation, thematic events organization, ethics activities and projects involving economic, social and environmental topics.

Yes. To join a student organization is a good attitude of renunciation. Because we work on the basis of something bigger without receiving anything for it. Thus, we see a sustainable development in an individual point of view and, therefore, from the development of social projects and actions, these altruistic attitudes are transferred to the organization, which serves as a vehicle of sustainable development in society (student of the 3rd semester, Business Administration).

United Nations (2015) SDGs experienced:

Global Goal 12.a – *Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production.*

Global Goal 16.5 – *Substantially reduce corruption and bribery in all their forms.*

Global Goal 16.6 – *Develop effective, accountable and transparent institutions at all levels.*

Global Goal 16.7 – *Ensure responsive, inclusive, participatory and representative decision-making at all levels.*

Category 6 - Mutual support among student organization members

This 6th category was not divided into subcategories because the analysis had a heterogeneous overlapping distribution and is best understood and demonstrated on a global scale. The literature on student organizations and CoPs says it is common to have mutual support among their members (Baker, 2008; Castellanos, 2016; Frieze and Blum, 2002; Lin, 2006; Roelofsen and Peters, 2015; Talbert et al., 1999). In the content analysis of the 6th open-ended question, we can identify specific forms of mutual support, such as emotional and intellectual support, transportation and carpooling, material support, training, housing, friendship, sharing opportunities, knowledge exchange, personal and professional support, counselling, splitting spending, and job tips.

Members of the entities seeking to integrate and end up forming a group of friends. This leads to several consequences, such as material support, emotional support, intellectual support, transport facilities, housing, alimentation, among others (student of the 1st semester, Business Administration).

Fig. 1 highlights the subcategories 2.1, 3.1, 3.2 and 5.1 beyond the linear trend, showing a strong concentration of statements in the following subcategories: 2.1. Relationship interests with other people to join a student organization/People, networking, contacts and friendships; 3.1. Utility of the student organization to the practice of theoretical concepts/Concepts learned in classroom; 3.2. Utility of the student organization to the practice of theoretical concepts/Practice in development project and jobs; and 5.1. Incorporated values of the sustainable development/Yes.

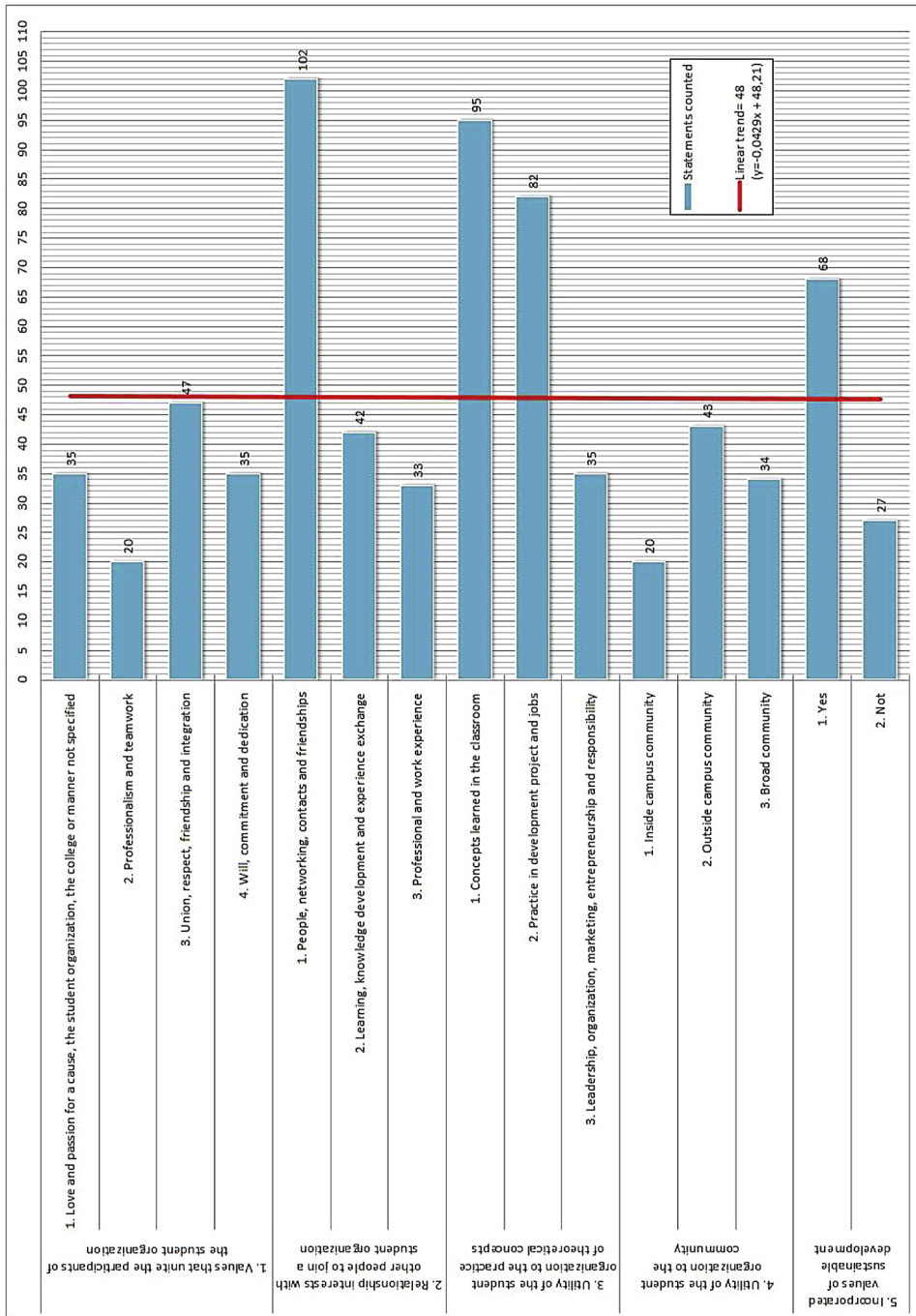


Fig. 1. Categories, subcategories, statements counted and linear trend.
 Source: Authors.

5. Conclusions

The purpose of this study was to associate student organizations' values and practices with the characteristics of CoPs in the context of a public business management college, signatory of the PRME, and to show how these students have taken concrete action to promote the SDGs and their achievements.

The characteristics noted were values that unite the participants of the student organization, relationship interests with other people to join a student organization, utility of the student organization to the practice of theoretical concepts, utility of the student organization to the community, incorporated values of the sustainable development, and mutual support among student organizations' members.

The characteristics of CoPs proposed by the literature were evidenced in student organizations because they connect people united by beliefs, passions and ideals in common purpose to achieve several objectives. Moreover, the content analysis results also provided the development of subcategories highlighted by a major concentration of subcategories 2.1, 3.1, 3.2 and 5.1 (*relationship interests with other people to join a student organization = people, networking, contacts and friendships; utility of the student organization to the practice of theoretical concepts = concepts learned in classroom; utility of the student organization to the practice of theoretical concepts = practice in development project and jobs; and incorporated values of the sustainable development = yes*).

Perhaps the main finding is that the students in these student organizations/CoPs are the future leaders of the 21st Century who will have experiences related to SDGs even before graduating. They will also have experiences where they impacted both the internal campus community and external off-campus communities. They will gain experience in an experiential and social learning environment and have experience serving as an example to other students, teachers, and the society at large in a genuine emerging social phenomenon. This social phenomenon has intrinsic potential for both the development of the PRME and the applicability of the SDGs in business schools.

6. Final considerations

Student organizations with characteristics of CoPs are able to mobilize students and enriching their members' actions and experiences. Additionally, student organizations' actions may affect the outside community, their members, and even communities outside the academic environment. SDG's are present on their education guidelines and these future leaders can think about other choices, of course, but the business school at least has made its role in presenting and making them experience the SDG's.

The limitations of this research and all content analysis include the interpretation of the results because this is a subject based on the understanding and insight of the researchers (Krippendorff, 2004). Therefore, the ability to replicate this type of research may suffer small variations in coding, classification and quantification of the analysed content in a literal text.

In terms of future research, it is necessary to deepen the measurement of the individual and collective performance of the student organizations and the range of impact of these actions.

Formatting of funding sources

This work was supported by a studentship by the Fundação Capes, Ministério da Educação, Brasil - Governo Federal.

References

- Alcaraz, J. M., & Thiruvattal, E. (2010). An Interview With Manuel Escudero: The United Nations' Principles for Responsible Management Education: A Global Call for Sustainability. *Academy of Management Learning & Education*, 9(3), 542–550. <http://doi.org/10.5465/AMLE.2010.53791834>.
- Aljuwaiber, A. (2016). Communities of practice as an initiative for knowledge sharing in business organisations: A literature review. *Journal of Knowledge Management*, 20(4), 731–748. <http://doi.org/10.1108/JKM-12-2015-0494>.
- Ansala, L., Uusiautti, S., & Määttä, K. (2016). What are Finnish university students' motives for participating in student activism? *International Journal of Adolescence and Youth*, 21(2), 150–163. <http://doi.org/10.1080/02673843.2015.1044015>.
- Baker, C. N. (2008). Under-represented college students and extracurricular involvement: The effects of various student organizations on academic performance. *Social Psychology of Education*, 11(3), 273–298. <http://doi.org/10.1007/s11218-007-9050-y>.
- Banks, M. C., & Combs, H. W. (1989). The evolving leadership role of the faculty advisor in building a successful student organization. *Journal of Education for Business*, 65(2), 60–63. <http://doi.org/10.1080/08832323.1989.10117407>.
- Barth, M., Godemann, J., Rieckmann, M., & Stoltenberg, U. (2007). Developing key competencies for sustainable development in higher education. *International Journal of Sustainability in Higher Education*, 8(4), 416–430. <http://doi.org/10.1108/14676370710823582>.
- Barth, M., & Michelsen, G. (2013). Learning for change: An educational contribution to sustainability science. *Sustainability Science*, 8(1), 103–119. <http://doi.org/10.1007/s11625-012-0181-5>.
- Blasco, M. (2012). Aligning the hidden curriculum of management education with PRME: An inquiry-based framework. *Journal of Management Education*, 36(3), 364–388. <http://doi.org/10.1177/1052562911420213>.
- Breil, M. (2011). *Community of Practice Approach To Developing Urban Sustainability Indicators*, 13(4), 591–617. <http://doi.org/10.1142/S1464333211004024>.
- Brown, J. S., & Duguid, P. (1991). Organizational learning and communities-of-practice: Toward a unified view of working, learning, and innovation. *Organization Science*, 2(1), 40–57. <http://doi.org/10.1287/orsc.2.1.40>.
- Brown, J. T., & Kant, A. C. (2009). Creating bioentrepreneurs: How graduate student organisations foster science entrepreneurship. *Journal of Commercial Biotechnology*, 15(2), 125–135. <http://doi.org/10.1057/jcb.2008.41>.
- Buono, A. F., Haertle, J., & Kurz, R. (2015). UN-supported principles for responsible management education (PRME): Global context, regional implementation, and the role of signatories. *Advances in Sustainability and Environmental Justice*, 1–15. <http://doi.org/10.1108/S2051-503020140000016001>.

- Castellanos, M. (2016). Sustaining latina student Organizations: An exploratory instrumental case study. *Journal of Hispanic Higher Education*, 15(3), 240–259. <http://doi.org/10.1177/1538192715592926>.
- Eklund-Leen, S. J., & Young, R. B. (1997). Attitudes of student organization members and nonmembers about campus and community involvement. *Community College Review*, 24(4), 71–81. <http://doi.org/10.1177/009155219702400405>.
- Frieze, C., & Blum, L. (2002). Building an effective computer science student organization. *ACM SIGCSE Bulletin*, 34(2), 74. <http://doi.org/10.1145/543812.543835>.
- Ghoshal, S. (2005). Bad management theories are destroying good management practices. *Academy of Management Learning & Education*, 4(1), 75–91. <http://doi.org/10.5465/AMLE.2005.16132558>.
- Griggs, D., Stafford Smith, M., Rockström, J., Ohman, M. C., Gaffney, O., Glaser, G., ... Shyamsundar, P. (2014). An integrated framework for sustainable development goals. *Ecology and Society*, 19(4), art49–art49. <http://doi.org/10.5751/ES-07082-190449>.
- Griggs, D., Stafford-Smith, M., Gaffney, O., Rockström, J., Ohman, M. C., Shyamsundar, P., ... Noble, I. (2013). Policy: Sustainable development goals for people and planet. *Nature*, 495(7441), 305–307. <http://doi.org/10.1038/495305a>.
- Gupta, J., Pouw, N. R. M., & Ros-Tonen, M. a F. (2015). Towards an elaborated theory of inclusive development. *European Journal of Development Research*, 27(4), 541–559. <http://doi.org/10.1057/ejdr.2015.30>.
- Hák, T., Janoušková, S., & Moldan, B. (2016). Sustainable development goals: A need for relevant indicators. *Ecological Indicators*, 60, 565–573. <http://doi.org/10.1016/j.ecolind.2015.08.003>.
- Hards, S. (2011). Social practice and the evolution of personal environmental values. *Environmental Values*, 20(1), 23–42. <http://doi.org/10.3197/096327111X12922350165996>.
- Iverson, J. O., & McPhee, R. D. (2002). Knowledge management in communities of Practice: Being true to the communicative character of knowledge. *Management Communication Quarterly*, 16(2), 259–266. <http://doi.org/10.1177/089331802237239>.
- Jablonski, M., & Reisel, J. (2013). The importance of native in-country coordinators for predictive awareness of cultural and design details for international sustainable engineering projects. *World Environmental and Water Resources Congress*, 2013, 1496–1506. <http://doi.org/doi:10.1061/9780784412947.147>.
- King, K. (2016). The global targeting of education and skill: Policy history and comparative perspectives. *Compare: A Journal of Comparative and International Education*, 46(6), 952–975. <http://doi.org/10.1080/03057925.2016.1216781>.
- Krasny, M. E., & Delia, J. (2015). Natural area stewardship as part of campus sustainability. *Journal of Cleaner Production*, 106, 87–96. <http://doi.org/10.1016/j.jclepro.2014.04.019>.
- Krippendorff, K. (2004). *Content Analysis: An introduction to its methodology* (2nd ed.). Sage.
- Lin, C. (2006). Culture shock and social Support: An investigation of a Chinese student organization on a us campus. *Journal of Intercultural Communication Research*, 35(2), 117–137. <http://doi.org/10.1080/17475750600909279>.
- Morley, D. (2016). Applying Wenger's communities of practice theory to placement learning. *Nurse Education Today*, 39, 161–162. <http://doi.org/10.1016/j.nedt.2016.02.007>.
- Passino, K. M. (2009). Educating the humanitarian engineer. *Science and Engineering Ethics*, 15(4), 577–600. <http://doi.org/10.1007/s11948-009-9184-8>.
- Peltier, J. W., Scovotti, C., & Pointer, L. (2008). The role of the collegiate american marketing association plays in professional and entrepreneurial skill development. *Journal of Marketing Education*, 30(1), 47–56. <http://doi.org/10.1177/0273475307312197>.
- Radywyl, N., & Bigg, C. (2013). Reclaiming the commons for urban transformation. *Journal of Cleaner Production*, 50, 159–170. <http://doi.org/10.1016/j.jclepro.2012.12.020>.
- Roelofsen, M., & Peters, K. (2015). Doing femininity and respectability: Social networks and social capital among female members of Dutch student organisations. *Leisure Studies*, 1–16. <http://doi.org/10.1080/02614367.2015.1105860>.
- Rydin, Y., Amjad, U., & Whitaker, M. (2007). Environmentally sustainable Construction: Knowledge and learning in london planning departments. *Planning Theory & Practice*, 8(3), 363–380. <http://doi.org/10.1080/14649350701514686>.
- Sachs, J. D. (2012). From millennium development goals to sustainable development goals. *The Lancet*, 379(9832), 2206–2211. [http://doi.org/10.1016/S0140-6736\(12\)60685-0](http://doi.org/10.1016/S0140-6736(12)60685-0).
- Schipper, L., & Pelling, M. (2006). Disaster risk, climate change and international development: Scope for, and challenges to, integration: Disaster risk, climate change and international development. *Disasters*, 30(1), 19–38. <http://doi.org/10.1111/j.1467-9523.2006.00304.x>.
- Scott, M. A., McLaughlin, J., Shepherd, G., Williams, C., Zeeman, J., & Joyner, P. (2016). Professional organizations for pharmacy students on satellite campuses. *American Journal of Pharmaceutical Education*, 80(5), 78. <http://doi.org/10.5688/ajpe80578>.
- Sobczak, A., & Mukhi, U. (2016). The role of UN principles for responsible management education in stimulating organizational learning for global responsibility within business Schools: An interview with Jonas Haertle. *Journal of Management Inquiry*, 25(4), 431–437. <http://doi.org/10.1177/1056492615618027>.
- Sreejesh, S., Mohapatra, S., & Anusree, M. R. (2014). *Business research methods*. Cham: Springer International Publishing. <http://doi.org/10.1007/978-3-319-00539-3>.
- Talbert, B. A., Larke, A., Jr., & Jones, W. A. (1999). Using a student organization to increase participation and success of minorities in agricultural disciplines. *Peabody Journal of Education*, 74(2), 90–104. http://doi.org/10.1207/s15327930pje7402_8.
- UN Global Compact. (2007). *The principles for responsible management education*. Retrieved from <http://www.unprme.org/resource-docs/PRME.pdf>.
- United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. Retrieved from <https://sustainabledevelopment.un.org/post2015/transformingourworld>.
- Wenger, E. (1998). *Communities of practice: Learning, meaning and identity*. New York: Cambridge University Press.
- Wenger, E. (2000). Communities of practice and social learning systems. *Organization*, 7(2), 225–246. <http://doi.org/10.1177/135050840072002>.
- Wenger, E., McDermott, R. A., & Snyder, W. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Harvard Business Press.