EFFECTS OF A UNIVERSITY EXTENSION COURSE ON ADOLESCENT'S SOCIAL SKILLS

Anderson de Oliveira Nascimento; Taciano Moreira Gonçalves; Marcos Spalding; Gislaine Ruzene; Marcos Ricardo Datti Micheletto; Adriano Bressane; Marianne Spalding

ABSTRACT
Social skills play an important role in school and professional life. This descriptive and correlational study analyzes the effects of an extension course entitled “Immersion in the University: you are the protagonist of your future”, about the social skills of High School students in public schools. To this end, the Inventory of Social Skills in Adolescents (IHSA-DelPrette) was applied at the beginning and three months after the end of the course, considering two indicators: (1) assiduity and (2) difficulties they had when handling the different demands of social interaction. There was a statistically significant difference between the pre and post intervention scores (p = 0.014), showing an increase in the frequency of skills. For difficulty, no significant difference was observed, although there was a decrease of 13.45%. The university can be a space not only for analytical and instrumental training, but for the interpersonal development of both the internal and external community.

Keywords: social skills; students; self-assessment inventory for adolescents

Efeitos de um curso universitário de extensão sobre habilidades sociais de adolescentes

RESUMO
As habilidades sociais têm importante papel na vida escolar e profissional. Este estudo, de natureza descritiva e correlacional, analisa os efeitos de um Curso de extensão intitulado “Imersão na Universidade: você protagonista do seu futuro”, sobre as habilidades sociais de estudantes do Ensino Médio da rede pública. Para tanto, aplicou-se o Inventário de Habilidades Sociais em Adolescentes (IHSA-DelPrette) no momento inicial e três meses após o término do curso, considerando dois indicadores: (1) frequência e (2) dificuldade com que reagiam às diferentes demandas de interação social. Verificou-se diferença estatisticamente significante entre os escores pré e pós intervenção (p = 0,014), evidenciando aumento da frequência das habilidades. Para a dificuldade não foi observada diferença significante, embora tenha ocorrido uma diminuição de 13,45%. A universidade pode ser um espaço não apenas para capacitação analítica e instrumental, mas para o desenvolvimento interpessoal tanto da comunidade interna quanto externa.

Palavras-chave: habilidades sociais; estudantes; inventário de autoavaliação para adolescentes

Efectos de un curso universitario de extension sobre habilidades sociales de adolescentes

RESUMEN
Las habilidades sociales poseen importante papel en la vida escolar y profesional. En este estudio, de naturaleza descriptiva y correlacional, se analiza los efectos de un Curso de extensión intitulado “Inmersión en la Universidad: usted es protagonista de su futuro”, sobre las habilidades sociales de estudiantes de la enseñanza secundaria de la red pública. Para tanto, se aplicó el Inventario de Habilidades Sociales en Adolescentes (IHSA-DelPrette) en el momento inicial y tres meses tras el término del curso, considerando dos indicadores: (1) frecuencia y (2) dificultad con que reaccionaran a las diferentes demandas de interacción social. Se verificó diferencia estadísticamente significante entre los escores pre y tras intervención (p = 0,014), evidenciando aumento de la frecuencia de las habilidades. Para

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INTRODUCTION

Social skills are classes of learned behaviors that are part of individual’s repertoire and are based on social rules that regulate suitable interactions in society in the various stages of life leading to better development and better capacity to handle the most diverse situations faced in everyday life (Aksoy & Baran, 2010; Cardoso, Coelho, & Martins, 2017; Del Prette & Del Prette, 2003; Longhini, Rios, Peron, & Neufeld, 2017; Takahashi, Okada, Hoshino, & Anne, 2015). Such skills are developed during childhood and the children’s interactions with parents and teachers (Maleki, Chehrzad, Kazemnezhad, Mardani, & Vaismoradi, 2019; Yoleri, 2017) and are important for the establishment of successful relationships, for educational development, adaptation to formal school environments, as well as future academic performance.

Social skills have been identified as the most appreciated characteristics for a competitive edge in the labor market and are especially anchored on the exercise of leadership in order to manage conflict, provide feedback to work teams and coordinate processes, as well as the capacity for persuasive communication when dealing with internal and external clients (Bradberry, 2016). The lack of these skills might lead to feelings of loneliness, undermine interactions with family, teachers, classmates and even mental problems, resulting in school maladjustment (Lodder, et al., 2016; Whitted, 2011; Ziv, 2013). During adolescence, the lack of such skills might inhibit social and professional opportunities, lead to social isolation and loneliness, negative interpretations regarding one’s own development, and attention deficit hyperactivity disorder (Bunford, Evans, Becker, & Langberg, 2015; Chou et al., 2017; Knowles, Lucas, Baumeister, & Gardner, 2015; Lodder et al., 2016; Qualter et al., 2013).

The assessment of social skills in adolescence has attracted Crescent interest among educators and other professionals due to the aggravation of problems that affect the younger population since the lack of skills might undermine a socially competent performance (Del Prette & Del Prette, 2015). High levels of commitment to mental health have been observed among higher education students and the research works point at what disabilities in social skills are specially related to stress and depression in this population (Bolsoni-Silva & Loureiro, 2016; Campos, Del Prette, & Del Prette, 2014; Evans, et al., 2018).

Therefore, considering the need to provide integration devices among the diverse education levels, one of the goals described in the Postgraduation National Plan, or “Plano Nacional de Pós-graduação”, the most important objective of this study was to present a diagnostics from the social skills of a sample of adolescents from high school in the public education system of the São José dos Campos region and to assess the influence of an extension course on these skills. The researchers’ objective was also to promote integration among high school students with undergraduates and postgraduates, while qualitatively assessing their perceptions on this interaction.

METHOD

Study participants and target public

An extension course, named University Immersion: You Are The Protagonist of Your Future, or “Imersão na Universidade: você protagonista do seu futuro”, was proposed by the postgraduation program in oral biopathology of The Science and Technology Institute of São Paulo State University (Unesp), School or Institute, Campus (city), after approval by the Research and Ethics Committee, CAAE: 03724118.6.0000.0077 and decision number: 3.152.796.

This study, of descriptive and correlational nature, assessed the effects of this extension course on the development of social skills in 27 high school students from eight different schools of the public education system of the São José dos Campos region, aged between 15 and 17 years, while 8 students were male (29,63%) and 19 were female (70,37%). The selection process was realized by mean of an online form that, in addition to identification data, required candidates to write a composition of 100 to 350 words, as an answer to the following question: “Why should I participate in the university immersion program?” The used inclusion criteria were: 1- Participants were supposed to be students in the public education system; 2 - Participants were supposed to be high school students; 3 - Participants were supposed to have been approved in the aforementioned selection process. The support team was made-up of seven postgraduation students, 10 graduation students from the dentistry course, and two students from the preparatory course for college entrance exams of the Unesp (PreVest), who had received previous training. Also, there were four participants who were teachers in high school education, two psychologists, and two pedagogical coordinators from the State Department of Education, in São José dos Campos.
Intervention procedures

The course was a realized during the January vacation term, on a weekend, while students were lodging at the university. The course was divided into 6 modules, which were developed by means of experiences, which were coordinated by teachers and by one psychologist. The realized interventions for each module were established before the application of the initial assessments and each module aimed at the development of one or more social skills.

In the first module, named “My Generation: Who Am I and Where Am I Going?”, or “Minha geração: quem sou e para onde vou?”, there was an initial lecture approaching the characteristics of the baby boomer, X, Y, and Z generations as you always generation gap conflicts. Videos were presented and then there were group discussions. With this activity, researchers hoped to inspire critical thinking among adolescents, and teach them how to deal with the frustration, develop communication and argumentation capacities, and to promote social resourcefulness. In the second module, there was an activity named “Master Chef Moment”, as a reference to the famous cooking TV reality show, in which students were divided into teams and made dessert. The objective of this activity was to work aspects related to organization, empathy, responsibility, commitment to a goal, work under pressure, conflict management, time management, pro activity, sense of collectiveness, and assertiveness. Module three was realized in two stages, while the first stage was named “Ethics: my new crush”. In this activity, there were discussions on aspects related to ethics, citizenship, and the human condition, as well as morality and appreciation of ethics, In the quest for civility and respect for others. At the end of the activity, the students produced a material and made presentations on the theme. In the second stage, there was an activity to develop teamwork capacity, self-control, self-confidence, confidence in others, and the overcoming of challenges: “The human chair activity and its lessons”. During this activity, the student sat on the circle of chairs and then each student leaned on the other student on the left. After that the chairs were removed so that students had to support each other to keep the formation. Module 4 was executed in two stages, the first one was named “track of the senses” and its objective was to stimulate sensibility for the world beyond vision, while providing students with an opportunity to use their senses to interact with their environment, or to deal with unprecedented situations or strangers. At the end students are recorded and shared their experiences. The second activity, named “track of the challenges”, it was an activity in which the teams of students were supposed to drive balls through a system of tubes that were built ask the ball ran the trajectory, if the ball fell off during the trajectory the group was supposed to go to the beginning of the track. The objective of this activity was to develop attention to detail, empathy, perseverance, attentive ears, working within the rules, and learning how to deal with frustration and overcoming anxiety.

The 5th module of the course was a group activity named “Underground Bunker” (Santos & Leal, 2017), which aimed at helping students develop empathy, social resourcefulness, and the affective approach. The last module, named “Digital Influencers and Opinion Makers”, was conduced by the psychologist, who after a brief contextualization and explanation of the theme, wrapped up the activities developed during the course. This activity had the objective to develop critical thinking, argumentation skills, and the ability to defend ideas, produce and rebuff criticism, and develop the power of word observation. In the end, there was an activity named “The Web of Engagement” (Miranda, 2000).

Instrument and data analysis

Inventory of social skills

For the present study, the “Inventory of Social Skills for Adolescents”, or “Inventário de Habilidades Sociais para adolescendos” (IHSA-DelPrette), was applied by its archaeologist in the beginning of the course and three months after its conclusion, proceeded by due explanations and instructions. The IHSA is a self-report instrument that makes it possible to assess the repertoire of social skills of adolescents by means of six subscales (empathy, self-control, civility, assertiveness, effective approach, and social resourcefulness), and a set of everyday interpersonal situations (Del Prette & Del Prette, 2015).

The repertoire of social skills for adolescence was assessed by means of a consideration of two indicators: (1) assiduity and (2) the difficulty felt in the management of different demands of social interaction (Del Prette & Del Prette 2015). For the assessment of results, scores were computed and the percentage position of the participant was clarified regarding a normative sample. Your general score was obtained (related to all the items) as well as scores for the six subscales. For a computation of the general score of the participants, researchers added the total number of scores for assiduity and the total scores for difficulty, and converted the figures into a zero to four scale, according to what was described by Del-Prette and Del Prette (2015).

Qualitative assessments

In order to analyze the perception of the course by the high school students, as well as the graduates and postgraduates that participated in the support team, all participants filled out in electronic form. The answers presented in the forums were inserted into the ATLAS.ti program (ATLAS.ti Scientific Software Development GmbH, Lietzenburger, Berlin Germany).

Statistical assessments

The data were submitted to analysis a variance by
the paired-student T test. The cases that did not fit into the premises of normality and homoscedasticity, researchers realized the non parametrical analysis, based on Wilcoxon’s test for paired data. All analysis considered the significance degree to be 0.05.

RESULTS AND DISCUSSION

Adolescents’ Social Skills before the course

In the initial diagnostic analysis, it was possible to have a general view of the participants’ level of social skills before the beginning of the course, while the percentage of assiduity was 69.2% and the percentage of difficulty was 40.5%. When the percentage of attendance appears between 66-75%, it is possible to interpret it as an elaborated repertoire of social skills, indicating personal resources that are quite satisfactory and between 76 and 100% are considered as a highly elaborated repertoire of social skills, hinting at personal resources that are highly satisfactory. Regarding difficulty, when the percentage is between 36-65%, there is a medium response cost or anxiety regarding the emission of social skills (Del-Prette & Del Prette, 2015). The results for assiduity and difficulty related to the subscales (1- empathy, 2- self-control, 3- civility, 4- assertiveness, 5- affective approach and 6- social resourcefulness) indicated that 1, 2, 3 and 5 presented percentage of the general average of respondents between 58.4% and the 63.2% what sounds like a new call. In the sub scales four and six the percentage was of 69.4% and 75%, respectively. Concerning difficulty, the Subs chaos from 1 to 5 presented a percentage of the general average of the respondents between 39.7% and 49.6% and sub item 6 presented a percentage of 34.3%. These data showed that the adolescents already had some deficit in social skills when they entered the course. On the other hand, according to Cardoso, Coelho and Martins (2017), adolescence generally have difficulty in social performance, while presenting a resistance in the emission of behavioral responses such as greeting other people, patiently waiting for their turn, expressing gratitude for favors, demonstrating civility and knowing how to address authorities acting in an assertive way regarding these aspects. Bolsoni-Silva and Loureiro (2016) affirm that there is a strong correlation between lower levels of social skills, lack of proactivity, and social isolation, according to what has been demonstrated in the study by Lodder et al. (2016). Thus, we suppose that adolescents with a lower level are the social skills would not be interested or wouldn’t even try to take a course during summer vacation.

According to Qualter et al. (2013) some adolescents might present a negative perception regarding their own skills, which might make them act in a more pessimistic way and therefore limit their opportunities. Regarding these discoveries, we might infer that the good level of social skills of this group of adolescents indicated that they are probably more responsive to the activities promoted by the course, because they made themselves available go through a selective process and take a course during their summer vacation.

Adolescents’ social skills after the conclusion of the course

Three months after the conclusion of the course, the reference IHAS-Del Prette was applied again and in this occasion 22 students showed up. The result of the scores of the total average of respondents was of 87.3% for acid you when the end of 22.8% for difficulty. By analyzing each sub item it is possible to observe that, for each one of them, the general average of the percentages on assiduity remained between 75.9% and 82.4%, and it was considered to be a highly elaborate repertoire of social skills which hints at a highly satisfactory rate of interpersonal resources (Del Prette & Del Prette, 2015). The difficulty percentage for most of the Subs chaos remained between 24.5 and 34.2%, which is considered a low response cost or anxiety in the emission of these skills, indicating that such skills became easier for the respondents.

Training programs on social skills in Brazil have been little reported in literature when compared to other countries of English language or even Spanish language (Murta, 2005). According to the author, most of the reports and studies are from group programs; in the clinical and school context with promising results towards improvements and social performance. Also, researchers emphasized the necessity for advertising the research works I’m training programs on social skills, which according to the author might contribute to clinical practitioners and researchers with interest in behavioral development.

Influence on adolescents of the immersion course on social skills

In order to assess the influence of the immersion course on social skills for adolescents, researchers considered only the participants that attended the two moments (initial moment and the three months later). The analysis, which was based on the comparison of the percentages, highlighted an increase in social skills for adolescents after the course. When a statistic analysis of assiduity was realized by sub item There was a significantly statistical difference and two of them: Self-control (p = 0.019) and affective approach (p = 0.017), according to Table 1. However, considering the difficulty referring to each sub item, there was no evidence of statistically significant difference between any of them (Table 2).

The results referring to the comparative analysis of the total percentage of assiduity and the level of difficulty of the students in the first and the second assessment are presented in illustration 1. It is possible to observe that for the indicator “assiduity”, the scores of the first
Table 1 - Wilcoxon’s Paired Test by subitem regarding assiduity.

<table>
<thead>
<tr>
<th></th>
<th>Empathy</th>
<th>Self-control</th>
<th>Civility</th>
<th>Assertiveness</th>
<th>Affective Approach</th>
<th>Social Resourcesfulness</th>
</tr>
</thead>
<tbody>
<tr>
<td>K (Obs.)</td>
<td>3.61</td>
<td>5.46</td>
<td>1.06</td>
<td>1.06</td>
<td>5.67</td>
<td>1.01</td>
</tr>
<tr>
<td>K (Critical)</td>
<td>3.84</td>
<td>3.84</td>
<td>3.84</td>
<td>3.84</td>
<td>3.84</td>
<td>3.84</td>
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<tr>
<td>DF</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
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<td>1.00</td>
</tr>
<tr>
<td>p-value</td>
<td>0.057</td>
<td>0.019*</td>
<td>0.303</td>
<td>0.303</td>
<td>0.017*</td>
<td>0.316</td>
</tr>
<tr>
<td>Alpha</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
</tr>
</tbody>
</table>

*p<0.05
Source: Produced by the authors

Table 2 - Student Paired T Test by subitem regarding difficulty.

<table>
<thead>
<tr>
<th></th>
<th>Empathy</th>
<th>Self-control</th>
<th>Civility</th>
<th>Assertiveness</th>
<th>Affective approach</th>
<th>Social Resourcesfulness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dif (Obs.)</td>
<td>9.50</td>
<td>12.82</td>
<td>10.23</td>
<td>8.09</td>
<td>11.36</td>
<td>6.05</td>
</tr>
<tr>
<td>Dif (Stand)</td>
<td>1.37</td>
<td>1.60</td>
<td>1.33</td>
<td>0.99</td>
<td>1.43</td>
<td>0.93</td>
</tr>
<tr>
<td>Critical</td>
<td>2.02</td>
<td>2.02</td>
<td>2.02</td>
<td>2.02</td>
<td>2.02</td>
<td>2.02</td>
</tr>
<tr>
<td>p-value</td>
<td>0.178</td>
<td>0.117</td>
<td>0.189</td>
<td>0.330</td>
<td>0.159</td>
<td>0.356</td>
</tr>
<tr>
<td>Alpha</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Source: produced by the authors

Illustration 1 - Total average of the adolescent participants before and after the extension course.

Source: produced by the authors
The adolescents presented an increase of 11.5% in assiduity and regarding difficulty it was 13.5% less in the second assessment. When comparing the two assessment moments, the first and the final one, it was possible to observe an improvement in the levels of social skills, regarding the general average of the percentages (illustrations 2 and 3). According to the interpretation proposed by Del Prette and Del Prette (2015), the results of this study indicate that after the course, the teenagers presented a highly elaborate repertoire of social skills and little difficulty in the acquisition and execution of these skills, in the general scores as well as in the scores for each subscale. Other authors also observed an increase in the social skills after intervention under experimental outlining in adolescents aged between 13 and 16 years (Cardoso et al, 2017, Pereira-Guizzo, Del Prette, Del Prette, & Leme, 2018) And graduation students (Del Prette & Del Prette, 2003).

During each module of this study diverse experiences or approached for the development of social skills. Experiences can be defined as situations resembling everyday life situations of social interaction, provoking feelings, thoughts, and actions (Pereira-Guizzo et al. 2018). The experiences led to the instruction, modeling, behavioral rehearsal, and the accomplishment of tasks that aim at overcoming deficits and providing answers to needs, which could contribute for the capacitation of participants in social skills for interpersonal interactions.

Besides these quantitative indicators, qualitative analyses were realized by means of course participants reports, as well as by postgraduates, undergraduate and PreVest students that composed the team. Such reports were presented in the form of structural networks of words and expressions demonstrated the perception participants regarding the changes they accomplished. The adolescents’ perception was quite positive, words such as “incredible”, “opportunity”, “gratitude”, “experience”, “wonderful”, were very often used by the participants in order to answer questions on their feelings and perceptions. The expression of positive emotions could be observed in statements by the students such as: 1 - “one of the most wonderful courses that I have ever taken”, 2 - “my experience in this place was one of the best I’ve ever had in my life”, 3 - “incredible, life changing, unforgettable”, 4 - “... The best experiences that I have ever had”, 5 - “here, I loved every second”, 6 - “the immersion was one of the most memorable experiences that I have ever had”, 7 - “it was a sublime experience, hard to explain”, 8 - “An incredible experience. I loved it.” The adolescents had no difficulty in demonstrating their feelings and perceptions while showing signs of gratitude and expressing the notion that they had learned something in addition to the acquisition of values, skills for overcoming situations, the ability to make new friends, the true appreciation of adversity, and the perception that they have gone through behavioral transformations after the activities realized during the course.
The postgraduation and under-graduation students also had a good perception of their participation in the course. Students produced statements such as: 1- “a very rewarding experience”, 2- “Lots of learning for everyone”, 3 - “it helped me develop my leadership and proactivity skills”, 4 - “... There was a lot of learning in teamwork”, 5 - “it was really nice to spend some time at college and lead a team”, 6 - “it’s interesting the way we deal with our responsibility”, 7 - “it helped me develop critical thinking...”, 8 - “it contributed to my becoming more comprehensive to other people and adversity”, 9 - “The arrangements and preparation although tiring, were quite rewarding”, 10 - “it felt great to share every moment with the students, learn and laugh a lot with them...”, 11 - “I realized things that I hadn’t realized during the training”, 12 - “I just loved to watch the students enthusiasm”.

Soares and Del Prette (2015) observed that socially competent university students are the ones who are capable of keeping good relations with classmates, teachers, other students from other academic stages or education levels in order to reach their objectives and at the same time keep up the quality of such relations. Although the most important objective of this study was not to analyze the social skills among undergraduates and postgraduates, we can infer that somehow, these skills were also worked with this public.

In the present study, the sample was made-up of students from high school from the public education system, who after the selective process, had an immersion experience in the university during 48 hours in intensive training divided into 6 modules. Although the results were promising, it’s not possible to say that the short period of time was enough to produce long-lasting effects of improvement in social skills. Other works (Del Prette & Del Prette, 2003; Pereira-Guizzo et al., 2018) realized social skill trainings with longer duration. In a review study, Murta (2005) presented 17 intervention programs, with samples ranging from 2 to 55 participants and, in general, there were 8 to 70 weekly or biweekly sessions. However, although the programs have been realized during a longer period of time, sometimes the total working hours of the interventions was less than the working hours predicted in the present study. Another fragility of this study was the absence of a control group. According to Murta, fuel research works used experimental outlining, with control groups, which might undermine the interpretation of results. “Such fact highlights the necessity for strengthening efforts to guarantee greater internal validity, weather with the insertion of control groups, comparison groups who is alternative treatments, or intra subject repeated measures before and after the intervention” (Murta, 2005, p. 289).

**FINAL CONSIDERATIONS**

The high school adolescents from the public education system who took part in the extension course displayed and elaborate repertoire of social skills, hinting at quite satisfactory interpersonal resources. The activities applied by means of the modules were efficient and improving the competencies of most of the participants. The observations of performance during the activities demonstrated the improvement of skills during the process, especially self-control and the affection

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**Illustration 3 - Comparison between the initial and final I said someone’s of the percentage for each subscale regarding difficulty.**

<p>| Subtitles: (1) empathy, (2) self-control, (3) civility, (4) assertiveness, (5) affection approach and (6) social resourcefulness. |</p>
<table>
<thead>
<tr>
<th>Difficulty percentage</th>
<th>Source: produced by authors</th>
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<tr>
<td>1º Assessment</td>
<td>2º Assessment</td>
</tr>
<tr>
<td>Difficulty percentage</td>
<td>Difficulty percentage</td>
</tr>
<tr>
<td>Subtitles: (1) empathy, (2) self-control, (3) civility, (4) assertiveness, (5) affection approach and (6) social resourcefulness.</td>
<td>Source: produced by authors</td>
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</tbody>
</table>
approach. The participants initially presented difficulty of medium course in the production of social skills and, after the course presented a low cost in the production of these skills. The acquisition of the capacity to give and receive feedback, of overcoming, of perception in behavioral changes, of expressing ideas in an assertive empathic way, and handling criticism demonstrated in the questionnaire for assessment of the students’ perception, can be a positive factor for the transformation of humans and social reality. Nevertheless, these considerations constitute speculations to be empirically examined. Concerning the interaction between post-graduation and under-graduation students with adolescents from high school, it is considered that they were beneficial, which was also evidenced by the participants positive opinions and the desire to participate in similar new projects. We can infer that this integration between different levels of education might lead to important social benefits. However, although the results of the present study were positive and promising, they must be interpreted with caution. The conciliation of the demands of rigorous research works with successful interventions will you in practice is something essential for progress in the area, even if it’s a task that seems challenging (Murta, 2005, p. 289). In this sense, we suggest that future studies propose an assessment of results you know larger time horizon, with the use of comparison groups, and that these future studies consider larger samples, in order to mitigate fragilities. Finally, the university must be a space not only for instrumental and analytical capacitacion (hard skills), but also for interpersonal development of the internal and external community (soft skills).

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Contributions by the authors:

Anderson de Oliveira Nascimento: responsible for the execution of the project, which was part of his master’s degree, and also the primary author of the scientific paper; Marianne Spalding: conception and idealization of the project and served as the academic advisor to the postgraduate student; Taciano Moreira Gonçalves and Marcos Spalding: contributed to the idealization and coordination of the project’s modules; Gislaine Luiza Magalhães de Freitas Ruzene: supervised the application of the Inventory and monitored the students throughout the course; Marcos Ricardo Datti Micheletto: conducted the analysis of the inventory results; Adriano Bressane: performed statistical analyses.

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